

## **The Lombok G20 One Health Policy Brief**

### **Context**

This policy brief sets out seven recommendations to strengthen the One Health approach, highlighting ways in which this approach can improve health systems and develop multi-level resilience in all G20 countries at all levels. Various technical aspects of the brief have been developed and updated following a process of consultations at three G20 One Health pre-event meetings and a G20 One Health side event, while gap mapping analysis has also been conducted by the World Health Organization (WHO) One Health Initiative team on behalf of the Indonesian G20 Presidency. During this series of meetings, G20 members and invited countries, alongside several international organisations, discussed a broad spectrum of One Health components, that is important to prevent, predict, detect, prepare for, and respond to global health threats.

This brief is informed and guided by previous efforts, such as the Rome Leaders' Declaration<sup>1</sup>, the Global Health Summit, the G20 Joint Finance and Health Ministers' Communiqué<sup>2</sup>, and the Call to Action on "Building One Health Resilience"<sup>3</sup>. As such, it leverages and positions technical leadership and the coordinating role of the Quadripartite (WHO, Food and Agriculture Organization/FAO, World Organization for Animal Health/WOAH and United Nations Environmental Programme/UNEP); and is supported by the One Health High-Level Expert Panel (OHHLEP), an advisory panel to the Quadripartite, that supports their provision of evidence-based scientific and policy advice to address the challenges in preventing, predicting, detecting, preparing for and responding to global health threats, in order to improve the health of humans, animals, plants and the environment. This includes promoting health and Sustainable Development Goals (SDGs), through the adoption of the One Health approach.

### **Global health challenges necessitate a One Health approach**

The COVID-19 pandemic has clearly demonstrated the importance of undertaking a One Health approach to address health threats, recognizing the interconnectedness between the health of humans, animals, plants, and the environment; biodiversity; and food systems. It highlighted existing vulnerabilities and inequalities worldwide, with wide-ranging consequences for populations who have been historically marginalised and excluded. It underscored the importance of resilient and sustainable health systems and the need to implement systems and structures that are capable of preventing and mitigating threats in relation to the human-animal-plant-environment interface. Through the adoption of the One Health approach, systems can enable greater resilience for the health of individuals and communities, thereby helping to ensure that the overall health of humans, animals, plants, and the environment are considered simultaneously, for the benefit of present and future generations.

In the future, we will be confronted with zoonotic infections that may develop to cause epidemics and pandemics, and new and existing strains of multidrug resistant pathogens, as well as other health threats. Threats will continue to emerge or re-emerge, putting lives at risk, endangering animal health, threatening ecosystems, food security and damaging the global economy, fuelled by changing climate conditions. A transformative approach is required in our relationship with the

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<sup>1</sup><https://www.consilium.europa.eu/media/52730/g20-leaders-declaration-final.pdf>

<sup>2</sup>[https://www.mef.gov.it/inevidenza/2021/article\\_00067/G20-Joint-Finance-and-Health-Ministers-Communique-29-October-2021.pdf](https://www.mef.gov.it/inevidenza/2021/article_00067/G20-Joint-Finance-and-Health-Ministers-Communique-29-October-2021.pdf)

<sup>3</sup>[https://www.salute.gov.it/imgs/C\\_17\\_pagineAree\\_5459\\_10\\_file.pdf](https://www.salute.gov.it/imgs/C_17_pagineAree_5459_10_file.pdf)

environment and how we address the emergence, re-emergence, spill-over and spread of disease. Importantly, we must acknowledge that climate change and biodiversity loss undermine life-supporting systems essential to human and animal health existence. This will involve placing greater emphasis on prevention—including infectious disease prevention and control, infection prevention and control, accurate laboratory detection, and appropriate epidemiological response—and preparedness; and investing in measures that take stock of, analyse and act on the complex economic, social, and environmental determinants of health.

Breaking the silos that exist between sectors and disciplines will require innovative approaches and strengthening of social, administrative, scientific and political will. Greater investment in applied and multidisciplinary implementation research, including in social behaviour change across the spectrum from building new knowledge to piloting and scaling is needed to enable sustainable, locally relevant scientific and evidence-based interventions that channel scientific inquiry toward positive change. The One Health approach provides a cohesive framework for this transformation, as it encompasses a multisectoral approach relevant to innovation, sustainable development and economic growth.

One Health offers a powerful approach for understanding and transforming systems. Crucially, it takes the connectivity, complex interdependencies between the health of humans, animals, plants, including ecosystems, and the interdisciplinary knowledge and expertise into consideration. A definition of the One Health approach<sup>4</sup> developed by the OHHLEP reiterates the need for effective collaboration across sectors and disciplines, along with the importance of communication, coordination and capacity building in this process. This integrated and holistic approach helps to address the underlying drivers of zoonotic disease, Antimicrobial Resistance (AMR) emergence and other related health threats, thereby improving disease prevention and preparedness, mitigating the impacts of health risks and threats, implementing science-based and sustainable solutions, hence promoting long-term health for all.

To prevent, predict, detect, prepare for and respond to emerging health challenges, all relevant sectors must collaborate in an integrated manner – to achieve together what can not be achieved alone. The SDGs provide a framework towards improved economic, environmental, climatic, food system and social sustainability; however, to achieve these goals, we must first scale up joint efforts across sectors and address the damaging impact that recent health challenges have had on progress towards the achievement of SDGs. Only then can we make necessary strides towards balancing and optimizing the health of humans, animals, plants and the environment.

### **How to implement One Health effectively and successfully**

The One Health approach needs to be applied globally, regionally, bilaterally, nationally, and locally, involving all relevant sectors and groups in society and linking all layers, considering different national capacities from high-level policies to activities on the ground, including community engagement. This includes fostering a common understanding of the One Health approach and promoting One Health governance at all levels, thereby enabling countries to operationalise One Health at scale. It is critically important that multisectoral and interdisciplinary collaboration be facilitated, through the provision of platforms and opportunities for engagement with all relevant stakeholders. Mapping of key stakeholders should be done for each One Health priority since focal points for different One Health priorities are not the same in most countries. Resources should be mobilised, evidence-based data should be identified and validated, information should be shared in a timely manner, measures and actions to enable better access to digital health and environmental data sharing in collaboration with international governance should be implemented.

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<sup>4</sup><https://www.fao.org/3/cb7869en/cb7869en.pdf>

The gaps that exist between institutions and disciplines represent barriers to the effective tackling of One Health challenges and must therefore be bridged. The success of a One Health approach depends on strong political commitment. This means long-term engagements at all levels, spanning all relevant sectors of government and championed by Heads of State. A whole-of-society approach demands engagement with all levels of government, the private sector, civil society, academia, and the media in their respective roles as policymakers, regulators, implementers, practitioners and influencers. Despite lessons learned from multiple health challenges, disease outbreaks and epidemics in the past, investment in the One Health approach to diagnostic surveillance and response systems remains limited, fragmented and has proved to be unsustainable. The World Bank estimates that an annual investment of approximately US\$1.9-3.4 billion is required to build and operate systems for effective disease prevention and control in low- and middle-income countries (LMICs)<sup>5</sup>. Investments to strengthen capacities to prevent the onset of a pandemic comes with an expected 86 percent annual rate of return and when directed toward sustainable improvements in resilient and responsive health systems improve lives and livelihoods. However, insufficient attention has been given to preventative measures and the reduction of risks to the health of humans, animals, plants and the environment. Greater collaborative dialogue is therefore required between human, animal, plant, and environmental health organisations and the financial sector, in order to secure long-term funding and investment. Crucially, One Health provides the mechanism by which these dialogues and the resulting funding mechanisms can be successful.

One Health should not be considered separately or in isolation, but rather as an integral component of investment packages. Cost benefit analyses can provide insights into the benefits of programmes and their sustainability, focusing on the interface of the health of humans, animals, plants and the environment. This may include containment of AMR, preventing and reversing environmental pollution and degradation to safeguard ecosystems, tackling the effects of climate change, conserving biodiversity and mitigating climate change impact, and strengthening an integrated health surveillance system for pest, disease and environment. It also covers activities for improving air quality, advancing animal health and welfare, combatting AMR, strengthening animal production sanitation along the value chain, improving human sewage and water sanitation, improving laboratory capacity and public health systems, strengthening multisectoral one health workforce capacity through pre-service and in-service education, and developing and implementing multi-sectoral plans with all relevant stakeholders to improve and maintain health. All these initiatives are necessary and fiscally prudent, given that the cost of inaction is far greater than the price of prevention.

By integrating data and knowledge systems, while also conducting joint surveillance and workforce development, One Health systems can be strengthened. This has potential to increase capacity to manage epidemic and pandemic infectious diseases; augment efforts to address neglected and endemic chronic and infectious diseases, including zoonotic diseases, vector-borne disease threats; improve availability of safe, quality food; and water; and improve prevention, rapid detection, and control emergence and spread of pathogens with antimicrobial resistant strains across all One Health sectors. The traditional separation of sectors and disciplines, as well as, their increasing divergence due to specialisation, poses a significant challenge to the development and implementation of an integrated, transdisciplinary approach. This tends to contribute to the widened gaps in One Health implementation. In this sense, it is important to share information and data from the different sectors involved in order to ensure an integrated monitoring of the different relevant areas. A monitoring and evaluation framework for One Health priorities based on a domestic risk analysis and taking into account national context is therefore suggested to identify and address gaps in where a One Health approach should be implemented.

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<sup>5</sup> <https://www.worldbank.org/en/topic/agriculture/brief/safeguarding-animal-human-and-ecosystem-health-one-health-at-the-world-bank>

## Seven steps to improve One Health implementation

G20 members, alongside various international organisations, considered the following seven steps to better implement the One Health approach. The G20 will take into account these seven recommendations. The G20 will also consider these recommendations in their work with their global partners, recognising that the uneven distribution of health threats will necessitate support for countries that are disproportionately affected and those with comparatively limited resources for prevention.

The following recommendations are based on the recently developed One Health Joint Plan of Action (2022-2026) (OH JPA)<sup>6</sup> by the Quadripartite and guided by recent findings from G20 One Health pre-events meetings, the One Health implementation gap mapping analysis done by most of G20 and analysed by the WHO One Health Initiative. These recommendations support the implementation of One Health systems locally, nationally, bilaterally, regionally, and globally in order to strengthen capacities and build more resilient and responsive health systems to address complex multi-dimensional health risks. These recommendations espouse multi-sectoral action, collaborative governance, inclusiveness, equity and multi-level cooperation, taking into account socio-cultural and economic issues in the context of One Health. To bring them to fruition, sustained financing for the operationalisation of One Health will also be required.

We hereby affirm that the Quadripartite should continue to take a leading role in providing technical support in supporting a One Health approach for countries and international society. We welcome the Quadripartite's role in One Health financing and recognise that multilateral development banks, and other global financing mechanisms and institutions should also play a more active role in financing for One Health. We also note that this international financing should be supported by an increase in One Health financing at the domestic level.

### **1 | Raise awareness and advocacy for a One Health approach priorities** with

key stakeholders in relation to the interconnectedness of human, animal, plant and environmental health. This includes working with policy and decision makers in communities to convey the benefits of interdisciplinary cooperation and primary prevention (e.g., spillover prevention), conserving natural ecosystems and raising awareness of the health and economic benefits they provide. Risk factors and drivers need to be identified, along with practical solutions for risk mitigation and spillover prevention. In recognition that there is no time to waste on inaction or fragmented initiatives, the One Health approach has to be acted upon immediately by all relevant sectors. A common understanding of the One Health Approach should be based on the definition published by the OHHLEP and endorsed by the Quadripartite. Moreover, the One Health approach should be integrated into the new pandemic agreement currently being discussed at WHO.

### **2 | Identify gaps and opportunities** by engaging in comprehensive and regular

assessment, monitoring and evaluation. At the regional, national and sub-national level, governments should support both the development and implementation of One Health action plans according to the respective priorities of countries. This involves making use of existing tools, surveillance mechanisms and instruments for this purpose adapted as per region, country, sub-national context; bringing sectors and disciplines together, backed by regulatory frameworks where appropriate, to make collective decisions on how to act on the assessments findings. In this regard, we acknowledge the G20 Self-Assessment Questionnaire exercise that could be further utilized by the Quadripartite to support this process.

<sup>6</sup> <https://www.who.int/news/item/01-12-2021-tripartite-and-unep-support-ohhlep-s-definition-of-one-health>

### **3 | Develop mechanisms to support an overarching One Health governance**

**and coordination framework.** This approach should be applied where relevant, to leverage existing solutions and develop mechanisms to support an overarching One Health governance using Quadripartite structures and coordination framework based on international standards for all relevant policies and programs. This includes fostering a whole-of-society and whole-of-government integrated approach in the spirit of One Health collaboration, as per country context at the national and sub-national level. This will help to ensure that decision-makers and practitioners across health and related sectors (i.e., doctors, veterinarians, nurses, pharmacists, microbiologists, farmers, environmentalists, natural resource managers, sanitarianism health regulatory agents, community workers, paraprofessionals and educators) can coordinate and collaborate to prevent, predict, detect, prepare for and respond to health threats at global, regional and national levels. Ultimately, this approach will help to improve the health of humans, animals, plants, and the environment, while also contributing to sustainable development. To that end, society as a whole should recognise the basic principles and core benefits of the One Health approach.

### **4 | Develop science- and evidence-based business cases for funding or**

**investment in One Health,** with building on initiatives at the community, national, cross-border, regional, and global levels. This needs to be practical and based on country priorities or needs to support national and sub-national authorities (including ministries of health, agriculture, environment, finance and other related ministries) and relevant agencies in their assessment and decisions on investments in One Health. This will be underpinned by achieving goals, not only considering economic gain, but also the outcomes on the main objectives, such as human livelihood, animal health and wellbeing, social development, animal welfare, conservation of ecosystems and biodiversity.

### **5 | Be Guided by the Quadripartite's One Health Joint Plan of Action as a**

**blueprint for action** for countries and stakeholders as appropriate, allowing them to strengthen collaboration and mainstream the One Health approach at global, regional, country national and sub-national levels (especially in large countries with a federal government structure). This includes developing national One Health plans and/or integrating One Health into relevant plans considering the principles prioritized by the OH JPA, including appropriate, actionable and measurable targets; mobilize sustained investment; promote a whole-of-society approach; and pursue collaboration, learning and exchange across regions, countries, and sectors to enhance One Health capacities to strengthen health systems. Examples of action plans that would benefit from this guidance include those which reduce the risks from emerging and re-emerging zoonotic epidemics and pandemics; control and strive to eliminate endemic zoonotic, neglected tropical, address wildlife dimensions, and vector borne diseases; strengthen assessment, management and communication of food safety risks; and integrate the environment aspects.

### **6 | Implement the One Health approach in all relevant policies to better**

**prevent, predict, detect, prepare for and respond to health threats** arising from the linkages between humans, animals, plants and the environment. Responses to zoonotic diseases should be evidence-based on the best available science and data, taking the wider implications for ecosystems into consideration. Sustainable and effective communication, coordination and collaboration between those sectors is therefore a critical aspect of all efforts geared towards disease prevention, preparedness and response, and efforts to address the related

aspects in this regard. Lack of a One Health approach implementation can hamper efforts to prevent chronic, non-communicable and infectious diseases, including future outbreaks, epidemics, and pandemics which will likely arise at the nexus of human-animal-environmental interactions.

## **7 | Facilitate One Health research, knowledge sharing, capacity building**

**and voluntary knowledge transfers** by creating an enabling environment in which learning research and knowledge sharing can thrive. This involves creating synergies and promoting frameworks and processes including collaborative learning and research and knowledge sharing that facilitate and promote One Health action, investing in research and expert researchers to increase our collective understanding and knowledge on One Health contexts, while also building on the expertise of relevant organisations, communities, and R&D partnerships. By increasing scientific insight, consolidating lessons learned, demonstrating best practices, setting up knowledge sharing networks, more effective One Health approaches can be implemented. By enhancing networking opportunities and providing training and increased awareness, a more skilled, informed, and competent health and other related workforce will be prepared to address One Health priorities. Moving forward, this international network of One Health experts can then be mobilised and deployed where and when they are needed. This network can include, among others, various community health workers, facility-based health workers, community-based animal health workers, sanitarians, health regulatory agents, environmental health professionals (rangers and others), social health workers, sanitary agents, farmers, veterinarians, domestic animal owners and environmentalists, as well as human, plant, animal, and environmental laboratory, surveillance, and epidemiological experts, economists, and sociologists. To enable capacity building at all levels, opportunities that emerge from these interactions can be leveraged for individual, community and institutional learning, research, and education information exchange; this includes tertiary and professional education, along with initiatives aimed at coordinating programmes, partnerships, research and networks at the international level.

In conclusion, the G20 members can set an example for countries, particularly for LMICs and support them in the implementation of a One Health approach. These recommendations are key to informing decision-makers and enabling coordinated actions and public policies. A combination of these actions, when effectively implemented collaboratively and multilaterally, can help to balance the health of humans, animals, plants, and the environment to ensure healthy lives and promote well-being.