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Veröffentlichungsversion / Published Version

Stellungnahme / comment

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

Stiftung Wissenschaft und Politik (SWP)

Empfohlene Zitierung / Suggested Citation:

Bayerlein, M., & Villarreal, P. A. (2023). "One Health" and global health governance: design and implementation at the international, European, and German levels. (SWP Comment, 43/2023). Berlin: Stiftung Wissenschaft und Politik - SWP- Deutsches Institut für Internationale Politik und Sicherheit. <https://doi.org/10.18449/2023C43>

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SWP Comment

NO. 43 JULY 2023

“One Health” and Global Health Governance

Design and implementation at the international, European, and German levels

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The “One Health” approach has found its way into political processes at various levels. The reason for this is the increased occurrence of zoonoses, i.e. infectious diseases that can be reciprocally transmitted between animals and humans. One Health is located at the intersection of human, animal, and ecosystem health on the one hand and calls for trans-sectoral solutions on the other. Numerous substantive issues beleaguer the practical design of the One Health approach as well as its implementation by the World Health Organization (WHO), regional institutions, and states. One Health is currently being addressed in three contexts in particular: in the negotiations on the pandemic treaty, in the EU’s Global Health Strategy, and in the German government’s strategy on global health.

The idea that human health is subject to multisectoral determinants has recently been incorporated into various initiatives at the international, European, and national levels. Usually, One Health is referenced in these processes as an integrative approach that aims to sustainably balance and optimise the health of humans, animals, and ecosystems. This corresponds with the definition presented in 2022 by the One Health High-Level Expert Panel (OHHLEP) – a group of experts that coordinates collaboration between the so-called “Quadrupartite” consisting of the World Health Organization (WHO), the World Organisation for Animal Health (WOAH), the Food and Agriculture Organization of the United Nations (FAO), and the United Nations

Environment Programme (UNEP). According to the definition, One Health recognises that human, animal, plant, and environmental health – including ecosystems – are intimately linked and interdependent. The approach thus addresses a range of sectors and disciplines that must work together in the areas of health, environment, climate change mitigation, sustainability, and nutrition.

One Health is addressed in detail in the EU Global Health Strategy as well as in the German government’s Global Health Strategy and in the draft international agreement on pandemic prevention, preparedness, and response (the “pandemic treaty”). These documents emphasize the need to give One Health a central role in preventing



health threats. It is therefore important to look at the design of the approach within the multi-level policy system so that synergies for its implementation can be better identified.

Different dimensions of One Health

The One Health approach proposes a shift in how policy engagement in medicine, public health, animal health, and the environment should be pursued. Conceptually as well as politically, it calls for thinking outside the box. Specifically, it means that the drivers of pandemic risk should be addressed collaboratively by different institutions that traditionally tended to confine themselves to their own areas of responsibility.

In this regard, OHHLEP's Theory of Change has pinpointed the key areas of action for institutions. Its guidelines identify dozens of health risk factors that require different types of solutions and that can be used to set actionable priorities. For example, climate change is accelerating the migration of disease vectors, such as mosquitoes, across different parts of the globe while increasing international wildlife trade significantly increases the risk that zoonotic diseases could be spread. While OHHLEP's Theory of Change is not exhaustive, it does help to determine priorities.

The question arises as to how vertical and horizontal prioritisation can be achieved at the international, regional, and national levels. This will require debate and initiatives among varying groups of actors. The current draft of the pandemic treaty, the EU's Global Health Strategy, and the German government's strategy are three necessary albeit insufficient tools to set these priorities. Again, it is important that the design and implementation of One Health at each level prioritises those areas that can be best addressed at said level, thus creating an efficient vertical division of tasks.

Draft pandemic treaty

The pandemic treaty will play a significant role at the international level in uniformly spelling out the One Health approach for the community of states. The draft pandemic treaty includes the definition of One Health that has been articulated by OHHLEP. Similarly, the guidelines in OHHLEP's Theory of Change could be incorporated to set international priorities. This is underscored by the fact that the pandemic treaty already focuses on certain priorities – namely zoonotic diseases, antimicrobial resistance (AMR), and One Health surveillance.

One Health in existing international law

At the international level, the One Health approach aims to overcome siloed ways of thinking among the varying organisations and actors involved in the field. It aims to improve multilateral coordination of pandemic prevention, preparedness, and response. Data collection for disease surveillance is one area in particular need of such coordination. International law only partially addresses this area, and only with respect to separate instruments. To fill the gap, the current draft pandemic treaty includes a number of legal obligations related to One Health. Under Article 5 of the current draft pandemic treaty, states would be required to integrate measures that address the determinants of disease occurrence at the human-animal-environment interface into their national pandemic prevention plans. This includes climate change, land use change, wildlife trade, desertification, and AMR.

Representing another commitment to One Health, the draft calls for surveillance capacities to be improved. Current disease surveillance relies on reporting disease-related events within each state's territory; at the international level, several different instruments currently exist to this end, and they are hardly ever interconnected. This disconnect is most evident in the inadequate and poorly integrated surveil-

lance mechanisms of different organisations.

In the area of human health, the International Health Regulations (IHR) of 2005 are the main tool for reporting diseases to the WHO. The IHR are applied to an open list of diseases and play a central role in the transparent exchange of data through the WHO Hub for Pandemic and Epidemic Intelligence. However, the Regulations are a strictly anthropocentric tool of international law, as states only need to notify the WHO when a disease spreads among humans. Under this framework, depending on the nature of the disease, early infection detection and control are usually impossible. None of the proposed IHR reforms would address this shortcoming, as states would likely refuse to commit to more extensive obligations such as identifying and reporting outbreaks, even among animals, within a certain amount of time.

The WOAAH, by contrast, has tools to promote animal health surveillance. In particular, these include the Terrestrial Animal Health Code and the Aquatic Animal Health Code. Unlike IHR, these codes have lists of (currently 117) diseases for which surveillance is a high priority – even though unlisted diseases should also be reported. More comprehensive wildlife surveillance could be envisioned, but would require revising these tools. Similarly, the Codex Alimentarius developed by the FAO allows for monitoring practices in the food supply chain which might increase the risk of the spread of disease.

While the WHO, WOAAH, and FAO are equipped with surveillance systems, the Quadripartite consisting of these three organisations plus the UNEP points out in its 2022 One Health Intelligence Scoping Study that the UNEP is underrepresented in the set of cooperative activities. This raises the question of how an expanded Global Early Warning System (GLEWS+) could include all four organisations. One possibility would be to establish new links between the three existing health surveillance systems of the WHO-WOAH-FAO on the one hand, and the UN Biodiversity Lab and the

World Conservation Monitoring Centre on the other. Such frameworks can monitor relevant changes in biodiversity. However, it will probably be challenging to establish a reporting obligation for states, as it is too difficult to determine precise parameters for which states must report and when. Still, the UNEP could contribute to One Health monitoring, for example through reports documenting how climate change is affecting the migration of known pathogens. Identifying areas that are affected or more likely to be affected by climate change would be an important step toward more accurate risk assessment and early warning.

Prioritisation and capacity building

In addition to identifying a framework for action and strengthening surveillance capacities, the One Health approach necessitates the research-based global collection of various metrics. This should make it possible to assess national authorities' existing capacities to prevent zoonotic diseases and AMR, to identify different priorities, and to assess the performance of national policies. This data, which will reflect a country's health, economic, and social circumstances, would enable decision makers to identify whether certain factors need to carry more weight than others in a given case. The assessment needs to be global and consistent before national action plans are developed, as the One Health approach should be implemented within an international framework and be based on common indicators.

There are several models for both the formulation of One Health commitments at the international level and for their implementation by national authorities. One of these models is found in the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol. According to the Convention and the Protocol, a core obligation of states is to significantly reduce the use of chemical substances that have been scientifically proven to directly damage the ozone layer, and the UNEP iden-

tified so-called “actionable tasks” to this end. These tasks form indicators of what needs to be implemented at the national level; and a multilateral fund has been established to provide financial support for this implementation. This fund is also based on a four-way collaboration, in this case between the UNEP, the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO), and the World Bank. Similarly, the World Bank’s recently created Pandemic Fund could help ensure that states commit resources to One Health tasks as they are formulated.

The EU’s Global Health Strategy

The EU proposed the pandemic treaty and is involved in its ongoing negotiations. It also addresses One Health in its Global Health Strategy published in late November 2022. The Strategy’s aim is to make health a central element of European foreign policy, not least because of the geopolitical potential of international health engagement. It also aims to make up for failures in achieving the health-related UN Sustainable Development Goals. The Strategy is thus to be understood as an external dimension of the European Health Union, which is currently being built, but it also allows conclusions to be drawn about internal prioritisations. In terms of content, the Strategy addresses the determinants of human health; however, it also explicitly mentions climate change, environmental degradation, and food security in the context of One Health. The Global Health Strategy’s discussion of the One Health approach is relevant because the document can be understood as a framework for action that sets political priorities for the EU Commission, identifies concrete fields of action in the area of One Health, and calls on EU member states to support individual measures.

The Global Health Strategy of the EU comprises three basic priorities and 20 Guiding Principles. In the third priority, the document refers to One Health; this approach is

to be pursued, it says, in order to prevent or combat future health threats. In addition, the individual Guiding Principles also make references to the approach. However, a distinction must be made between the varying references, as some are rather generic while others are concrete. The latter are particularly pronounced in three Guiding Principles, which explicitly reference One Health and deserve special attention.

Guiding Principle 9.3 refers directly to the pandemic treaty and states that its goal is to pursue a One Health approach. While the EU Commission, as the lead negotiator for the EU’s member states, can contribute its preferences derived from the Global Health Strategy regarding a One Health approach, it must respect the European Council’s negotiating mandate, which limits its authority to negotiate to matters that fall within EU competence. However, in the annex to the Council Decision, which spells out the specific scope of the mandate, One Health is explicitly stated as a general objective and principle; the Commission can therefore fully engage on behalf of the member states. Combating antimicrobial resistance through a One Health approach is also mentioned in this context. The threat of AMR is a phenomenon that directly highlights the consequences of the relationship between humans, animals, and the environment. For example, the widespread use of antibiotics in human and veterinary medicine can increase the risk of bacteria, viruses, fungi, and parasites developing resistances. In the negotiations on the pandemic treaty, the EU can therefore – within the scope of its competencies – address certain areas of One Health as well as AMR in line with the strategy.

Aside from being discussed in relation to the pandemic treaty, One Health can also be found in Guiding Principle 11.3 of the Global Health Strategy, namely in connection with intensifying the fight against AMR through the formulation of a comprehensive One Health approach. The EU cites changes in the use of agricultural land, environmental degradation, complex food production, and more intensive trade

and transport as particular risks that need to be addressed. In addition, the Global Health Strategy reiterates the danger posed by AMR and emphasises the need to develop new medical countermeasures.

Guiding Principle 12 defines the aim to link all policies that have an impact on global health within the Commission, the EU agencies, and the EU funding institutions. For the EU, this includes promoting a One Health approach in the future UN Global Biodiversity Framework as well as addressing biodiversity loss, illegal wildlife trade, pollution, and exposure to toxic substances. Although the Global Health Strategy can be a nexus for various initiatives, it presents three specific areas of action for the EU: Zoonoses, AMR, and the involvement of environmental agencies.

The EU's options for action

Zoonosis prevention represents the first field in which the EU can take action. The possibilities for activity are opened up, above all, via the competences in the area of the internal market according to Article 114 of the Treaty on the Functioning of the European Union (TFEU). In the Global Health Strategy, the EU explicitly refers to “deep prevention”, which means that health hazards should be identified before pathogens are transmitted from animals to humans. Particularly relevant in this so-called upstream prevention is the illegal but also legal trade in wildlife, as well as changes in the use of land that are associated with the destruction of natural habitats.

Numerous initiatives already exist to implement the Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which aims to stop the illegal trade of wildlife. This includes the EU Action Plan Against Wildlife Trafficking, which itself makes explicit reference to the One Health approach. While the EU is still one of the most important transshipment points for the illegal wildlife trade, legal trade also threatens human health, as zoonotic dis-

eases can likewise occur within the EU and abroad as a by-product of legal trade. This is especially true because trade bans are primarily based on the risk to the animals involved as opposed to the potential health risks to humans. General bans do not appear to be very effective, but the EU could, analogous to the CITES regulation, specifically regulate trade in those animal species that show a hazard potential. To classify this potential, the World Wide Fund For Nature's grid could be applied by relevant research institutes and a fundamental trade ban or a stronger obligation to test wild animals could be derived from it. In addition, it is also necessary to expand testing and monitoring capacities within the EU with regard to the animal trade especially in cases of factory farming. The recent outbreak of avian influenza on a mink farm in Spain serves as a stark reminder that new mutations with a zoonotic potential can emerge even within the EU.

In the fight against AMR, the EU could also help member states and companies to develop new medical countermeasures and facilitate access thereto. This applies to, among others, antimicrobial drugs, vaccines, and diagnostics. Here, it will be important to establish innovative incentive systems for research and development; it will also be important to promote transnational cooperation in public-private partnerships – such as the Innovative Medicines Initiative (IMI) – that undertake research projects under the EU's Horizon 2020 program. This would spread the risk of projects failing across several member states and the EU. Such supporting activity is clearly within the EU's competences under Articles 6 and 168 of the TFEU. Here, for example, the EU Commission is currently planning to introduce a voucher model as part of the new EU pharmaceutical strategy to create greater incentives for investing in the development of new antimicrobial drugs. However, this is highly controversial, mainly because alternative proposals have not had much discussion. Either way, an incentive model could constitute just one component of the EU's approach.

Additionally, the EU is one of the partners of the Global AMR R&D Hub, a partnership which also includes the G7 and 17 additional countries as well as two philanthropic organisations. The Hub recently issued a report in which it identified priorities for public and private investments, signalling the EU and the G7 as leaders in One Health financing. The recent Paris Climate Finance Summit, co-hosted by French President Emmanuel Macron and Barbados Prime Minister Mia Mottley, also underscored the need to overhaul the global financial system to provide countries with the resources needed to fight climate change, biodiversity loss, and poor air quality. The EU can be a key driver in this effort.

Ultimately, similar to GLEWS at the international level, the environmental sector is currently insufficiently represented at the EU level. The One Health European Joint Programme, for example, is based on an association of 44 national institutions and associations from the food, veterinary, and medical sectors. Among them, exclusive environmental agencies are underrepresented. This asymmetry hampers the chances of getting the most out of an EU One Health strategy.

The German government's strategy

In October 2020, just two years before the publication of the EU's Global Health Strategy, the German government presented its strategy on global health. Although it is not a binding document for the German government, the strategy is significant in that it outlines a framework for action to be pursued by German (foreign) policy; moreover, it introduces new approaches and sets priorities. This is particularly relevant after the changes to the German government in 2021, as the new federal government explicitly refers to the strategy and presents it as the basis for its actions.

Content-related references to One Health

In its strategy, the German government identifies three strategic goals: (1) prioritisation of areas in which Germany can best contribute; (2) multilateral action; and (3) coherence at all levels. It is noteworthy that explanations of the first goal already reference One Health, where a “cross-sectoral approach” and “system-oriented action” are emphasised. The first goal is divided into four priorities: (1) promoting health and preventing disease; (2) addressing environmental, climate, and health issues holistically; (3) strengthening health systems; and (4) combating cross-border threats.

Under these priorities, the German government mentions combating AMR first in its strategy. Here, the focus is on implementing the Global Health Protection Program, developing and implementing national action plans, and establishing and expanding surveillance systems. Furthermore, the German government is committed to researching new antimicrobial drugs through global product development partnerships and to producing reports on antimicrobials in development (“pipeline reports”). The rest of the strategy document makes regular references to AMR and the control thereof through a One Health approach.

With a view to zoonoses and the prevention of future epidemics and pandemics, the German government intends to make targeted use of the One Health approach. However, it limits itself to stating that cross-disciplinary and cross-sectoral action is necessary in partnership with the relevant international organisations. Yet the statements become more specific when addressing a holistic approach to environmental, climate, and health issues. Specifically, the German government aims to reduce environmental and climate impacts that pose health risks while also striving to preserve biodiversity and prevent the occurrences of invasive species.

The national level is of particular importance within this framework especially with regard to interdepartmental cooperation, companies' due diligence obligations, and health systems' adaptation. The German government already established an informal ministerial network on One Health in 2021. However, non-governmental organisations (NGOs) and the private sector need to be involved to establish a more comprehensive societal stakeholder perspective on the matter.

Implementation in Germany

The nature of the One Health approach requires it to touch various ministries simultaneously and necessitates interdepartmental cooperation. While the Federal Ministry of Health is the ministry most affected, other ministries must also be involved within an institutionalised framework. In particular, the Federal Ministry of Economics and Climate Protection, the Federal Ministry for the Environment, the Federal Ministry of Food and Agriculture, the Federal Foreign Office, and the Federal Ministry for Economic Cooperation and Development need to work together to implement a One Health approach. To facilitate this collaboration, the Ministry of Health should further support the informal One Health network and expand the circle of participants by regularly including civil society, academia, and the private sector. The network – be it informal or formal – could function as a body to prepare resolutions, regulations, and discuss legislative initiatives that address aspects of One Health.

In addition, the German healthcare system must also adapt to a changing world through the lens of a One Health approach. On the one hand, One Health approaches must be conveyed in trainings of human and veterinary medical personnel, and physicians must be trained in the diagnosis and treatment of zoonoses that have not been widespread in Germany up to now. Particular attention should be paid to new zoonoses that arise due to the changing climate, such as dengue and malaria. On

the other hand, if such diseases, which have so far been described as “tropical”, appear in Europe and Germany, it will become necessary to increase treatment capacities. At present, only 14 clinics in Germany treat more than ten patients with “tropical” diseases each year. In view of progressing climate change, the number of hospitals equipped for this purpose should be increased over time.

Recently, on 14 June 2023, the German government unveiled its first-ever National Security Strategy, which included the subject areas of pandemic prevention, preparedness, and response. Notably, the One Health approach is explicitly incorporated as a component of the Strategy. So far, however, policy shifts and budgetary commitments do not extend beyond what already exists in the German setting. Beyond the lack of concrete action, framing the One Health approach as part and parcel of the National Security Strategy comes with both prospects and pitfalls: on the one hand, it entails including it in the government's priority-setting; on the other hand, it might lead to One Health being placed in a security silo that excludes other stakeholders.

Vertical prioritisation

Horizontally, the One Health concept must be concretely defined and silo thinking must be overcome; vertically, synergies must be created and actions dovetailed. In this context, as in other policy areas, the international, regional, and national levels have very specific roles that are tailored to their different competences and capabilities. These differences are often addressed only indirectly, meaning that a clear definition of tasks and roles has been absent up to now. Within the framework of the subsidiarity principle, however, functions and objectives can be divided depending on whether they can be better implemented at the international, EU, or national level.

As seen in the context of the pandemic treaty, the EU's Global Health Strategy, and the German government's strategy for

global health, all levels are integral for One Health. But there is a need for a vertical division of tasks in which priorities are set and targets are assigned. For better harmonization, established areas of networked governance, such as those seen in the field of agriculture or in the EU's Green New Deal, should constitute the points from which actions can be oriented. In addition, concrete recommendations for action at the different levels can be found below.

- *International level:* The priority at the international level should be to consolidate One Health surveillance. To this end, the Quadripartite should be strengthened through the pandemic treaty. The World Bank's Pandemic Fund can also be used here, and the funding of capacities should be prioritised based on contexts. At the same time, the environmental dimension must be strengthened at the international level through regular reports and (climate change) risk assessments, for example. The German government can address these areas of the One Health approach in various contexts – in the negotiations on the pandemic treaty and the reform of the IHR as well as at the High-Level Meeting on Pandemic Prevention, Preparedness, and Response, which is hosted by the United Nations General Assembly.
- *EU-level:* The European Union and regional organisations can influence how One Health approaches are implemented at a downstream level, for example through trade standards or bans. In addition, a regional grouping of countries should be initiated and supported to create incentives for research and development, and to mitigate risks.
- *National level:* At the national level, there is a need for stronger and, above all, institutionalised cooperation between government departments. Similarly, One Health approaches should be transferred to areas of government action, such as

due diligence, that have so far been exclusively dedicated to the protection of human rights and the environment. In addition, national health systems must be adapted to new challenges arising from climate change. The German Parliament's Global Health Subcommittee could incorporate these elements.

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ISSN (Print) 1861-1761
ISSN (Online) 2747-5107
DOI: 10.18449/2023C43

(English version of
SWP-Aktuell 37/2023)

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