



One Health Joint Plan of Action

Working together
for the health of
humans, animals,
plants and the
environment

Leveraging the role of the Quadripartite collaboration

INTRODUCTION

The Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), the United Nations Environment Programme (UNEP) and the World Health Organization (WHO) - collectively called the Quadripartite – collaborate to drive change and transformations required to mitigate the impact of current and future health challenges at the human-animal-plant-environment interface at global, regional, and country levels. Responding to international requests to prevent future zoonotic pandemics and to promote health sustainably through the One Health approach, the Quadripartite have developed the One Health Joint Plan of Action (2022-2026) (OH JPA).

The OH JPA outlines the commitment of the four organizations to collectively advocate and support the implementation of One Health. It builds on, complements, and adds value to existing global and regional One Health and coordination initiatives aiming at strengthening capacity to address complex multidimensional health risks with more resilient health systems at global, regional and national levels.

The OH JPA adopts a broad perspective of One Health integrating a system-based approach to support the health of humans, animals, plants and the environment, while identifying and addressing the underlying factors to disease emergence, spread and persistence, and the complex economic, social and environmental determinants of health. By integrating the environmental dimension towards a more extended understanding of disease emergence and spread, as well as the role of ecosystems in disease regulation, the One Health approach is more comprehensive. It can thereby help to address the underlying drivers of disease emergence and ill-health, improve disease prevention and preparedness, mitigate the impacts of health risks and threats, implement sustainable solutions, and promote health for all holistically in the long term.

RAISING THE BAR – ONE HEALTH JOINT PLAN OF ACTION (OH JPA)

The desired impact of the OH JPA is a world better able to prevent, predict, detect, and respond to health threats and improve the health of humans, animals, plants, and the environment while contributing to sustainable development. The OH JPA aims to work towards this vision in the following way:

- Provide a framework for action and propose a set of activities the four organizations can offer together to advance and sustainably scale up One Health.
- Provide upstream policy and legislation advice and technical assistance, to help set national targets and priorities across the sectors for the development and implementation of One Health legislation, initiatives and programmes.

- Take stock of existing cross-sectoral global and regional initiatives around One Health, identify and advise on synergies and overlaps, and support coordination.
- Mobilize and make better use of resources across sectors, disciplines, and stakeholders.
- The OH JPA is guided by a Theory of Change and makes use of One Health principles to strengthen collaboration, communication, capacity building, and coordination equally across all sectors responsible for addressing health concerns at the human-animal-plant-environment interface.

The OH JPA is built around six interdependent Action Tracks that collectively contribute to achieving sustainable health and food systems, reduced global health threats and improved ecosystem management:



Each Action Track consists of a set of Actions with specific activities, deliverables, and a timeline to achieve the following objectives:

- Provide adequate guidance and tools for effective implementation of multisectoral approaches in promoting the health of humans, animals, plants, and ecosystems and preventing and managing risks at the human-animal-plant-environment interface
- Reduce the risk and minimize local and global impacts of zoonotic epidemics and pandemics, through understanding the linkages and drivers of emergence and spillover, adopting upstream prevention, and strengthening One Health surveillance, early warning, and response systems

- iii. Reduce the burden of endemic zoonotic, neglected tropical and vector-borne diseases by supporting countries to implement community-centric, risk-based solutions, strengthening policy and legal frameworks from local to global level and across sectors, and increasing political commitment and investment.
- iv. Promote awareness, policy changes and action coordination among stakeholders to ensure that humans, animals and ecosystems achieve health - and remain in that state - in their interactions with and along the food supply chain
- v. Take joint actions to preserve antimicrobial efficacy and ensure sustainable and equitable access to antimicrobials for responsible and prudent use in human, animal and plant health.
- vi. Protect and restore biodiversity, prevent the degradation of ecosystems and the wider environment to jointly support the health of people, animals, plants and ecosystems underpinning sustainable development.

Finally, the OH JPA promotes the adoption of cross-cutting principles including systems thinking, advocacy, Public-Private Partnerships, governance, institutional and legal frameworks, and traditional knowledge of local and indigenous communities to build connections across the six action tracks and look at shared underlying issues.

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3 **One Health Joint Plan of Action**

4 **(2022-2026)**

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7 ***Working together for the health of humans, animals,***

8 ***plants and the environment***

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22 *Please note that this document is a draft and has not yet been edited professionally.*

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Part I. Setting the scene

I.1 Background

- The Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) and the World Health Organization (WHO) (henceforth known collectively as the Tripartite) have been working successfully together for decades to address risks at the human-animal-environment interface.
- In February 2021, the three Organizations called upon the United Nations Environment Programme (UNEP) to join the Tripartite, reaffirming the importance of the environmental dimension in the context of the One Health collaboration.
- Following the 27th Tripartite Annual Executive Meeting, (in March 2021) the Tripartite and UNEP agreed to jointly develop a strategy and action plan to prevent future zoonotic pandemics through the One Health approach.
- The One Health Joint Plan of Action (2022-2026) (OH JPA) set out in this document replies to this request. It is guided by the areas of One Health collaboration defined in the strategic documents of the Tripartite¹, the MoU of 2018, as well as the One Health recommendations and resolutions from the different Tripartite governing bodies to support achieving public health, animal health, food safety and security, and ecosystem health. The OH JPA encompasses the priority areas² of the Tripartite work plan 2021 and provides an overarching framework for longer-term actions.
- The OH JPA builds also on the [WHA74.7 resolution](#) calling “to build on and strengthen the existing cooperation among WHO, FAO, OIE and UNEP to develop options, for consideration by their respective governing bodies, including establishing a common strategy on One Health, including a joint workplan on One Health to improve prevention, monitoring, detection, control and containment of zoonotic disease outbreaks”.
- The OH JPA is intended to guide the four organizations to work together on One Health with the aim of supporting their Members/Member states/State Parties to build One Health capacities and is not a binding policy document. It provides a framework for action and proposes a set of activities that the four organizations can offer together to advance and sustainably scale up One Health. The plan uses a One Health approach to strengthen collaboration, communication, capacity building, and coordination equally across all sectors responsible for addressing health concerns at the human-animal-plant-environment interface.
- The OH JPA builds on, complements, and adds value to existing global and regional One Health and coordination initiatives aiming at strengthening capacity to address complex multidimensional health

¹ “Sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces A Tripartite Concept Note”, FAO/OIE/WHO, 2010,

<https://www.fao.org/3/ak736e/ak736e00.pdf> and” The Tripartite’s Commitment, Providing multi-sectoral, collaborative leadership in addressing health challenges”, FAO/OIE/WHO, 2017, https://www.who.int/zoonoses/tripartite_oct2017.pdf

² Priority areas are 1. Re-enforcement of National Services in Human Health, Animal Health and Food Safety 2. Intelligence, Early warning and disease information systems 3. Preparedness and Response to emerging, re-emerging and neglected infectious diseases 4. Antimicrobial resistance 5. Food Safety 6. Dog-mediated Rabies 7. Zoonotic Influenza 8. MERS-CoV 9. Zoonotic Tuberculosis 10. Sharing of pathogens, genetic materials and sequences 11. Communications – overarching all activities A1. Re-enforcement of National Services in Human Health, Animal Health and Food Safety A2. Coordination on Research and Development in the area of zoonotic pathogens A3. Vector borne disease A4. Rift Valley fever (RVF) coordination A5. Climate Change

risks with more resilient health systems at global, regional and national levels. It also considers regional specificities, national contexts, and priorities, as well as the level of progress in the implementation of One Health policies, strategies, and interventions.

- The OH JPA is developed through a participatory process and reflects the inputs from FAO, OIE, UNEP, WHO and the [One Health High Level Expert Panel](#) (OHHLEP).
- The OH JPA will be implemented over a period of 5 years (2022-2026). It is intended as a living document open to adjustments to reflect progress, new challenges, and available resources in line with what the Tripartite and UNEP may decide upon.

I.2 The links between the health of the environment, humans, animals and plants

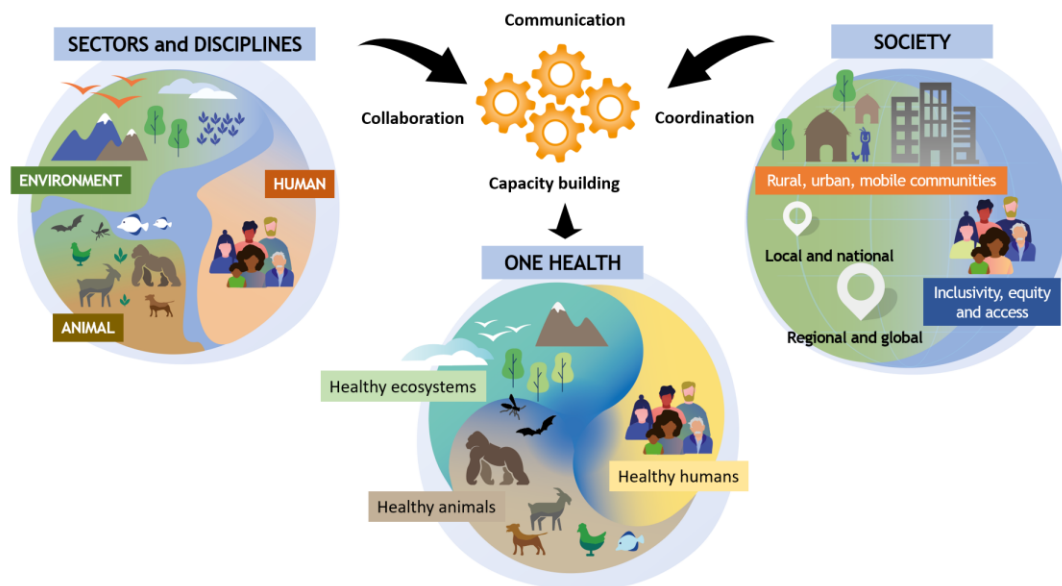
- Economic development has led to substantial improvements in the well-being of many humans globally, but often at the expense of the ecosystems, a healthy environment and the welfare of animals. With the human global population projected to reach 8 billion in 2023 and unsustainable consumption and production patterns, the pressures on our natural systems are tremendous and will continue to grow. The earth's natural resources are being used at a faster rate than they can be replenished due to unsustainable and destructive practices and with insufficient consideration for biodiversity or the health of surrounding ecosystems upon which our lives and well-being depend.
- Land use change, unsustainable agricultural production and intensification, large scale deforestation, land degradation, biodiversity, among other drivers, are threatening ecosystem integrity and functions, and posing increased health risks at the human-animal-plant-environment interface, disproportionately affecting the most vulnerable communities. These risks are exacerbated by expanding urbanization, unsustainable food production and consumption patterns, including increasingly complex food chains, poor waste management and disposal, increased trade and travel, as well as the biodiversity and climate crises.
- The effects of environmental degradation, and corresponding erosion of ecosystem services influence the relationships between health, food production, and natural systems. There is therefore an urgent need for a reassessment and transformation of the interactions between humans, animals, plants, and the environment they share. Balancing these interactions ensures human, animal and plant health and wellbeing and charts the path toward economic, environmental, and social sustainability. This is critical to achieve the Sustainable Development Goals (SDGs).

I.2.1 One Health definition

- One Health is not a new concept, but it has received renewed attention and has evolved over the last decade because of the increased frequency and severity of threats linking the health of humans, animals, plants and the environment. One Health calls for a holistic and systems approach recognizing the interconnection between the health of humans, animals, plants and the environment.
- The OHHLEP as an independent advisory group of the Tripartite and UNEP released a comprehensive definition of One Health, which the Tripartite and UNEP are welcoming to embrace in this OH JPA:

One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of humans, animals, plants 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.



1.2.2 The health of the environment

- The health of the environment is a critical foundation for the health and well-being of humans, animals and plants. Environmental degradation caused by human activities poses several health threats that are invariably complex and rooted in how humans interact with and use the environment. The following are examples of environmental hazards that are negatively affecting the health of humans and many other species.
- Water, air and soil pollution can cause significant adverse health outcomes in humans, wild and domestic animals, and plants. Environmental contamination is an important factor in many non-infectious illnesses including cancer and respiratory illness. Several dangerous chemical substances and other pollutants may also contaminate food supply. For example, heavy metals such as lead or mercury and other toxic chemicals in aquatic ecosystems bioaccumulate in the food chain with potential adverse impacts on humans and animals. Similarly, air pollution from fossil fuels and other sources has demonstrably negative impacts on human and animal health, biodiversity including plants, animals and ecosystems and water quality as well as productive sectors such as agriculture and fisheries.
- Unsafe water, poor sanitation and poor hygiene are responsible for human and animal mortality and morbidity as a result of various diseases, particularly affecting vulnerable populations in low resource countries. Unintentional poisonings mainly arising from excessive exposure to, and inappropriate use

of, toxic chemicals including pesticides present in occupational and/or domestic environments are heavily affecting human health particularly in low-income countries. Exposure to mycotoxins, aflatoxins, biotoxins and water-borne pathogens is another problem of concern affecting the health of humans, animals and plants.

- Environmental degradation generates direct health hazards, e.g., extreme weather and floods. The impacts of environmental degradation on the health and well-being of humans and animals are compounded by the climate crisis, which can act as a multiplier of these threats, exacerbating their impact while also undermining the resilience of environmental and ecological systems through complex processes.
- The effects of climate change on pathogens and the health status of human, domestic animals including livestock and companion animals and wildlife may have several possible outcomes. Evidence suggests that changes occurring in the natural environment due to climate change are compromising feed and food security and increasing the spread of infectious diseases, including drug-resistant infections and vector-borne diseases. With changes in temperatures and humidity levels, vector populations may expand beyond their present geographic ranges and expose animals and humans to diseases to which they have no natural immunity. Populations of extremely ecosystem-useful insects such as bees can also be affected.

1.2.3 The perpetual challenge of emerging infectious diseases

- Infectious diseases represent one of the most significant health and security challenges the global community is facing. In low-income countries, infectious diseases represent over 60% of the human disease burden creating a considerable threat to the wellbeing of both human and animal populations. Emerging infectious diseases may be novel or evolving existing pathogens that emerge or re-emerge from either humans or animals, and many have the potential to create deadly epidemics or pandemics, as has been shown by the COVID-19 pandemic. Trade of domestic animals, wildlife and their products as well as human travel can facilitate the spread of any locally emerged diseases over long distances, even cross countries, resulting in wider dissemination and impacts.
- Most emerging infectious diseases of humans (more than 60%) are of zoonotic origin with the majority of these (approx. 70%) originating in wildlife. These threats are significantly increasing in frequency and severity over time with tremendous long-term impacts. The COVID-19 pandemic is the latest emergence of a major disease of probable animal origin. There have been many others including Severe Acute Respiratory Syndrome (SARS), Nipah virus disease, zoonotic influenza (H5N1, H7N9, 2009 H1N1 influenza pandemic), arbovirus diseases (such as Zika virus disease, yellow fever, chikungunya), Ebola virus disease, plague, and Middle East Respiratory Syndrome (MERS-CoV).
- WHO's 2018 Research and Development Blueprint states the biggest risk lies in the emergence of an unknown "Disease X" that may strike at any time. In 2019, Disease X became COVID-19. There is a high degree of certainty that the world will continue to face new emerging disease threats driven by factors such as continued population expansion, land use change, climate change, intensification of food systems and habitat loss.
- Emerging infectious diseases affecting humans as well as domestic animals or wildlife threaten global health security, contribute to food insecurity and burden national economies and government resources. The effects of these diseases also have wider-reaching negative impacts on animal health and welfare, for example impacting other disease control efforts through diversion of resources, or through the collapse of markets and trade with knock-on effects on animal production units and conservation of wild animal populations.

1.2.4 The persisting burden of endemic zoonotic, neglected tropical and vector-borne diseases

- In contrast to epidemic- and pandemic-prone zoonotic diseases, endemic zoonoses (including those that are vector-borne) constitute a constant social and economic burden. They usually do not spread fast or widely and afflict human populations living near their animals. In endemic areas, they perpetuate poverty by damaging not only humans' health, but also the health and welfare of domestic and wild animals, affecting livelihoods and food security.
- Endemic zoonoses are frequently characterised as “Neglected Zoonotic Diseases (NZDs)” as they mainly affect poor and marginalized populations, particularly in low-income countries. Despite their persistent circulation, they are rarely targeted by formal surveillance systems and thus their incidence and burden are greatly underestimated. This in turn leads to neglect by policy makers and funding agencies. This group includes some notorious diseases such as rabies, anthrax, brucellosis, bovine tuberculosis, cysticercosis, leptospirosis and echinococcosis.
- A subgroup of 20 diseases that are mainly prevalent in tropical areas have been further classified as neglected tropical diseases (NTDs)³ by WHO. They threaten the health and livelihood of more than a billion humans.
- Many endemic zoonoses are transmitted by vectors such as mosquitoes, midges, sand flies, fleas and ticks, have animal reservoirs, and are associated with complex transmission cycles. Examples are Japanese encephalitis, West Nile virus infection, Dengue fever, African Trypanosomiasis, Lyme disease and Rift Valley fever. The epidemiology of vector-borne diseases is traditionally associated with environmental conditions complicated by anthropological factors which makes their control challenging.

1.2.5 The global upsurge of food and water safety hazards

- Foodborne hazards have taken on new dimensions with complex food safety challenges emerging around the globe. Hazards, including zoonotic and non-zoonotic pathogens and contaminants such as chemicals, can enter at any point along the food chain, beginning prior to harvest up to the time of consumption.
- Foodborne and waterborne diseases are caused when unsafe levels of pathogens, chemical contaminants, and other toxins are ingested from food or water. Unsafe food is estimated to cause 600 million cases of foodborne illnesses in humans and over 400,000 deaths annually around the world. The total productivity loss associated with foodborne diseases in low- and middle-income countries is estimated to cost 95 billion USD per year, and the annual cost of treating foodborne illnesses is estimated at 15 billion USD.
- Waterborne diseases are estimated to cause over 4 billion cases of diarrheal illness and nearly 2 million deaths each year around the globe.
- In addition to the longstanding foodborne bacterial pathogens like Salmonella, new pathogens are emerging, and many kinds of food have been associated with the transmission of foodborne diseases.

³ Buruli ulcer, Chagas disease (American trypanosomiasis), Dengue and Chikungunya, Dracunculiasis (Guinea-worm disease), Echinococcosis, Foodborne trematode infections, Human African trypanosomiasis (sleeping sickness), Leishmaniasis, Leprosy (Hansen's disease), Lymphatic filariasis (Elephantiasis), Mycetoma, chromoblastomycosis and other deep mycoses, Onchocerciasis (river blindness), Rabies, Scabies and other ectoparasitoses, Schistosomiasis (Bilharzia), Soil-transmitted helminthiasis, Snakebite envenoming, Taeniasis and cysticercosis, Trachoma, Yaws (Endemic treponematoses) as classified by WHO in “Ending the neglect to attain the Sustainable Development Goals: A road map for neglected tropical diseases 2021–2030”, <https://www.who.int/publications/i/item/9789240010352>

Pathogens and other hazards may contaminate food from the processing environment (e.g., *Listeria monocytogenes*, unsafe levels of food additives) or from food workers (e.g. norovirus). Chemical contaminants may also enter the food chain prior to harvest such as veterinary drug residues in animals and pesticides on plants or heavy metals through pollution of air, water, and soil, thereby affecting human and animal health.

- Food and water contamination are not just public health issues but affect animals too. For example, poisoning of birds of prey can occur through pesticides used in food systems. Livestock can be exposed to hazards in feed and water, e.g., contamination of water may cause botulism and salmonellosis and concentration of heavy metals and pesticides may cause productivity losses.

1.2.6 The growing threat of Antimicrobial Resistance

- Antimicrobial Resistance (AMR) is recognised as a leading cause of death around the world with the highest burdens in low-resource settings. An estimated 4.95 million human deaths have been associated with bacterial AMR in 2019, including 1.27 million deaths attributable to bacterial AMR. AMR also threatens the health of animals and plants grown for food with effects on food security, food safety and the environment.
- Antimicrobials play a crucial role in the health of humans, animals, and plants, as well as in food safety and food security. However, antimicrobial resistance is an ever-increasing and widespread threat, driven by overuse and misuse of antimicrobials in human, animal, and plant sectors.
- There are many social and environmental factors that accelerate the emergence and spread of resistant genes and pathogens among and between humans, animals, and the environment. These include insufficient access to health services, inadequate production and housing, lack of clean water, poor sanitation, waste management, and hygiene, insufficient regulatory frameworks, lack of awareness and education about the risk of AMR and appropriate use of antimicrobials.

1.3 Health challenges require holistic and sustainable solutions

- The complexity and interconnectedness of the health challenges threatening humans, animals, plants and the environment, where they co-exist, require holistic, integrated solutions with a systems approach that incorporates wider structural factors and systemic prevention measures integrating the health of humans, animals, plants, and the environment.
- This shift requires embracing One Health, to move beyond the siloed approaches that are still currently adopted by many sectors. This will enable and institutionalize inter-sectoral science-based knowledge sharing, intelligence gathering and response planning at all levels of the relevant organizations and ensure that there are protocols for the inter-sectoral alert and management of threats as well as joint decision processes for sustainable and holistic solutions.
- One Health is predicated on a systemic understanding of the interdependencies between the health of humans, animals, plants and the environment and how these can manifest as health threats. It enables better understanding of the root causes and drivers of disease emergence, spread and persistence as well as the impacts of biodiversity loss and environmental degradation. This is supported through conceptualizing challenges at a wider scale and the associated sharing and integration of data and knowledge across multiple stakeholders and disciplines.
- One Health provides a more comprehensive assessment of health challenges thereby facilitating the development of appropriate prevention and management strategies and inclusive evidence-based policies to strengthen and develop sustainable health systems and ecosystems and consequently help building social, ecological, and economic resilience.

- This thinking clearly indicates the value of integrating knowledge and perspectives from many players within parts of the system and work towards positive outcomes for humans, animals, plants, and ecosystems, while increasing investment in developing health systems underpinned by promoting health and well-being, prevention, early detection, preparedness and coordinated cross-sectoral prompt timely response to reduce the risk of disease emergence and future pandemics.
- Healthy and sustainable agrifood systems are an integral part of the One Health vision for a better future. In particular livestock and fish food systems require targeted attention and integrated policies given the multiple effects the growing protein demand has on the animal production sector and associated systems (e.g., deforestation for the production of animal feed, increasing scales and densities of animals, disease emergence, land use change).
- One Health is a powerful approach that can enable achieving health for humans, animals, plants, and the environment and for food and water security and safety. It can therefore help pave the way towards achieving the SDGs, including those on poverty, hunger, health and well-being, inequality, clean water and sanitation, work and economic growth, sustainable and responsible consumption and production, and partnerships.

1.4 Implementation of One Health

- The increasing support for the One Health concept has led to the establishment of several global initiatives, adopting and advancing a One Health approach to address global health threats. With significant investments by funding partners, One Health initiatives and networks are emerging worldwide, with many countries and regions encouraging collaboration among professionals from different disciplines and working from community to global levels across sectors and institutional divides.
- Despite this wide support and engagement, implementing One Health in practice still proves challenging, facing technical, institutional and professional barriers, in addition to sustainability concerns, competing priorities, and funding deficiencies. The One Health concept has evolved through broadening of its scope. However, environmental considerations, socio-economic factors in disease emergence and spread, and the cost and benefits of One Health interventions have not been sufficiently defined or integrated into the development and implementation of One Health interventions, policies, legislative framework, strategies, and programmes.
- The environmental sector, which consists of areas such as natural resource management, wildlife management and conservation, biodiversity conservation, management and sustainable use, pollution and waste management is not always routinely incorporated into the One Health approach and there has been limited engagement in cross-sectoral initiatives. The role of the environmental determinants of health has not been well understood by other sectors and there is good potential to integrate environmental considerations more consistently.
- Professional segregation with limited cross-sectoral working, inadequate representation of some sectors, disjointed legislative schemes, lack of data sharing and transparency, absence of multisectoral coordination mechanisms, siloed budgets and decision-making processes, and the lack of robust regulatory frameworks, legal support, mandates and enabling policies are additional barriers hindering effective implementation of One Health particularly at regional, national, and sub-national levels.
- One Health needs continued institutionalization supported by appropriate investments for greater awareness among all stakeholders, cross-sectoral competencies and capacities, joint workforce trainings, career pathways and opportunities, effective governance rooted in transdisciplinary and

multisectoral principles and appropriate legislation, stakeholder and community engagement, integration of the concept into related disciplines' education, and a renewed emphasis with key interventions and collaborations at all levels to move towards a more sustainable, healthier and safer world.

I.5 Rationale

- The COVID-19 pandemic and its profound impact on human health, societies and economies across the world highlighted the interconnectedness between biodiversity, a healthy environment, food systems and our health, and has revealed vulnerabilities at all levels. Assessments of these complex interactions warn us that future pandemics will emerge more often, spread more rapidly, do more damage to the world economy, and kill more humans than COVID-19 unless there is a transformative change in the global approach to our relationship with the environment and how we tackle disease emergence, spillover and spread, from prevention to reaction and preparedness. Although warnings of a pandemic arising from a previously-unknown zoonotic pathogen have been on the international agenda for many years, the COVID-19 crisis has reiterated the urgent need for an integrated, One Health approach to pandemic prevention.
- The need for this transformative change is supported by increasing high level political support for One Health to manage health threats associated with interactions between humans, animals, plants, and the environment.
- In the face of the increasing number of multidimensional health, water, energy, food security and biodiversity challenges that the world is facing, a shared vision of coherent and coordinated action across all levels is more important than ever. The Tripartite and UNEP consider this international dynamic a unique opportunity to take their partnership to a new level and stand together as a global coalition to jointly drive change and achieve the transformations required to mitigate the impact of current and future health challenges at global, regional, and country levels.
- The OH JPA embraces this global vision to further strengthen a comprehensive One Health and to foster the change pathways required for successful implementation at all levels. The OH JPA is motivated by the urgent need for global governance in One Health, in which the Tripartite and UNEP play a leading role to reduce risks to the health of humans, animals, plants and the environment.
- The OH JPA adopts One Health with a broader perspective, integrating a systems approach to support the health of humans, animals, plants, and ecosystems, while identifying and addressing the underlying factors to disease emergence, spread and persistence, and the complex economic, social and environmental determinants of health. By integrating the environmental dimension towards a more extended understanding of disease emergence and spread, as well as the role of ecosystems in disease regulation, One Health can unfold its entire capacity. It can thereby help to address the underlying drivers of disease emergence and ill-health, improve disease prevention and preparedness, mitigate the impacts of health risks and threats, implement sustainable solutions, and promote health for all holistically in the long term.

I.6 Scope

- The scope of the OH JPA is guided by the imperative for an inclusive One Health approach to address the health threats of humans, animals and plants in an integrated manner, while promoting environment and biodiversity protection and acknowledging the broader systems benefits of cross-sectoral collaboration to achieve collective outcomes.

- 367 - Specifically, the OH JPA addresses the risks and consequences of emerging zoonotic diseases with
368 epidemic and pandemic potential, endemic infectious diseases of zoonotic and vector-borne origin,
369 food and water safety hazards, AMR, and the health of the environment.
- 370 - Non-zoonotic epidemics of transboundary animal diseases and their risk factors can seriously impact
371 society, economic trade, food security, ecosystem function and the health and well-being of humans.
372 Their prevention and mitigation can benefit from a One Health approach and are comprehensively
373 described in the Strategy of the Global Framework for progressive control of transboundary animal
374 diseases (GF-TADs). While these diseases and livestock and fish production systems are not specifically
375 addressed in the OH JPA, they are considered in the broader framework of capacity building,
376 coordination, systems thinking and resources across relevant technical components of the OH JPA.
377 Similarly, plant health is considered in the landscape of antimicrobial resistance, food safety and
378 ecosystem health.
- 379 - The OH JPA is a technical document informed by evidence, best practices, and existing guidance from
380 the Tripartite and UNEP. It offers a set of practical One Health actions for the Tripartite and UNEP on
381 One Health. It also offers a set of tools, guidance, and support mechanisms that countries,
382 international partners, and non-State actors such as civil society organizations, professional
383 associations, academia and research institutions can draw upon for their One Health planning and
384 implementation.
- 385 - Implementation of proposed actions at the national level will need to consider national contexts,
386 priorities, and resources. The elaboration of associated workplans at international and country level
387 will be conducted in consultation with Members/Member states/State Parties with the view to help
388 countries accelerate progress on One Health.
- 389 - Different stakeholders including OHHLEP provided advice throughout the development of the OH JPA.

Building on existing initiatives

The OH JPA is strategically linked to, and aligned with, other relevant global action plans and initiatives including the

- [Global Action Plan for AMR](#)
- [Road map for neglected tropical diseases](#) (2021–2030; WHO)
- [Ending the neglect to attain the sustainable development goals. One health: approach for action against neglected tropical diseases 2021-2030](#) (WHO)
- [Global Strategic Plan to eliminate human deaths from canine rabies by 2030](#) (Zero by 30)
- Strategic Framework for collaboration on antimicrobial resistance, between FAO, OIE, WHO and UNEP
- [Roadmap for Zoonotic Tuberculosis](#)
- [CBD Global Action Plan on Biodiversity and Health](#)
- [Convention on Biological Diversity](#)
- [OIE wildlife health framework](#)
- [Global framework for progressive control of transboundary animal diseases](#) (GF-TADs)
- [Preventing the next pandemic - Zoonotic diseases and how to break the chain of transmission](#) (UNEP)
- [WHO global strategy on health, environment and climate change](#)
- Upcoming joint FAO/WHO food safety implementation framework

The OH JPA will complement these initiatives while facilitating and supporting their implementation at country, regional, and global level, taking a coordinated One Health approach.

Part II. The action framework

II.1. Theory of change

The theory of change (ToC) for the OH JPA argues that One Health as an integrated, multisectoral, holistic and transdisciplinary approach has the potential to solve the pressing health challenges described above. Effective implementation of One Health at all levels can make significant contributions to the envisaged impact and outcomes of the OH JPA and achieve sustainable and lasting results.

There are numerous technical, coordinative, collaborative, and institutional challenges impairing effective implementation of One Health, at global, national and subnational levels. The OH JPA seeks to remove these barriers to enable progress towards improved health outcomes for humans, animals, plants and the environment.

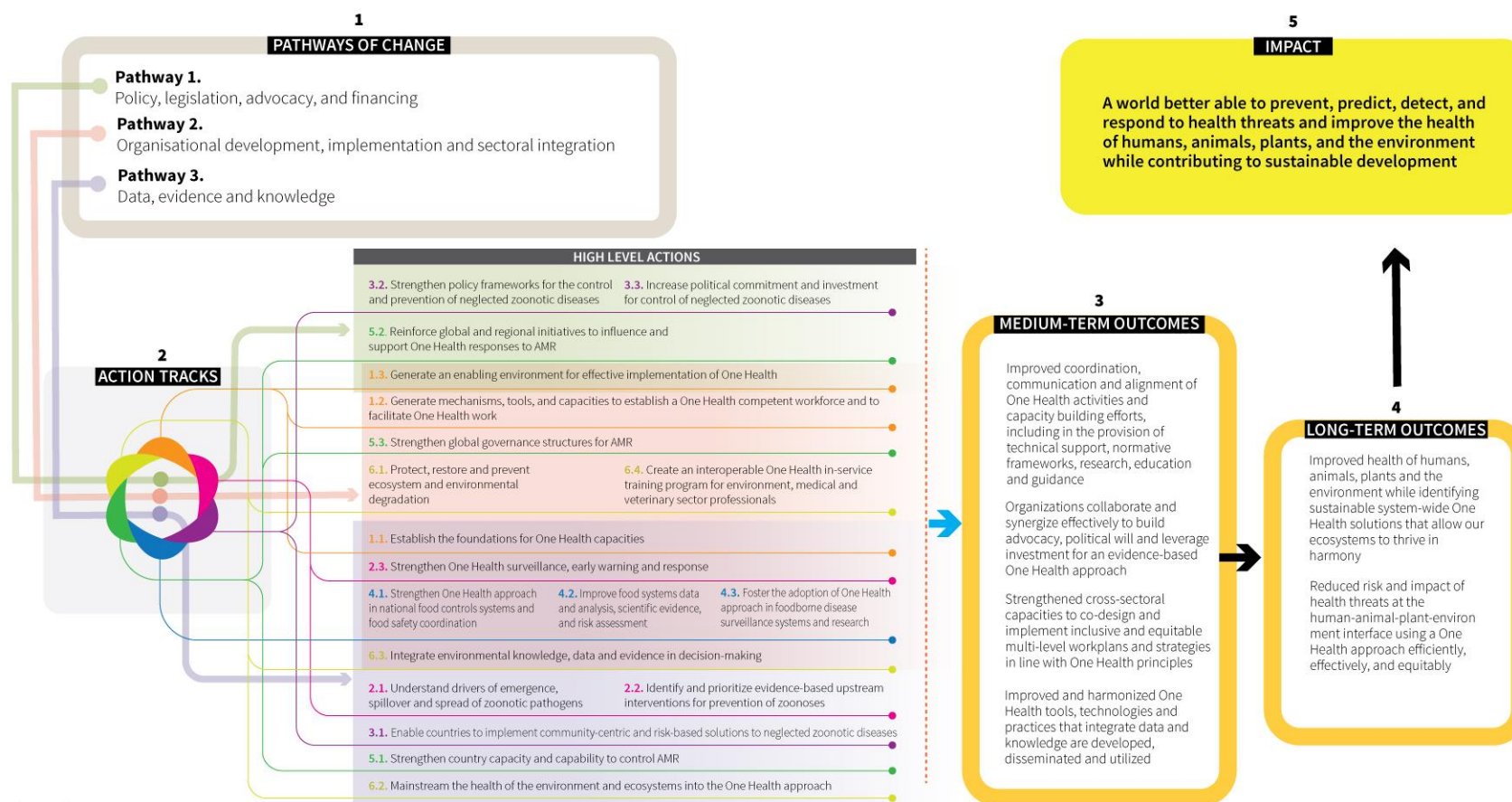
The ToC is supported by three pathways to change that represent the areas where the four organizations have the greatest capacity to bring about significant and sustainable change towards the expected medium- and long-term outcomes. These three **change pathways** are:

- **Pathway 1:** Policy, legislation, advocacy, and financing: encompasses all aspects related to policy development, political will, enabling regulatory frameworks, investment, and institutionalization of inter-sectoral governance.
- **Pathway 2:** Organizational development, implementation, and sectoral integration: encompasses all aspects related to implementation of One Health including scaling up of capacity development at regional and country levels, community engagement and mobilization for action, multisectoral coordination, collaboration and communication, and equitable integration of sectors.
- **Pathway 3:** Data, evidence, and knowledge: encompasses strengthening the scientific evidence base, knowledge translation into data for evidence, technical tools, protocols and guidelines, information, and surveillance systems.

The OH JPA is built around six action tracks (see next section) with specific objectives to achieve the expected medium-term outcomes of the OH JPA. Each objective is associated with implementation of several high-level actions, each with a set of specific activities with clear deliverables and timeline. The action tracks are the thematic pillars of the OH JPA and therefore are considered as the first building block of the ToC. The action tracks and their high-level actions are mapped out across the three pathways to collectively drive change to the outcomes of the OH JPA, contributing towards the desired impact.

The ToC is underpinned by key assumptions that must exist to create an enabling environment and also barriers that prevent the OH JPA outcomes in the causal pathway from being achieved. Activities contributing to high level actions in each action track were designed to work around these barriers.

The figure below gives an overview of the Theory of Change for the OH JPA.



Legend



Action Tracks

- AT1.** Enhancing One Health capacities to strengthen health systems
- AT2.** Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics
- AT3.** Controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases
- AT4.** Strengthening the assessment, management and communication of food safety risks
- AT5.** Curbing the silent pandemic of Antimicrobial Resistance (AMR)
- AT6.** Integrating the Environment into One Health

Barriers

- Wider socio-political context: climate crisis, emerging threats, conflict, global hunger and inequalities
- Powerful donors/stakeholders having undue influence over prioritisation and resource allocation
- Limited availability and inadequate use of legal and regulatory frameworks to support One Health practices
- Poor communication: language and cultural barriers among disciplines and sectors, and between countries
- Insufficient community inclusion

- Lack of cooperation between internal and external stakeholders, limited engagement with the environmental sector and professional segregation
- Limited standardisation around One Health curricula and competency-based frameworks to support education of the One Health workforce
- Commercial, academic, reputational and profit motives supersede knowledge sharing, technology transfer and collaborative capacity building approaches
- Limited evidence of scalable, effective implementation of One Health initiatives

Assumptions

- Political will and financing is in place (and can be mobilised) at the global, national and local levels.
- Funding can be mobilised flexibly to ensure all action tracks are sufficiently funded
- The four organizations and associated sectors can collaborate and harmonise their practices without territorialism, competition and silos adversely impacting on the work
- The OH JPA enhances equity and empowers stakeholders, including civil society, disadvantaged groups and indigenous communities.

- Learning, innovation, and adaptation are intensified by collaborative and cross sectoral work
- The OH JPA can effectively disseminate and foster a wider understanding of One Health approaches and concepts across relevant segments of society and at all levels

II.2 Impact, outcomes, and operational objectives

The vision (impact) of the OH JPA and its future iterations expressed as the desired impact within a 15-20-year timeline is:

A world better able to prevent, predict, detect, and respond to health threats and improve the health of humans, animals, plants, and the environment while contributing to sustainable development.

The goal is expressed in two **long-term outcomes** expected to be achieved in alignment with the 2030 development agenda:

- **Long-term outcome 1:** Improved health of humans, animals, plants and the environment while identifying sustainable system-wide One Health solutions that allow our ecosystems to thrive in harmony
- **Long-term outcome 2:** Reduced risk and impact of health threats at the human-animal-plant-environment interface using a One Health approach efficiently, effectively, and equitably.

To achieve these long-term outcomes, the OH JPA will accelerate action towards four **key medium-term outcomes** by 2026:

- **Medium-term Outcome 1:** Organizations collaborate and synergize effectively to build advocacy, political will, and leverage investment for an evidence-based One Health approach.
- **Medium-term Outcome 2:** Improved coordination, communication and alignment of One Health activities and capacity building efforts, including in the provision of technical support, normative frameworks, research, education, and guidance.
- **Medium-term Outcome 3:** Strengthened cross-sectoral capacities to co-design and implement inclusive and equitable multi-level workplans and strategies in line with One Health principles.
- **Medium-term Outcome 4:** Improved and harmonized One Health tools, technologies and practices that integrate data and knowledge are developed, disseminated, and utilized.

Operational objectives

The OH JPA sets out the following operational action-oriented objectives which are interlinked with the goals and outcomes of the OH JPA:

- Provide a framework for collective and coordinated action to mainstream the One Health approach at global, regional, national and community levels to work towards the vision described above.
- Provide upstream policy and legislation advice and technical assistance, to help set national targets and priorities across the sectors for the development and implementation of One Health legislation, initiatives and programmes.
- Promote collaboration, learning and exchange within and across nations, sectors, disciplines, and groups of society for collective generation of knowledge and solutions.
- Take stock of existing cross-sectoral global and regional initiatives around One Health, identify and advise on synergies and overlaps, and support coordination.
- Mobilize and make better use of resources across sectors, disciplines, and stakeholders.

II.3 Guiding principles

The following guiding principles establish a set of values to guide the development and implementation of the OH JPA at every level.

Cooperation and shared responsibility: The OH JPA emphasizes One Health as a shared responsibility and recognizes the crucial role of cooperation among countries, regional organizations, and other international organizations and stakeholders in supporting countries' efforts to effectively address the

469 health threats identified in this OH JPA. The OH JPA recognizes the expertise and abilities of these key
470 stakeholders as essential resources for its effective implementation, coordination, and oversight.

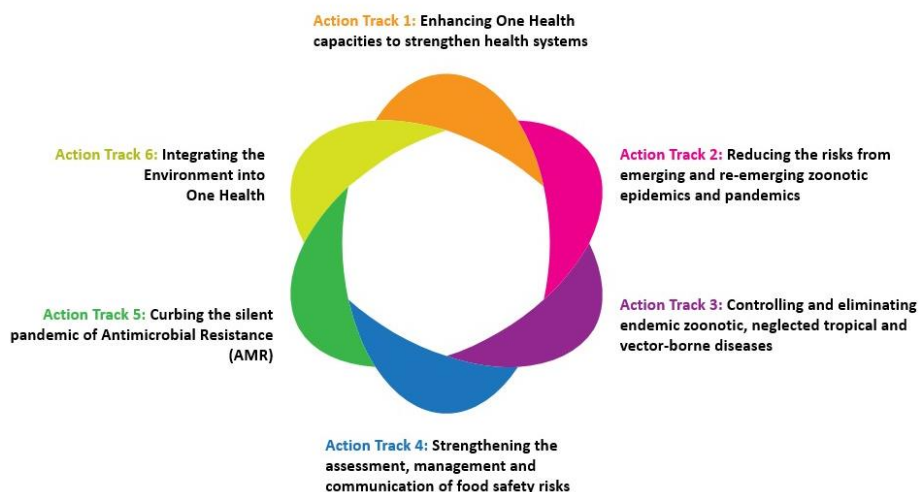
471 **Multisectoral action and partnership:** Development and implementation of the OH JPA at all levels
472 requires concerted multisectoral action with engagement by all relevant disciplines and sectors, public
473 and private, to address the challenges. Collaboration across and between all stakeholders at all levels
474 shall be fostered, guided by a shared vision to realize the multiplicative benefits of a more comprehensive
475 One Health approach and outcomes.

476 **Gender equality:** All efforts to implement the OH JPA support gender equity and women's
477 empowerment, and take a gender-sensitive perspective, keeping in mind all vulnerabilities specific to
478 each national context, consistent with the 2030 Agenda for Sustainable Development.

479 **Inclusiveness and equity:** The OH JPA adopts a conducive framework to enhance inclusiveness and equity
480 in the formulation of One Health policies, legislation and practices. The OH JPA emphasizes the
481 importance of addressing inclusively and respectfully all stakeholders, including local communities and
482 organizations. These local stakeholders have a central role in the identification of the local challenges
483 and in the design and implementation of locally adapted One Health solutions. Local and traditional
484 knowledge should be recognized and mobilized in tandem with scientific knowledge and research results
485 generated through various activities of the OH JPA.

Part III. Action tracks

The OH JPA is structured around six action tracks (areas of action) to address key health challenges at the human, animal and environmental interface that require a One Health approach. The action tracks are interdependent. In combination, they capture a systems approach required to reduce health threats shared by humans, animals, plants and the environment and contribute to achieving sustainable health and food systems, and improved ecosystem management.



The activities listed in the action tracks are what the four organisations can offer collectively to support the mainstreaming of One Health.

Action tracks are supported by the following cross cutting principles: (i) Adopting system thinking, (ii) Fostering advocacy and communication and Public-Private Partnership, (iii) Enhancing governance, institutional and legal frameworks, and (iv) Using traditional knowledge of local and indigenous communities. These cross-cutting issues are adopted to find the connections across the six action tracks and help to look at shared underlying issues.

Action Track 1: Enhancing One Health capacities to strengthen health systems

One Health collaborative capacities are needed to strengthen health systems and promote healthy ecosystems.

Healthy ecosystems are intact in their components and interrelationships, such that they are resilient to withstand change and stressors and allow a wide range of living beings to thrive. Efforts are needed to promote environmental sustainability, including preservation of biodiversity and to prevent further environmental degradation and depletion.

Functioning and effective health systems also play a critical role for the prevention and management of infectious zoonotic and production diseases, AMR, food safety, and other hazards.

Effective One Health coordination, backed by appropriate regulatory frameworks, is needed to dismantle existing barriers caused by professional and sectoral segregation and implement mechanisms that allow: (i) addressing issues holistically, (ii) dealing with complexity and ambiguity, (iii) negotiating trade-offs and identifying win-win solutions, and (iv) agreeing on priorities, funds, and collective actions (including monitoring and evaluation). Ideally, this would happen with the engagement of representatives of the relevant sub-systems from all levels, including citizens. A wide engagement of people with different expertise and experience will allow bridging the partiality of disciplinary and sectoral knowledge in complex systems. The lessons of COVID-19 to build a better, more holistic, and integrated system will be considered to develop such One Health systems.

This action track is overarching and focuses on strengthening One Health collaborative capacity to support global, regional, and national One Health coordination for the integrated management and regulation of issues at the animal-human-plant-environment interface and to promote the health of humans, animals, plants, and ecosystems. It is cross-cutting and may impact on the other action tracks. It includes the definition of expected One Health competencies and capacities, One Health needs assessments, creation of processes for agreement on desired outcomes for the health of humans, animals, plants, and ecosystems; joint prioritization and decision-making considering human, animal, plants, and environment needs and effects; comprehensive risk analysis at the level of the system, the development of effective policies and legislation, and the creation of enabling environments for One Health operationalization. With this action track, FAO, OIE, WHO and UNEP intend to develop frameworks, methodologies, guidelines, and tools to inform their approach to One Health and strengthen their Members'/Member states'/State Parties' capacity to implement it at regional, national and local level.

Objective:

Provide adequate guidance and tools for effective implementation of multisectoral approaches in promoting the health of humans, animals, plants, and ecosystems and preventing and managing risks at the human-animal-plant-environment interface

Action 1.1. Establish the foundations for One Health capacities

This action is dedicated to assessing which One Health capacities are available and needed and make plans to build or strengthen them to (i) tackle risks arising at the human-animal-plant-environment interface and (ii) promote healthy ecosystems for health for all. It has a focus on systems thinking, needs assessment, and joint planning and prioritisation. It includes activities that are intended to generate concrete methodologies, competencies, and tools to plan One Health work capacity at the global, regional, national, and local level.

It requires definition of One Health capacities and competencies and analysis of existing gaps and the ability to design, plan, and implement leadership, decision making, strategies, and governance; sustainable frameworks, infrastructures, and competencies; affordable economic models and financial mechanisms; monitoring and evaluation processes.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
1.1.1 Develop mechanisms to support an overarching One Health governance and legal framework	<ul style="list-style-type: none"> - Methodologies, tools and pilot tests for: <ul style="list-style-type: none"> - Identification of policy and legislative instruments relevant for One Health, including sector specific and cross-cutting legislation - Assessment of existing frameworks, methodologies, and tools and of governance and regulatory gaps 	X	X	
1.1.2 Define One Health institutional and workforce capacities and develop methodologies and tools to assess national One Health performances and identify needs	<ul style="list-style-type: none"> - Definition of One Health competencies and capacities at institutional and individual levels - Methodologies and tools and pilot tests for: <ul style="list-style-type: none"> - Countries' capacities for One Health, and performance of systems at the human-animal-plant-environment interface - One Health competencies - Workforce learning needs' assessment - Support for the application of tools and assessments provided - Learning needs identified - Opportunities for strengthening One Health coordination identified 	X	X	
1.1.3 Define planning mechanisms for One Health coordination, including collaborative governance mechanisms, policies and legal frameworks, and capacity building strategies applicable at	<ul style="list-style-type: none"> - Blueprint (or planning schemes and models) applicable to Tripartite/UNEP Members/Member states/State Parties - Collaborative workshops and initiatives to bring actors from the health of humans, animals, and environment sectors planning together for the development of shared One Health roadmaps - Plans for joint One Health strategies, procedures, and policies. Including governance and regulatory frameworks 		X	

global, regional, national, and local level	- Plans for One Health capacity building at regional, sub-regional, national, and local level			
1.1.4 Define processes and develop methodologies for assessing countries' vulnerabilities to One Health challenges, and link with appropriate evidence-based preparedness and response capabilities to tackle risks from emerging and re-emerging pathogens and diseases, leading to improvement of the health of humans, animals, plants, and the environment at systems level	- Methodologies and tools and pilot tests for: - Analysis of countries' vulnerabilities - System performance and efficiency/effectiveness monitoring and evaluation - Disease-specific networking		X	X
1.1.5 Design a monitoring and evaluation framework for continuous improvement of the organisations' and countries' One Health actions, performances, and capacities	- Methodologies, tools, and pilot tests to implement a One Health monitoring and evaluation framework at organisation and country level - Use of the monitoring and evaluation framework by the four organisations		X	X
1.1.6 Establish financial needs to build One Health capacity, at global, regional, and national level	- Mapping of existing One Health financial mechanisms and their effectiveness - Mapping of existing national funds and potential sources related or applicable to One Health - Methodologies to develop cost-benefit analysis and/or business case of the One Health operationalization - Economic analysis and/or business case for One Health investments at global, regional, national, and local level defining financial/ investment needs, striving for balance across sectors	X	X	X
1.1.7 Develop methodologies and tools to advocate for and promote political prioritization of One Health work in regional, national, and local sustainable development strategies and plans	- Support for political prioritization through the development of economic case studies on One Health - Facilitate, where demanded, national strategies or other forms of political commitment (e.g., inclusion in SDG implementation strategies or action plans or Voluntary National Reviews) to support national ministers/inter-minister processes and regional/ subregional processes resulting in political commitment - Written political contributions/interventions on One Health advocacy and promotion for regional and sub-regional fora	X	X	X

547

548 **Action 1.2. Generate mechanisms, tools, and capacities to establish a One Health competent**

549 **workforce and the frameworks/processes to facilitate One Health work**

550 This action represents One Health at work and proposes a set of activities to strengthen the workforce,

551 develop resources, tools, mechanisms, and solutions to operationalize it. It also builds on several existing

552 programmes and generates competent One Health enablers and facilitators as well as the structures and

553 frameworks to facilitate One Health work in practice so that the competent workforce will be able to

554 mobilize multiple and collaborative competencies towards coordinated approaches and efforts.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
1.2.1 Facilitate the implementation of joint processes and workplans for One Health work	- Guidelines for stakeholders to design joint processes for One Health operationalization and collaborative workplans including vision integration, prioritization, negotiations, definition of agreed outcomes and shared values, evidence needs, and collective actions - Guidelines for risk assessment design - Guidelines applied by organisations	X	X	
1.2.2 Facilitate One Health capacity building, including workforce development in all relevant sectors	- Mapping of existing opportunities and resources at global, regional, and national levels - Mechanisms to build synergies and avoid duplications in capacity building delivery	X	X	X

	<ul style="list-style-type: none"> - Competency-based frameworks, training programmes/ courses/ plans and eLearning resources - Workforce development tools - Job descriptions for One Health professionals - Simulation exercises to build and strengthen One Health competencies 			
1.2.3 Support and promote the next generation of One Health practitioners, researchers and technical officers	<ul style="list-style-type: none"> - Internships, placements, mentorship schemes, and competency framework for junior One Health practitioners, researchers and technical officers 	X	X	X
1.2.4 Develop frameworks and mechanisms for public participation, including Indigenous Peoples, and horizontal and vertical integration in One Health	<ul style="list-style-type: none"> - Participatory methods to engage society in One Health culture and framework based on knowledge management, considering that humans, animals, food, plants, and ecosystems are closely linked and inter-dependent. - One Health knowledge management processes, expert knowledge sharing platforms and communities of good practices - Processes and guidelines for risk communication and community engagement (RCCE) including participatory methods based on robust risk communication schemes enabling bottom-up approaches - Mechanisms and methods to integrate stakeholder knowledge - Processes, guidelines, and methods used by countries. 		X	X
1.2.5 Promote One Health cross-sectoral collaboration and partnerships, including Public Private Partnership (PPP)	<ul style="list-style-type: none"> - Guidelines on effective partnerships (including PPP) 		X	X
1.2.6 Develop operational tools to support science based One Health coordinated strategic technical actions	<ul style="list-style-type: none"> - Operational guidelines and tools for science based One Health actions coordination - Use of knowledge and evidence in decisions of strategic technical actions (including One Health networks or community of practice) 		X	X
1.2.7 Provide guidance for an adequate use of the integrated One Health information, surveillance and emergency response systems considering humans, animals, food, plants and ecosystems	<ul style="list-style-type: none"> - Guidelines for prioritization, strategic decision making, risk management to use effectively One Health information systems - Guidelines for simulation exercises 		X	X

555

556 Action 1.3. Generate an enabling environment for effective implementation of One Health

557 This action is key to assure the One Health approach can be used in its full potential. It spans several
558 activities from monitoring the implementation and enforcement of regulatory frameworks to the
559 availability of sustainable financing, from information systems to technologies, from transparency to
560 communication. Essentially, all the support structures that are needed to help One Health work operate
561 effectively. These build an important foundation also for the other action tracks and will facilitate the
562 work of the four organizations and support their Members/Member States/State Parties.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
1.3.1 Provide guidance and tools for One Health transparent and trusted collaborative governance, mechanisms, policies, and regulatory frameworks	<ul style="list-style-type: none"> - Guidelines to enable transparent information sharing to build solid governance based on trust - Advocacy measures conducted for joint One Health strategies, procedures, and policies. Including governance, mechanisms, policies, and regulatory frameworks - Developed One Health roadmaps shared 		X	X
1.3.2 Promote effective communication structures and information and data sharing systems across organisations, sectors, and society	<ul style="list-style-type: none"> - Inventory of tools and best practice examples - Effective communication structures and information sharing systems for One Health established in the four organisations for the benefit of internal and external audiences - Guidelines for implementation at national level and pilot tests 		X	X

1.3.3 Generate mechanisms for joint funding and resource mobilization	<ul style="list-style-type: none"> - Joint One Health funding mechanisms established - Funding mobilised to support OH JPA actions - Resource integration and sharing mechanisms defined 	X	X	X
1.3.4 Promote One Health task forces and working groups with clear mandate for internal coordination	<ul style="list-style-type: none"> - Coordinated actions and information sharing inside the organisations and among them - Guidelines for internal coordination 	X	X	

563

564 Action Track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics 565 and pandemics

566 Emerging and re-emerging zoonotic pathogens with epidemic and pandemic potential represent a major
567 threat to humans, animals, and society for their immense health, social, economic and security impacts.
568 Prevention, preparedness, early warning, early detection, response and recovery to these threats require
569 coordinated One Health approaches, integrating the environmental dimension to preserve biodiversity,
570 build resilience, and lead to sustainable health, livelihoods and food systems. Cohesive and collaborative
571 global efforts that tackle emerging diseases at their source are imperative.

572 This action track focuses on i) understanding the drivers of re/emerging zoonotic diseases and related
573 processes and pathways, including: ecosystem degradation, land use and habitat change, environmental
574 and climatic factors, as well as harvesting, farming and trade of animals, wild and domestic; ii) developing
575 risk mitigation measures, including: maintenance of resilient healthy ecosystems, early interventions
576 aiming to reverse or halt environment degradation and biodiversity loss, regulation of farming and trade
577 in wildlife and wild animal products; and reduction of spillover risks at key animal value chain points and
578 wildlife-domestic animal-human interfaces, including live animal markets (traditional markets); and iii)
579 enhancing sustainable and targeted One Health surveillance, early warning and response mechanisms in
580 ecosystems, targeting animal-human-environment interfaces and key animal value chain points. The
581 focus will be on known re/emerging zoonotic diseases previously identified to have epidemic and
582 pandemic potential, while also considering “disease X”, caused by a yet unknown zoonotic pathogen and
583 with the potential to develop into a future epidemic/pandemic.

584 **Objective:**

585 **Reduce the risk and minimize local and global impacts of zoonotic epidemics and pandemics, through**
586 **understanding the linkages and drivers of emergence and spillover, adopting upstream prevention,**
587 **and strengthening One Health surveillance, early warning, and response systems**

588 **Action 2.1. Understand drivers of emergence, spillover and spread of zoonotic pathogens**

589 This action reviews existing knowledge of drivers, processes, and pathways, and establishes baselines for
590 monitoring purposes. It proposes to conduct targeted research to fill outstanding knowledge gaps.

591 Activities in this action focus on diseases and risks identified as priorities by WHO and the priority diseases
592 agreed between the Tripartite and UNEP (e.g., as outlined in the Tripartite work plan and in this Plan of
593 Action).

Activities	Deliverables	Timeline		
		1	2-3	4-5
2.1.1 Develop guidance to conduct coordinated and systematic data collection, operational and behavioural research, and risk assessment on the drivers, processes, and pathways for zoonotic disease emergence, spread and persistence as well as to characterize intact resilient healthy ecosystems and their effect on disease prevention and support countries in the implementation	<ul style="list-style-type: none"> - Tripartite/UNEP/OHHLEP guidance - Reports, publications - Policy papers and recommendations 	X	X	X
2.1.2 Develop standardized protocols and standard operating procedures for harmonized One Health research and data collection, to facilitate data generation, sharing, comparison and meta-analyses	<ul style="list-style-type: none"> - Harmonized protocols and normative standards - Dataset for pooled data analysis 	X	X	X
2.1.3 Identify drivers and indicators to monitor their impacts on zoonotic disease emergence, re-emergence, and spread, including those that can lead to increased interfaces or disruptions of natural host-pathogen dynamics	<ul style="list-style-type: none"> - Reports/publications - Prediction models of potential transmission scenarios related to climate change - Policy papers/advice 	X	X	X
2.1.4 Develop a One Health indicator framework to monitor human, wildlife, domestic animal, vector, and environmental health, including in intact resilient healthy ecosystems to establish baselines, and support countries to monitor changes over time/along development gradients	<ul style="list-style-type: none"> - Joint indicator framework developed - Databases on baselines and observed change - List of identified triggers for early warning - Mechanisms/agreements for information sharing established 	X	X	X
2.1.5 Support countries to build science-policy interfaces to ensure scientific knowledge, including from assessments, syntheses and reviews, are translated into action	<ul style="list-style-type: none"> - Science to policy platforms - Indicators for science-based targets - Reports - Workshops - Policy support methodologies and tools - Scenarios and models 	X	X	X
2.1.6 Identify One Health research gaps and priorities, develop a research agenda and advocate for funding to find sustainable solutions to reduce the risk of disease emergence	<ul style="list-style-type: none"> - List of One Health research gaps - List of One Health research priorities - One Health research agenda - Yearly meetings/initiatives to review and update the research agenda - Fundraising (individually or jointly) 	X	X	X

594

595 **Action 2.2. Identify and prioritize targeted, evidence-based upstream interventions to prevent**
596 **emergence, spillover and spread of zoonotic pathogens**

597 This action identifies and prioritizes targeted, evidence-based upstream interventions to prevent
598 emergence, spillover and spread of zoonotic pathogens, through tackling the drivers. Environmental
599 drivers should be considered in health and biodiversity risks assessments and interventions and vice
600 versa. The action further identifies sustainable solutions, nature-based where applicable, ensuring
601 Indigenous Peoples' knowledge inclusion.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
2.2.1 Support countries to conduct joint One Health Risk Assessments and mapping leading to evidence-based and targeted risk management and communication	<ul style="list-style-type: none"> - Recommendations on risk-based management measures and communication messaging - Policies and best practice guidelines - Harmonized protocols and normative standards 	X	X	X
2.2.2 Incorporate land use planning in health and biodiversity risks assessments and vice versa	<ul style="list-style-type: none"> - Risk assessment reports - Recommendations on risk-based management measures and communication messaging - Policies and best practice guidelines - Harmonized protocols and normative standards for One Health risk assessment 	X	X	X
2.2.3 Establish standards for the management of ecosystem processes at all levels to support resilience including mainstreaming habitat degradation prevention and biodiversity protection in food systems to maximize co-benefits	<ul style="list-style-type: none"> - Policies and best practice guidelines - Harmonized protocols and normative standards - Verification through biodiversity and habitat indicator monitoring 	X	X	
2.2.4 Engage with local communities including Indigenous Peoples, to identify sustainable solutions, nature-based where applicable, for the prevention and control of emerging and re-emerging zoonotic diseases	<ul style="list-style-type: none"> - Reports, manuscripts, publications from research - Policy papers, best practice guidelines, recommendations - Harmonized protocols, questionnaires and normative standards for main/priority topics to be covered 	X	X	X
2.2.5 Conduct anthropological and participatory research to identify key risky behaviours, acceptance, and feasibility of risk mitigation measures, and appropriate alternatives, including gender-based approaches and Indigenous Peoples' knowledge	<ul style="list-style-type: none"> - Reports, manuscripts, publications from research - Policy papers/advice/best practice guidelines - Harmonized protocols and normative standards 	X	X	X
2.2.6 Raise awareness with key stakeholders about the benefits of healthy ecosystems, identified risk factors and drivers, as well as solutions for risk mitigation and spillover prevention that are nature-based where applicable, acceptable, and sustainable	<ul style="list-style-type: none"> - Communication strategies developed - Community engagement strategies developed - Risk communication and awareness materials, targeted to different audiences and communication channels - Communication training for policy makers 		X	X
2.2.7 Support countries to implement enabling, evidence-based and gender-sensitive regulatory frameworks for the prevention and control of zoonotic epidemics/pandemics along the value chains, including livestock and wildlife	<ul style="list-style-type: none"> - Legislation review - Harmonized protocols and normative standards 		X	X
2.2.8 Support countries to operationalize existing global strategies on zoonotic diseases and ensure synergy and cohesiveness at global, regional, and national levels	<ul style="list-style-type: none"> - Development of regional and global strategies or update of existing ones - Cross-border/regional meetings or workshops to develop/harmonize action plans 	X	X	X
2.2.9 Develop guidance on economic analyses to quantify	<ul style="list-style-type: none"> - Guidance, reports, manuscripts, publications from research - Policy briefs and recommendations 	X	X	X

the costs and benefits of preventive interventions and use the results to advocate for sustainable financing in these interventions				
2.2.10 Support countries to conduct analysis of the legislation relevant for each sector, to identify potential gaps and issues that would need to be addressed to reduce the emergence and spillover of diseases	<ul style="list-style-type: none"> - Reports, manuscripts, publications from research - Policy briefs and recommendations - Evidence-base to sustain and support the reinforcement of public policies framework 	X	X	

602

603 **Action 2.3. Strengthen national, regional, and global One Health surveillance, early warning and** 604 **response systems**

605 This action aims to ensure timely detection of zoonotic emerging and re-emerging diseases through
606 sustainable and targeted One Health surveillance, early warning, establish triggers for action, and
607 develop evidence-based decision support tools.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
2.3.1 Develop operational tools and resources to conduct targeted One Health surveillance at human-animal-ecosystem interfaces and mechanism for multisectoral data sharing as per Tripartite/UNEP/OHHLEP guidance, and supported by robust regulatory frameworks	<ul style="list-style-type: none"> - Tripartite/UNEP/OHHLEP guidance and tools - Surveillance reports - Disease notifications - Health certification - Dashboards and maps depicting the epidemiological diseases situation 	X	X	X
2.3.2 Develop guidance on progressive control and management pathways that apply a One Health approach for existing and potentially re-emerging zoonotic diseases (e.g., zoonotic influenza viruses, MERS-CoV, SARS-CoV-2, Ebola, RVF, etc.) and support countries to implement	<ul style="list-style-type: none"> - Tripartite/UNEP/OHHLEP guidance - Health certification - Assessed improvement of progressive disease control 	X	X	X
2.3.3 Develop and maintain country capacity related to managing biohazards, including the safe storage and transport of infectious substances according to applicable international standards and regulations	<ul style="list-style-type: none"> - Workshops/trainings - Harmonized protocols and normative standards 	X	X	X
2.3.4 Develop a pathogen monitoring framework for wildlife and the environment, including in wildlife habitats and along farming and trade routes and the wild meat and products value chain and support countries in its implementation	<ul style="list-style-type: none"> - Monitoring framework - Databases on baselines and observed change - List of identified triggers for action - Policy papers, best practice guidelines, recommendations - Harmonized protocols and normative standards 	X	X	X
2.3.5 Support countries to conduct pathogen surveillance at the human-animal-environment interface through technical network support predictive epidemic intelligence, including	<ul style="list-style-type: none"> - Forecasts and early warning reports - Reports, manuscripts, publications from research - Risk assessment reports - Policy briefs and recommendations for risk mitigation 	X	X	X

the monitoring of trends in pathogen mutation and evolution and microbial diversity in wildlife as well as prediction of zoonotic or spillover potential of novel pathogens				
2.3.6 Build collaborative predictive epidemic intelligence systems (at national, regional, and global levels) to identify high-risk interfaces and hot spots for spillover, incorporating relevant environment and climate data and data on establishment of reservoirs and vector species in new geographic areas	<ul style="list-style-type: none"> - Forecasts and early warning reports - Reports, manuscripts, publications from research - Risk assessment reports - Policy briefs and recommendations for risk mitigation 	X	X	X
2.3.7 Use pandemic risk assessment approaches (e.g., WHO's Tool for Influenza Pandemic Risk Assessment - TIPRA, molecular risk assessment, FAO's EMPRES-i Genetic Module) to proactively identify pre-pandemic vaccine candidates for existing zoonotic pathogens to inform vaccine production	<ul style="list-style-type: none"> - Reports, manuscripts, publications from research - Risk assessment reports - Policy briefs and recommendations for risk mitigation 	X	X	X
2.3.8 Leverage innovations and new technologies in disease surveillance, rapid response, and control	<ul style="list-style-type: none"> - New technologies/ technological solutions - New diagnostics, vaccines, therapeutics - Technology transfer - Innovative approaches (e.g., for surveillance, diagnostics, advanced characterization, testing algorithms etc.) 	X	X	X

Action Track 3: Controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases

Communities bearing the greatest burdens of endemic zoonotic, neglected tropical and vector-borne diseases are almost always those with little political influence or resource. In order to develop effective control plans, it is therefore essential to build awareness and demand for services from affected communities by understanding their attitudes and knowledge, especially about animals and the environment, and building their capacities. To ensure sustainability, countries should be encouraged and supported to own these community-centric strategies and allocate sufficient domestic resources to the challenge. Reducing the burden of these diseases has clear long-term benefits to communities, animals, and the environment, as well as to the broader economy and improves livelihoods, health equity and social cohesion. Increasing capacity to detect endemic zoonotic, neglected tropical and vector-borne diseases also increases the likelihood of early detection of pathogens with epidemic or pandemic potential.

Endemic zoonotic, neglected tropical and vector-borne diseases may be concentrated in certain localities. Resource allocation is very limited and data on the real burden of disease is scarce and unreliable. Mis- and under-diagnosis is common due to the lack of easy-to-use, locally available, or technically adequate diagnostic tools, while information-gathering and surveillance rarely address human-animal-environment relationships beyond animals of production value. There are already many surveillance tools, agreed standards, data sources, legislation and policies that apply to the control of endemic zoonotic, neglected tropical and vector-borne diseases. Many of these can be strengthened, for example in the area of mandatory reporting, and integrated across all sectors where relevant. The

new Road Map for Neglected Tropical Diseases 2021–2030⁴ also urges to intensify cross-cutting approaches and addresses key gaps, especially in disease surveillance, diagnostics, monitoring and evaluation, access and logistics, advocacy, and funding.

This action track addresses the challenges outlined above, building on existing measures which may provide numerous opportunities to integrate endemic zoonotic, neglected tropical and vector-borne diseases control activities, applying One Health principles.

Objective:

Reduce the burden of endemic zoonotic, neglected tropical and vector-borne diseases by supporting countries to implement community-centric, risk-based solutions, strengthening policy and legal frameworks from local to global level and across sectors, and increasing political commitment and investment.

Action 3.1 Enable countries to develop and implement community-centric and risk-based solutions to endemic zoonotic, neglected tropical and vector-borne diseases control using a One Health approach involving all relevant stakeholders

This action aims to promote the implementation of control measures by building awareness and demand for control of endemic zoonotic, neglected tropical and vector-borne diseases from within communities and among stakeholders across relevant sectors. Key areas for development are data surveillance, management and information sharing, implementation of control activities, stakeholder training, (risk) communication and community engagement.

Ideally the epidemiology of endemic zoonotic, neglected tropical and vector-borne diseases at the local level should be well understood and affected communities be engaged in the design and implementation of surveillance and data management systems, outbreak response, training, and communication. Drivers and disincentives for participation need to be understood and addressed in order to create trust and ensure sustained action.

This action includes support for countries to implement a community-centric, One Health approach that engages stakeholders beyond the health sectors to embrace educators, local government, Water, Sanitation and Hygiene (WASH), waste management, agriculture, food safety, climatologists, urban developers, community and city leaders and media representatives.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
3.1.1 Provide integrated guidance and resources to countries to help build capacity, empower communities and increase engagement and awareness of endemic zoonotic, neglected tropical and vector-borne diseases prevention, diagnosis, control and treatment	<ul style="list-style-type: none"> - Guidance and resource material on risk communication and community engagement (RCCE) for integrated community awareness and behaviour change - On request, integrated multisectoral training of human, animal and environmental health professionals, para-professionals and laboratory staff - Resources and support for campaigns to mobilize communities to address endemic zoonotic, neglected tropical and vector-borne diseases 	X	X	X
3.1.2 Provide countries with operational tools and resources for integrated multisectoral surveillance and mapping of risk areas for endemic zoonotic, neglected tropical and vector-borne diseases from national to local levels	<ul style="list-style-type: none"> - Tools to create national risk maps that detect at-risk-communities and risk areas - Guidance on surveillance of endemic zoonotic, neglected tropical and vector-borne diseases - Diagnostic needs defined ideally as Target Product Profiles (TPPs) - Advocate for diagnostic tools and reporting mechanisms accessible at community level 	X	X	X

⁴ “Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030”, WHO, 2021, <https://www.who.int/publications/i/item/9789240010352>

	- Support strengthening capacity of laboratories across the different sectors including enhanced exchange and networks			
3.1.3 Support countries to provide access to quality vaccines, medicines and basic water, sanitation, and hygiene services (WASH) services, including agricultural water use waste management including animal waste and carcass disposal and training of communities across sectors to address endemic zoonotic, neglected tropical and vector-borne diseases	<ul style="list-style-type: none"> - Professional and community awareness raised across sectors - Access to quality vaccines and medicines, and effective supply chains - Integration of endemic zoonotic, neglected tropical and vector-borne diseases and (Agri-)WASH and waste management activities at community level advocated for - On request WASH training - Guidance on safe disposal of animal waste and carcasses 	X	X	X
3.1.4 Strengthen information, awareness and control of vector- and rodent-borne diseases and their specific threat to urban centres.	<ul style="list-style-type: none"> - Global risk assessment, mapping, prediction, and forecasting - Control strategies for priority diseases strengthened as identified by countries - Validated guidance and training for rodent control programmes - Support community engagement and mobilization in vector control - National and regional networks to support training and education developed and promoted 	X	X	X

659

660 **Action 3.2. Ensure the harmonized application of One Health principles at all levels by implementing**
661 **practical measures to strengthen local, national, regional, and global policy frameworks for the control**
662 **and prevention of endemic zoonotic, neglected tropical and vector-borne diseases**

663 This action aims to strengthen and harmonize all relevant protocols on control programmes, data,
664 surveillance, and information sharing as well as legal and policy frameworks related to the prevention
665 and control of endemic zoonotic, neglected tropical and vector-borne diseases in a One Health
666 context. This requires operationalizing integrated surveillance systems, capacity building, control and risk
667 management practices and prevention planning at global, national, regional, and local level.

668 Activities supporting this action help to deliver more systematic, vertically integrated and centralized
669 data collection across sectors to improve knowledge about the burden of disease, identify risk groups,
670 target actions, increase efficiency, improve diagnostics, identify research gaps, increase awareness and
671 expertise of healthcare providers, and raise awareness.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
3.2.1 Support countries to include endemic zoonotic, neglected tropical and vector-borne diseases when establishing national One Health mechanisms and One Health disease control strategic plans	<ul style="list-style-type: none"> - Guidance on endemic zoonotic, neglected tropical and vector-borne disease integration in One Health platforms and strategic plans at national and sub-national levels - Facilitated dialogue and coordination between national stakeholders and improved awareness of synergies across sectors - Advocate for integration of endemic zoonotic, neglected tropical and vector-borne disease control in national animal, human and environmental health strategies, plans and programmes cascaded into sub-national strategies if relevant 	X	X	X
3.2.2 Support countries to strengthen disease reporting and integrated data collection, information sharing and outbreak response to build multisectoral, One Health coordinated national surveillance and risk management capacity, grounded in appropriate regulatory frameworks, and encourage notification to and alignment with	<ul style="list-style-type: none"> - Support countries to collect and report disaggregated data on endemic zoonotic, neglected tropical and vector-borne diseases as relevant - Guidance for standardized indicators and tools, harmonized protocols with data shared across sectors in a timely manner - Countries trained in the usage of the SIS OT - Support coordinated surveillance reports, policies and programmes - Cross-disease data analysis and visualisation 	X	X	X

regional and global frameworks and existing priority disease programmes	- Guidance on surveillance of endemic zoonotic, neglected tropical and vector-borne diseases			
3.2.3 Provide resources and support to countries to link and integrate single sector and specialized disease programmes and health information systems	<ul style="list-style-type: none"> - Countries guided and supported to collect and report disaggregated data on endemic zoonotic, neglected tropical and vector-borne diseases as relevant - Countries collect and report disaggregated data on endemic zoonotic, neglected tropical and vector-borne diseases as relevant - Opportunities identified for joint usage of infrastructure and logistics, broadening the scope of already existing networks (e.g., cold-chains, control programmes, vaccination campaigns) 	X	X	X
3.2.4 Provide resources and support to countries to implement proven disease control strategies, as for example proposed by the Zero by Thirty: the Global Strategic Plan to Eliminate Human Deaths from Dog Mediated Rabies by 2030, as a way of operationalizing a One Health approach	<ul style="list-style-type: none"> - Countries supported in establishing OIE endorsed national control programmes for identified priority diseases, e.g., for rabies - Advocate use of tools, services and guidance provided by international expert groups and networks, e.g., the United Against Rabies Forum working groups - Increased uptake and use of available education material and resources, e.g., the Open WHO One Health Rabies course - Facilitated communication between stakeholders and partners, use of synergies (e.g., partnership mapping) 	X	X	X

Action 3.3. Increase political commitment and investment in the control of endemic zoonotic, neglected tropical and vector-borne diseases, by advocating for, and demonstrating the value of, a One Health approach.

This action aims to establish a common vision between the Tripartite, UNEP, affected countries and territories, local governments, cities and other stakeholders to increase political commitment and investment in endemic zoonotic, neglected tropical and vector-borne diseases control and prevention using a One Health approach. Agencies and countries should draw on the many existing strategies for disease control and elimination to ensure messaging and advocacy is consistent and effective.

The action ensures accountability for actions whether global, national, or local, remove barriers to progress and create strong partnerships and networks as a basis for sustainable, long-lasting action.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
3.3.1 Leverage the use and implementation of already existing capacity evaluation tools and roadmaps ⁵ at all levels to accelerate control of endemic zoonotic, neglected tropical and vector-borne diseases	<ul style="list-style-type: none"> - Common vision for advocacy and political engagement - Shared targets, consistent messaging - Uptake of WHO's "Ending the neglect to attain the sustainable development goals. One Health: approach for action against neglected tropical diseases 2021-2030" guide⁶ 	X	X	X
3.3.2 Promote country ownership and galvanize international	- One Health including endemic zoonotic, neglected tropical and vector-borne diseases inserted in high political agendas		X	X

⁵ "Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030" WHO, 2021, <https://www.who.int/publications/i/item/9789240010352>

"Zero by 30: the Global strategy to eliminate human deaths from dog mediated rabies by 2030", WHO/FAO/OIE, 2018, <https://apps.who.int/iris/handle/10665/328053>
Global Vector Control Response 2017–2030, WHO, 2017, <https://www.who.int/publications/i/item/9789241512978>
Roadmap for zoonotic tuberculosis, WHO/FAO/OIE, 2017, <https://apps.who.int/iris/handle/10665/259229>
Ending the neglect to attain the Sustainable Development Goals: a global strategy on water, sanitation and hygiene to combat neglected tropical diseases, 2021–2030, WHO, 2021, <https://apps.who.int/iris/handle/10665/340240>

⁶ "Ending the neglect to attain the sustainable development goals. One Health: approach for action against neglected tropical diseases 2021-2030", WHO, 2022, <https://www.who.int/publications/i/item/9789240042414>

collaboration to support One Health policies and legislation for endemic zoonotic, neglected tropical and vector-borne diseases	<ul style="list-style-type: none"> - Use of economic case studies to leverage the importance of endemic zoonotic, neglected tropical and vector-borne diseases by demonstrating its impacts - Best practice guidance for sustainable control programmes of endemic zoonotic, neglected tropical and vector-borne diseases 			
3.3.3 Build evidence base for One Health approach in reducing disease burden and socioeconomic impact of endemic zoonotic, neglected tropical and vector-borne diseases across relevant sectors, from global to national levels	<ul style="list-style-type: none"> - Identified drivers of endemic zoonotic, neglected tropical and vector-borne diseases as well as the underlying sociocultural and economic reasons for disease transmission, data gaps and needs - Animal and human global burden of disease studies - Endemic zoonotic, neglected tropical and vector-borne diseases impact data base 		X	X
3.3.4 Support countries to build the investment case and develop sustainable financing and governance mechanisms for cost-effective endemic zoonotic, neglected tropical and vector-borne diseases control through implementation of One Health principles	<ul style="list-style-type: none"> - Guidance to build investment case - Showcase examples/pilots and recommendations on best practices - Advocate for country buy-in and investment in national plans for endemic zoonotic, neglected tropical and vector-borne diseases programmes 		X	X

Action Track 4: Strengthening the assessment, management and communication of food safety risks

Food, and the complex systems involved in the pathways from production to consumption sit at the nexus of the human-animal-plant-environment interface. The ways food is produced may not only affect the safety of the final product, but also the health and welfare of animals, health of plants, and the contamination of the environment. Reciprocally, the environment of food production and the health of animals and the contamination of plants may impact food safety. Thus, to address this intimate interconnectivity, a One Health approach is critical to address food safety. And food safety is critical to promote One Health.

This action track builds on the WHO Global Food Safety Strategy 2022-2030 and the joint FAO/WHO coordination framework being developed to support the implementation of FAO⁷ and WHO⁸ food safety strategies at global, regional, and national levels. The action track builds on this momentum to advocate for food safety and support the implementation of both FAO and WHO strategies under the One Health approach without interfering with their governance and structures.

The action track will systematically and holistically aim to mainstream a One Health approach in food safety efforts within a food system perspective with specific actions to address the risks to animal, environment, and human health and food safety in the continuum from production to consumption. It is both complementary to and synergistic with the other actions track, notably, food and live animals are subject to contamination or infection from the environment (AT6), foodborne bacteria are becoming more resistant to antimicrobials (AT5), some foodborne infections are new and emerging (AT2) whilst others (e.g., cysticercosis, echinococcosis, foodborne trematodiasis) are neglected, underlining the need for integrated health approaches (AT1).

⁷ "Report of the 27th Session of the Committee on Agriculture, FAO, 2021, <http://www.fao.org/3/ne021en/ne021en.pdf>

⁸ "Strengthening efforts on food safety"- Agenda item 15.3 of the SEVENTY-THIRD WORLD HEALTH ASSEMBLY, 2020, https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_R5-en.pdf

Objective:

Promote awareness, policy changes and action coordination among stakeholders to ensure that humans, animals and ecosystems achieve health - and remain in that state - in their interactions with and along the food supply chain

Action 4.1. Strengthen One Health approach in national food controls systems and food safety coordination

Strengthening national food safety systems begins with establishing or improving critical infrastructure and components of food control systems, including food safety legislation, standards and guidelines, laboratory capacity, food control activities, and emergency preparedness and response capacity.

This action aims to promote One Health for food safety coordination and describe how the four partner Organizations will assist countries to establish, strengthen and implement national food controls by evaluating and improving key components that will contribute to reducing the risks associated with unsafe food, food contamination and foodborne illness, ensuring food authenticity, and enhancing fair and safe trade in food, including strengthening countries sanitary and phytosanitary (SPS) capacity, especially in low and middle-income countries.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
4.1.1 A One Health framework for food safety, capturing the pathways and connections in food safety activities that lead to positive and negative health outcomes in humans, animals and environment -throughout the food supply chain	- Framework and indicators		X	
4.1.2 Support countries to conduct a baseline assessment of their food control system, particularly on critical elements that affect human, animal, plant, and environmental health	- Support to countries for the usage of the FAO/WHO Food Control Assessment Tool and OIE PVS Pathway tool	X	X	X
4.1.3 Provide technical supporting tools (checklists, legal frameworks evaluations, etc.) and strengthen capacity building for countries in the development of food control systems and regulatory frameworks that incorporate more systematically the regulatory frameworks under a One Health approach	- Tools, policy briefs, and training materials developed	X	X	X
4.1.4 Provide guidance for the management of food safety risks under the One Health approach	- Technical guidance (scientific risk synthesis and risk assessment materials) provided to countries	X	X	X
4.1.5 Support countries to Include or strengthen the One Health approach in the food safety incident and emergency response plans	- Increased participation in INFOSAN among Tripartite/UNEP Members/Member states/State Parties - Support for the development of National Food safety emergency and response plans	X	X	X
4.1.6 Provide scientific and technical assistance with the aim to enhance the participation of countries in the standard-setting work of the Codex Alimentarius Commission and relevant work of the OIE and facilitate its implementation through a multisectoral coordinated approach	- Increased number of countries with representatives from multiple ministries, academia and food producers that are included and consulted in international food safety standards process	X	X	X
4.1.7 Utilize global food safety campaign to sensitize and educate about the use of the One Health approach in this area among different stakeholders	- The targeted audience reached by WFSD highlighting the interconnectedness of food safety and One Health - World Food Day - Specific communication campaigns addressing food safety under One Health	X	X	X

Action 4.2. Utilize and improve food systems data and analysis, scientific evidence, and risk assessment in developing policy and making integrated risk management decisions

The collection, utilization and interpretation of data lay the foundation for building evidence-based food safety systems. This action aims to assist countries to utilize food system information and approaches, scientific evidence, and risk assessment to the greatest extent feasible in developing policy and legislation and making risk management decisions to reduce the burden of foodborne diseases and ensure safer food and in allocating resources to strengthen national food safety systems.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
4.2.1 Develop/update guidelines and innovative approaches for best practice for harmonizing One Health concepts into harmonized joint food safety risk analyses in the context of the existing food system	- Guidelines, tools developed for incorporating broader one health concepts in food safety risk analyses	X	X	X
4.2.2 Provide technical support and develop training programmes to ensure all countries can conduct food safety risk analysis under a One Health approach and a food systems lens	- Trainings, training materials, and webinars held for multisectoral food safety risk analysis - Train-the-trainer programmes	X	X	X
4.2.3 Support countries to strengthen the capacity to identify and evaluate new and emerging food safety issues, including new and emerging risk arising at human-animal-plant-environment interface	- Training and workshop on risk assessment conducted and policy advice generated for emerging food safety risks	X	X	X
4.2.4 Support countries to explore new communication channels to emphasize the central role of food safety across the entire food system, in operational and governance decision-making at national and other levels, and to guide adequate food safety investments	- Communication strategy considering the different goals and stakeholders	X	X	X

Action 4.3. Foster the adoption of the One Health approach in national foodborne disease surveillance systems and research for the detection and monitoring of foodborne disease and food contamination

Without knowledge of the incidence and burden of disease associated with hazard/food combinations, prioritization of mitigation actions will be difficult and food safety improvements will be sub-optimal. Data on occurrence and disease burden from foodborne hazards combined with knowledge of source attribution - chemical, microbiological, physical - will be crucial in assessing costs and benefits of current as well as novel control measures. Therefore, an effective surveillance system to address foodborne diseases requires the integration of human and animal disease surveillance with environmental monitoring.

This action aims to strengthen surveillance for foodborne pathogens and food contaminants at human-animal-plant-environment interface, adopting a One Health approach. This will allow countries to detect, prevent and respond to address food-related public health issues more effectively.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
4.3.1 Support countries to strengthen legislation and programmes for monitoring and surveillance for foodborne diseases, including surveillance for antimicrobial resistant foodborne pathogens.	<ul style="list-style-type: none"> - Guidance provided on integrated foodborne diseases surveillance - Guidance provided on linking contamination in foods with animal disease data and human illnesses (action track 1). 	X	X	X
4.3.2 Manage databases and tools to collect, improve access to and interpret relevant food safety data and other information, including water, food, and wildlife meat	<ul style="list-style-type: none"> - Food safety databases open for public (feed by stakeholders) - Capacity building programmes developed for food safety data collection and management 	X	X	X
4.3.3 Support countries to strengthen surveillance systems for estimating and sharing data on the burden of foodborne illness and attributing illnesses to specific food sources, to better target prevention and control measures under a One Health approach	<ul style="list-style-type: none"> - Scientific advice on cost-effective food safety risk management based on public health burden - Support provided on strengthening laboratory capacity 	X	X	X
4.3.4 Enhance One Health related research for the transmission of foodborne pathogens and food contaminants at the human-animal-plant-environment interface	<ul style="list-style-type: none"> - Scientific advice provided on the transmission and control of certain emerging and re-emerging foodborne pathogens and food contaminants at human-animal-environment interface 	X	X	X

Action Track 5: Curbing the silent pandemic of Antimicrobial Resistance (AMR)

AMR represents a major global threat across human, animal, plant, food, and environmental sectors. Limiting the emergence and spread of resistant pathogens and determinants is critical to preserving the ability to treat diseases in humans, animals, and plants, reduce food safety and security risks, protect the environment, and maintain progress towards the Sustainable Development Goals, including those on poverty, hunger, health and well-being, inequality, clean water and sanitation, work and economic growth, responsible consumption and production, and partnerships.

Because AMR has multiple drivers and needs to be tackled on many fronts, a One Health approach is essential to ensure that all sectors and stakeholders communicate and work effectively together.

Building on the momentum of increased collaboration, the Tripartite and UNEP have developed a Strategic Framework for AMR. This Framework reflects the joint work of the four organizations to advance a One Health response to AMR and broadly supports the implementation of the five pillars of the Global Action Plan on AMR as well as strengthening global AMR governance. A joint workplan sets out how the organizations will collaborate to deliver the vision of the Framework. This workplan focuses on activities done by the four organizations collaboratively and complements existing individual organizations' workplans and budgets.

The objectives and activities of Action Track 5 mirror the Strategic Framework on AMR and its joint workplan. Linking through the OH JPA will ensure AMR-related activities and investment are coherent and synergized across other areas of Tripartite and UNEP One Health collaboration, as well as foster lesson-learning amongst other groups, including on communication and information systems.

Objective:

Take joint actions to preserve antimicrobial efficacy and ensure sustainable and equitable access to antimicrobials for responsible and prudent use in human, animal and plant health.

Action 5.1. Strengthen the capacity and knowledge of countries to prioritize and implement context-specific collaborative One Health work to control AMR in policies, legislation and practice

This action supports AMR control at country level, ensuring interagency coordination, technical support, and capacity development. With Tripartite and UNEP support, country-owned, sustainable One Health governance ensures effective and balanced national AMR responses.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
5.1.1 Support balanced, functional, well-represented national inter-agency coordination mechanisms, and One Health approaches to AMR National Action Plan (NAP) implementation	<ul style="list-style-type: none"> - LMICs supported to implement One Health approaches to AMR in line with AMR MPTF results matrix 	X	X	X
5.1.2 Provide technical support and capacity development activities for countries in targeted areas	<ul style="list-style-type: none"> - Guidance for countries on integrated surveillance of AMR/AMU developed - Capacity development and actions on environment within sector policy and global partnership strengthened - Guidance on multisectoral/One Health AMR governance at national level updated - Guidance to include AMR in the UN Sustainable Development Cooperation Framework ("Cooperation Framework") disseminated and support provided to countries with implementation - One Health Assessment Tool for AMR-relevant legislation finalized and piloted - Tailored strategies and materials for awareness and campaigns on AMR developed and shared, including for World Antimicrobial Awareness Week (WAAW) - Support provided to countries to develop their own monitoring and evaluation approaches - Evidence-base for social, gender, environmental and economic assessments of AMR impact developed and strengthened - Capacity development support to MPTF country-supported programmes on priority environmental activities in NAP 	X	X	X
5.1.3 Ensure effective management of the AMR Multi-Partner Trust Fund (MPTF)	<ul style="list-style-type: none"> - MPTF country and global programmes effectively supported - Effective lesson learning and knowledge management 	X	X	X

Action 5.2. Reinforce global and regional initiatives and programmes to influence and support One Health responses to AMR

This action supports coordination mechanisms and activities to mobilize demonstrated political engagement and resourcing at the global and regional levels to support AMR control at country level.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
5.2.1 Coordinate the global One Health response to AMR	<ul style="list-style-type: none"> - Effective coordination and support provided by the Tripartite and UNEP Joint Secretariat to One Health AMR across the four organizations - Global promotion, advocacy and political engagement conducted - Coordination and monitoring of the workplan implemented - Coordination and interagency engagement and partnership fostered - MPTF effectively managed and expanded 	X	X	X
5.2.2 Develop and update standards and technical advice on global best practice	<ul style="list-style-type: none"> - Investment case advocated for and built to support AMR financing - Collaboration with development agencies and banks to strengthen systems to encourage AMR financing enhanced - Guidance on the use of antimicrobials in different sectors by the four organisations harmonized 	X	X	X

	<ul style="list-style-type: none"> - Support provided to medicines regulatory authorities - Repository of tools and e-learning materials developed and updated on a regular basis - Understanding of the relationships between gender, equity and AMR strengthened 			
5.2.3 Support global advocacy efforts	<ul style="list-style-type: none"> - World Antimicrobial Awareness Week planned and implemented - Global advocacy on addressing AMR in the environment (including high-level political events) 	X	X	X
5.2.4 Develop a prioritized research agenda to provide direction for investment	<ul style="list-style-type: none"> - Evidence gaps/research questions at the interface between humans, animals, plants and the environment mapped - Research questions to inform policy identified and prioritized 	X	X	
5.2.5 Conduct monitoring and evaluation and reporting of the Global Action Plan on AMR	<ul style="list-style-type: none"> - Tripartite Biennial Global Report on AMR (under the GAP M&E framework) to monitor progress of the GAP produced and disseminated - Annual Tripartite AMR country self-assessment survey (TrACCS) conducted and results disseminated - Tripartite Integrated System for Surveillance on AMR and Antimicrobial Use (TISSA) platform established and operationalized 	X	X	X
5.2.6 Strengthen regional collaboration on AMR	<ul style="list-style-type: none"> - Regional coordination and provision of technical support for NAP implementation to countries ensured - Engagement with regional political and economic groups conducted - Advocacy and communication activities undertaken - Regional partnerships fostered 	X	X	X

779

780 Action 5.3. Strengthen global AMR governance structures

781 Through this action the four organizations provide support to the inter-related structures to strengthen
782 accountability and global governance of AMR: (i) the Global Leaders Group on AMR that performs a global
783 advisory and advocacy role with the primary objective of maintaining urgency, public support, political
784 momentum and visibility of the AMR challenge on the global agenda; (ii) A Multi-Stakeholder Partnership
785 Platform to facilitate stakeholder engagement on AMR and includes members of the Tripartite
786 Organizations, UN agencies, interested governments, civil society, private sector and academia; and (iii)
787 an Independent Panel on Evidence for Action on AMR.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
5.3.1 Support the inter-related structures to strengthen the accountability and global governance of AMR	<ul style="list-style-type: none"> - Secretariat service provided by the Tripartite and UNEP Joint Secretariat (TJS) to the Global Leaders Group on AMR - Regular meetings of the Global Leaders Group held - Global Leaders Group action plan is monitored - Technical advisory groups supported - Establishment and operation of the Multi-stakeholder Partnership Platform on AMR supported by the TJS - Establishment and operation of the Independent Panel on Evidence for Action on AMR supported (pending confirmation of the UN Secretary-General) 	X	X	X

788

789 Action Track 6: Integrating the Environment into One Health

790 There is increasing recognition that the health of humans, domestic and wild animals, plants and the
791 environment are closely linked and interdependent. Every form of environmental degradation has direct
792 or indirect negative consequences for human and animal health. The effects of air, water and soil
793 pollution on human and animal health are well documented. For example, biological and chemical
794 pollutants in wastewater and runoff from livestock farms enhance the propagation of antimicrobial-
795 resistant genes in the environment. Land-use change driven by agricultural, industrial, and urban
796 expansion leads not only to unprecedented degradation of natural habitats threatens ecosystem integrity
797 and food security, deforestation, and alarming loss of biodiversity, but also drives disease emergence and

spread and provides pathways for the spillover of emerging pathogens between domestic animals, wildlife, and humans. In addition to air pollution of the indoor or outdoor environment by any chemical, physical or biological agent, freshwater and ocean pollution leads to the accumulation of toxic chemicals, heavy metals and microplastics in the human food chain, causing adverse health outcomes in humans, domestic and wild animals.

These and many other negative consequences of human activity are compounded by climate change, which acts as a multiplier of these threats, exacerbating their impact and undermining the resilience of environmental and ecological systems.

In order to prevent and mitigate these threats, the biodiversity conservation, environmental, public health and animal health/veterinary sectors need to understand these interlinkages, speak with one voice, and implement One Health with a harmonized approach. The mandates and priorities of the environment sector need to be fully integrated in the One Health approach, including through the integration of environmental data in One Health decision making, increasing the understanding of environmental issues in the One Health community, and strengthening the capacity of the environmental sector and institutions to have an equal voice at the One Health table and in decision-making.

Objective:

Protect and restore biodiversity, prevent the degradation of ecosystems and the wider environment to jointly support the health of people, animals, plants and ecosystems underpinning sustainable development.

Action 6.1. Protect, restore, and prevent the degradation of ecosystems and the wider environment

This action enumerates a series of activities that can be jointly implemented by the four organizations, in partnership with other entities, to contribute to protect the environment and prevent its further degradation. The activities are intended to promote a shared and better understanding of the health threats posed by unhealthy environments to wildlife, livestock and people, to collaboratively engage in partnerships with civil society, private sectors, and other stakeholder groups and to adopt policies, legislation and practices that promote the sustainable management of nature, ensure healthy ecosystems and communities, and prevent encroachment by urban centres or agriculture/farms.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
6.1.1 Identify and quantify the main anthropogenic factors leading to environmental degradation that negatively impact the health of ecosystems, animals, plants and people	- Knowledge products on the interlinkages between the health of the environment, ecosystems, animals, plants and people are used to support policy making	X	X	X
6.1.2 Enhance private sector and NGO engagement in sustainable natural resource management, restoration activities and best practices, including climate-smart and environmentally sound healthcare	- The private sector and non-conservation-oriented NGOs are measurably contributing to halting the degradation of the environment and to promoting its conservation and restoration		X	
6.1.3 Promote the transition towards sustainable, climate-smart, agroecological approaches to agriculture, aquaculture livestock production and non-timber forest products, including through regulations, to reduce risks to the health of the environment, animals, plants and people	- Toolkits, policy guidance, economic analyses and other tools to reduce agricultural intensification and increase agroecological approaches are developed		X	X

6.1.4 Jointly promote the importance of enhancing the integrity of all ecosystems and the services they provide to support healthy and resilient populations of all species	- Preparing joint publications, seminars and policy dialogues/debates involving all relevant sectors at all levels (including decision makers)	X	X	X
6.1.5 Support the development and adoption of policies and legislation to protect the rights of Indigenous Peoples and local communities to sustainably use and trade in natural resources	- Develop legal guidance and cross-sectoral policy impact analyses to support policy development to protect the rights of Indigenous Peoples and local communities	X	X	X
6.1.6 Support the development of legal, sustainable, resilient and inclusive, wildlife-based economies while managing the risks of unregulated and illegal wildlife farming and trade	- Support sustainable national and regional wildlife economy strategies	X	X	X
6.1.7 Support and link activities to Nationally Determined Contributions (NDCs), National Biodiversity Strategies and Action Plans (NBSAPs) other commitments under multilateral environmental agreements (MEAs) and Health National Adaptation Plans (H-NAPs) commitments made by national governments to address climate change and environmental degradation	- Support integration of One Health considerations in national reporting obligations such as NDCs and NBSAPs		X	X
6.1.8 Convene relevant sectors to facilitate integrated land and sea use planning that incorporates human, animal and environmental co-benefits and yields sustainable land and water management	- Guidance on Land and sea use plans that take health and environment into account developed - Good practice guidance for conducting multi-stakeholder, integrated land and sea use planning processes produced based on lessons learned	X	X	X
6.1.9 Develop and promote the implementation of joint guidelines for the environmentally sound management of public health, medical and veterinary operations and their waste	- Support for the development, adoption and implementation of Joint guidelines		X	X
6.1.10 Promote, inform and support the sound management of chemicals and waste, including wastewater, and the prevention, reduction and control of pollution into air, water and soil, in order to minimize threats to the health of ecosystems, animals, plants and people	- Guidelines and plans for sound management of chemicals and waste		X	X

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827 **Action 6.2. Mainstream the health of the environment and ecosystems into the One Health approach**

828 This action seeks to integrate the mandates, priorities, functions and knowledge of the forestry,
829 wildlife, biodiversity, natural resource management and environment sectors into One Health in an
830 effort to promote and support the development of One Health policies, plans and actions that are more
831 inclusive of environmental knowledge, data and risk factors.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
6.2.1 Map the evidence on the socio-economic impacts of environmental degradation (including land use change, biodiversity loss, pollution and waste) and climate change)	<ul style="list-style-type: none"> - Special reports developed, such as technical reports and policy briefs - Scientific platform established to gather scientific publications addressing this topic - Governing bodies of Tripartite organizations take action in line with the evidence provided to address drivers of environmental degradation 		X	
6.2.2 Map out, review and revise existing tools aiming to improve multisectoral collaboration (e.g., IHR-PVS National Bridging Workshops (NBW) and the Tripartite operational tools under the Tripartite zoonotic guide) ensuring environmental considerations are well integrated in them, and develop new tools to support integration of environment aspects of One Health, as needed	<ul style="list-style-type: none"> - New tools developed and existing tools are revised to integrate environmental aspects 		X	
6.2.3 Identify incentives and co-benefits, and raise awareness of the central role of the environmental sector about the importance of their participation and role in One Health	<ul style="list-style-type: none"> - Awareness and communication plan established by the Tripartite to support mainstreaming/integration of environmental considerations in One Health - Targeted communications and tools to support the integration of the environment sector in One Health - Coordinated communication campaigns amongst the partners - Editorials and other articles are published and disseminated through various media outlets 	X	X	X
6.2.4 Develop and implement mechanisms and partnerships to review and ensure the integration of ecosystem health and the environment into One Health policies and programmes and ensure equity amongst sectors and groups in One Health platforms at all levels	<ul style="list-style-type: none"> - Support the establishment of Multi stakeholder partnership platforms - Tripartite and UNEP coordination mechanisms established - Best practices/guidelines developed for the systematic inclusion of environment sector into One Health platforms and policies 	X	X	X
6.2.5 Support the review, update and implementation of relevant national plans, policies, legislation and programmes to integrate all dimensions of One Health, including those on biodiversity, the environment and climate change	<ul style="list-style-type: none"> - Support review of country level One Health Coordination mechanisms - Template/checklist developed to support the review of national plans and policies to adjust-adapt-include environmental considerations - Lessons learned on the implementation of relevant projects is documented 	X	X	X
6.2.6 Support the implementation of the Convention on Biological Diversity Global Action Plan on Biodiversity and Health, and related action plans and operational frameworks	<ul style="list-style-type: none"> - Progress reports on the uptake and implementation of action plans - Workshops organized at country level to support implementation when required 		X	
6.2.7 Support the integration of health and environment considerations and including risks in impact assessments and performance standards of the International Finance Corporation (IFC) and other financial institutions	<ul style="list-style-type: none"> - Revised impact assessments and performance standards of the IFC and other financial institutions taking into account environmental considerations 		X	X
6.2.8 Communicate to decision makers at all levels, the importance and economic value of a healthy environment to promote healthy	<ul style="list-style-type: none"> - Joint communication strategy and implementation plan - Development of communication materials - Policy briefs 		X	X

and resilient societies and economies	<ul style="list-style-type: none"> - Policy dialogues on environment, biodiversity-and health approaches - Joint statements targeting/tailored to policy makers - Joint communication campaigns 			
6.2.9 Promote the national-level recognition of the human right to a clean, healthy and sustainable environment (as unanimously approved by the UN Human Rights Council in October 2021)	<ul style="list-style-type: none"> - Joint advocacy strategy and implementation plan - Advocacy briefs 	X	X	X
6.2.10 Promote adoption of climate-smart and environmentally sound health systems	<ul style="list-style-type: none"> - Waste management standards for human and animal/plant health and research operations - Health workforce interventions - Energy interventions - Water, sanitation and health care waste interventions - Infrastructure, technology and products interventions - Tools to assist health care (animal and human) facilities assess their resilience to climate change and pollution threats 	X	X	X

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833 Action 6.3. Integrate environmental knowledge, data, and evidence in One Health decision-making

834 Environment sector-sourced data and evidence are integrated at all levels of decision making to protect
835 biodiversity and the wider environment, promote sustainable development, and identify and mitigate
836 health threats.

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
6.3.1 Map interoperability between health, animal disease and environment databases and information systems	<ul style="list-style-type: none"> - Mapping of existing databases for (human and animal) health and environmental data including existing links and degree of interoperability 	X		
6.3.2 Establish linkages among disease databases and environment databases to support risk modelling, shared information and informed/science-based decision and policy making	<ul style="list-style-type: none"> - Relevant databases are connected through APIs and data can be analysed in a holistic way - Environmental data are directly accessible from health databases and vice versa facilitating analysis and risk modelling studies 		X	
6.3.3 Develop joint information management systems and analytical tools integrating ecosystem, environmental, animal and human health knowledge and data	<ul style="list-style-type: none"> - New IMS platform integrating ecosystem, animal and human health data and knowledge - Agreement between contributing organizations - Results generated by analytical tools used by Decision-makers 		X	
6.3.4 Develop appropriate mechanisms/guidelines to ensure participation of indigenous and local communities including their traditional knowledge to guide One Health decision making	<ul style="list-style-type: none"> - Production of a formal mechanism or guidelines to include traditional knowledge into One Health decision making 	X		
6.3.5 Establish partnerships with universities and research centres to fill knowledge gaps and monitor environmental impacts on health (both positive and negative)	<ul style="list-style-type: none"> - Research agenda is developed and financed - New evidence is produced and disseminated including to policy makers 	X		
6.3.6 Translate environmental knowledge and data to improve policies and legislation and propose practical solutions to prevent and mitigate health threats at the interfaces	<ul style="list-style-type: none"> - Production of practical guidelines to prevent and mitigate specific health threats - Development of public and animal health policies integrating environmental data into its programmes 	X		
6.3.7 Develop a One Health needs assessment toolkit to evaluate	<ul style="list-style-type: none"> - Updated NBW tool produced, integrating environmental sector 	X		

interoperability, mechanisms and working relationships among sectors at country level	<ul style="list-style-type: none"> - Support provided to countries to conduct NBW roadmaps integrating environmental sector - Support provided so NBW Roadmaps are included in National health plan - The Tripartite zoonotic guide operational tools (JRA, MSM, and SIS-OT) integrate environment sector in guidelines and implementation 			
6.3.8 Engage with citizen science in data collection for monitoring the health of the environment to inform action	<ul style="list-style-type: none"> - Crowd-sourced CS data contributes to surveillance and monitoring systems globally 	X		

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838 **Action 6.4. Create an interoperable One Health academic and in-service training programmes for the**
839 **environment, medical, agriculture and veterinary sector professionals**

840 This action aims to (i) strengthen the capacity of natural resource management and environment sector
841 professionals and institutions to participate in an interoperable manner with human and animal
842 professionals addressing zoonoses, AMR, and food safety health threats and to support One Health
843 policies, legislation and interventions, (ii) strengthen the capacity of medical and animal
844 health/veterinary sector professionals and institutions to integrate environmental considerations,
845 participate interoperably with environmental professionals, address linkages between health and the
846 environment, and support One Health policies, legislation and interventions, and (iii)
847 jointly/simultaneously strengthen the capacity of the medical, veterinary and environment sector
848 professionals to influence decision-making on health and development, and ensure all sectors are
849 adequately equipped to collaborate and integrate priorities of all sectors

Activities	Deliverables	Timeline (years)		
		1	2-3	4-5
6.4.1 Develop advocacy training and tools for environment decision-makers professionals to influence decision-makers in other sectors	<ul style="list-style-type: none"> - Advocacy training and tools developed and used by relevant sectors 	X	X	X
6.4.2 Develop and roll out a national Environment Sector Needs Assessment Tool to benchmark institutional and individual capacity to participate interoperably in all aspects of One Health in support of FTP-WEBE (Field Training Programme for Wildlife, Environment, Biodiversity and Ecosystems Professionals)	<ul style="list-style-type: none"> - National Environment Sector Needs Assessment developed - Support provided to undertake National, Sub-Regional and/or Regional Environment sector needs assessments - Support to develop Sub-Regional and/or Regional Environment Sector Capacity Development Implementation plan (by REC) 	X	X	X
6.4.3 Develop an interoperable One Health training course (FTP-WEBE) for in-service professionals (the complement to FETP, FETPV and FELTP) targeting professionals in Ministries responsible for natural resource management (wildlife, biodiversity, ecosystems, environment), climate and other environmental issues	<ul style="list-style-type: none"> - Interoperable Environment sector One Health Training modules and course developed - Interoperable Environment sector One Health Training delivered on biodiversity, ecosystems, wildlife - Environment sector professionals understand how to contribute to One Health at national and subnational levels - Environment sector has capacity to influence One Health policy, and identify and implement Environment sector priorities as part of national and subnational One Health programmes - National One Health policies and priorities reflect mandates and interests of the Environment Ministry and are expanded beyond Zoonoses, AMR and food Safety 	X	X	
6.4.4 Develop and ensure the inclusion of training for in-service medical, public health and veterinary professionals on the importance of and interlinkages	<ul style="list-style-type: none"> - At least three training modules developed that include the environment (biodiversity & ecosystem health) and its importance and interlinkages - One Health collaboration across sectors and interfaces - The impact of diseases on wildlife populations & conservation 	X	X	X

between biodiversity conservation, links between health and the environment, how environmental destruction contributes to disease emergence, and the importance of integrating the environment sector in One Health collaborations				
6.4.5 Ensure that systems thinking is a core module for academic and in-service One Health professionals	- Systems thinking is integrated in core modules in One Health undergraduate & graduate degrees, training courses and certificates / distinction offered to medical, veterinary and environment sector undergraduate & graduate school candidates	X	X	X
6.4.6 Support the development of core modules on environment, biodiversity and ecosystem health in the medical, veterinary and public health academic curricula and research agendas.	- Core modules developed on environment, biodiversity and ecosystem health to be included in One Health undergraduate & graduate degrees, training courses and certificates / distinction offered to medical, veterinary and environment sector undergraduate & graduate school candidates	X	X	X
6.4.7 Support faculty training and the development of core modules on public health in the environment academic curricula.	- Core modules developed on public health in the environment academic curricula in One Health undergraduate & graduate degrees, training courses and certificates / distinction offered to medical, veterinary and environment sector undergraduate & graduate school candidates	X	X	X
6.4.8 Develop a One Health Introductory course that can be delivered simultaneously to in-service professionals from all One Health sectors (health, animal health, environment) and serves as a prerequisite for FETP, FETPV, and FTP-WEBE training	<ul style="list-style-type: none"> - Joint training modules developed delivered to in-service professionals - FETP, FETPV and FTP-WEBE endorse this joint introductory One Health course as a pre-requisite 	X	X	

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Part IV. Governance, Implementation and Monitoring

Governance

The proposed global governance structure considers the requirements to achieve the impact and the long-term outcomes of the OH JPA as well as the medium and immediate short-term outcomes. It should ensure providing platforms and opportunities to engage all relevant stakeholders, mobilize action and resources and address the complex challenges outlined under the action tracks. The governance structure will build on existing mechanisms and will consist of the following:

- The Tripartite and UNEP executives are accountable for the implementation of the OH JPA and will provide leadership and oversight of its implementation and will ensure the engagement of their regional, sub-regional and country offices, where relevant.
- The executives will nominate a Global Steering Committee (GSC) to be coordinated by one of the four organizations and composed of at least one senior representative from each organization, to make or facilitate all programmatic, financial and resource decisions related to delivering the OH JPA based on pre-agreed workplans. The implementation arrangements will be kept under review and revised periodically by the Tripartite and UNEP.
- The chairperson of the GSC will be designated for one year in the annual executive meeting on a rotational basis aligned with the rotation of the secretariat that supports the four organizations.
- The GSC will be supported by the following:
 - o The four organizations will coordinate the implementation of the OH JPA through the secretariat that supports them and support the GSC, as one of its subsidiary bodies, in facilitating and monitoring the implementation of the OH JPA at global level.
 - o The OHHLEP will play an advisory role to the GSC and the secretariat that supports the four organizations, to ensure science-based implementation and updating of the OH JPA with evidence, data and knowledge generated.
 - o Similar structures will be considered for the regional/sub-regional level to ensure effective implementation of the OH JPA at the country level

Implementation, monitoring and evaluation

- The OH JPA will be supported by an implementation framework with workplans at global, regional, and country levels to translate the objectives and high-level actions and activities described in the OH JPA into context specific activities at all levels with the four organizations contributing to implementation within their capacities, competencies and resources available.
- A joint process will be established to develop the implementation framework in consultation with the Tripartite and UNEP regional coordination mechanisms and their respective Members/Member states/State Parties.
- The OH JPA aims to engage wider stakeholders including NGOs, CSO, private sector and academia for particular themes and activities of the OH JPA and to help with advocacy, maintain urgency, public support, political momentum and visibility of the One Health approach. This may include organising a regular consultation forum and a high-level conference at appropriate milestones in the implementation of the OH JPA.
- The Tripartite and UNEP regional coordination mechanisms, where they exist, mirror the role of the global secretariat at the regional level, focusing on facilitating advocacy and operationalization of One Health at regional and country levels. A key responsibility of the regional coordination will be to link the OH JPA to a workplan at the regional and country levels, with clear roles and responsibilities among partners.

- The Tripartite and UNEP will develop a monitoring and evaluation framework with targets and indicators that are relevant to selected deliverables of each action track to measure progress and facilitate reporting on the OH JPA progress for its initial duration of five years.
- The targets of the OH JPA will be linked to reflect the contribution to attainment of relevant targets in the SDGs.
- Implementation at country level may be linked to the UN Sustainable Development Framework implementation under the UN Resident Coordinator System and guided by the One Health guideline developed by the Tripartite and UNEP for this purpose.

Part V: Investing in One Health

Resource mobilization strategy

Significant, sustainable and streamlined financing is critical and will be necessary to put the OH JPA into action, fostering greater efficiencies, coalition building, to support countries to operationalize One Health at scale. The Tripartite and UNEP foresee working with a wide range of actors, as funding partners are required to enable an integrated package of global goods and technical support to countries, as well as leveraging longer-term and more sustainable financial investments to ensure One Health outcomes.

The approach to resource mobilization will be harmonized across the Tripartite and UNEP resource mobilization task team, to ensure strong coordination and oversight. To facilitate a joint approach is proposed for the OH JPA, where resource partnerships are called for along key lines of the OH JPA and provide integrated support. The joint approach will govern the resource mobilization effort and avoid fragmentation of efforts.

The Tripartite and UNEP resource mobilization strategy will take into account the current ecosystem of existing instruments in place, building on a combination of elements that may include one or more financial mechanisms, financing sources and in-kind contributions, lead agents or intermediaries, beneficiaries or principal stakeholders. Existing Multi-Donor/Partner Trust Funds will be pursued to help expand the One Health portfolio in LMICs, incentivize and facilitate coordinated technical support. Potential new mechanisms will be explored where gaps exist.

In line with the framework, the Tripartite and UNEP will preferentially pursue un-earmarked funding that enables flexibility, predictability, efficiency and effectiveness of One Health operations, particularly at national level and in LMICs.

Beyond funding for Tripartite and UNEP action, leveraging longer term investments for countries to sustain One Health action is required and this will take all forms of partnership and financial flows (state, International Financial Institutions, and non-state, including the private sector). The Tripartite and UNEP's work on the return on Investment (ROI) for One Health will be critical in this regard.

Way forward

The Tripartite and UNEP stand ready to engage in coordinated dialogue with interested partners to further detail needs and advocate for resource mobilization as outlined.

Key actions

- Review the current ecosystem of funding and financing options for One Health work – at global, regional and country level;
- Based on the review, agree on a joint approach;
- Proactively engage with a wide variety of partners (state and non-state) through key events, dialogues and consultations, matching joint strategic interests with the OH JPA;

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- Explore options to draw closer working arrangements and synergies, through structures such as the World Bank. Here, the work on the ROI will be key to demonstrate the financial and holistic value of pursuing a One Health approach;
 - Adopt a consolidated RM strategy.

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Appendices

Glossary

Term	Definition
Agrifood system	is the entire range of actors and their interlinked value-adding activities involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and food industries, and the broader economic, societal and natural environments in which they are embedded
Biodiversity	is the variety of life on Earth and the natural patterns it forms
Ecosystem	is a dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit. Ecosystems may be small and simple, like an isolated pond, or large and complex, like a specific tropical rainforest or a coral reef in tropical seas
Environment	is the totality of all the external conditions affecting the life, development and survival of an organism
Environmental degradation	is the deterioration in environmental quality from ambient concentrations of pollutants and other activities and processes, such as improper land use and natural disasters
Emerging infectious disease (EID)	is one that either has appeared and affected a population for the first time, or has existed previously but is rapidly spreading, either in terms of the number of individuals getting infected, or to new geographical areas
Endemic infectious disease	is an infectious disease that occurs frequently in a specific population or geographical area, often occurs in cycles may remain there indefinitely
Epidemic infectious disease	is an outbreak of a disease that spreads quickly and affects one or more populations at the same time in a small geographic area
Food safety	is about handling, storing and preparing food to prevent infection and help to make sure that our food keeps enough nutrients for us to have a healthy diet
Food security	is when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life
Global Health security	For the purpose of this document global health security considers all activities required, both proactive and reactive, to minimize the impact of global health threats that endanger the health of humans, animals, plants, and their environment across geographical regions and international boundaries

Health system	is a system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health
Natural environment	is all living and non-living things that occur naturally on a particular region where human impact is kept under a certain limited level
Neglected tropical diseases (NTDs)	are a diverse group of 20 conditions mainly prevalent in tropical areas, namely Buruli ulcer, Chagas disease, dengue and chikungunya, dracunculiasis, echinococcosis, foodborne trematodiasis, human African trypanosomiasis, leishmaniasis, leprosy, lymphatic filariasis, mycetoma, chromoblastomycosis and other deep mycoses, onchocerciasis, rabies, scabies and other ectoparasitoses, schistosomiasis, soil-transmitted helminthiasis, snakebite envenoming, taeniasis/cysticercosis, trachoma, and yaws
Pandemic	is an outbreak of a disease that occurs over a wide geographic area (such as multiple countries or continents) and typically affects a significant proportion of the population
System approach	is based on the principle that everything is interrelated and inter-dependent. A system is composed of related, dependent, and interacting elements that, jointly, produce a unified whole. Adopting this approach, a system and its subsystems are studied in their inter-relationships rather than in isolation from each other and the system outputs are considered as produced through joint efforts of subsystems. In the systems approach, attention is paid towards the overall effectiveness of the system rather than the effectiveness of the sub-systems
Transboundary animal diseases (TADs)	are epidemic diseases which are highly contagious or transmissible and have the potential for very rapid spread, irrespective of national borders, causing serious socio-economic and possibly public health consequences; their control/management, including exclusion, requires cooperation between several countries
Vector	is an insect or any living carrier that transports an infectious agent from an infected individual to a susceptible individual or its food or immediate surroundings
Vector-borne diseases	are illnesses caused by parasites, viruses and bacteria that are transmitted by vectors
Water-borne diseases	are illnesses caused by parasites, viruses and bacteria that are transmitted by water
Zoonoses	are infectious diseases that are naturally transmissible from non-human animals to humans. Zoonotic pathogens may be bacterial, viral or parasitic, or may involve unconventional agents and can spread to humans through direct contact or through food, water or the environment

Examples of OH JPA-relevant Tripartite and UNEP initiatives

Action Track (AT) and Action	Examples of existing, relevant programmes/activities/ initiatives
AT 1, Action 1	<ul style="list-style-type: none"> • Tripartite Zoonoses Guides: operational tools and approaches for zoonotic diseases • WHO Multisectoral Preparedness Coordination Framework: Best practices, case studies and key elements of advancing multisectoral coordination for health emergency preparedness and health security • International health regulations (IHR) monitoring and evaluation framework • OIE Performance of Veterinary Services (PVS) Pathway • WHO Benchmarks for International Health Regulations (IHR) capacities • IHR-PVS National Bridging Workshops (NBWs) • National Action Planning for Health Security (NAPHS) • Global Strategic Preparedness Network (GSPN) • Strategic toolkit for assessing risks: a comprehensive toolkit for all-hazards health emergency risk assessment • OIE Observatory for a better understanding of the implementation of OIE International Standards • One Health High Level Expert Panel portfolio of key issues, knowledge and evidence gaps and evidence-based recommendations for global, regional, national and local action • UNEP/WHO/Africa Institute Environmental Observatories for the Sound Management of Chemicals in Africa • Tools, methodologies, frameworks and reports on pollution and on environment and health (examples from UNEP: implementation plan towards a pollution-free planet; reports on impacts of air pollution on health and productivity) • Compendium of WHO and other UN guidance on health and environment • Interagency mechanisms on environment and health at the global, regional, subregional and national levels (inter-ministerial regional fora, regional issue based inter-agency coalitions, national inter-ministerial committees, etc.) • One Health Operational framework for strengthening human, animal and environmental public health systems at their interface. 2018. World Bank • National One Health Platforms
AT 1, Action 2	<ul style="list-style-type: none"> • FAO/OIE/WHO Strengthening capabilities for Veterinary Epidemiology and biosurveillance: Tripartite One Health Field Epidemiology Competency Framework; competency guidelines; curricula guidelines; continuing education model and guidelines; mentorship programmes; guidelines for evaluation certification. • Field Epidemiology Training Programmes and Field Epidemiology Training Programmes for veterinarians • Global Laboratory leadership Programme (GLLP) and other Laboratory training programmes • Training Programmes in Epidemiology and Public Health Intervention Network (TEPHINET) • WHO One Health Tool

	<ul style="list-style-type: none"> • One Health University Networks • Multidisciplinary research consortia (PREZODE, DeepVzn, etc.) • FAO/OIE/WHO/UNEP respective training academies/platforms and programmes • OIE Performance of Veterinary Services (PVS) Pathway • Sustainable Development Goals 17.14.1 methodology to measure mechanisms for policy coherence on Sustainable Development • Public Health Officers Training Laboratorium (PHOLab – Italian G20 Presidency) • OIE Public-Private Partnership handbook • OIE Observatory for a better understanding of the implementation of OIE International Standards • One Health High Level Expert Panel OHLEP portfolio of key issues, knowledge and evidence gaps and evidence-based recommendations for global, regional, national and local action • OIE Laboratory Twinning Programme
AT 1, Action 3	<ul style="list-style-type: none"> • One Health platforms • WHO Hub for pandemic and epidemic intelligence • Legal technical assistance programmes of respective organizations (e.g., UNEP Montevideo Programme for the development and periodic review of environmental law, and related platforms such as LEAP; OIE Performance of Veterinary Services (PVS) Pathway) • Financial/funding mechanisms
AT 2, Action 1	<ul style="list-style-type: none"> • Existing Risk Analysis/Assessment guidance (e.g., FAO guidance on a value chain approach to animal disease risk management; FAO technical guidelines on rapid risk assessment for animal health threats); • Tripartite Zoonoses Guides: operational tools and approaches for zoonotic diseases • Existing research agendas (WHO Blueprint; STAR-IDAZ)
AT 2, Action 2	<ul style="list-style-type: none"> • Existing Risk Analysis/Assessment guidance (e.g. FAO guidance on a value chain approach to animal disease risk management: https://www.fao.org/3/i2198e/i2198e.pdf; FAO technical guidelines on rapid risk assessment for animal health threats: https://www.fao.org/documents/card/en/c/cb3187en/; Tripartite Zoonoses Guide Joint Risk Assessment: https://www.fao.org/documents/card/en/c/cb1520en/) • Tripartite Zoonoses Guide Joint Risk Assessment country reports
AT 2, Action 3	<ul style="list-style-type: none"> • Tripartite Zoonoses Guide Surveillance and Information Sharing Operational Tool country reports • Disease information systems (FAO's EMPRES-i; OIE's WAHIS; WHO's IHR) • WHO Hub for pandemic and epidemic intelligence • OHISS reports • Existing PMPs (FMD-PCP: https://www.eufmd.info/pcpfmd#:~:text=The%20Progressive%20Control%20Pathway%20for,disease%20impacts%20and%20viral%20circulation; aquaculture PMP: https://www.fao.org/3/cb0560en/cb0560en.pdf; SARE: https://rabiesalliance.org/tools/planning-tools/sare) • FAO capacity assessment reports (laboratory mapping tool, surveillance evaluation tool)

	<ul style="list-style-type: none"> • PVS and JEE reports • Risk assessments performed by the TPT plus or individually • Forecasts and alerts (e.g. by FAO on Rift Valley Fever and Avian Influenza)
AT 3, Action 1	<ul style="list-style-type: none"> • Handbook and Posters from Tripartite Asia about Taenia as material for education and awareness • Combining preventive chemotherapy programmes in humans with pig treatment and vaccination for Taeniasis • Taenia mapping tools • Taenia diagnostics in pigs as a proxy for human infection
AT 3, Action 2	<ul style="list-style-type: none"> • NHS-PVS Bridging Workshops • Rabies SARE assessment • Tripartite Zoonosis guide (WHO/FAO/OIE, 2019. A Tripartite Guide to Addressing Zoonotic Diseases in Countries) • Generalized One Health Framework (GOHF) • International Food Safety Authorities Network (INFOSAN) encouraging Member States to designate emergency contact and focal points and promotes rapid information sharing, partnership and collaboration to strengthen capacities to manage food safety emergencies including outbreaks of foodborne zoonotic diseases
AT 3, Action 3	<ul style="list-style-type: none"> • NHS-PVS Bridging Workshops (Bringing stakeholders together to identify and raise awareness about common areas, support joint planning to increase commitment and identify synergies), • WASH toolkit: “WASH and health working together – a ‘how-to’ guide for NTD programmes”, • Generalized One Health Framework (GOHF) (Ghai et al 2021 – preprint)
AT 4, Action 1	<ul style="list-style-type: none"> • FAO/WHO Food Control Assessment Tool • OIE PVS Pathway tools • Codex Alimentarius Commission
AT 4, Action 2	<ul style="list-style-type: none"> • WHO Foodborne Diseases Surveillance Manual • OIE Terrestrial Animal Health Code • OIE Manual of Diagnostic Tests and Vaccines • WHO guide to healthy food markets • AMR Global Action Plan
AT 4, Action 3	<ul style="list-style-type: none"> • Foodborne Disease Burden Epidemiology Reference Group (FERG): https://www.who.int/groups/foodborne-disease-burden-epidemiology-reference-group-(ferg), • Estimating the burden of foodborne diseases: A practical handbook for countries: https://www.who.int/publications/i/item/9789240012264 • WHO Foodborne Diseases Surveillance Manual: https://www.who.int/publications/i/item/strengthening-surveillance-of-and-response-to-foodborne-diseases • WHO International Health Regulation (2005) • OHHLEP

AT 5, Action 1	<ul style="list-style-type: none"> • Strategic Framework on AMR and joint workplan • Global Action Plan on AMR • AMR Multi-Partner Trust Fund Results Matrix • FAO Action Plan on AMR 2021-2025 • OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials
AT 5, Action 2	<ul style="list-style-type: none"> • Strategic Framework on AMR and joint workplan • Global Action Plan on AMR • FAO Action Plan on AMR 2021-2025 • OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials
AT 5, Action 3	<ul style="list-style-type: none"> • Strategic Framework on AMR and joint workplan • Global Action Plan on AMR • IACG report
AT 6, Action 1	<ul style="list-style-type: none"> • Wildlife corridors projects • RED++ initiative • Devonshire Initiative • Prezode • Wildlife health alliance • Sustainable Wildlife Management Program (consortium) • UN Decade on Ecosystem Restoration • MEAs and Flyway partnerships • Collaborative Partnership on Sustainable Wildlife Management
AT 6, Action 2	<ul style="list-style-type: none"> • IHR-PVS National Bridging workshops • Guidance on Integrating Biodiversity Considerations into One Health Approaches • Emerging Infectious Diseases Prevention, Preparedness, and Response project for China • National Wildlife and Environmental Health Capacity Assessment Tools • FAO Biodiversity Mainstreaming Platform
AT 6, Action 3	<ul style="list-style-type: none"> • National Wildlife Health Information Systems (e.g., Brazil's SISS-GEO) • Climate anomaly forecasting for early warning systems - e.g., WMO and NASA; Colombia's Climate and Health Bulletin • EMPRES-i • EOS A • ESRI and open-source GIS tools • I-naturalist database • World Environment Situation Room

	<ul style="list-style-type: none"> • UN Biodiversity Lab • Environmental Observatories for the Sound Management of Chemicals in Africa - ChemoObs (https://chemobsafrica.org/ - including risk calculators and costs of inaction calculators) • Analytical contributions to CCAs as part of UN-SDCF preparation • Compendium of WHO and other UN guidance on health and environment (https://www.who.int/tools/compendium-on-health-and-environment) • Regional inter-ministerial fora on health and environment (Asia Pacific Forum on Health and Environment, European Environment and Health Ministerial Process, African Inter-ministerial Conference on Environment and Health)
AT 6, Action 4	<ul style="list-style-type: none"> • Field Training Program for Wildlife, Environment, Biodiversity and Ecosystems professionals (FT-WEBE) Field Epidemiology Training Program (for medics) • Field Epidemiology Training Program for Veterinarians (FETPV) and In-Service Applied Veterinary Epidemiology Training (ISAVET) • Field Epidemiology Training Program for Doctors (FETP) • Needs Assessment and impact assessment tools, for example for National Wildlife Health Programs and Country Assessment of Environmental Health Services (both in pilot form) • Virtual Learning Center training courses • Introductory One Health Training course (7 technical modules) - FAO Regional Office for Asia and the Pacific Virtual Learning Center • Global Framework for Transboundary animal diseases (GF-TADs) • FAO manuals on HPAI, bats, and other technical subjects • WHO/OIE One Health workforce initiative • OIE National Focal Point for Wildlife training cycles and manuals • The Tripartite One Health FETP Competency Framework