

Preventing Future Pandemics and Protecting Food Systems and the Environment in Central Asia

Central Asia One Health
Framework for Action



2023-
2030

Contents

Abbreviations	10
Introduction	11
The Central Asia One Health Framework for Action	16
1. Goals and Priority Issues	17
High-Level Goal 1: Improved Pandemic Prevention, Preparedness, and Response	18
High-Level Goal 2: Increased Food Systems Resilience and Agriculture Competitiveness and Trade	18
High-Level Goal 3: Improved Ecosystem Health	19
Priority Issue 1: Prevent and Respond to Zoonotic Disease Outbreaks	20
Priority Issue 2: Address the Risk of Antimicrobial Resistance	21
Priority Issue 3: Improve Food Safety	22
2. Main Areas for Action	23
Action Area 1: Coordination and Communication	25
Action Area 2: Strategies, Policies, and Regulatory Frameworks	27
Action Area 3: Prevention, Control, and Management Systems	29
Action Area 4: Multisectoral Workforce, Capacity Building, and Knowledge	31
3. Regional Coordination and Monitoring	33
4. Implementation at the National Level	37
Appendixes	39
Appendix A. Tentative List of Monitoring Indicators for One Health Implementation Status and Impact in Central Asia	39
Appendix B. Preliminary drafts of the Regional One Health Coordination Structure Action Items and Resource Needs, and National One Health Action Plans	41

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Central Asia One Health Framework for Action

2023–2030

In the wake of the global turmoil inflicted by COVID-19, affecting the health, economies, and mental well-being of individuals, nations, and the entire world, it has become abundantly clear that our collective preparedness for future pandemics must be enhanced.

Diseases that pass from animals to humans are responsible for over a billion human infections in the world annually and cause significant losses in animal productivity and trade opportunities. Land degradation exacerbated by climate change is accentuating the emergence of diseases in Central Asia and increasing stress on food systems and agricultural competitiveness. Pressure on ecosystems is increasing, leading to significant threats to biodiversity, natural resources, and ecosystem services. Food insecurity in the region is increasing, especially among rural and lower-income households. Food safety hazards and antimicrobial resistance are also suspected to be looming. These alarming trends pose a threat to human development and elevate the risk of social fragility and more extensive outbreaks, such as COVID-19. To mitigate these unsustainable burdens that risk our future, our primary focus must be on One Health.

The One Health approach offers a strategic pathway to reduce the risk of pathogens spilling over between domesticated and wild animals to humans, and address threats to food systems resilience. One Health

Предотвращение пандемий, защита продовольственных систем и окружающей среды в Центральной Азии

Рамочная программа действий «Единое здоровье в Центральной Азии»

2023–2030 годы

После глобальных потрясений, вызванных COVID-19, которые оказали серьёзное воздействие на здравоохранение, экономику и ментальное благополучие людей, как в отдельных странах, так и во всём мире, стало совершенно очевидно, что наша коллективная готовность к будущим пандемиям требует укрепления.

Болезни, передающиеся от животных к людям, ежегодно заражают более миллиарда человек в мире. Они наносят значительный ущерб продуктивности животноводства и серьёзно ограничивают торговые возможности. Деградация земель, усугубляемая изменением климата, способствует распространению заболеваний в Центральной Азии, усиливает нагрузку на продовольственные системы и снижает конкурентоспособность сельского хозяйства. Усиливается давление на экосистемы, создавая значительные угрозы для биоразнообразия, природных ресурсов и экосистемных услуг. В регионе ухудшается продовольственная безопасность, особенно среди сельских и малообеспеченных домохозяйств. Дополнительно могут возникать риски, связанные с безопасностью пищевых продуктов и формированием устойчивости к противомикробным препаратам. Эти тревожные тенденции ставят под угрозу развитие человеческого потенциала и повышают риск социальной нестабильности, а также возникновения более масштабных вспышек заболеваний, подобных COVID-19. Для снижения этого бремени и обеспечения устойчивого будущего необходимо сосредоточить усилия на реализации подхода «Единое здоровье».

Подход «Единое здоровье» определяет стратегический путь снижения риска передачи патогенов от домашних и диких животных к человеку, а также устранения угроз для устойчивости продовольственных систем. Признавая

recognizes the link between human health, animal health, and their shared ecosystems, and it provides a practical, integrated, and multisectoral framework for pandemic prevention.

We are pleased to approve and introduce the Central Asia One Health Framework for Action—a document that lays the foundation for regional and inter-sectoral cooperation in addressing critical issues related to pandemic prevention, preparedness, and response; food systems resilience and agriculture competitiveness and trade; and ecosystem health in Central Asia. This framework is the result of concerted efforts by governments, stakeholders in the region, and national and international experts, reflecting a collective commitment to securing the well-being of both humans and animals while bolstering regional competitiveness.

The shared challenges faced by Central Asian countries demand regional collaboration to develop monitoring, prevention, and response systems that single-country strategies cannot achieve. The commitment of the Central Asian governments to embrace the One Health approach is expressed in the Joint Communiqué “Protecting Food Systems, Preventing Future Pandemics in Central Asia,” issued in 2022. This signed declaration by the governments of Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan signifies their recognition of the One Health approach as an effective means to address regional challenges.

The Central Asia One Health Framework for Action aligns seamlessly with regional and national priorities and planning processes and offers a practical approach for operationalizing these priorities, fostering collaboration, and driving resources and progress toward a safer, healthier, and more resilient Central Asia.

взаимосвязь между здоровьем человека, здоровьем животных и их общими экосистемами, подход «Единое здоровье» обеспечивает практическую, комплексную и многоотраслевую основу для профилактики пандемий.

Мы рады утвердить и представить Рамочную программу действий «Единое здоровье в Центральной Азии» — документ, который закладывает основу для регионального и межотраслевого сотрудничества в решении ключевых задач, связанных с предупреждением, готовностью и реагированием на пандемии, обеспечением устойчивости продовольственных систем, повышением конкурентоспособности сельского хозяйства и развитием торговли, а также укреплением здоровья экосистем в Центральной Азии. Настоящая Рамочная программа действий является результатом согласованных усилий правительств, заинтересованных сторон региона, а также национальных и международных экспертов и отражает коллективную приверженность обеспечению благополучия людей и животных при одновременном укреплении региональной конкурентоспособности.

Для решения общих проблем, с которыми сталкиваются страны Центральной Азии, необходимо региональное сотрудничество в разработке систем мониторинга, предупреждения и реагирования, которые не могут быть полностью реализованы в рамках стратегий отдельных государств. Приверженность правительств стран Центральной Азии подходу «Единое здоровье» подтверждена совместным коммюнике «Защита продовольственных систем, предотвращение пандемий в Центральной Азии», принятом в 2022 году. Эта декларация, подписанная правительствами Казахстана, Кыргызской Республики, Таджикистана, Туркменистана и Узбекистана, закрепляет признание подхода «Единое здоровье» как эффективного инструмента для решения региональных проблем.

Рамочная программа действий «Единое здоровье в Центральной Азии» полностью соответствует региональным и национальным приоритетам и процессам планирования. Она предусматривает практический подход к их реализации, укреплению сотрудничества, привлечению ресурсов и достижению прогресса в создании более безопасных, здоровых и устойчивых условий в Центральной Азии.

As we present this Framework for Action, we extend our appreciation to all who have contributed to its development. We are confident that the framework will serve as a critical tool in realizing our shared vision of a region that is well-prepared to enhance the health and well-being of its people, animals, and environment while fostering sustainable development and resilience.

Представляя настоящую Рамочную программу действий, мы выражаем признательность всем, кто внес свой вклад в её разработку. Мы убеждены, что эта программа станет важным инструментом для реализации нашего общего видения развития региона, обладающего потенциалом для улучшения здоровья и повышения благополучия людей, животных и окружающей среды, тем самым способствуя устойчивому развитию и укреплению стабильности.

Signatories:



Republic of Kazakhstan / Республика Казахстан

On behalf of
Ministry of Healthcare of
the Republic of Kazakhstan

От имени
Министерства здравоохранения
Республики Казахстан

Occupation/Должность Вице-Министр здравоохранения РК
Name/ФИО Есманайтасови Айман Серикбайовна ES
Signature/Подпись

On behalf of
Ministry of Agriculture of
the Republic of Kazakhstan

От имени
Министерства сельского хозяйства
Республики Казахстан

Occupation/Должность Acting Chairman / И.о. Председателя КВКР МСХ РК
Name/ФИО Турсунов Самат Бексүрманович ST
Signature/Подпись

On behalf of
Ministry of Ecology and Natural Resources
of the Republic of Kazakhstan

От имени
Министерства экологии и природных
ресурсов Республики Казахстан

Occupation/Должность Вице-министр экологии и природных ресурсов РК
Name/ФИО Шарышев Нуркен Кожамурамович NS
Signature/Подпись



Kyrgyz Republic / Кыргызская Республика

On behalf of
Ministry of Health of
the Kyrgyz Republic

От имени
Министерства здравоохранения
Кыргызской Республики

Occupation/Должность Заместитель министра
Name/ФИО Алибаев Б.К. 
Signature/Подпись


On behalf of
Ministry of Water Resources,
Agriculture and Processing Industry of
the Kyrgyz Republic

От имени
Министерства водных ресурсов,
сельского хозяйства и перерабатывающей
промышленности
Кыргызской Республики

Occupation/Должность Заместитель министра
Name/ФИО Амгасаров М.А. 
Signature/Подпись

On behalf of
Ministry of Natural Resources,
Ecology and Technical Supervision
of the Kyrgyz Republic

От имени
Министерства природных ресурсов,
экологии и технического надзора
Кыргызской Республики

Occupation/Должность Заместитель министра
Name/ФИО Кусебеков Кудат 
Signature/Подпись



Republic of Tajikistan / Республика Таджикистан

On behalf of
Ministry of Health and Social
Protection of the Republic
of Tajikistan

От имени
Министерства здравоохранения и
социальной защиты населения
Республики Таджикистан

Occupation/Должность

Заместитель министра

Name/ФИО

Алишера А. А.

Signature/Подпись

On behalf of
Committee for Food Security under the
Government of the Republic of Tajikistan

От имени
Комитета продовольственной
безопасности при Правительстве
Республики Таджикистан

Occupation/Должность

Chairman / Председатель

Name/ФИО

Файзуллозода М. Ч.

Signature/Подпись

On behalf of
Ministry of Agriculture of
the Republic of Tajikistan

От имени
Министерства сельского хозяйства
Республики Таджикистан

Occupation/Должность

Deputy Minister / Заместитель министра

Name/ФИО

Назаринова М. Ф.

Signature/Подпись

On behalf of
Committee for Environmental
Protection under the Government of
the Republic of Tajikistan

От имени
Комитета по охране окружающей
среды при Правительстве
Республики Таджикистан

Occupation/Должность

Deputy Chairman / Заместитель Председателя

Name/ФИО

Мавлодиг А. М.


Signature/Подпись



Turkmenistan / Туркменистан


On behalf of
Ministry of Health and
Medical Industry of
Turkmenistan

От имени
Министерства здравоохранения
и медицинской промышленности
Туркменистана

Occupation/Должность Министр
Name/ФИО Mammedow Merot 
Signature/Подпись


On behalf of
Ministry of Agriculture of
Turkmenistan

От имени
Министерства сельского хозяйства
Туркменистана

Occupation/Должность Министр
Name/ФИО Ч. П. Чемеєв 
Signature/Подпись

On behalf of
Ministry of Environmental Protection
of Turkmenistan

От имени
Министерства охраны окружающей среды
Туркменистана

Occupation/Должность Министр
Name/ФИО Ч. Т. Баданоязов 
Signature/Подпись



Republic of Uzbekistan / Республика Узбекистан

On behalf of
Ministry of Health of the
Republic of Uzbekistan

От имени
Министерства здравоохранения
Республики Узбекистан

Occupation/Должность Начальник управления
Name/ФИО Украсов Рустанжон Шибзулов СМЗ
Signature/Подпись

On behalf of
State Committee for Veterinary and
Livestock Development of the
Ministry of Agriculture of the
Republic of Uzbekistan

От имени
Государственного комитета ветеринарии
и развития животноводства
Министерства сельского хозяйства
Республики Узбекистан

Occupation/Должность Начальник управления
Name/ФИО Досанов Савадуддин МОН
Signature/Подпись

Abbreviations

AMR	antimicrobial resistance
AMU	antimicrobial use
FAO	Food and Agriculture Organization of the United Nations
GIS	geographic information system
UNEP	United Nations Environment Programme
WHO	World Health Organization
WOAH	World Organisation for Animal Health

INTRODUCTION



Introduction

This Central Asia One Health Framework for Action (hereafter “the Framework for Action”) provides the direction and coordination structure for regional cooperation that address Central Asia’s need for pandemic prevention, preparedness, and response; food systems resilience and agriculture competitiveness and trade; and ecosystem health. The Framework for Action provides a vision for the way forward and identifies priority issues, key action areas, indicators, and coordination structure for its operationalization and partner engagement. It also identifies concrete initial steps for implementation at the national and regional levels.

Central Asian countries face both common and unique sets of vulnerabilities, drivers, and risks of outbreaks of zoonotic diseases, transboundary animal diseases, food safety risks, and antimicrobial resistance (AMR) incidents that pose barriers to human and animal well-being, ecosystem health, and economic development. The five countries of Central Asia are bound to jointly address these issues, as they originate in cross-boundary elements and trends: human mobility and trade of live animals and livestock products in the region, regional and supra-regional transport corridors, distribution areas of regional wildlife populations and transcontinental migratory routes of bird species. The benefits from collaboration will also be regional: trade and the related economic opportunities, lower cost of epidemics and pandemics, and savings from shared investments.

For example, intensified livestock production and trade, and the accompanying increase in the proximity of humans, livestock and wildlife, coupled with limited intersectoral action among animal, environmental, and health sectors are some of the regional drivers of health security risks and biodiversity erosion. Factors such as economic and social inequalities, limited rangeland management institutions and gender disparities further compound these risks. At the same time, increased regional cooperation and trade represent a significant opportunity to strengthen and diversify economies, improve food security, address poverty, and mitigate risks in a cost-effective manner. Restoring grasslands and preserving biodiversity are great opportunities to improve agriculture productivity, prevent pandemics and preserve ecosystems health.

These common challenges are high on the regional governments’ agendas and demand regional collaboration to develop prevention and response systems on a scale that single-country strategies are unable to achieve. Managing global health risks requires full cooperation among the public health, animal health, and environment sectors at the local, national, regional, and global levels.

One Health is a collaborative approach that brings these sectors together to prevent, monitor, detect, respond to, and recover from infectious diseases; improve global health security; and achieve gains in development (box 1). The approach addresses the root causes of public, animal, and environmental health issues and is thus critical for achieving the United Nations’ 2030 Agenda for Sustainable Development and the related Sustainable Development Goals. This approach was laid out in the One Health Joint Plan of Action, which was developed by the Quadripartite Alliance for One Health that includes the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO), and the World Organisation for Animal Health (WOAH).¹

¹ See <https://www.who.int/teams/one-health-initiative/quadripartite-secretariat-for-one-health>

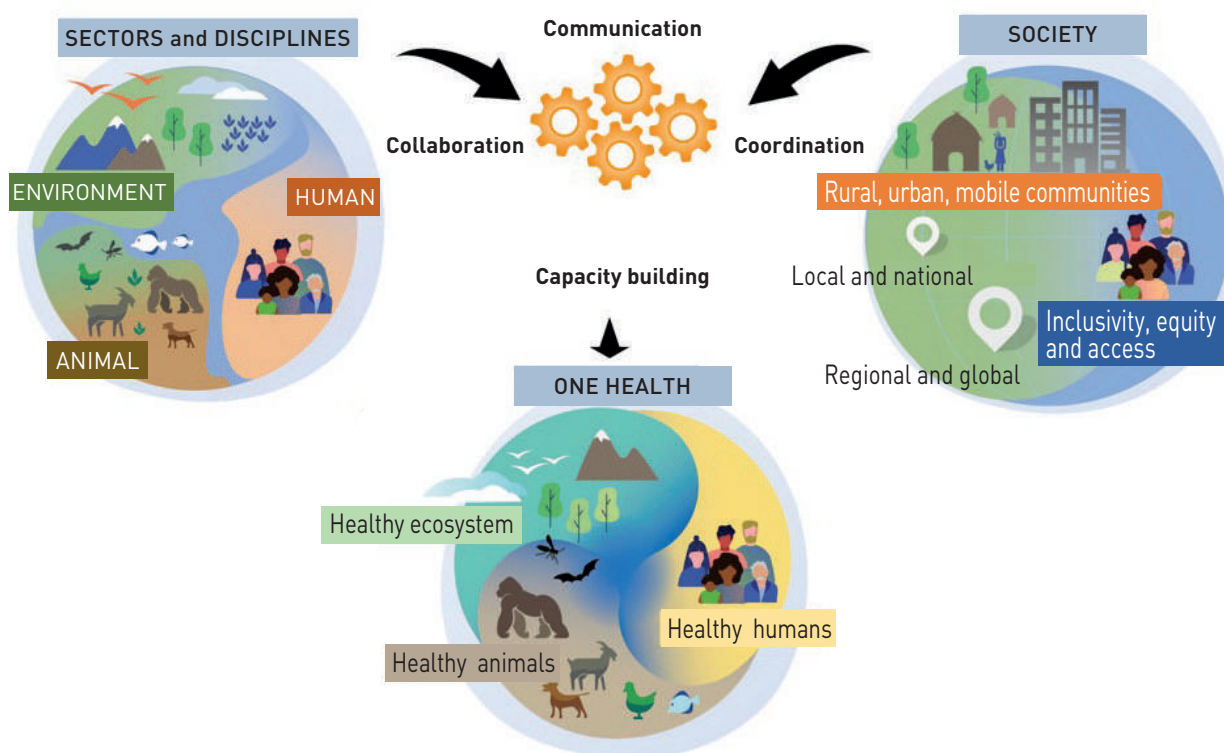
Box 1. The One Health Approach

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

It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

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, including addressing the collective need for clean water, energy, and air as well as safe and nutritious food; taking action on climate change; and contributing to sustainable development.

Figure B1.1. A Visualization of the One Health Approach



Source: Quadripartite Alliance for One Health.

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

The region's preparation of the Framework for Action builds on a broad regional, multisectoral, and multistakeholder process initiated on November 14, 2022, when officials from five Central Asian countries, representing all three One Health sectors (agriculture, health, and environment) signed the Joint Communiqué agreeing to (1) support the development of the Framework for Action, (2) establish the appropriate One Health governance structures for the implementation of national and regional activities, and (3) engage in joint resource mobilization, data sharing, and preparatory work for the implementation of One Health in Central Asia. The development of the

framework also involved the preparation of several studies², and a series of national and regional consultations³.

The Framework for Action aligns with the following four regional and national priorities and planning processes to enable operationalization:

- The Quadripartite Alliance for One Health Statement to strengthen cooperation to sustainably balance and optimize the health of humans, wildlife and domestic animals, plants, and the environment, as well as the Regional One Health Coordination Mechanism established by the alliance in April 2021. The regional mechanism includes a work plan for joint activities in the region to operationalize the One Health approach.
- The WHO European Region's Roadmap for Health and Well-Being in Central Asia 2022–2025, which was endorsed by four of the five Central Asian countries in 2022.
- The Roadmap for Antimicrobial Resistance for 2023–2030, which is designed to support countries in identifying, prioritizing, and implementing high-impact interventions to effectively combat AMR. The roadmap, which has a One Health perspective, focuses on country-level implementation and progress. It aims to integrate AMR within a broader framework by associating it with health security, universal health coverage, and primary health care.
- The Central Asia Animal Health Network, which was established with support of the FAO in 2019 to coordinate, prioritize, and share information and practices at regional and global levels. Based on the health priorities expressed by the five member countries, it focuses on zoonoses.

² For example, *Protecting Food Systems, Preventing Future Pandemics—The Case for a Central Asia One Health Program*
<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099745409202315819/idu00ca5ba5408546046a00b0f80ed8583e15cdc>

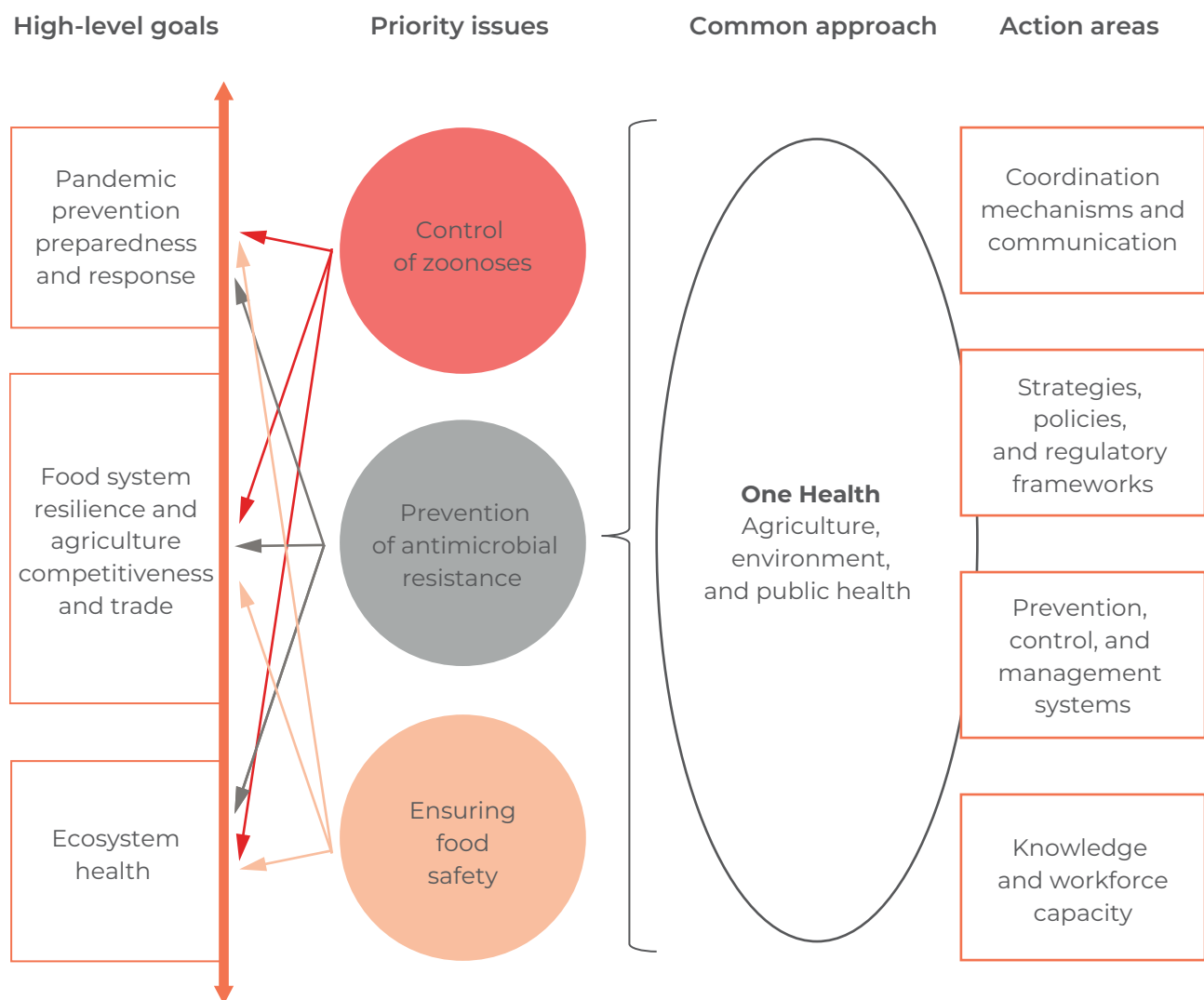
³ National consultations in February–March 2023 and October–November 2023 and regional consultations in June and November 2023.



The Central Asia One Health Framework for Action

The components of the Framework for Action, as shown in figure 1, are three high-level goals, three priority issues, and four action areas to be implemented through a multisectoral One Health approach. While addressing the identified priority issues is essential to achieving the high-level goals, other issues will also need to be addressed, such as access to public health care, agriculture innovation, water management and land degradation, to mention a few.

Figure 1. Overview of the Central Asia One Health Framework for Action



Source: Original figure for this publication

1. GOALS AND PRIORITY ISSUES



1. Goals and Priority Issues

The Framework for Action pursues three high-level goals through a One Health approach: (1) prevent, prepare for, and respond to pandemics; (2) build food systems resilience and agriculture competitiveness and trade; and (3) improve ecosystem health.

High-Level Goal 1: Improved Pandemic Prevention, Preparedness, and Response

Regional and cross-sectoral collaboration is essential to developing the capacity, policies, and management systems to prepare for, prevent, and respond to future pandemics. The COVID-19 pandemic has caused over 28,000 reported deaths and about 2 million cases in Central Asia (Worldometer 2023)⁴ and exposed gaps in the capacity to respond to pandemics at the national and regional levels. For example, the share of the regional population that is fully vaccinated remains below 50 percent.⁵ As the pace of emerging infectious disease outbreaks continues to accelerate, the next pandemic may be closer than expected: we currently face a 2 percent chance of a COVID-19-like pandemic in any given year⁶, that is, the probability of experiencing a pandemic similar to COVID-19 in one's lifetime is about 38 percent.

Central Asia is particularly vulnerable given its swift shifts in temperatures and weather patterns, ongoing land degradation and biodiversity erosion, and location at the intersection of global value chains and bird migration routes. Furthermore, Central Asia heavily relies on labor migration within and outside the region, remittances having raised up to half of some of the national economies.

Building human and technical resources, information systems, cooperation mechanisms, and communication practices at the national and regional levels is crucial to preventing, preparing for, and responding to the economic and human impacts of future pandemics.

High-Level Goal 2: Increased Food Systems Resilience and Agriculture Competitiveness and Trade

Improving the resilience of food systems and agricultural competitiveness and trade through interventions ranging from farm-level practices to national and regional policies and collaboration structures is of the utmost importance to Central Asia. The regional food system is under growing stress as consumer demand evolves and the climate changes. Rising temperatures, extreme weather events, and the resulting changes and river flows volumes and seasonality will profoundly affect the productivity of agriculture systems, including through reduced crop and animal productivity, reduced labor productivity, degraded lands and pasture, and increased input costs.

Furthermore, climate and ecosystem changes will lead to the emergence of new diseases. This risk is particularly acute in Central Asia because it is located in a main bird migration pathway

4 Worldometer. 2023. "COVID-19 Coronavirus Pandemic." <https://www.worldometers.info/coronavirus/>.

5 Ourworldindata (search for total number of people who received all doses prescribed by the initial vaccination protocol, divided by the total population of the country; accessed September 19, 2023), <https://ourworldindata.org/explorers/coronavirus-data-explorer>.

6 Marani, M., C. G. Katul, W. K. Pan, and A. J. Parolari. 2021. Intensity and Frequency of Extreme Novel Epidemics. Princeton, NJ: Princeton University. <https://www.pnas.org/doi/10.1073/pnas.2105482118>.

connecting breeding sites in West Siberia and Central Asia with wintering zones in Africa and East and South Asia, as demonstrated by avian influenza virus surveillance in waterfowl during the 2000's.

In addition, rising incomes and more demanding consumer preferences in domestic and target export markets are making product quality and safety a key determinant of competitiveness in regional and export markets. The improvement of current production practices and livestock genetics, and the control of endemic diseases, which are often zoonotic, will contribute to increasing food systems resilience and the competitiveness of regional livestock value chains. It will enable to consolidate and expand a growing regional trade, connecting areas with high agro-ecological potential to a rising urban demand for animal products. Further, the control of internationally reportable transboundary animal diseases; the implementation of harmonized national sanitary and phytosanitary measures consistent with international standards; and the improvement of laboratory capacity systems and coordination between border controls will enable Central Asian countries to expand their regional and international food trade.

Central Asia's future as a supplier of agriproducts and livestock will therefore depend on how the region's food producers and processors respond to the increased quality and safety demands of domestic consumers and export markets. That future also depends on how well countries coordinate to develop knowledge and institutions and support innovation and novel financing mechanisms that increase food systems resilience and deliver food security.

High-Level Goal 3: Improved Ecosystem Health

Land degradation, water scarcity, deforestation, biodiversity loss and climate change are crucial environmental stressors in Central Asia with huge implication to human health and food system. Unsustainable land management practices in the region, including those driven by increased grazing pressure, combined with climate change have rapidly degraded the region's ecosystems, exposing humans to zoonotic diseases.

For example, the shortage of pastureland is forcing humans and livestock to share landscapes with wildlife, paving the way for the transmission of zoonotic diseases across livestock, humans, and wildlife including birds. As a result of habitat losses and zoonotic outbreaks, many endangered species, most of them present across national borders in Central Asia, have seen their population shrinking, and significant drops in biodiversity have been observed.

Also, rapid industrialization, agricultural expansion and intensification affect the ecology of soils and watercourses. For example, excessive water extraction for irrigation has caused the Aral Sea—once the fourth-largest lake in the world—to shrink significantly, which has generated severe negative ecological and public health impacts related to the loss of ecosystems and an increase in domestic and transboundary dust and salt storms, and soil contamination. Although poorly documented, the indiscriminate use of antibiotics is suspected to result in residues disseminated into the environment via livestock effluents, wastewater and urban waste, resulting in AMR and other impacts to the health of humans and ecosystems.

The development of regional collaboration, sharing of best practices, and improvement of regulatory frameworks and capacities will help Central Asian countries safeguard their ecosystem health and prevent local and regional transmission of zoonotic diseases.

Priority Issue 1: Prevent and Respond to Zoonotic Disease Outbreaks

Zoonoses diminish agricultural productivity and are a threat to wildlife populations, biodiversity and human health. Their prevalence also constrains trade. Most zoonoses are endemic to this region. For example, anthrax, brucellosis, echinococcosis, highly pathogenic avian influenza, and rabies are still very prevalent. The Central Asia Animal Health Network supported by the FAO and the WOAHA highlighted this as a priority issue during meetings it held for the preparation of the Framework for Action. Further assessments carried out in the context of the Framework for Action preparation process have estimated the annual cost of brucellosis and echinococcosis, at US\$300 million.

Recent disease outbreaks have also significantly declined wildlife populations, such as the Tajikistan's markhor and the Saiga antelope. The threat of local extinctions due to disease outbreaks is increasing as wildlife populations become smaller and more isolated due to other environmental factors.

In addition, the probability of zoonoses and reverse zoonoses spreading globally is growing, requiring Central Asia to prepare for risks of contamination and related impacts on public and animal health, as well as environmental conservation, and national economies.

Central Asian countries will increase their ability to detect, prevent, and respond to these challenges by adopting the One Health approach to zoonoses at the human-livestock-wildlife interface. Multidisciplinary teams and collaboration across sectors are fundamental to building capacity and creating solutions to tackle this challenge. Addressing this issue in Central Asia requires a comprehensive and multisectoral approach at the regional level, including improving livestock management practices, strengthening veterinary services, implementing effective vaccination programs, and ensuring proactive monitoring and disease surveillance among wildlife species. These steps are all critical to preventing and responding to priority zoonotic diseases at their source.

Further, enhancing public health infrastructure, including diagnostic capabilities, early reporting, and access to treatment, is essential for the early detection and timely management of human cases. Collaboration and sharing of resources and information between both the environment, veterinary and public health sectors is therefore critical to optimize resources and disease management. Also, to sustain behavioral changes and improve control efforts, it is crucial to raise awareness among communities, health care professionals, wildlife rangers and policy makers about zoonotic disease risks and preventive and response measures.

Priority Issue 2: Address the Risk of Antimicrobial Resistance

Globally, an estimated 1.3 million people die each year directly due to bacterial AMR⁷. The key driver of AMR remains the overuse and misuse of antimicrobials in humans and livestock. Over the last decade, research has demonstrated a range of drivers contributing to AMR emergence and spread, such as inappropriate use of antimicrobials in animal production and health care settings, low public awareness about prudent use, environmental dissemination of antimicrobial residues, and resistant pathogens and genes.

⁷ Murray, Christopher J L et al. 2022. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. The Lancet, Volume 399, Issue 10325, 629 - 655 [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02724-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02724-0/fulltext)

The burden of disease due to AMR in Central Asia is being driven by increasing livestock production, poor biosafety standards, misuse of antimicrobials, and substandard food hygiene that contributes to the spread of new germs and AMR. The misuse and overuse of antibiotics in livestock is likely to result in residues disseminated into the environment via livestock effluents, wastewater and urban waste. However, assessing the magnitude of AMR in the region also remains a challenge because of a lack of adequate animal and public health surveillance systems and limited testing of antibiotic residue resistance. The absence of data and monitoring on antimicrobial use and residues is also a constraint to trade and the competitiveness of Central Asian livestock.

While there is a strong commitment to addressing AMR in the region, high-level endorsement and implementation of action plans have stalled because of the prioritization of issues related to COVID-19 and a lack of resources and capacity to detect AMR in humans, animals, and the environment. Efforts to fight AMR require public education, enforcement of legislation, and infection prevention and control measures, so preventing, detecting, and responding to AMR relies on strengthened and coordinated surveillance and laboratory capacity and coordinated responses across the human and animal health, environment, and trade sectors. All these activities should be addressed at the national and regional levels, where regional cooperation will ensure to share resources and investments and benefit from the benefits will be the expertise, information, and resources shared between countries.

Priority Issue 3: Improve Food Safety

Food safety risks are a threat to the health of local populations, potentially leading to epidemics and pandemics. In Central Asia, the lack of monitoring data and the limited capacity to manage food safety are important constraints to trade access and represent potential risks to the resilience of the food system. According to joint external evaluation and performance of veterinary services assessments in Central Asia, current food safety procedures in both animal and public health services do not comply with international best practices.

In all Central Asian countries, data on foodborne illnesses and international notification of food safety hazards on food products is limited and does not allow for an accurate description of the food safety situation or international notifications of food safety events.

Central Asian countries need to improve the regularity of notifications to the FAO/WHO International Food Safety Authorities Network and would benefit from opening to international audits, such as those performed by the European Union's Food and Veterinary Organization.

Food safety inspections of domestically produced products are shared by (1) veterinary services, which inspect primary products (pre- and postmortem, raw milk); (2) ministries of health, which inspect food processing units; and (3) local authorities, which are responsible for inspecting slaughterhouses and distribution chains in local communities. Further, the ability to ensure the safety of imported food products is restricted by the region's limited border infrastructure and lack of resources to detect and respond to food safety issues.

While all Central Asian countries have intersectoral committees in place for coordinating food safety efforts, each is facing different challenges in ensuring efficiency. Progress in reducing food safety risks has mainly been driven by private food companies' voluntary implementation of food safety standards. However, only the larger food companies and global exporting companies have developed food safety management systems that adhere to the Eurasian Economic Union's international standards and technical regulations.

Accordingly, addressing the region's food safety gaps is important for ensuring access to safe and nutritious domestically produced or imported food. In systems with shared responsibilities, multisectoral coordination of surveillance and monitoring systems, inspection and enforcement plans, and food safety emergency response are of the utmost importance. Implementing a One Health approach will support better control of priority zoonoses and a reduction of food safety risks. Also, countries in the region will be able to meet their ambitions of exporting animal food products to external markets as they become compliant with WOH and Codex international food standards, animal identification systems, and farm-to-fork surveillance plans and strengthen their capacity for the enforcement of food safety regulations.

2. MAIN AREAS FOR ACTION



2. Main Areas for Action

Lessons learned from other countries' operationalization of One Health approaches show that investments in dialogue and institutional capacity at the regional level need to be complemented with a buildup of national resources. Implementing a One Health approach in Central Asia will require the development of capacities at all levels by conducting actions in the following areas: (1) coordination and communication between sectors and countries, and with partner organizations and the general public; (2) strategies, policies, and regulatory frameworks that incentivize One Health implementation; (3) prevention, control, and management systems; and (4) multisectoral workforce capacity building, and transdisciplinary knowledge.

For each action area, the key needs to be addressed are described and the main objectives, potential activities, and indicators of success are outlined. The action areas are identified as a broad ensemble activities that, when put in practice, would contribute to the successful implementation of One Health in Central Asia. The selection of activities, their adaptation to the national contexts and needs and the timing of their implementation will be decided nationally during implementation of the Framework for Action, and by the regional coordination structure presented in Section 3, for joint regional activities.



Action Area 1: Coordination and Communication

The Action Area 1 will address the following needs, identified during the preparation process of the Framework for Action:

- Coordination structure at the regional and national levels to strengthen intersectional and multisectoral cooperation.
- Improvement of information and experience sharing for effective monitoring, surveillance, control, and communication activities.
- Improvement of communication for One Health implementation at various levels and across stakeholders, including risk communication.
- Mobilization of resources for effective coordination and communication across sectors and decision-making levels.

Table 1. Action Area 1 Objectives, Activities, and Indicators

Objectives	Main activities	Areas for indicators
1. Coordinated regional implementation, monitoring, and evaluation of the Framework for Action	<ul style="list-style-type: none"> • Establish the Regional One Health Coordinating Structure, for the implementation of the Framework for Action (see section 3) • Develop and maintain a One Health regional dashboard to monitor and evaluate implementation One Health approaches in Central Asia 	<ul style="list-style-type: none"> • Regional One Health Coordinating Structure (see section 3) established and members from countries designated • One Health regional meetings organized annually • One Health regional dashboard established in the first year and used for reporting in subsequent years • Periodic evaluation of the impact of One Health implementation in Central Asia (preliminary list of proposed indicators presented in appendix A)
2. Improved National One Health coordination mechanisms participate in the regional coordination structure	<ul style="list-style-type: none"> • Evaluate the national One Health coordination structure on a regular basis • Increase participation of the various stakeholders in the multisector national coordination mechanism • Provide training and coordination support to national One Health implementation mechanisms 	<ul style="list-style-type: none"> • One Health coordination structures established at national level. • Attendance of national representatives in the activities of the Regional One Health Coordinating Structure • Terms of reference for the multisector national coordination mechanism developed and updated based on existing intersectoral plans • Minutes of regular meetings of the multisector national coordination mechanism made available

Objectives	Main activities	Areas for indicators
<p>3. Established communication and sharing of information and experience between stakeholders at local, national, regional, and international levels</p>	<ul style="list-style-type: none"> • Develop and implement a regional communication strategy addressing different targets, including policy makers, practitioners, and the general public • Define and periodically update plans for the sharing of information and experience that are consistent with existing areas of competency and national standards and regulations • At the national level, draft and agree on internal and external risk communication strategies for One Health • Coordinate communication with policy makers and the public about risks, outbreaks, and responses 	<ul style="list-style-type: none"> • Effective communication mechanisms established across sectors, stakeholder groups, and institutions, from local to regional, in Central Asia • Joint action plans and memoranda of understanding approved between veterinary, human health, and environmental agencies for collaborative efforts, including information and experience sharing protocols and procedures among sectors at national and regional levels • Plans developed and implemented for interoperable electronic platforms that allow authorized stakeholders to securely access and share information and experience • Stakeholder awareness and participation in pandemic preparedness, prevention, and response activities, assessed through surveys and community feedback • Percentage of consumers knowing of and adopting practices related to safe food handling
<p>4. Leveraged resources for the implementation of a One Health approach in Central Asia</p>	<ul style="list-style-type: none"> • Carry out joint resource mobilization and advocacy and facilitate regional and national access to financing options • Periodically update the assessment of resource needs for the implementation of the Framework for Action at the national level, as well as expected financing sources 	<ul style="list-style-type: none"> • Financing from all sources (government budgets, development partners, and private sector) allocated to the prevention and control of zoonoses, AMR, and food safety at the national level

Note: AMR = antimicrobial resistance; Framework for Action = Central Asia One Health Framework for Action

Action Area 2: Strategies, Policies, and Regulatory Frameworks

The Action Area 2 will address the following needs, identified during the preparation process of the Framework for Action:

- Regional dialogue on strategies for pandemic preparedness, prevention, and response; food systems resilience; and agriculture competitiveness and trade.
- Updated national regulations to incentivize the implementation of One Health approaches in the public, animal, and environmental health sectors.



Table 2. Action Area 2 Objectives, Activities, and Indicators

Objectives	Main activities	Areas for indicators
1. Active dialogues established on common regional strategies and policies	<ul style="list-style-type: none"> Carry out strategic and technical dialogue and agreements on new legislation or regulations, information and experience sharing, and financing of One Health 	<ul style="list-style-type: none"> Agreements reached on strategy and policies as documented in the meeting reports of the Central Asia One Health Coordination Structure Annual work plans of the Central Asia One Health Coordination Structure approved Technical reviews developed in the areas of legislation and regulations, information and experience sharing, and financing
2. Improved/ developed strategy frameworks and regulations implemented at local, national, and regional levels to enable and incentivize the implementation of a One Health approach	<ul style="list-style-type: none"> Carry out reviews of legislation and regulations and address shortcomings and gaps Remove legal/regulatory obstacles to One Health implementation, and enable and incentivize cross-sector collaboration Ensure compliance of national regulations with WHO, WOA, and Codex international standards as well as guidelines Where relevant, develop and implement policies and regulations to curb the misuse of antibiotics Strengthen regulatory/control agencies' capacity to inspect and enforce food safety standards 	<ul style="list-style-type: none"> Completed reviews of regulatory framework and public expenditure carried out Legislation and regulations adopted, removed, or updated to facilitate implementation of One Health National One Health Framework for Action developed and approved to improve coordination between the ministries of agriculture, environment, and health; international organizations; farmers; health workers; civil society organizations; and community-led organizations Annual investment in One Health public education, updating regulation, disease surveillance systems, laboratory networks, simulation exercises, and inspections to support early detection and response to zoonoses, and prevention and control of AMR and food safety

Action Area 3: Prevention, Control, and Management Systems

The Action Area 2 will address the following needs, identified during the preparation process of the Framework for Action:

- Capacity to monitor the presence and prevalence of pandemic and priority zoonotic diseases, AMR, and food hazards in human and animal populations, including wildlife.
- Capacity to prevent, prepare for, and respond to pandemics as well as the presence and spread of priority zoonotic diseases, AMR, and food hazards in human and animal populations, including wildlife.
- Effective reporting systems on disease events in wildlife that integrate with existing veterinary reporting systems.

Table 3. Action Area 3 Objectives, Activities, and Indicators

Objectives	Main activities	Areas for indicators
1. Improved capacity for early detection and reporting of priority zoonotic diseases, AMR, and food hazards in human and animal populations, including wildlife	<ul style="list-style-type: none"> • Map and review surveillance systems and laboratory networks to identify main priorities for investment • Prepare cross-sectoral surveillance systems and information and experience sharing per national laws • Strengthen animal health, including wildlife, and human health surveillance systems through epidemiology units of multidisciplinary information management, analysis, and reporting teams for environmental and public health sectors, at local, oblast, national, and regional levels • Where relevant: integrate information management systems • Where required, increase the diagnostic capacity of local, oblast, and national laboratories, including sampling, testing, data management, analysis, and reporting of priority zoonotic diseases, AMR, and food safety • Further develop or establish national and regional accredited and reference laboratories in infectious diseases, focusing on priority zoonotic diseases, AMR, and food safety 	<ul style="list-style-type: none"> • Scores for joint external evaluations, point of veterinary services, and state party self-assessment annual reporting in Central Asian countries • Comprehensive risk assessments conducted to identify and prioritize zoonotic diseases • Active working groups and joint surveillance exercises between human health, animal health, and environmental agencies • Plans developed and implemented for surveillance information and experience sharing in real-time or near-real-time among human health, animal health, and environmental agencies • Reporting system established for wildlife rangers to report information on unusual mortality events and trigger investigation by veterinary services

Objectives	Main activities	Areas for indicators
	<ul style="list-style-type: none"> • Conduct risk assessments to identify potential sources of emerging infectious diseases and use modeling to predict disease outbreaks and assess their impact • Develop and implement plans for cross-sectoral early detection/warning surveillance and event verification and investigation • Develop an electronic database for animal identification and support the implementation of holding registration, animal identification, and traceability • Monitor wildlife migration and detect and investigate wildlife mortality events 	<ul style="list-style-type: none"> • Hazard Analysis and Critical Control Points principles adopted and followed throughout the food production and distribution chain • Digital systems established for data collection and sharing, reporting, and response • Plans for the development of accredited laboratories, including the assessment of current laboratories and needs, and proposals for technical and financial management
<p>2. Improved capacity to prevent and respond to priority zoonotic diseases, AMR, and food hazards in human and animal populations, including wildlife</p>	<ul style="list-style-type: none"> • Develop disease prevention and response activities based on integrated risk assessment and national plans • Conduct simulation exercises to improve coordination and intersectoral cooperation • Where relevant: coordinate investigation of epidemic outbreaks and after-action reviews • Prevent and respond to cross-boundary dissemination of diseases related to trade and the movement of animals and wildlife • Enhance quarantine and border security with designated points of entry and implement routine core capacities with an all-hazard and multisectoral approach integrated into the national One Health system 	<ul style="list-style-type: none"> • Scores for joint external evaluations, point of veterinary services, and state party self-assessment annual reporting in Central Asian countries • Percentage production units and health care facilities with active antibiotic stewardship programs in compliance with best practice • Number of regulatory inspections conducted to ensure compliance with regulations on antibiotic use in agriculture and health care • Speed of response to foodborne illness outbreaks, from detection to containment

Action Area 4: Multisectoral Workforce, Capacity Building, and Knowledge

The Action Area 2 will address the following needs, identified during the preparation process of the Framework for Action:

- Staff and management's capacity for One Health implementation.
- Data and knowledge on the trends and mechanisms related to the three priority issues of the Framework for Action (Zoonotic Diseases, Risk of AMR, Food Safety)
- Technical capacity of professionals in all three One Health sectors.
- Awareness among stakeholders at the national level on the rationale for One Health implementation.

Table 4. Action Area 4 Objectives, Activities, and Indicators

Objectives	Main activities	Areas for indicators
1. Availability of a national and regional One Health workforce	<ul style="list-style-type: none"> • Carry out a needs assessment on the number of staff and skill requirements for official services • Implement training according to needs assessments, including <ul style="list-style-type: none"> ○ Developing cross-sector national and regional managerial and technical capacity for One Health; ○ Developing field-based One Health expertise among para-veterinarians, community health workers, extension staff, private veterinarians and health workers, wildlife rangers, clinic foresters, and pharmacies (for animal and human health); ○ Carrying out a field epidemiology training program; and ○ Training specialists on newly developed One Health monitoring systems and other digital information systems. • Establish a regional One Health education, training, and research center • Mainstream One Health and veterinary public health in sectoral education programs • Promote One Health certification programs and e-learning 	<ul style="list-style-type: none"> • Regional One Health education, training, and research center established and according to direction of current entity(-ies) in one or more countries • One Health professionals trained • Veterinarians and health care workers participating in a regional field epidemiology training program • Wildlife rangers trained in essential elements of outbreak detection and reporting

Objectives	Main activities	Areas for indicators
<p>2. Strengthened capacity of institutions and professionals to recognize, diagnose, and manage zoonotic diseases, AMR, and food hazards</p>	<ul style="list-style-type: none"> • Provide on-the-job workforce development and educate stakeholders about: <ul style="list-style-type: none"> ○ The risks of zoonotic diseases, and the importance of early reporting; ○ Private and public sector practices that reduce transmission risks, such as proper animal handling and hygiene; ○ Responsible use of antibiotics in both animal and human health care to reduce the development of AMR; and ○ Safe food handling practices, proper cooking temperatures, and the risks associated with consuming raw or undercooked animal products. • Develop and implement up-to-date international laboratory practices for the diagnosis of zoonotic diseases • Develop and approve a multisectoral workforce strategy and plans to guarantee the professional and technical staffing of veterinary, environmental, and public health services to ensure implementation and sustainability of the One Health activities 	<ul style="list-style-type: none"> • Cross-sectoral workshops and training sessions conducted to enhance collaboration and communication between agencies • Percentage of veterinarians and health care workers trained in zoonotic disease recognition, diagnosis, and management • Number of food safety training sessions conducted for food handlers, producers, and consumers
<p>3. Strengthened research capacity and programs for the development of One Health in Central Asia</p>	<ul style="list-style-type: none"> • Research key topics essential for the implementation of One Health in Central Asia • Establish partnerships between national and international organizations to design and implement assessments, surveys, and other studies 	<ul style="list-style-type: none"> • Assessments, case studies, and surveys conducted on key topics of One Health implementation • Active regional and international partnerships developed around research and information exchange

3. REGIONAL COORDINATION AND MONITORING

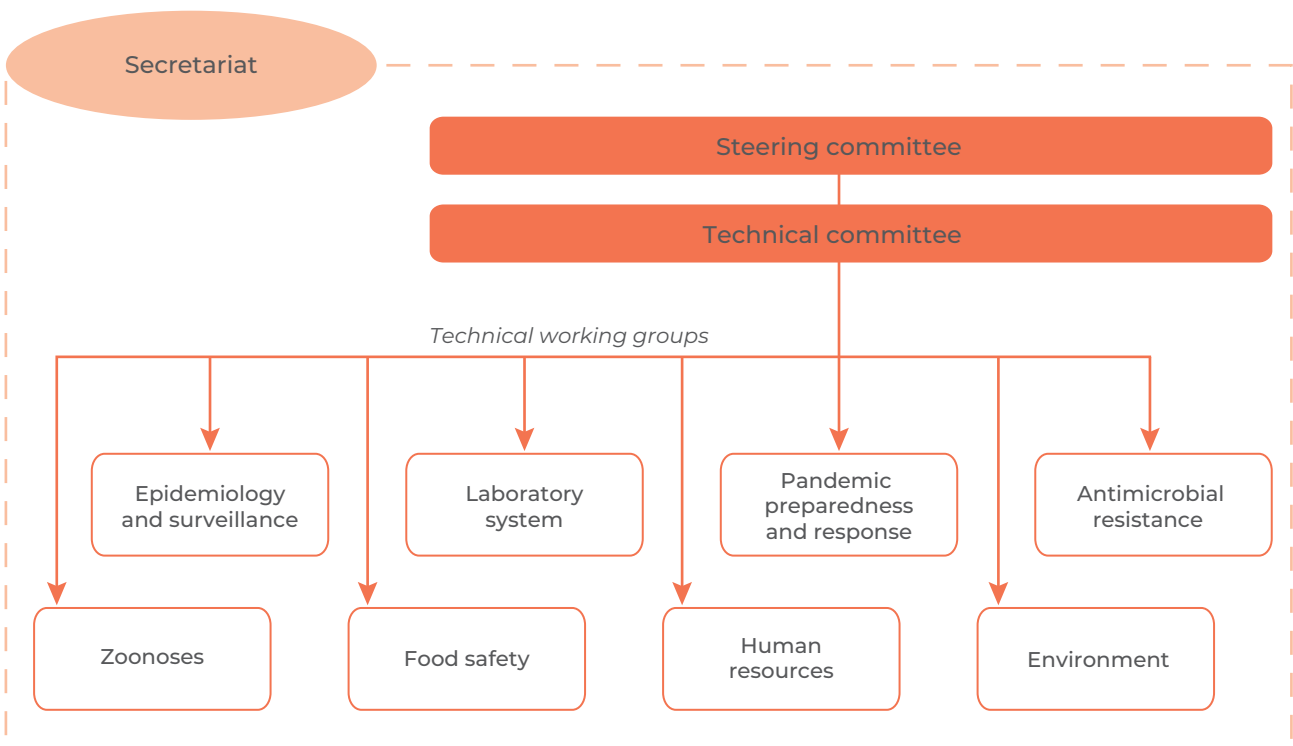


3. Regional Coordination and Monitoring

A Regional One Health Coordination Structure will be established to (1) facilitate a regional dialogue, (2) discuss and coordinate regional activities, (3) share experience, and (4) mobilize resources to address common challenges under the Framework for Action. Figure 2 provides a graphic presentation of the structure of the coordination entity, which will include a steering committee, a technical committee, technical working groups, and a secretariat. The Regional One Health Coordinating Structure will be composed of officials from the five countries, with decision-making capacity and relevant technical knowledge. To become operational, the proposed structure will be refined and formally endorsed by all countries.

The **steering committee** will include national decision-makers from the five Central Asian countries. The agriculture, environment, and health sectors will be represented at the Vice/Deputy Minister’s level, together with high-level representatives from ministries of finance and cabinets of ministers. The committee will decide on priority areas within the Framework for Action, approve work plans and budgets, and ensure cross-sectoral implementation of the Framework for Action. The steering committee will meet annually, and the chair will rotate yearly between the five Central Asian countries, as per the agreement of the five countries. All decisions will be made on a consensus basis.

Figure 2. Proposed Regional One Health Coordination Structure



Source: Original figure for this publication

The **technical committee** will include heads of departments, directors, and deputy chair representatives from the animal health, environment, and human health sectors from the five Central Asian countries. The committee will review and clear workplans for submission to the steering committee and review and advise on monitoring and evaluation reports, as well as technical reports prepared by the technical working groups and the secretariat. Members of the technical committee will also facilitate day-to-day cross-sectoral cooperation at the national and regional levels. Technical committee meetings will be held semiannually or quarterly, either online or face-to-face, and ad hoc meetings, including sectoral meetings, can be organized at the initiative of any of the countries. The committee's decisions will be made on a consensus basis. Observers with no voting rights may be invited to the technical committee meetings, for example, from the private sector, civil society, and national and international organizations.



The **technical working groups** will be created at the regional level to provide technical expertise and guidance on specific issues and activities related to workplan developments and implementation. The groups will propose topics and activities for inclusion in annual work plans as well as potential information and experience sharing. Figure 2 proposes eight types of technical working groups on topics relevant to the Framework for Action. However, the number and titles of the groups can be modified by a decision of the steering committee. Group members will be technical experts from the five Central Asian countries, and may include invited international experts, proposed by the secretariat and confirmed by the technical committee. The technical working groups will meet on an ad hoc basis, and the number and topics addressed by the group may be revised by the technical committee. It is recommended to establish technical working groups at the national level that can both support and benefit from the discussion of technical issues at the regional level.

A **secretariat** will be established to support the activities of the coordination entity and ensure collaboration with national One Health coordination mechanisms and platforms. The secretariat will be responsible for supporting the steering committee, technical committee, and technical working groups in their work, including meeting support and preparation of work plans, background documents, and monitoring and evaluation reports. The secretariat will also support internal and external communication on implementation progress, develop platforms for information and experience sharing, and organize capacity development events at the regional level. The secretariat will include a specific number of staff members and be located at a venue to be agreed upon by the steering committee.

The secretariat will further develop and maintain a **dashboard** of information on input, processes, output, and outcome indicators relevant to assessing the status of One Health implementation in the region. Indicators and other data and information contained in the dashboard will allow the monitoring of the actual implementation of the One Health approaches and progress toward the achievement of the three high-level goals. The information gathered in the dashboard will be used as a basis for high-level decision-making and annual work plan preparation, and it will be of relevance to One Health practitioners in their analytical and managerial work. A preliminary list of indicators to be included in the dashboard is presented in appendix A.

One Health implementation at the regional level will be supported by the national One Health coordination structures that will (1) monitor and guide the actions of those engaged in One Health implementation at national level; (2) evaluate the efficacy of stakeholders handling varied systems, mechanisms, and activities related to One Health implementation; (3) intervene when necessary to rectify and preclude any inefficiencies among actors implementing the One Health approach; and (4) align interests, streamline cooperation, and ensure cohesive collaboration among different state actors overseeing the various activities being implemented. Such coordination structures may differ in design and operational modalities from country to country.

A preliminary assessment of needs for the implementation of the regional coordination and monitoring functions is provided in Appendix B.

4. IMPLEMENTATION AT THE NATIONAL LEVEL



4. Implementation at the National Level

Implementation of the Framework for Action will require each of the five Central Asian countries to implement actions at the national level, including developing National One Health Action Plans.

An overview of the initial National One Health Action Plans and related resource needs is given in appendix B. The structure of each National One Health Action Plan is aligned with current work areas at the national level and the action tracks of the One Health Joint Plan of Action developed by the Quadripartite Alliance for One Health:

- **Action track 1:** Enhancing One Health capacities to strengthen health systems
- **Action track 2:** Reducing the risks from emerging and reemerging zoonotic epidemics and pandemics
- **Action track 3:** Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases
- **Action track 4:** Strengthening the assessment, management, and communication of food safety risks
- **Action track 5:** Curbing the silent pandemic of antimicrobial resistance
- **Action track 6:** Integrating the environment into One Health

Implementing the national frameworks requires substantial resourcing, and a rough estimate of financial needs is given, based on an indicative assessment of the need for technical support, capacity building, and supplies. Each activity proposed in each National One Health Action Plan will demand detailed needs assessment and budgeting, including possible budgetary implications for the state budget, at each step necessary to reach the goal of the activity.

Once refined and approved by national governments, each National Framework for Action will be an important tool for the implementation of One Health activities at the national level, supporting coordinated and synergetic action at the country and regional levels, toward the higher goals of pandemic prevention, preparedness, and response; food systems resilience and competitiveness; and ecosystem health.

Appendixes

Appendix A. Tentative List of Monitoring Indicators for One Health Implementation Status and Impact in Central Asia

The following is a tentative list of indicators that allow for measuring implementation of the One Health approach and implementation outcomes.

Table A.1. Central Asia One Health Framework for Action: tentative list of indicators that allow for measuring implementation of the One Health approach and implementation outcomes

Higher-level objectives	Key results	Outcome indicators	Measurement
Improve pandemic preparedness, prevention, and response	Reduction in: <ul style="list-style-type: none"> • Burden of disease due to priority zoonotic disease outbreaks, epidemics, antimicrobial use (AMU) and AMR, and unsafe food • Negative health, social, and economic impact resulting from effective prevention, preparedness, and response efforts 	Reduction in: <ul style="list-style-type: none"> • Risks, and prevalence or elimination, of priority zoonotic diseases, AMU and AMR, and foodborne illnesses • Negative social and economic impacts of disease outbreaks, epidemics • Pandemics caused by priority zoonotic diseases, antimicrobial use and AMR, and foodborne illnesses 	At the beginning of the implementation of the Framework for Action and periodically thereafter, conduct: <ul style="list-style-type: none"> • Assessment of animal health, human health, and environmental risks to identify potential sources of emerging infectious diseases, using mathematical modeling to predict disease outbreaks and assess their impact • Epidemiological reports on prevalence of main priority zoonotic diseases, antimicrobial use and AMR, and foodborne illnesses • Social and environmental assessments • Economic analyses

Higher-level objectives	Key results	Outcome indicators	Measurement
Improve each of the five Central Asian countries' food system resilience and agriculture trade and competitiveness	Improved food safety	Prevention of: <ul style="list-style-type: none"> • Risk and prevalence of foodborne illnesses • Health care costs and economic losses due to unsafe food and foodborne illnesses 	At the beginning of the implementation of the Framework for Action and periodically thereafter, conduct: <ul style="list-style-type: none"> • Epidemiological reports of prevalence of foodborne illnesses and food hazard outbreaks • Social and economic assessments
	Improved animal health	Reduced prevalence or elimination of priority zoonotic diseases, AMU and AMR, and unsafe animal products	At the beginning of the implementation of the Framework for Action and periodically thereafter, conduct: <ul style="list-style-type: none"> • Assessment of access to national and international markets • Economic analysis
		Improved trade opportunities for livestock and animal products	Gains in animal and animal trade productivity and economic stability
Improve ecosystem health	Improved ecosystems Protected wildlife	Reduction in: <ul style="list-style-type: none"> • Ecosystem degradation trends and associated adverse impacts on wild animal populations and human well-being • Trade of products of animal origin with negative effects on wildlife and animal and human well-being • Legal and illegal trade of wildlife (including wildlife pets) 	At the beginning of the implementation of the Framework for Action and periodically thereafter, conduct: <ul style="list-style-type: none"> • Environmental risk assessment • Social assessment

Note: AMR = antimicrobial resistance

Source: Original table for this publication

Appendix B. Preliminary drafts of the Regional One Health Coordination Structure Action Items and Resource Needs, and National One Health Action Plans

The objective of the National One Health Action Plans will be to guide the implementation of national-level activities and address specific national contexts and needs toward the implementation of the Regional Framework for Action. Indicative action items and relative financial resource needs for implementation are provided, with a time frame of seven years (2023–30). The proposed structure of the National One Health Action Plan is aligned with the action tracks of the One Health Joint Plan of Action developed by the Quadripartite Alliance for One Health.

Both the actions and resource needs presented below for the Regional One Health Coordination Structure and National One Health Action Plans will be further refined, detailed, and regularly updated to support and coordinate implementation of the Framework for Action at national and regional levels.

Table B.1. Regional Coordination Structure Action Items and Resource Needs (2023–30)

Action track and item	Indicative financial resource need (US\$)
	Total 33 400 000
1 Establishing and maintaining a regional One Heal Dashboard	3 500 000
1.1 Plan design and function	
1.2 Develop IT platform	
1.3 Collect and manage information	
1.4 Carry-out regional analytical work and assessments of One Health implementation and impacts	
2 Supporting the establishment of a regional training and education center	9 000 000
2.1 Develop plans and curriculums for a regional training and education center	
2.2 Support investment, academic development and onset operational expenses	
3 Supporting the establishment of regional reverence laboratories	15 000 000
3.1 Prepare plans for the development of regional accredited laboratories	
3.2 Support investments and capacity development	
4 Carrying out regional level assessments and trainings	4 500 000
4.1 Carry out ad hoc regional assessments, e.g. policy analysis, barriers to agriculture and food trade	
4.2 Prepare regional capacity need assessment for One Health implementation and roll-out targeted trainings	
5 Supporting meetings and secretariat functions	1 400 000
5.1 Organize meetings and travels	
5.2 Recruit staff	
5.3 Secure facilities and equipment	

Table B.2. Kazakhstan Action Items (2023–30)

Action track and item	
1	Enhancing One Health capacities to strengthen health systems
1.1	Evaluate/strengthen the Multisectoral One Health Coordination Mechanism
1.2	Have active membership of the Regional One Health Framework
1.3	Draft and approve a theory of change for the current One Health National Action Plan
1.4	Strengthen the One Health Steering Committee
1.5	Establish a monitoring, evaluation, reporting, and learning framework for the One Health National Action Plan
1.6	Develop a communication strategy for the One Health National Action Plan and all its components
2	Reducing the risks from emerging and reemerging zoonotic epidemics and pandemics
2.1	Develop and implement a pandemic preparedness plan
3	Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases
3.1	Strengthen capacity of veterinary service and veterinary surveillance system
3.2	Develop GIS for electronic movement registration and control for livestock
3.3	Manage data in the One Health context.
4	Strengthening the assessment, management, and communication of food safety risks
4.1	Strengthen national food control systems
4.2	Improve food monitoring and processing practices
4.3	Strengthen laboratory systems
5	Curbing the silent pandemic of AMR resistance
5.1	Regulate consumption and use of antimicrobials
5.2	Strengthen antimicrobial resistance and antimicrobial consumption and use data quality and reporting
6	Integrating the environment into One Health
6.1	Establish Legal and Institutional Framework for One Health Environmental Management in Kazakhstan
6.2	Improve the Wildlife Surveillance System

Table B.3. Kyrgyz Republic Action Items and Resource Needs (2023–30)

Action track and item	Indicative financial resource need (US\$)	
	Total	39 625 000
1 Enhancing One Health capacities to strengthen health systems		2 100 000
1.1 Evaluate/strengthen the Multisectoral One Health Coordination Mechanism		
1.2 Have active membership of the Regional One Health Framework		
1.3 Draft and approve a theory of change for the current One Health National Action Plan		
1.4 Establish a monitoring, evaluation, reporting, and learning framework for the One Health National Action Plan		
1.5 Develop a communication strategy for the One Health National Action Plan and all its components		
2 Reducing the risks from emerging and reemerging zoonotic epidemics and pandemics		8 850 000
2.1 Develop and implement a pandemic preparedness plan		
3 Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases		15 050 000
3.1 Improve the implementation and control of existing animal health programs for priority zoonotic diseases		
3.2 Strengthen animal identification and animal and holding registration in electronic database and movement control system		
3.3 Manage data in the One Health context		
3.4 Develop compensation system and mechanism for animal health		
4 Strengthening the assessment, management, and communication of food safety risks		8 300 000
4.1 Establish a modern, harmonized framework of food legislation		
4.2 Strengthen national food control systems		
4.3 Improve food monitoring and processing practices		
4.4 Strengthen laboratory systems		
5 Curbing the silent pandemic of AMR resistance		2 650 000
4.1 Address irrational prescribing and use of antibiotics in human and animal health care and agriculture		
4.2 Strengthen the multisectoral collaboration		
4.3 Establish a monitoring system of antimicrobial use in animals		
6 Integrating the environment into One Health		2 675 000
6.1 Establish legal and institutional framework for One Health environmental management in Kyrgyz Republic		
6.2 Establish and actively implement a wildlife surveillance system		
6.3 Enhance biosafety and biosecurity		
6.4 Address chemical and other pollution		

Note: AMR: antimicrobial resistance.

Source: Original table for this publication.

Table B.4. Tajikistan Action Items and Resource Needs (2023–30)

Action track and item	Indicative financial resource need (US\$)	
	Total	48 325 000
1 Enhancing One Health capacities to strengthen health systems		2 100 000
1.1 Evaluate/strengthen the Multisectoral One Health Coordination Mechanism		
1.2 Have active membership of the Regional One Health Framework		
1.3 Draft and approve a theory of change for the current One Health National Action Plan		
1.4 Establish a monitoring, evaluation, reporting, and learning framework for the One Health National Action Plan		
1.5 Develop a communication strategy for the One Health National Action Plan and all its components		
2 Reducing the risks from emerging and reemerging zoonotic epidemics and pandemics		8 850 000
2.1 Develop and implement a pandemic preparedness plan		
3 Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases		23 250 000
3.1 Improve the implementation and control of existing animal health programs for priority zoonotic diseases		
3.2 Strengthen animal identification and animal and holding registration in electronic database, movement control system		
3.3 Manage data in the One Health context		
3.4 Develop compensation system and mechanism for animal health		
4 Strengthening the assessment, management, and communication of food safety risks		4 750 000
4.1 Develop strategies to harmonize food safety legal frameworks		
4.2 Strengthen national food control systems		
4.3 Strengthen laboratory systems		
4.4 Improve methods for controlling the quality of food products and their processing		
5 Curbing the silent pandemic of AMR resistance		5 900 000
5.1 Address irrational prescribing and use of antibiotics in human and animal health care and agriculture		
5.2 Establish a monitoring system on antimicrobial use in animals		
6 Integrating the environment into One Health		3 475 000
6.1 Establish Capacity Building for environmental health management and monitoring in Tajikistan		
6.2 Improve the wildlife surveillance system		
6.3 Improve the system of monitoring and control of wild animals and zoonoses		
6.4 Improve the management and control of environmental pollutants with special focus on Persistent Organic Pollutants		
6.5 Control chemical and other contaminants		

Note: AMR: antimicrobial resistance

Source: Original table for this publication

Table B.5. Turkmenistan Action Items and Resource Needs (2023–30)

Action track and item	Indicative financial resource need (US\$)	
	Total	41 450 000
1 Enhancing One Health capacities to strengthen health systems		2 100 000
1.1 Evaluate/strengthen the Multisectoral One Health Coordination Mechanism		
1.2 Have active membership of the Regional One Health Framework		
1.3 Draft and approve a theory of change for the current One Health National Action Plan		
1.4 Establish a monitoring, evaluation, reporting, and learning framework for the One Health National Action Plan		
1.5 Develop a communication strategy for the One Health National Action Plan and all its components		
2 Reducing the risks from emerging and reemerging zoonotic epidemics and pandemics		6 200 000
2.1 Develop and implement a pandemic preparedness plan		
3 Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases		18 650 000
3.1 Improve the implementation and control of existing animal health programs for priority zoonotic diseases		
3.2 Strengthen animal identification and animal and holding registration in electronic database, movement control system		
3.3 Manage data in the One Health context		
3.4 Develop compensation system and mechanism for animal health		
4 Strengthening the assessment, management, and communication of food safety risks		3 300 000
4.1 Strengthen national food control systems		
4.2 Establish food safety incident and emergency response systems		
5 Curbing the silent pandemic of AMR resistance		9 225 000
5.1 Strengthen the antimicrobial resistance One Health coordination		
5.2 Address irrational prescribing and use of antibiotics in human and animal health care and agriculture		
5.3 Strengthen antimicrobial resistance, consumption, and use data quality and reporting		
6 Integrating the environment into One Health		1 975 000
6.1 Establish legal and institutional framework for environmental health management and monitoring in Turkmenistan		
6.2 Establish a wildlife surveillance coordinated system		
6.3 Improve data monitoring and management systems on environmental health issues		

Note: AMR: antimicrobial resistance

Source: Original table for this publication

Table B.6. Uzbekistan Action Items and Resource Needs (2023–30)

Action track and item		Indicative financial resource need (US\$)
		Итого 37 835 000
1	Enhancing One Health capacities to strengthen health systems	2 100 000
1.1	Evaluate/strengthen the Multisectoral One Health Coordination Mechanism	
1.2	Have active membership of the Regional One Health Framework	
1.3	Draft and approve a theory of change for the current One Health National Action Plan	
1.4	Establish a monitoring, evaluation, reporting, and learning framework for the One Health National Action Plan	
1.5	Develop a communication strategy for the One Health National Action Plan and all its components	
2	Reducing the risks from emerging and reemerging zoonotic epidemics and pandemics	4 550 000
2.1	Develop and implement a pandemic preparedness plan	
3	Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases	13 950 000
3.1	Improve the implementation and control of existing animal health programs for priority zoonotic diseases	
3.2	Strengthen animal identification and animal and holding registrations in electronic database, movement control system	
3.3	Manage data in the One Health context	
3.4	Develop a compensation system and mechanism for animal health	
4	Strengthening the assessment, management, and communication of food safety risks	7 700 000
4.1	Establish a modern, harmonized framework of food legislation	
4.2	Improved food monitoring and processing practices	
4.3	Strengthen the One Health approach in national food control systems and food safety coordination	
4.4	Strengthening laboratory systems	
5	Curbing the silent pandemic of AMR resistance	7 610 000
5.1	Adopting a national action plan on antimicrobial resistance in line with the Global Action Plan covering human, animal, crop, food safety, and environmental aspects	
5.2	Addressing irrational prescribing and use of antibiotics in human and animal health care and agriculture	
5.3	Strengthening the antimicrobial resistance and antimicrobial consumption monitoring and surveillance in human health and setting up a surveillance system on antimicrobial use and resistance in the animal health and environment sectors	
6	Integrating the environment into One Health	1 925 000
6.1	Establish capacity building for environmental health management and monitoring in Uzbekistan	
6.2	Improve legal and institutional framework for wildlife surveillance system in Uzbekistan	

Note: AMR: antimicrobial resistance

Source: Original table for this publication

