**SEPTEMBER 2024** 

# From Silos to Solutions The Value Added by Using a One Health Approach

PHOTO CREDIT: FELIX MASSI

"<u>One Health</u> is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems. It recognizes 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, while addressing the collective need for healthy food, water, energy, and air, taking action on climate change, and contributing to sustainable development."

Definition as adopted by the <u>One Health High-Level</u> <u>Expert Panel (OHHLEP)</u>

# WHY ONE HEALTH?

Collaborative One Health approaches are central to achieving USAID's development goals and to reducing complex global health threats, such as food insecurity, climate change, biodiversity loss, and emerging infectious pathogens. USAID's <u>One Health</u> <u>Position Statement</u> provides guiding principles and operational actions to leverage the Agency's vast technical expertise and apply systems thinking to design effective One Health approaches.

Successful One Health programming depends on effective cooperation, communication, and knowledge-sharing between multiple sectors and diverse partners, including women, youth, Indigenous Peoples, and other marginalized communities. While potentially challenging to design and implement, One Health approaches offer a wide range of benefits.





# ONE HEALTH BENEFITS



## ENHANCED CAPACITY TO ADDRESS COMPLEX CHALLENGES

By working together at the policy, research, and/or programmatic level, cross-sectoral teams can capitalize on <u>expertise across a variety of sectors</u>. They can also access a <u>wide</u> <u>array of tools</u> to identify and amplify opportunities to collaborate and manage complex trade-offs. For instance, years of unsustainable fishing and aquaculture have degraded Madagascar's marine resources, increasing poverty among fishing communities. Recognizing the need for an interdisciplinary approach, <u>USAID/Madagascar's Nosy Manga</u> activity (2022-27) brings together public and private sector partners with expertise in sustainable aquaculture, governance of marine protected areas, business development, and community engagement to promote responsible seaweed and sea cucumber farming, support community services including health care, reduce pressure on marine resources, and alleviate poverty.

#### SHARING KNOWLEDGE AND RESOURCES ACROSS SECTORS



One Health provides a framework that fosters trust and builds relationships for long-term, efficient information exchange and enhanced coordination to meet common objectives. For example, a <u>One Health approach to mitigate the spillover of zoonotic pathogens</u> can mobilize not only the public health sector's disease surveillance systems but also real-time data on wildlife health (including along wildlife value chains) and possible underlying ecosystem health drivers. Applying a systems-based lens to complementary datasets can lead to earlier detection and, ideally, help prevent disease outbreaks at their source.



#### **RESOURCE SAVINGS**

The One Health approach can <u>save resources and achieve results more cost-effectively</u>. A World Bank analysis projects that a One Health approach to preventing pandemics globally may cost up to \$11.5 billion per year, significantly less than the estimated annual \$30 billion cost of managing pandemics. One Health collaboration can also <u>save costs and prevent</u> <u>duplication of efforts at the project level</u>. In sub-Saharan Africa, researchers studying Rift Valley fever estimated that joint animal-human serum testing would save 35 percent in total costs compared with separate testing by reducing transportation costs and the size of sampling teams.



#### UNIFIED VOICE AND MESSAGE

One Health provides a platform to discuss and communicate concerns about complex challenges across sectors from local to global scales. Effective messaging, in turn, can increase political support and resource allocation for integrated solutions. Optimizing One Health communications requires strong networks between scientists and policymakers. One Health teams that include experts like economists and sociologists can better interpret and convey societal perspectives that resonate with policymakers.



# EXAMPLES OF ONE HEALTH IN CONTEXT

Documenting how integrated One Health projects provide greater benefits compared with single-sector or siloed approaches can be technically challenging. The following examples from within and outside USAID highlight the value added from One Health's capacity to advance USAID priorities, such as improving health, strengthening food and water security, conserving biodiversity, and mitigating climate change.

## ANTIMICROBIAL RESISTANCE

The World Health Organization (WHO) has promoted a One Health approach to address antimicrobial resistance, a complex, multifaceted challenge with significant health impacts. For example, the WHO is promoting the three-sector (human health, the food chain, and the environment) Tricycle surveillance framework to address extendedspectrum beta-lactamase-producing Escherichia coli, a pathogen that causes severe infections in humans and is resistant to many beta-lactam antibiotics. Countries are advised to improve surveillance by testing for the pathogen in the feces of pregnant women, the blood of patients with bloodstream infections, water specimens from areas near wet markets, human wastewater, and chicken manure and slaughterhouses. A 2023 study of the Tricycle protocol noted that 19 countries are at various stages of implementation, with researchers finding that this integrated framework fosters the type of multi-sectoral collaboration that is crucial to understanding the extent of antimicrobial resistance globally and informing containment strategies.

#### VALUE ADDED FROM ONE HEALTH APPROACH



Enhanced capacity to address complex challenges

Sharing knowledge and resources across sectors

## **BIODIVERSITY CONSERVATION**

<u>Health in Harmony</u>, a non-profit organization working with communities in rural Borneo, identified the need to raise cash for healthcare costs as a driver of deforestation. They implemented a <u>cross-sectoral</u> <u>approach</u> that provides local, high-quality, affordable healthcare in exchange for communities curtailing their illegal logging activities and implementing conservation efforts like reforestation. An analysis of environmental impacts found that deforestation decreased by approximately 70 percent over a 10-year period around communities working with Health in Harmony compared with a modeled control. In addition, Health in Harmony treated over 28,000 patients at their clinics over the same time period.

#### VALUE ADDED FROM ONE HEALTH APPROACH



Enhanced capacity to address complex challenges



Resource savings





## COMBATING EMERGING INFECTIOUS DISEASES

Poultry production in Southeast Asia has been challenged by various animal disease threats, including highly pathogenic avian influenza and other emerging zoonotic and transboundary animal diseases. To mitigate the risk, emergence, and spread of new pandemic disease threats across Southeast Asia, the Food and Agriculture Organization of the United Nations Emergency Centre for Transboundary Animal Diseases (FAO-ECTAD) has implemented a One Health approach to improve coordination across sectors, strengthen regional epidemiology capacities and networks, and fortify evidence-based risk management along the livestock production and market chain. With USAID support, FAO-ECTAD helped partner countriesincluding Cambodia, Vietnam, and others-to prevent and control the emergence and spread of avian influenza and other zoonotic diseases while enhancing farmer profitability, strengthening food security, and building resilient rural livelihoods and healthy communities.

#### VALUE ADDED FROM ONE HEALTH APPROACH

မြီ့သွှ

Enhanced capacity to address complex challenges

Sharing knowledge and resources across sectors



Unified voice and message





## WATER SECURITY AND SOCIAL INCLUSION

Arid and semi-arid lands are important to Kenya's economy, covering 89 percent of its land area and supporting 70 percent of the country's livestock herds and more than 90 percent of the wildlife that are critical to the tourism industry. The population is highly vulnerable to the effects of climate change, which are predicted to become more acute in the future. Historical marginalization, population growth, and environmental shocks have increased competition for resources, triggered conflict, and perpetuated poverty. As a result, more than 1.6 million people face acute food insecurity, and only 55 percent of the population has access to safe drinking water in the USAID/Kenya's Sustainable, Transformational, and Accessible Water Interventions (STAWI) activity's nine target counties. To achieve lasting water security, STAWI is taking an integrated and inclusive water security approach, working across built and natural systems, in both rural and urban areas, to connect water resources management and services while strengthening local governance and financial opportunities. Locally designed and led approaches, and empowerment of women and youth, are at the center of implementation.

#### VALUE ADDED FROM ONE HEALTH APPROACH



Enhanced capacity to address complex challenges



Sharing knowledge and resources across sectors



## TREATMENT AND CONTROL OF NEGLECTED TROPICAL DISEASES

In Tanzania, researchers implemented a One Health delivery platform that combined control programs for two neglected tropical diseases (soil-transmitted helminthiases and rabies) within adjoining clinics. Benefits of this One Health approach included significant cost and time savings. Costs for deworming people were 33 percent lower, while rabies vaccination costs for dogs were 16 percent lower, mainly due to shared transportation costs. Community members also saved 33 percent of their time by accessing both services simultaneously in one place. Communities familiar with the success of the rabies vaccination trusted and were more willing to take part in the treatment for soil-transmitted helminthiasis. An important co-benefit was increased collaboration and stronger relationships between traditionally siloed national ministries.

#### VALUE ADDED FROM ONE HEALTH APPROACH



Enhanced capacity to address complex challenges

Resource savings



## USEFUL RESOURCES

- USAID One Health Evidence Collection
- <u>Facilitating implementation of the one health</u> <u>approach: A definition of a one health intervention</u>
- OHHLEP inventory of One Health tools and resources
- <u>Compendium of WHO and other UN guidance</u> on health and environment, 2022 update

To learn more about USAID's One Health Working Group and One Health programming, please write: <u>contact-OHWG@usaid.gov</u>

This document was produced for review by the United States Agency for International Development. It was prepared with support from the **Integrated Natural Resource Management** Task Order 7200AA18D00020, under the Strengthening Tenure and Resource Rights II (STARR II) IDIQ.

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

