

STOP SPILLOVER

Year 1 Annual Report

1 October 2020 – 30 September 2021

Engaging Countries, Key Stakeholders,
and Communities to Stop Spillover Locally



December 2021

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STRATEGIES TO PREVENT (STOP) SPILLOVER

YEAR 1 ANNUAL REPORT 1 OCTOBER 2020 - 30 SEPTEMBER 2021

ENGAGING COUNTRIES, KEY STAKEHOLDERS, AND COMMUNITIES TO STOP SPILLOVER LOCALLY

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Acronyms & Abbreviations

AFROHUN	Africa One Health University Network
BAU	Bangladesh Agricultural University
BFD	Bangladesh Forest Department
BLRI	Bangladesh Livestock Research Institute
CAMBOHUN	Cambodia One Health University Network
CDC	Centers for Disease Control & Prevention
COVID-19	Coronavirus Disease 2019
CVASU	Chittagong Veterinary and Animal Sciences University
DGHS	Directorate General of Health Services
DLS	Department of Livestock Services
FAO	Food and Agriculture Organization of the United Nations
FAO ECTAD	FAO Emergency Center for Transboundary Animal Diseases
FWA	Food Water, Air, Climate, Livelihoods & Economics, Policy and Security Resource Hub
GENOME	Global Electronic Network of Monitoring & Evaluation
GHSA	Global Health Security Agenda
GoB	Government of Bangladesh
HOT	Humanitarian OpenStreetMap Team
HPAI	Highly Pathogenic Avian Influenza
IHR-JEE	Internal Health Regulations-Joint External Evaluation
JSI	John Snow International Research and Training Institute, Inc.
KPIs	Key Performance Indicators
M&E	Monitoring & Evaluation
MEL	Monitoring, Evaluation and Learning
MERS	Middle East Respiratory Syndrome
MoEF	Ministry of Environment and Forests
MoFL	Ministry of Fisheries and Livestock

MoH	Ministry of Health
MoHFW	Ministry of Health and Family Welfare
MWE	Ministry of Water and Environment
NGO	Non-Governmental Organization
OH-DReaM	One Health-Design Research and Mentorship
OHIAT	One Health Information Assessment Tool
OHS	One Health Secretariat
OHW-NG	One Health Workforce-Next Generation
OIE	World Organization for Animal Health
OM	Outcome Mapping
PAHO	Pan American Health Organization
PSRT	Private Sector Roundtable
RATOH	Readiness Assessment Tool for One Health
RTA	Right Track Africa
SARS	Severe Acute Respiratory Syndrome
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SEAOHUN	South East Asia One Health University Network
SMM	Surveillance, Mapping and Modeling Resource Hub
STOP Spillover	Strategies to Prevent Spillover USAID Program
TIPC	Technology, Innovation, Partner Support and Coordination/Communication Service Team
TUC	Tufts University Consortium
UCLA	University of California, Los Angeles
UNMC	University of Nebraska Medical Center
USAID	United States Agency for International Development
USG	United States Government
UVRI	Uganda Virus Research Institute
UWA	Uganda Wildlife Authority
VOHUN	Viet Nam One Health University Network
WAHO	West Africa Health Organization
WCS	Wildlife Conservation Society
WHO	World Health Organization
WWF	World Wildlife Fund

Executive Summary

In October 2020, USAID awarded the Tufts University Consortium (TUC) a five-year program to enhance the capacity of up to ten priority countries in Africa and Asia to reduce the risk of viral spillover from animal hosts to humans. The Strategies to Prevent Spillover, or STOP Spillover, program will assist countries to enhance country capacity to prevent and/or mitigate spillover of zoonotic viruses from animals to humans, and to reduce the amplification and spread of these viruses once they have spilled over to humans. Working with host governments and relevant stakeholders, STOP Spillover will strengthen local capacity to identify, assess, and monitor risk associated with emerging zoonotic viruses, as well as to develop and introduce proven and novel risk reduction measures. STOP Spillover will focus on known, prioritized zoonotic viruses – Ebola, Marburg, Lassa, Nipah, animal-origin coronaviruses (including SARS-Cov, SARS-CoV-2, and MERS-CoV), and zoonotic influenza viruses. The project will work with local stakeholders to design interventions to reduce the risk of priority emerging zoonotic virus spillover. By implementing a number of locally designed interventions in each country over the life of the project, and evaluating the social, gender, economic, and environmental acceptability and effectiveness of each intervention, participating countries will have strengthened capacity to develop, validate, and implement interventions to reduce spillover.

STOP SPILLOVER’S FIRST YEAR WAS DEFINED BY ITS DEEP ENGAGEMENT WITH COUNTRIES, KEY STAKEHOLDERS, AND COMMUNITIES – INVOLVING THEM IN GUIDING THE PROJECT ACTIVITIES AT EVERY STEP – TO ENSURE THAT STOP SPILLOVER’S APPROACH TO STOPPING FUTURE SPILLOVERS AND PANDEMICS IS TRULY INCLUSIVE AND LOCAL.

A central component of STOP Spillover is Outcome Mapping (OM). OM is a participatory process that uses a collaborative stakeholder-driven approach to engage a broad range of traditional and non-traditional stakeholders to identify and map desired outcomes. In each country, OM will dictate the viral pathogens of focus, the key stakeholders to engage, potential interventions for mitigating the risk of viral spillover at the prioritized interface, and gaps in knowledge that need to be addressed in order to design appropriate and effective interventions.

This report documents progress made during the first year of project implementation, describing work conducted since the

project’s inception on October 1, 2020 through the end of the first fiscal year on September 30, 2021.

Year 1 focused on initiation of STOP Spillover in four countries – Uganda, Liberia, Bangladesh, and Viet Nam. Key activities included hiring staff in each country, as well as at the global level, drafting orientation and training materials, and developing country-specific and global work plans. Engaging stakeholders in each country was a key focus. After securing buy-in from key government stakeholders, STOP Spillover officially launched in Uganda and Bangladesh; similar launches are planned early in Project Year 2 for Liberia and Viet Nam.

Colleagues (e.g., other USAID-funded projects, Global Health Security Agenda (GHS) partners,

non-governmental organizations) with interests and objectives relevant to STOP Spillover were identified, introductory meetings held and information shared for potential collaborations. Building a network within the pandemic prevention community is a priority for STOP Spillover to add value, avoid duplication and promote efficiency and complementarity. A STOP Spillover external advisory board was also constituted that will meet early in Year 2.

COVID-19 proved a challenge for initiating in-country activities during Project Year 1, but the versatility of STOP Spillover country teams and supporting global personnel allowed us to successfully conduct OM workshops in Uganda and Bangladesh. Uganda became the first country supported by STOP Spillover to prioritize a high-risk interface – the bat-human interface – at which activities will be conducted during Project Year 2 to reduce the risk of spillover of Ebola and Marburg Viruses. Bangladesh followed soon after, with the OM process prioritizing the poultry-human interface, at which risk reduction activities will be conducted focusing on zoonotic avian influenza viruses.

Beyond OM, other key activities conducted during Project Year 1 included desktop reviews to describe the spillover ecosystems in STOP Spillover countries, and surveillance assessments to map out each country's capabilities related to surveillance of priority zoonotic viruses. Comprehensive desktop reviews were undertaken for Uganda, Liberia, Bangladesh, Viet Nam, and Cambodia, with each country's desktop review conveying a clear and concise picture of what is known in the country in relation to spillover risk and amplification of zoonotic viruses within the remit of STOP Spillover. While these desktop reviews were designed to collate important information that could feed into, and help inform, discussions during OM in each country, they serve as valuable resources about the spillover ecosystem in each country, helping to inform surveillance systems, field and laboratory

research, national capacity strengthening activities, risk reduction interventions, and dialogue relating to government policies and strategies. Desktop reviews for each country will be finalized after OM, and a final Spillover Ecosystem Report will be delivered to relevant ministries. Comprehensive surveillance assessments of in-country stakeholder capacity to conduct surveillance for priority zoonotic viruses were initiated in Uganda, Liberia, and Viet Nam. Once completed, these assessments – conducted by teams in each country made up of country team members, STOP Spillover technical experts, and government stakeholders – will provide an understanding of existing capacities, resources, and expertise related to sampling and surveillance, allowing us to identify strengths and weaknesses of in-country surveillance systems so STOP Spillover support can be effectively targeted. These assessments will ultimately benefit in-country stakeholders involved in sampling and surveillance by facilitating targeted support from the project, strengthening capacity to conduct rigorous and cost-effective surveillance to monitor for spillover at local interfaces. In addition to surveillance assessments, an initial One Health Information Assessment Tool (OHIAT) was developed, and the process for developing a pilot early warning system for zoonotic disease spillover in Uganda was drafted.

As STOP Spillover moves into its second year, One Health Design, Research and Mentoring (OH-DReaM) working groups – made up of local stakeholders supported by technical expertise from country teams and subject matter experts and mentors from STOP Spillover resource hubs – will be established in Uganda and Bangladesh (and subsequently in other countries once OM has been conducted) to design, implement and evaluate interventions aimed at reducing the risk of spillover at prioritized interfaces. OM not only informs the choice of interventions to roll out in each country, but also the interventions' designs, ensuring that interventions are appropriately contextualized to the specific interface and the specific risks

encountered by the communities living there. A key outcome from the OM process is the identification and prioritization of gaps in knowledge that need to be addressed in order to design appropriate and effective interventions. OH-DReaM working groups will also be established to conduct research to fill prioritized knowledge gaps, identifying and characterizing the livelihoods, behaviors, and locations that create opportunities for pathogen spillover from wildlife and domestic animals to occur, thereby informing the design of the interventions to be implemented and evaluated.

Project Year 1 focused on four countries (Uganda, Liberia, Bangladesh and Viet Nam), along with preliminary discussions for a fifth country (Cambodia). Cambodia will fully come on board in Project Year 2, along with Sierra Leone.

1 Introduction

Strategies to Prevent Spillover - STOP Spillover - is a five-year, U.S. Agency for International Development (USAID)-funded cooperative agreement to support priority countries in Asia and Africa to strengthen their capacities to identify, assess, and monitor risk associated with emerging zoonotic viruses and to develop and introduce proven and novel risk reduction measures. STOP Spillover builds on more than 15 years of USAID investments in promoting a multisectoral, One Health approach to addressing emerging zoonotic viruses before they pose an epidemic or pandemic threat.

In October 2020, USAID awarded the STOP Spillover project to a consortium of partners led by Tufts University (herein referred to as the Tufts University Consortium, TUC). The TUC balances deep technical expertise, an existing footprint across USAID's priority countries, and proven success implementing USAID-funded programs. Tufts University brings global strength in infectious disease forecasting, detection, prevention and eradication, food security, global health diplomacy and One Health programming. Africa One Health University Network (AFROHUN), South East Asia One Health University Network (SEAOHUN), and icddr,b are key implementing partners in Africa, South East Asia, and South Asia (Bangladesh), respectively. JSI lends expertise in health information systems strengthening, social behavioral change, monitoring, evaluation and learning, and strategic operational support. Tetra Tech adds globally recognized strength in multisectoral approaches to wildlife and climate risk management, agriculture and land use, risk forecasting and institutional and private sector partnership. Additional expertise

includes risk analysis (University of Washington), outcome mapping (Right Track Africa; RTA), zoonotic pathogen ecology and mathematical modeling (University of Glasgow, University of California, Los Angeles; UCLA), innovative pathogen detection (Broad Institute), sentinel case management for high-consequence pathogens (University of Nebraska Medical Center; UNMC), participatory community mapping (Humanitarian OpenStreetMap Team; HOT), and trustworthy media capacity building for vulnerable and marginalized communities (Internews).

STOP Spillover will roll-out in up to ten USAID priority countries using a phased approach. Project Year 1 focused on initiation of project activities in four countries (Uganda, Liberia, Bangladesh and Viet Nam), with additional USAID priority countries (Cambodia and Sierra Leone) expected to be added in Project Year 2. STOP Spillover focuses on prioritized zoonotic viruses – Ebola, Marburg, Lassa, Nipah, animal-origin coronaviruses (including SARS-CoV, SARS-CoV-2, and MERS-CoV), and zoonotic influenza viruses. The three core objectives of STOP Spillover, and expected overarching results of the project, are presented in Figure 1.

A core component of TUC's design for STOP Spillover is **Outcome Mapping (OM)**. OM is a participatory process that uses a collaborative stakeholder-driven approach to engage a broad range of traditional and non-traditional stakeholders to identify and map desired outcomes. Through the OM process, STOP Spillover will work with stakeholders to identify strengths and limitations within their zoonotic spillover ecosystems and interfaces, and their desired

FIGURE 1: STOP SPILLOVER OBJECTIVES AND EXPECTED RESULTS

OBJECTIVE 1	OBJECTIVE 2	OBJECTIVE 3
<p>Strengthen country capacity to monitor, analyze and characterize the risk of priority emerging zoonotic viruses spilling over from animals to people</p>	<p>Strengthen country capacity to develop, validate, and implement interventions to reduce risk of priority emerging zoonotic viruses spilling over from animals to people</p>	<p>Strengthen country capacity to mitigate amplification and spread of priority zoonotic diseases in human populations</p>
EXPECTED RESULTS		
<p>Up to 10 countries are able to update risk assessments and identify key knowledge gaps related to risk of spillover, amplification, and spread of priority emerging zoonotic viruses in animal and human populations.</p> <p>Up to 10 countries have strengthened capacity to address these key knowledge gaps.</p> <p>Up to 10 countries are able to monitor, analyze, and characterize the gender and sex-specific risks associated with high-risk, animal-human interfaces through their gender-sensitive applied research and testing/validating intervention strategies.</p>	<p>Up to 10 countries are able to use available information to test and validate the effectiveness of interventions to reduce spillover of priority emerging zoonotic viruses from animals to humans.</p> <p>Up to 10 countries are able to implement interventions, policies, and regulations to reduce spillover of priority emerging zoonotic viruses from animals to humans.</p> <p>Up to 10 countries can develop, analyze, validate, and implement gender-responsive and culturally appropriate interventions relevant to women, girls, men, and boys to limit direct contact with animals and animal products.</p> <p>Up to 10 countries are able to implement interventions and are working towards implementing policies and regulations to reduce spillover of priority emerging zoonotic viruses from animals to humans.</p>	<p>Up to 10 countries have the capacity to understand risk and plan an appropriate response to contain amplification and spread of zoonotic disease events originating from wildlife.</p> <p>High-risk communities, workers, and health facilities in up to 10 countries can rapidly recognize and respond to suspect zoonotic disease events originating from wildlife.</p> <p>Up to 10 countries have the ability to integrate research findings and best practices into risk mitigation efforts to directly impact gender and sex-specific risks.</p>

changes and barriers to change, and determine how these changes can be achieved. Through OM, STOP Spillover will enhance the capacity of local, national, and regional institutions to understand their spillover ecosystem, develop and deploy tools and interventions to reduce risk and validate interventions collectively, while recognizing each stakeholder's motivating factors and strengths. This iterative approach will continue for the life of the project and will result in a framework for identifying existing and new points of intervention for risk reduction, as well as progress markers towards success and sustainability. This process will guide the integration of interventions into planned and on-going local and national systems to enhance impact, institutionalization and sustainability. For each prioritized interface, OM will dictate the viral pathogens of focus, the key stakeholders to engage, potential interventions for mitigating the risk of viral spillover, and gaps in knowledge that need to be addressed in order to design appropriate and effective interventions.

STOP Spillover leverages global-level resource hubs to provide expertise, technical assistance, and support to country-level teams. In each target country, country teams composed of in-country personnel will lead project interventions with local stakeholders. Once high-risk interfaces and interventions have been identified through the OM process, One Health-Design, Research and Mentorship (OH-DReaM) working groups will be established to design, implement and evaluate proposed interventions. Each OH-DReaM working group will include highly qualified in-country representatives chosen specifically for the intervention/interface and activity of interest. The number of OH-DReaM working groups established in each country will generally depend on the number of activities prioritized through OM. The period of time each OH-DReaM working group will be operational will depend on the needs of the specific intervention. Each OH-DReaM working group will be overseen by a country team member and will be supported by targeted subject matter

experts and mentors from STOP Spillover resource hubs.

Sustainability is a critical aspect of STOP Spillover's work, with the project specifically designed to ensure local sustainability and inclusion, capacity building, and stakeholder engagement through a deep understanding of the context specific spillover ecosystem in each country. Working with government partners at all levels (national, regional and local) is fundamental to STOP Spillover's objectives. Similarly, STOP Spillover strives to engage a range of non-government stakeholders to build a network within the pandemic prevention community and aims to add value, avoid duplication and promote efficiency and complementarity.

To achieve STOP Spillover's goals for sustainability, a broad spectrum of stakeholders is being – and will continue to be – engaged across all supported countries:

- National level government ministries and departments
- Regional level government departments
- Local level government departments
- Universities and institutions
- NGOs
- Private partners
- International agencies
- GHSA partners
- Donor-funded projects

This document is the first annual report from STOP Spillover, describing work conducted since the project's inception on October 1, 2020 through the end of the first fiscal year on September 30, 2021.



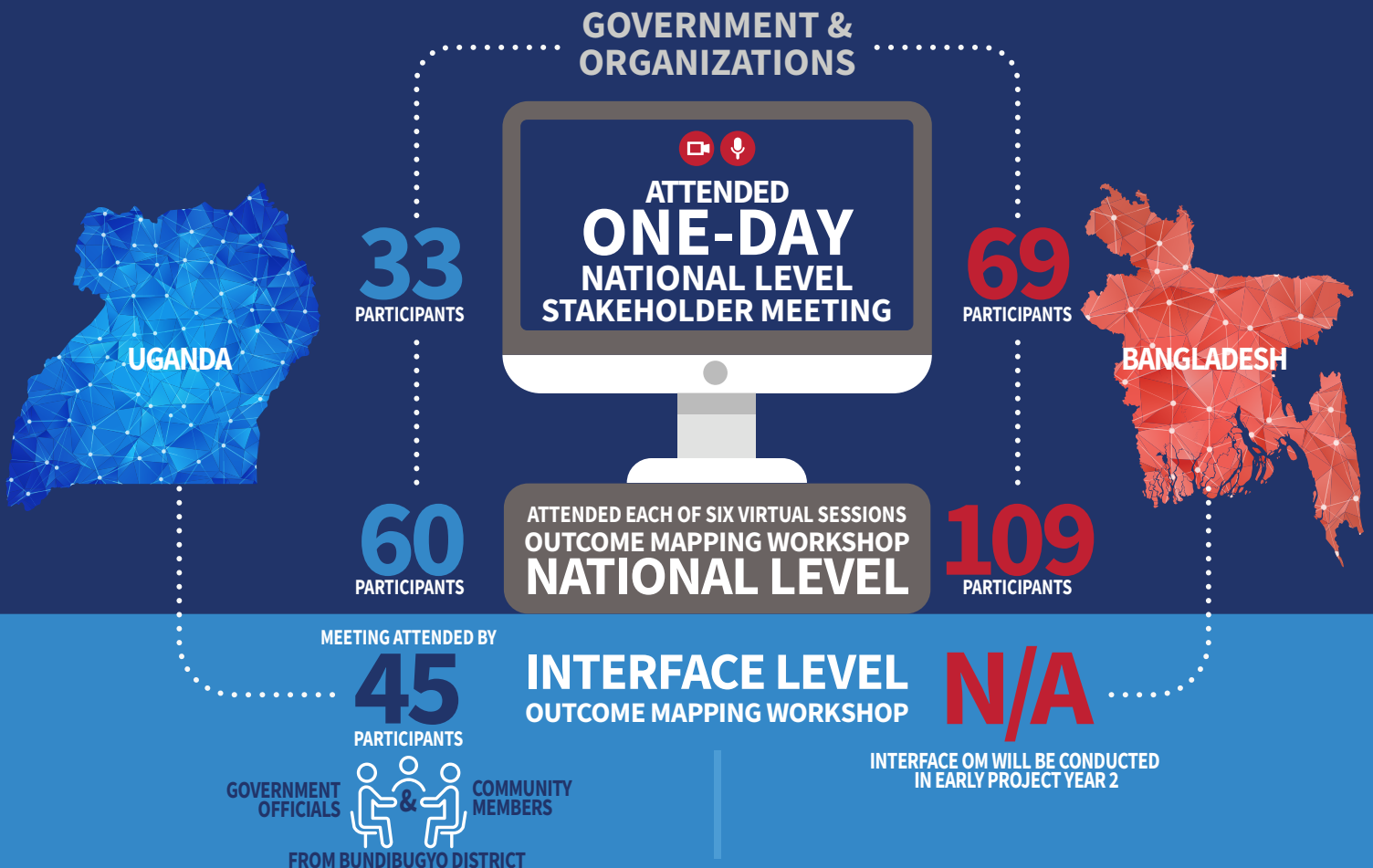
2 Activity Implementation

KEY ACTIVITIES ACCOMPLISHED

OUTCOME MAPPING

The STOP Spillover project is using OM in target countries to identify and support outcomes based on collaboratively generated ideas for risk reduction interventions. This includes identification of risks, knowledge gaps and barriers to intervention design, selected interface(s) and potential interventions for each country. Through OM, STOP Spillover works with a diverse range of stakeholders to ensure that we include relevant

actors to enhance national and local capabilities to locate potentially new and emerging high-risk interfaces and hotspots. The process is used to analyze systemic and programmatic strengths and synergies among institutions and networks, such as One Health platforms, and to understand gaps, limitations and challenges (e.g., environmental, ecological, social, political, gender, economic and cultural norms). STOP Spillover will encourage stakeholders to work together to break existing silos and generate ideas as a group to reduce spillover risks.



The first key step in STOP Spillover’s OM process is typically a one-day meeting of stakeholders at the national level. In each country, a meeting is convened with an initial set of priority stakeholders to introduce the STOP Spillover project; review and expand the list of stakeholders to be invited to subsequent national-level OM workshops; and discuss expected roles of stakeholders and the transformation required for STOP Spillover project success. In Project Year 1, such meetings were convened in Uganda and Bangladesh. Due to COVID-19 restrictions, these meetings were convened virtually.

In Uganda 33 participants from national organizations and 20 STOP Spillover Global team members attended the one-day virtual meeting, including government (the Ministry of Health (MoH) and the Ministry of Water and Environment (MWE)); non-governmental organizations (NGOs); private entities, and academia/training institutions. The one-day virtual meeting in Bangladesh included 69 participants from national organizations and 11 STOP Spillover Global team members. In-country participants represented 32 institutions from the following sectors: human health, animal health, zoo and wildlife health, forest and environment, NGOs, development partners, universities and academia, international research institutes, animal business associations, environmental groups and associations, journalists, individual environmental activists, local government sectors, the agricultural sector and nutrition.

The second key step in STOP Spillover’s OM process is typically a multi-day workshop convened at the national level. In each country, OM workshops bring together a broad range of relevant stakeholders – identified through the

preceding one-day meeting of stakeholders at the national level – to discuss and agree on priority pathogens, high-risk interfaces, outcome visions for prioritized interfaces, and crucial knowledge gaps and barriers to address. In Project Year 1, national level OM workshops were convened in Uganda and Bangladesh. Due to COVID-19 restrictions, the workshops were convened virtually. In Uganda, national level OM workshops took place between August 17 and 26, convened as three-day a week, three-hours per day virtual meetings, with an average of 55 participants attending each of six sessions. In Bangladesh, national level OM workshops took place between September 22 and October 7, convened as two-day a week, three-hours per day virtual meetings, with an average of approximately 70 participants at each session.

“THE OUTCOME MAPPING SESSION “WAS A GREAT OPPORTUNITY TO BE INVOLVED AND GATHER KNOWLEDGE...FROM SKILLED SCIENTISTS FROM ACROSS THE GLOBE.”

-BANGLADESH OUTCOME MAPPING PARTICIPANT

INTERFACES IN UGANDA

In Uganda, stakeholders identified and prioritized 16 high-risk interfaces. The three priority interfaces included: (1) the bat-human interface (ecotourism/caves/households/mines with roosting bats/wildlife hunters), (2) the wildlife-livestock human interface at fringe communities near national parks and protected areas; and (3) formal and informal ports of entry for humans and animals. Stakeholders identified critical partners for the project which included the national One Health Platform, research and training institutes, tourist companies, faith-based organizations, frontline community leaders, local government, village health teams, and local NGOs and community-based organizations. In addition, stakeholders identified gaps and barriers and potential risk reduction interventions for the project.

INTERFACES IN BANGLADESH

In Bangladesh, workshop participants generated

and prioritized criteria for ranking high-risk interfaces. Five key criteria for ranking the interfaces included human morbidity and mortality, transmissibility, mode of transmission, frequency of contact and behavioral and cultural aspects related to risk. This process led to the identification of 12 high-risk interfaces, with the top-two prioritized interfaces being (1) the poultry-human interface, and (2) the bat-human interface.

The third key step in STOP Spillover’s OM process is a workshop convened at the interface level. Uganda was the only country to conduct an interface level OM workshop in Project Year 1. Based on criteria generated by the country team and STOP Spillover colleagues, Bundibugyo district was identified as a district at particularly high-risk of zoonotic virus spillover from bats. A

consultative meeting was held on September 15 in which the country team held meetings with local stakeholders in Bundibugyo to identify an extensive list of stakeholders and to plan for an interface level OM workshop. The meeting was attended by participants from government departments of agriculture, livestock, veterinary, forestry, tourism, health, natural resources management, and social services. There was also representation from the Uganda Wildlife Authority (UWA), government administration and security offices. The interface level OM workshop was conducted on September 28th-30th, 2021 in Bundibugyo district, facilitated by RTA and the STOP Spillover Uganda country team and attended by 45 stakeholders. At this workshop, stakeholders discussed and prioritized potential interventions to reduce spillover risk at specific bat-human interfaces in the district, and identified knowledge gaps that need to be addressed in order to design appropriate interventions. Potential risk reduction interventions

included: (1) a community-based bat monitoring program for early warning of zoonotic spillover; (2) improving household and community practices to reduce contact with bats; and (3) improved agriculture forestry practices, such as planting trees in areas to entice bats away from households. The interface level OM workshop was convened at the very end of Project Year 1. As the project enters Year 2, the Uganda country team, with the support of subject matter experts from STOP Spillover resource hubs and partners, will discuss prioritized

interventions and knowledge gaps identified at the interface level OM workshop and decide upon feasible and evidence-based activities (e.g. intervention designs and studies) to take forward.

DESKTOP REVIEWS

Between late April and June 2021 STOP Spillover team drafted five desktop reviews describing the spillover

ecosystem in each targeted country (activity 1.1.1 of the global work plan). Due to timelines for recruiting country teams, technical experts from STOP Spillover resource hubs took the lead drafting these desktop reviews. Country team members were consulted iteratively as they were recruited.

Desktop reviews covered: (a) what is known about the spillover ecosystem elements that are relevant to priority animal-human spillover interfaces; (b) where there are gaps in evidence or knowledge; and (c) potential sources of new data and field-level information. Reviews were designed to collate important information that could be fed into, and help inform, subsequent OM intervention designs and plans, and summaries of these reviews were prepared in a presentation format. Desktop reviews form the basis for reporting (post-OM) on the current state of knowledge about the nature and dynamics of national spillover ecosystems to national ministries, USAID, World

“THE OUTCOME MAPPING PROCESS “HAS REALLY BROUGHT OUT THE ADVANTAGES OF BRINGING DIFFERENT STAKEHOLDERS TOGETHER TO COMBAT ANY ISSUE.”

-UGANDA OUTCOME MAPPING PARTICIPANT

Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO), World Organization for Animal Health (OIE), and other stakeholders.

Desktop reviews focused on all zoonotic viral pathogens relevant to STOP Spillover and their associated interfaces within the spillover ecosystem within each STOP Spillover country. These reports convey a clear and concise picture of what is known in the country in relation to zoonotic viral spillover risk and amplification.

Reference materials for desktop reviews include previously published peer-reviewed research articles, existing International Health Regulations-Joint External Evaluation (IHR-JEE) Reports, National Action Plans for Health Security, OIE Performance of Veterinary Service and Gap Analysis reports, national zoonotic disease prioritization documents, as well as strategic plans and national action plans, to ensure that we align with country priorities. Desktop reviews contain information on agro-ecological, epidemiological, economic, behavioral, and geographic determinants of pathogen-associated risks including the human- and gender-related factors that affect exposure and susceptibility to infection.

The compilation, analysis, and sharing of existing evidence on pathogen-associated risks supports enhanced country-level capacity to identify spillover threats and determine appropriate responses. Data contained in desktop reviews inform OM strategy, applied research and risk reduction intervention design, national capacity strengthening activities, and dialogue relating to appropriate government policies and strategies. Key findings from the desktop reviews were presented to stakeholders during the national-level OM workshops conducted in Uganda and Bangladesh during Year 1. Upon completion of OM, the desktop review and the OM Report for each STOP Spillover country will be packaged as a Spillover Ecosystem Report, which will be delivered

to relevant Ministries and also publicly accessible via the USAID STOP Spillover website.

SURVEILLANCE ASSESSMENTS

STOP Spillover's biological sampling activities will be tailored to identified interfaces and interventions based on needs at the country-level. In Year 1, STOP Spillover initiated surveillance assessments in Uganda, Liberia, and Viet Nam to identify existing sources of and gaps in surveillance information for viral zoonoses. Surveillance assessments include a summary of country resources with respect to systems, networks, personnel, expertise, and capacities. The assessments identify surveillance system resources and gaps at the country-level and propose solutions toward achieving project goals while adding value to national protocols. The approach builds a sense of ownership and may lead to synergistic activities and partnerships that will strengthen a country's surveillance framework.

The assessments support both the OM and risk analysis activities of the project. A standardized information gathering framework was implemented to identify common gaps and leverage strengths across participating STOP Spillover countries. This standardized information gathering framework aids comparisons and allows us to learn across countries and see relative strengths and weaknesses. This will serve as a resource for countries, contribute to their learning and aid them in strengthening their own activities.

ONE HEALTH INFORMATION ASSESSMENT TOOL

The One Health Information Systems Assessment Tool (OHIAT) contributes primarily to STOP Spillover's Objective 1, through the development of a standardized instrument to assess and identify gaps and opportunities for improvement in a country's One Health information system. The use of this tool, and implementation of recommended activities to strengthen the One Health system, will enhance a country's capacity to monitor, analyze and characterize the risk of spillover.

FIGURE 2: SURVEILLANCE ASSESSMENTS CONDUCTED BY STOP SPILLOVER - OBJECTIVES, OUTPUTS, AND PROCESS STEPS

OBJECTIVES	
<p>The objective of the surveillance assessments is to provide the STOP Spillover team with a clear understanding of existing capacities, resources, and expertise related to sampling and surveillance at interface level, allowing us to identify strengths and weaknesses of existing surveillance systems. This will help STOP Spillover to know where there are gaps and opportunities to build capacity and work with stakeholders at the interfaces to fill these, and use existing surveillance and information to inform our planned interventions. The project actions to strengthen surveillance will focus at the interfaces at which project interventions will be conducted. Positive lessons may result in national stakeholders recognizing elements that may be suitable for integrating into national surveillance systems, but the scaling of project surveillance activities has not been identified as an objective of the STOP Spillover.</p>	
OUTPUTS	
<ol style="list-style-type: none"> 1. Country-specific reports highlighting capacities for conducting surveillance related to spillover of prioritized zoonotic viruses. 2. A table outlining the data collection methodologies like risk-based sampling approaches that the project will pursue. 	
PROCESS STEPS	
STEP	PROCESS
1	Initial project networking contact with surveillance leads in each country (human, wildlife, livestock and environment)
2	Inventory STOP Spillover information needs for spillover risk detection and mitigation (implemented by a team working across all surveillance assessments)
3	Identify current spillover related surveillance actors and stakeholders
4	Inventory current laboratory, field-based and surveillance activities, information, sample storage capacity and available samples
5	Identify surveillance information and activity gaps and propose activities to meet needs in preparation for the OM process
6	Use data collected from the surveillance assessment to refine results focusing on the interfaces and pathogens prioritized in the OM process
7	Develop a resource plan (Project and others)
8	Develop a partnership plan (Project and external)
9	Cross check training and capacity building needs with those already described in the work plan
10	Cross check data handling and One Health integration information systems needs with those already described in the work plan



ILRI/Trong Chinh

The OHIAT supports recommendations of both the WHO digital implementation investment guide and USAID’s digital health vision by assessing country capacity and strengthening national digital architectures and using maturity model-based tools in order to provide a baseline assessment of the current situation and to help map out opportunities for improvement.

The development of OHIAT included a review of relevant maturity models and consultative discussions with international organizational bodies including the West Africa Health Organization (WAHO), the Pan American Health Organization (PAHO) and the World Health Organization (WHO) Health Data Collaborative Digital Health and Interoperability Working Group to determine if there were existing tools to build from and to identify

potential collaborators. After determining that no similar tools currently exist, a team of One Health information systems experts from STOP Spillover developed the Readiness Assessment Tool for One Health (RATOH). The team used existing models (Performance of Routine Information System Management, the Information Communication Technology Infrastructure Assessment Tool, Interoperability Maturity Model, Health Information Systems Stages of Continuous Improvement, and the One Digital Health framework) as well as consultations to develop a RATOH and the OHIAT, which are in draft form as of the end of the reporting period. The RATOH outlines a rapid readiness assessment process to identify the basic requirements needed for a One Health information system. The OHIAT consists of 45 questions across the following domains: human health and wildlife

conservation, human capacity, citizen engagement, environment, and infrastructure. The tool is designed to be administered as a desk review, through a consensus building workshop, or through a hybrid approach.

As the project enters Year 2, the tool will be further refined through consultation with the STOP Spillover resource hubs and feedback from country teams. The tool is expected to be tested in selected STOP Spillover countries.

INTRODUCE NEW TOOLS AND PLATFORMS FOR PREPAREDNESS AND PARTNERSHIPS

To address climate risks that can affect zoonotic pathogen spillover and amplification, the STOP Spillover team developed a methodology to adapt existing early warning system data and systems into a forecasting tool to assess and predict climate-sensitive health risks. The methodology considers complex pathways between shocks, food security outcomes, and the emergence of zoonotic spillover risks as a foundation for trigger design. A multi-layered analytical toolkit or dashboard for a trigger design process will be specifically tailored to support scale-up of an early action mechanism, such as warning communities or specific groups at risk, such as hunters, increasing local surveillance or government distribution of PPE, depending on the context. The early action mechanism will be complemented by capacity building and training for usability of the tool and integration into the One Health national system. We used priority pathogens to draft a proposed methodology that was extensively reviewed by STOP Spillover team members.

ACTIVITIES IMPLEMENTED, BY CROSS-CUTTING AREA

MONITORING, EVALUATION AND LEARNING (MEL)

Since the start of the project in October 2020, the MEL Team has engaged with project staff to ensure that the MEL Plan promotes a culture of

data demand and use to improve performance and outcomes. The MEL Team has built project-wide monitoring activities around routine Key Performance Indicators (KPIs) and has further integrated MEL into crucial areas of project start-up such as country work plan development and global Hub planning. The MEL Team continued to reinforce evidence-based decision making across all activities to effectively implement the project. Entering Project Year 2, the MEL team made revisions to the Year 1 MEL Plan.

DIGITAL MONITORING SYSTEM

In August 2021, DevResults launched the STOP Spillover digital monitoring system, GENOME (Global Electronic Network of Monitoring and Evaluation). GENOME will provide a digital platform to collect, store, organize and present the data and information necessary to manage project operations and performance. GENOME will improve programmatic activities by helping to analyze and monitor data to make informed decisions and course correct where and when needed. The MEL team met weekly with DevResults to construct the STOP Spillover site and created materials to roll out the system so country, regional, and U.S.-based staff are equipped to use it. GENOME will improve programmatic activities and individual performance with real-time data feedback, reporting, and dashboards.

TOOLS AND TEMPLATES

The MEL Team worked with U.S.-based and country-level teams to gather secondary data sources through the compilation of existing reports, evaluations, routine health information systems, sentinel surveys, and other assessments documenting country capacities to monitor, characterize, and mitigate risks for emerging zoonotic virus spillover. These secondary sources of data, along with primary data collection, will be compiled and analyzed by the resource hubs and the MEL Team to establish and set baselines for each target country. Forms for activity-related data capture were created so that learning will

be standardized across countries. User manuals and guidance documents are under development so that personnel at all levels are equipped with the knowledge and skills required to effectively implement the MEL Plan.

EVALUATIONS

The MEL team has been involved in a number of assessments throughout Year 1, conducting participant feedback surveys following OM training and country level workshops. The MEL Team drafted preliminary plans for evaluations based on the STOP Spillover Learning Agenda, which will be further refined following OM.

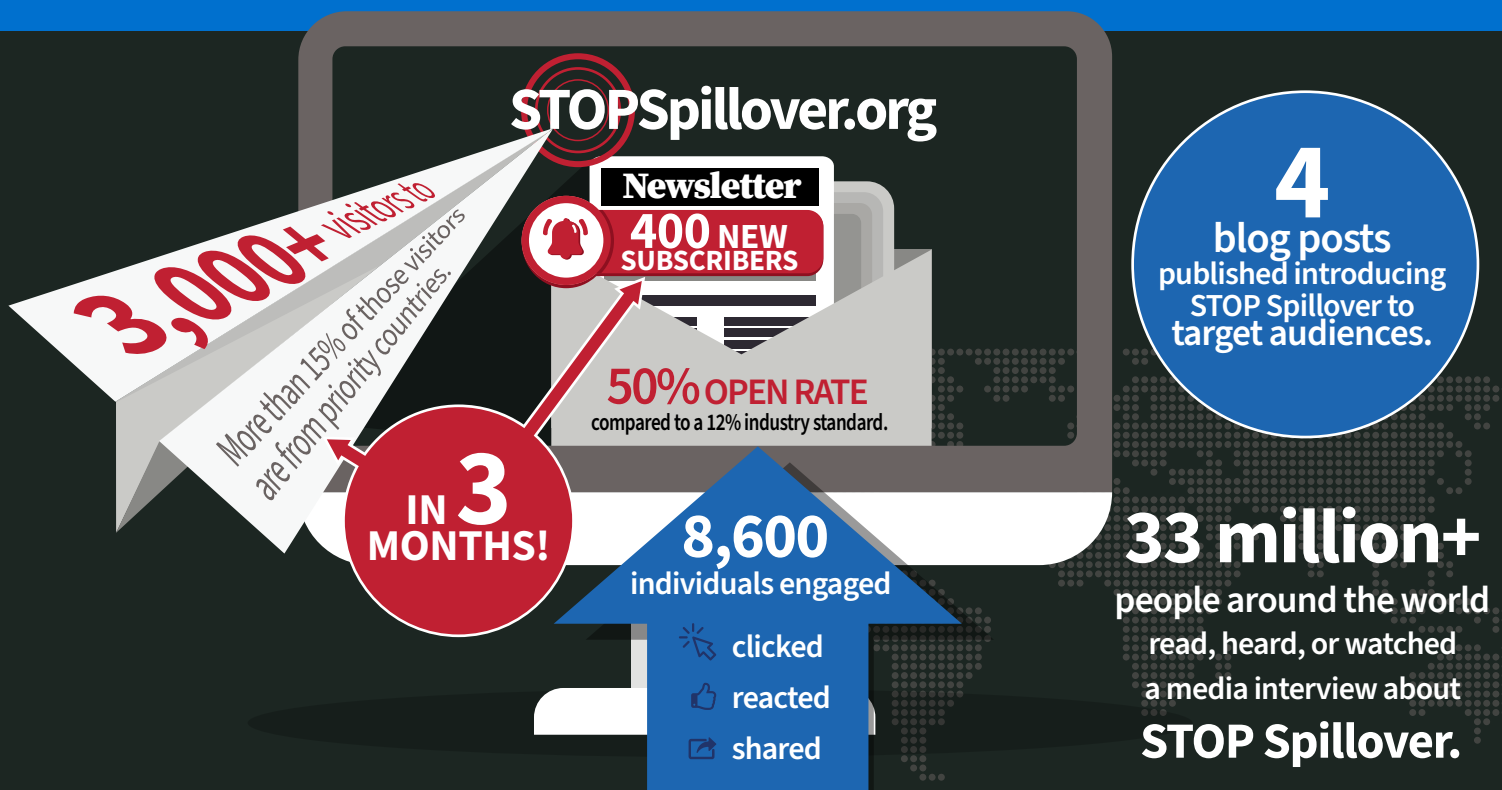
TECHNOLOGY, INNOVATION, PARTNER SUPPORT AND COORDINATION/COMMUNICATION

STOP Spillover's Technology, Innovation, Partner Support, and Coordination/Communication

(TIPC) group played an instrumental role in introducing the project to target audiences, including priority country stakeholders, global development actors, policymakers, and practitioners, and the broader One Health advocacy and research communities. This included participating in stakeholder meetings with dozens of organizations in priority countries, including FAO, One Health WorkForce Next Generation (OHW-NG), World Wildlife Fund (WWF), Wildlife Conservation Society (WCS), Cargill, and others.

TIPC also assessed innovative technologies that may be applied to future interventions, and shared this information with external stakeholders through STOP Spillover's newsletter, social media, website, and other venues.

TIPC BY THE NUMBERS





Ayisraful Islam (woodr.b)

STOP SPILLOVER IN THE NEWS RECENT HIGHLIGHTS

- [World Politics Review: Tackling the Threat of Zoonotic Diseases](#)
- [Contagion Live: Preventing Viral Zoonotic Spillover Events](#)
- [Axios: Top science advisers - Prepare now for next pandemic](#)

In addition to TIPC’s external outreach, the group also built the internal communications infrastructure to maximize STOP Spillover’s external impact.

LOOKING AHEAD

One unique component of STOP Spillover is its focus on specific potentially high-risk spillover interfaces. Once these interfaces are chosen - working with local stakeholders through the

participatory OM process - we will highlight these potential spillover interfaces to stakeholders, partners, and the media.

STOP Spillover’s external advisory board includes prominent representatives from the private sector (Private Sector Roundtable (PSRT) in support of the Global Health Security Agenda (GHSA)) and diverse representation from One Health communities (FAO, WHO, CDC, US Health and Human Services Office of Global Affairs/Office of Pandemics and Emerging Threats, Afrique One, World Wildlife Fund; Annex 1). Spillover efforts/projects have proliferated around the world since the onset of the COVID19 pandemic. The external advisory board will tap creative and strategic One Health thinking of members to inform the STOP Spillover perspective and cultivate shared purpose among key global stakeholders.

3 Progress, Challenges and Next Steps

Project Year 1 focused on four countries: Uganda, Liberia, Bangladesh, and Viet Nam (preliminary discussions regarding Cambodia occurred during Project Year 1, but Cambodia will not fully come on board until Project Year 2). In this section, we report on progress made during the project’s first year, challenges encountered, and next steps in each of these four countries.



UGANDA

Progress made: STOP Spillover partner AFROHUN leads the project’s implementation in Uganda. In March, Uganda became the first STOP Spillover country to hire a Country Team Lead, and recruitment of the full country team was completed in June.

A work plan development group was established to make recommendations for high-priority pathogens and interfaces and to develop a Uganda-specific work plan for Year 1. The recommendation of the Uganda group was to focus initial STOP Spillover efforts on potential

spillover at bat-human interfaces due to the history and perceived threat of bat-transmitted diseases such as hemorrhagic fevers. In recent years, Uganda has experienced several outbreaks of emerging viral infectious diseases, including Ebola, Marburg, Rift Valley fever, and Crimean Congo hemorrhagic fever. The preliminary country plan for Year 1 was submitted to USAID and the Mission in Uganda in February. Through this work planning process, the Uganda group also began identifying country level partners, both within the government and the private sector, and through STOP Spillover partners in Uganda.

Support from STOP Spillover facilitated a comprehensive desktop review of the spillover ecosystem in Uganda with the aim of providing a clear picture of what is known in the country in relation to zoonotic viral spillover and amplification. This review was designed to collate important information that could inform various components of STOP Spillover’s work in Uganda including: outcome mapping designs and plans; surveillance systems; field and laboratory research; national capacity-building activities; dialogue relating to government policies and strategies; and risk reduction interventions.

STOP Spillover was formally launched in Uganda in June. Due to COVID-19 travel restrictions, an in-person launch event was not possible, but a quarterly technical working group meeting of the National One Health Platform on June 17 was leveraged as an opportunity for a soft launch of the project. Over 50 people attended this event, including representatives from the Government of Uganda (including the MoH, MWE, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), FAO, and various NGOs, private entities, and academia/training institutions.)

A one-day, virtual consultative meeting was conducted on August 5, bringing together stakeholders from various sectors including academia, ministries, private entities, and non-governmental organizations. The meeting included STOP Spillover's theory of change; introduced stakeholders to OM; discussed potential high-risk interfaces in Uganda; and generated an inclusive list of stakeholders to invite to national-level OM workshops.

A major milestone for STOP Spillover was reached in August when Uganda became the first country to conduct OM. Between August 17 and 26, a national-level OM workshop was conducted, with COVID-19 necessitating virtual workshops spread over a number of sessions. Participants represented various sectors, including government (including MoH, MWE and MAAIF), NGOs, private entities, and academia/training institutions. An average of 55 participants attended each of six sessions. During this workshop, participants developed criteria by which interfaces should be prioritized, leading to the prioritization of the bat-human interface, where Ebola and Marburg viruses have a high risk of spillover.

The Uganda country team conducted a one-day consultative meeting in Bundibugyo district, where three sub-counties were highlighted as being high-risk. The key purpose of this one-day consultative meeting was to identify critical partners to invite to subsequent interface-level OM workshops. In September, Uganda became the first STOP Spillover country to conduct interface-level OM when 45 stakeholders were brought together (September 28 through 30) in Bundibugyo district to prioritize interventions to reduce spillover risk at specific bat-human interfaces in the district, and to identify and prioritize knowledge gaps that need to be addressed in order to design risk reduction interventions. Participants highlighted three specific bat-human interfaces of particular importance in Bundibugyo: (1) agricultural fields (e.g. cocoa and banana plantations); (2) national parks (e.g. activities including eco-tourism and bat hunting); and (3) buildings (e.g. homes, schools, and churches).

Uganda also became the first STOP Spillover country to conduct an assessment of in-country surveillance capacity. Supported by technical experts from STOP Spillover's resource hubs, the Uganda country team undertook an assessment to determine how best to obtain biological samples and data using existing surveillance systems, personnel and information collection activities. This assessment is designed to facilitate STOP Spillover to develop a clear understanding of existing capacities related to sampling and surveillance so support can be tailored to country/interface needs.

Challenges: The COVID-19 pandemic presented many challenges to the project in Uganda during Project Year 1. Due to the COVID-19 pandemic, most project activities – including stakeholder engagement and OM – were conducted virtually. International consortium members were unable to travel to Uganda to support AFROHUN and the country team. COVID-19 necessitated flexible and adaptive approaches to implementing activities, with the successful implementation of two OM workshops – the national-level workshop conducted virtually, and the interface-level workshop conducted in-person – serving as testament to the adaptability and responsiveness of AFROHUN and the Uganda country team.

Next steps: The interface-level OM workshop in Bundibugyo district was conducted in the final week of Project Year 1. As we enter Project Year 2, a report from this OM workshop, including recommendations regarding selected interventions and studies to fill knowledge gaps at the bat-human interface in Bundibugyo district will be finalized and circulated to key stakeholders. With concurrence from USAID, the Uganda team will establish OH-DReaM working groups to implement risk reduction interventions and risk characterization activities once approved as part of Year 2 work planning.



BANGLADESH

Progress made: STOP Spillover partner icrrd,b leads project implementation in Bangladesh. icddr,b is a leading global health research institute conducting lab-based, clinical, epidemiological, and health systems research, and has considerable experience with routine surveillance for priority communicable diseases and developing information tools and systems. The STOP Spillover country team in Bangladesh was fully formed during Project Year 1, including the Country Team Lead, four technical country team members and other support staff.

A work plan development group was established to make recommendations for high-priority pathogens and interfaces and to develop a Bangladesh-specific work plan for Year 1. Building on information and data available from previous work and with the benefit of the experience of icddr,b, the prioritized interfaces and pathogens recommended by the Bangladesh group were the bat-human interface (Nipah virus) and the poultry-human interface (highly pathogenic avian influenza; HPAI). The Bangladesh work plan for Year 1 was submitted to USAID and the Mission in March.

Support from STOP Spillover facilitated a comprehensive desktop review of the spillover ecosystem in Bangladesh with the aim of providing a clear picture of what is known in the country in relation to zoonotic viral spillover and amplification. This review was designed to collate important information that could inform various components of STOP Spillover’s work in Bangladesh including: outcome mapping designs and plans; surveillance systems; field and laboratory research; national capacity-building activities; dialogue relating to government policies and strategies; and risk reduction interventions.

STOP Spillover was formally launched in Bangladesh in July. Due to COVID-19 travel restrictions, an in-person event was not possible, but a webinar hosted by One Health Bangladesh on World Zoonoses Day on July 10 was leveraged as an opportunity for a soft launch of the project. Subsequent to this soft launch, icddr,b represented STOP Spillover at meetings in August with government partners, One Health Bangladesh, and participants from non-government organizations and universities – including Chittagong Veterinary and Animal Sciences University (CVASU), the Bangladesh Agricultural University (BAU), EcoHealth Alliance, FAO Emergency Center for Transboundary Animal Diseases (ECTAD) and the Bangladesh Livestock Research Institute (BLRI).

A one-day consultative meeting was conducted on August 30, bringing together 80 participants from different government and non-government organizations. During the meeting participants reviewed the STOP Spillover theory of change, stakeholders were introduced to OM, and participants discussed potential high-risk interfaces in Bangladesh. They also generated an inclusive list of stakeholders to invite to national-level OM workshops. To strengthen government ownership and engagement

in STOP Spillover in Bangladesh, the Bangladesh country team has successfully engaged the One Health Secretariat (OHS). The OHS is the overarching coordinating body for guiding and monitoring One Health activities in the country, comprising the following Government of Bangladesh (GoB) stakeholders: Directorate General of Health Services (DGHS) of the Ministry of Health and Family Welfare (MoHFW); Department of Livestock Services (DLS) of the Ministry of Fisheries and Livestock (MOFL); and Bangladesh Forest Department (BFD) of the Ministry of Environment and Forests (MoEF). By engaging the OHS and including them within key project activities, STOP Spillover provides a unique opportunity for capacity strengthening of the OHS in convening, communicating, coordinating and interacting with stakeholders from different sectors within the country and abroad.

A major milestone for STOP Spillover in Bangladesh was reached in September with the successful implementation of a national-level OM workshop, hosted by OHS. Due to COVID-19 restrictions, this workshop was convened virtually, and was conducted over six sessions, beginning on September 22. More than 118 participants were invited, with an average of approximately 70 participants at each session. To further strengthen government ownership and engagement in STOP Spillover's vision, the Bangladesh country team successfully engaged stakeholders from different government and non-government sectors to play important roles as moderators, facilitators and rapporteurs during the outcome mapping workshop. During this workshop, participants developed the criteria by which interfaces should be prioritized, leading to the prioritization of the poultry-human interface, where HPAI has a high risk of spillover.

Challenges: The COVID-19 pandemic presented many challenges to the project in Bangladesh during Project Year 1. Due to a countrywide lockdown during the COVID-19 pandemic, project activities – including stakeholder engagement and OM – were mostly carried out virtually. International consortium members were unable to travel to Bangladesh to support icdr,b or in-country stakeholders. Fortunately, we have a strong local partner in Bangladesh which mitigated the negative impacts of international travel restrictions and the need to adapt to a virtual mode of operation.

Next steps: Bangladesh's national-level OM workshop was convened at the end of Project Year 1. In Project Year 2, the country team will draft a report from the OM workshop, including recommendations regarding the prioritized interface and pathogen – the poultry-human interface, and HPAI – which will be shared with the wider consortium and key stakeholders. Upon endorsement from USAID and the in-country USAID Mission, an interface-level OM workshop will be conducted to identify and prioritize interventions to reduce spillover risk at the poultry-human interface and identify and prioritize knowledge gaps that need to be addressed in order to design appropriate risk reduction interventions. A report from this OM workshop, including recommendations regarding selected interventions and studies to fill knowledge gaps at the poultry-human interface, will be circulated to key stakeholders. With concurrence from USAID, the Bangladesh team will establish OH-DReaM working groups to implement risk reduction interventions and risk characterization activities once approved as part of Year 2 work planning.



LIBERIA

Progress made: Through STOP Spillover’s Regional Lead for Africa, AFROHUN initiated administrative processes to establish Liberia as an AFROHUN member prepared to support STOP Spillover Liberia. The Country Team Lead for Liberia was recruited in July, and recruitment for the four technical country team members was initiated.

A work plan development group was formed to make recommendations for high-priority pathogens and interfaces and to develop a Year 1 work plan for Liberia. The group focused on Liberia’s experience in the five years since their first Ebola outbreak, the transformation achieved and initiatives undertaken

by the government and donors. Lassa fever virus was recognized as a key pathogen among STOP Spillover priority viruses. Driven by border porosity, Liberia is exposed to human and animal sources of transboundary diseases including Ebola and Lassa fever. Viral spillover at human-rodent interfaces and the mitigation of cross border spread of viral pathogens are potential areas of focus to be addressed as appropriate through the OM process.

Support from STOP Spillover facilitated a comprehensive desktop review of the spillover ecosystem in Liberia with the aim of providing a clear picture of what is known in the country in relation to zoonotic viral spillover and amplification. The data review built on previous work, including existing IHR-JEE Reports, National Action Plans for Health Security, OIE Performance of Veterinary Service and Gap Analysis reports, and national zoonotic disease prioritization. This review was designed to collate important information that could inform various components of STOP Spillover’s work in Liberia, including: outcome mapping designs and plans; surveillance systems; field and laboratory research; national capacity-building activities; dialogue relating to government policies and strategies; and risk reduction interventions.

An assessment of in-country surveillance capacity was also initiated during Project Year 1. Supported by technical experts from STOP Spillover’s resource hubs, JSI and the USAID Mission, the Liberia country team lead met with various stakeholders involved in the surveillance of zoonotic viruses – including the Ministry of Agriculture Central Veterinary Lab; the Forestry Development Authority; and the National Public Health Reference Laboratory – to develop an understanding of existing surveillance systems, personnel and information collection activities. This assessment is designed to facilitate STOP Spillover to develop a clear understanding of existing capacities related to sampling and surveillance so support can be tailored to country/interface needs.

Challenges: Prior to STOP Spillover, AFROHUN had no presence in Liberia. Securing AFROHUN membership for the University of Liberia and their subsequent agreement to serve as the home base and host for STOP Spillover in Liberia presented challenges. However, this process was successfully concluded during Year 1, and efforts are ongoing to support the University of Liberia in its new role. We believe the capacity strengthening that will occur at the University of Liberia as a result of AFROHUN membership will enhance sustainability of STOP Spillover initiatives in the near and longer term.



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Next steps: The country team in Liberia will be finalized early in Year 2 and orientation and training for OM will begin. The first step in this process will be a one-day consultative meeting where stakeholders from various sectors will be brought together to discuss potential high-risk interfaces in Liberia and to identify appropriate stakeholders to be invited to subsequent OM engagements. OM workshops will prioritize interfaces and pathogens, interventions to reduce spillover risk at the prioritized interface, and identify knowledge gaps that need to be addressed in order to design appropriate interventions. With concurrence from USAID, the Liberia team will establish OH-DReaM working groups to implement risk reduction interventions and risk characterization activities once approved as part of Year 2 work planning. An official STOP Spillover launch event will be held early in Project Year 2. Due to international travel restrictions stemming from COVID-19, the launch will be an in-person, virtual, or hybrid event.



VIET NAM

Progress made: The Viet Nam One Health University Network (VOHUN), under the auspices of STOP Spillover partner SEAOHUN, leads project implementation in Viet Nam. Through STOP Spillover's Regional Lead for Asia, SEAOHUN provides administrative oversight and support to the project in Viet Nam. An Administrative and Financial Officer was recruited by VOHUN in May, and the Country Team Lead for Viet Nam was recruited in July. Two technical members of the country team – those aligned with STOP Spillover SMM and FWA resource hubs, were recruited in August and September respectively. Recruitment of the remaining technical country team members was ongoing at end of Year 1.

Prior to the Country Team Lead coming on-board, a work plan development group comprising STOP Spillover consortium members convened to develop a deeper understanding of the Viet Nam viral spillover and One Health context, potential implementation challenges, and country priorities. The recommendation of this group was to focus initial STOP Spillover efforts in Viet Nam on potential spillover at wildlife-human interfaces, specifically focusing on wildlife hunted or farmed by humans for consumption as food or for medicinal purposes. Wildlife farms and the wild rodent trade in Dong Nai province were specifically recommended as priority interfaces. Viet Nam became the first STOP Spillover country to receive Mission endorsement to begin in-country activities when, in March, the Mission endorsed the preliminary country plan for Year 1. The Mission recommended that STOP Spillover's strategy for OM differ in Viet Nam compared to the strategy applied in other STOP Spillover countries. Rather than conducting an OM workshop at the national level to select the prioritized interface and pathogen, followed by a workshop at the interface level to select the prioritized interventions and studies, it was recommended to conduct OM only at the interface level (wildlife farms in Dong Nai).

Support from STOP Spillover facilitated a comprehensive desktop review of the spillover ecosystem in Viet Nam with the aim of providing a clear picture of what is known in the country in relation to zoonotic viral spillover and amplification. The data review built on previous work, including existing IHR-JEE Reports, National Action Plans for Health Security, OIE Performance of Veterinary Service and Gap Analysis reports, and national zoonotic disease prioritization. This review was designed to collate important information that could inform various components of STOP Spillover's work in Viet Nam, including: outcome mapping designs and plans; surveillance systems; field and laboratory research; national capacity-building activities; dialogue relating to government policies and strategies; and risk reduction interventions.

A major milestone for STOP Spillover in Viet Nam was reached in August when the project received official approval from the Government of Viet Nam. All projects supported by foreign aid have to be approved by the Government of Viet Nam before project implementation can start. VOHUN initiated this process in May by submitting the necessary documents to the Ministry of Health, with final approval obtained on August 26. No in-country activities could begin until this approval was obtained.

In addition to project approval at the national level, approval must also be obtained from the respective local government where the project will be implemented. VOHUN submitted the necessary documents to the People’s Committee in Dong Nai province, and received approval on September 24. With this approval obtained, VOHUN can now work with the three assigned departments in Dong Nai to introduce them to the project, and begin planning for the interface level OM workshop.

Challenges: COVID-19 and the imposed lockdown by the government, and the shift in priorities of key government officials to respond to the pandemic, caused uncertainty in timelines for Government of Vietnam project approval. However, the diligent efforts of VOHUN allowed the project to reach this critical milestone. Recruitment, and finding suitably-qualified candidates for the technical positions, has also presented a challenge. Two technical positions remain unfilled, despite prolonged advertisement and three sets of interviews.

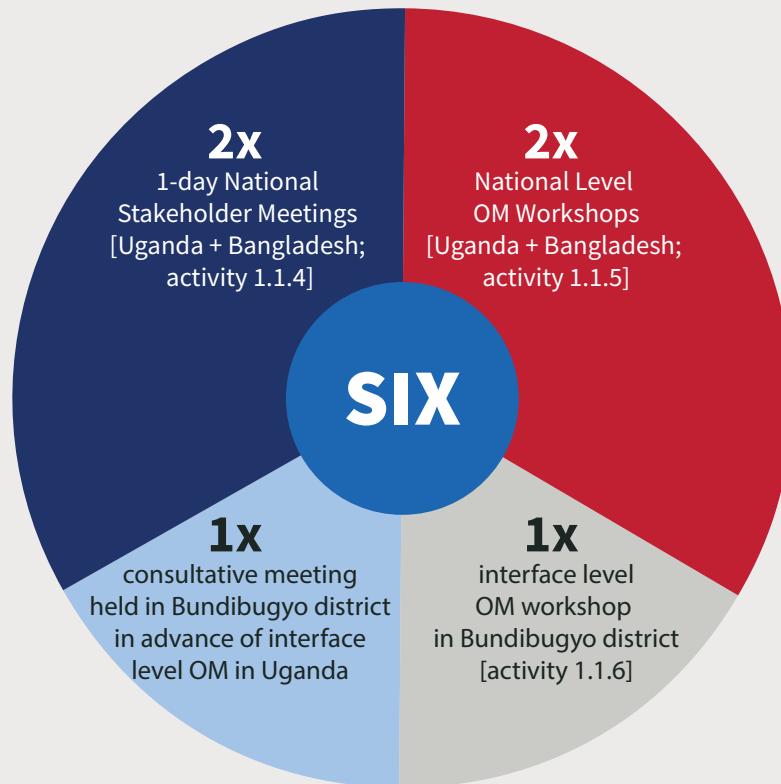
Next steps: Now that project approval has been obtained at both national and provincial levels, outcome mapping at Dong Nai province – the location of the first prioritized interface – can be conducted to prioritize interventions to reduce spillover risk at wildlife farms, and prioritize knowledge gaps that need to be addressed in order to design appropriate interventions. With concurrence from USAID, the Viet Nam team will establish OH-DReaM working groups to implement risk reduction interventions and risk characterization activities once approved as part of Year 2 work planning. An official STOP Spillover launch event will be held early in Project Year 2; due to international travel restriction stemming from COVID-19, it remains to be seen if a launch will be an in-person, virtual, or hybrid event. Finalizing recruitment of the country team is also a priority.



4 Progress on Indicators

The Year 1 MEL Plan for STOP Spillover defines a set of KPIs for the project. Progress on selected indicators and associated targets are shown below. Progress updates are only included if implementation commenced for a given activity during Project Year 1 and data collection has begun. The majority of indicators do not have progress to report for Project Year 1 because there was no data to track. Tracking of indicators will begin when activity implementation begins.

1.1.B # OF OM ACTIVITIES THAT LEVERAGE COMMUNITY STAKEHOLDER KNOWLEDGE, PRIORITIES, AND PERSPECTIVES



1.1.C # OF UNIQUE STAKEHOLDERS ENGAGED THROUGH OM PROCESS



- Ministry of Health
- Ministry of Water and Environment
- Non-governmental organizations e.g. Veterinaires Sans Frontieres Germany
- Country Program Manager
- Fauna and Flora International Kampala
- Research and training institutions e.g. Makerere University Walter Reed Project (MUWRP)
- UWA, and the NOHP -One Health Coordination Office, Uganda
- Infectious Diseases Institute

Uganda OM included **60** stakeholders in national OM and **45** in interface OM workshop

Representation from Bundibugyo district included stakeholders from departments like Forestry, Health, District Veterinary Office, Agriculture District Police, community based services, Tourism, CAO's Office, natural resources, livestock surveillance, Resident District Commissioner Office, Uganda Wildlife Authority.



- Ministry representation
- NGOs
- Universities and academia
- International research institutes
- Animal business associations
- Environmental groups and associations
- Local government sectors
- Agricultural sector
- Nutrition sector

Bangladesh national OM included **109** stakeholders.

1.4.A # OF UPDATED DOCUMENTS (SURVEILLANCE FRAMEWORKS/ POLICIES/ GUIDANCE) DEVELOPED TO SUPPORT OPERATIONALITY OF SURVEILLANCE SYSTEMS

The **Uganda** surveillance assessment is complete. **Liberia** will have surveillance assessment documents finalized early in Y2 and Bangladesh has just started the process.

Also developed in Year 1 were the country desktop reviews which reviewed country frameworks and policies already in place. These documents were written and assembled to be a resource that helps to inform surveillance systems in each of the STOP Spillover countries.

Annex 1

STOP Spillover External Advisory Board

NAME	TITLE OR DESCRIPTION	ORGANIZATION/REGION
<u>Ashling Mulvaney</u>	Co-Chair, Private Sector Roundtable (PSRT) in support of the GHSA; Vice President, Sustainability and Access to Healthcare, Global Sustainability	PSRT of the GHSA; AstraZeneca International; London, UK
<u>Kachen Wongsathapornchai</u>	Officer-in-Charge Regional Manager, Emergency Centre for Transboundary Animal Diseases (ECTAD)	FAO-Regional Office Asia and Pacific (RAP) Bangkok, Thailand
<u>Bassirou Bonfoh</u>	Director of Afrique One	Afrique One Agriculture and Nutritional Sciences; Africa
<u>Jose Fernandez</u>	Deputy Director, Office of Pandemics and Emerging Threats, Office of Global Affairs	U.S. Department of Health and Human Services, Washington, DC
<u>Ibrahima Soce Fall</u>	Assistant Director-General for Emergency Response	WHO
<u>Casey Barton Behraves</u>	Director Head, Collaborating Centre for Emerging and Re-emerging Zoonotic Diseases for the World Organization for Animal Health (OIE)	US CDC One Health Office Atlanta, GA
<u>Annika Terrana</u>	Director, Forests and Lead, Forests and Health	World Wildlife Fund



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