

Strategies to Prevent Spillover (STOP Spillover)

Impact Brief

Cambodia

Community Dialogue and Demonstration-based Education on Zoonotic Diseases and Spillover Risk Reduction in Kang Meas district, Kampong Cham Province

Activity 2.2.2.1: Community-level Risk Reduction Interventions

INTRODUCTION

Bat guano, coveted by farmers as a nutrient-rich fertilizer, provides a livelihood for the community in Kang Meas district. Yet it comes at a cost. Bat guano producers and their neighbors are living and working in constant contact with bats; as a result, they may be at risk of bat-borne zoonoses. In 2023, the STOP Spillover team in Cambodia conducted several studies among this community to understand their current practices and the risks they face related to known risk pathways, as well as the presence of infectious agents from bats along these pathways. This research was followed by trials of improved practices (TIPs) to allow farmers and their neighbors to participate in finding solutions and in shaping improved practices that are feasible to reduce bat-human interactions and protect themselves.

Informed by the trials, the team returned to Kang Meas in mid-January to conduct a community dialogue with a broader group of community participants, and to demonstrate safety practices to reduce risks from bat-human contact. The dialogue convened 42 local stakeholders (60% female) including bat guano producers (BGPs), neighboring non-bat guano producers (NBGPs), a vendor, religious leaders, local authorities, health center staff, and officials from district, provincial and national institutions to share results of the TIPs and identify future actions to reduce risk. Through facilitated dialogues, participants identified and prioritized actions they are willing and able to apply, to sustainably mitigate the risk of viral spillover from bats to humans. In addition, One Health Design, Research and Mentoring (OH-DReaM) working group members guided 50 (64% female) local participants in practical, effective ways to use each risk reduction practice, such as hand washing with soap, safe storage of guano, and use of PPE.

OUTCOMES AND RESULTS

Outcomes

- All participants confirmed an improved understanding of zoonotic diseases, and committed to improving biosafety and hygiene practices in working and living safely with bats.
- BGPs and NBGPs prioritized and committed to implementing key risk reduction activities (Figure 1). Participants demonstrated their ability to apply risk reduction techniques and steps to improve biosafety and hygiene.
- Helping-hands groups including local authorities, religious actors and sellers

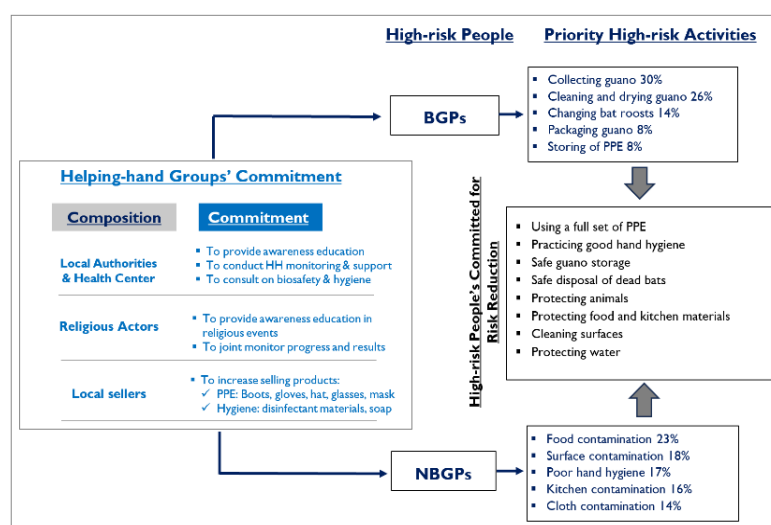


Figure 1: Stakeholders' high-risk prioritization and commitment for reducing the risk of viral spillover from bats to humans in bat guano producing communities.

prioritized activities, and committed to helping BGP and NBGP reduce risks of viral spillover from bats to humans (Figure 1).

- All local OH-DReAM Working Group members proved that they have the capacity to monitor, educate and support BGP and NBGP in adopting and sustaining the risk reduction practices.

Results

- A community dialogue on zoonotic disease and spillover risk reduction was completed with 42 (60% female) participants, including BGPs, NBGPs, a vendor, local authorities, and religious actors (Buddhist monks and pagoda committees).
- The demonstration on key risk reduction practices was conducted with 50 (64% female) participants including BGPs, NBGPs, a vendor, local authorities, and religious actors. These demonstrations guided participants in how to practice: (i) wearing, removing, and storing PPE, (ii) effective hand washing, (iii) protecting food and water, (iv) cleaning and disinfecting household surfaces, (v) safely storing guano, and (vi) safely disposing of dead bats.
- A Training of Trainers for local OH-DReAM Working Group members on conducting community dialogues and demonstration-based education was completed with 11 attendees, including officials from the Provincial Departments of Agriculture, Health, and Rural Development, Operational District, District Administration, commune and village authorities, the health center, and a BGP representative.



Photo 1: Demonstration on wearing and removing PPE at the Varint pagoda in Khchau commune.



Photo 2: Reviewing zoonotic disease and spillover risk reduction activities at Varint pagoda in Khchau commune.



Photo 3: Prioritization of high-risk activities by BGP groups at the Varint pagoda in Khchau commune.

STOP Spillover Cambodia support to Cambodia’s GHSA and JEE scores

Year 4 Activities	GHSA priorities	JEE score (2016)
Activity 1.2.6.1 Bat guano farm study (continued from Y3)	Category 1: Preventing the emergence or release of pathogens with potential for international concern: Zoonotic diseases (1.2) and biosafety (1.4)	Indicator P.5.1 Surveillance of zoonotic diseases (JEE Score 2 for P4.1 surveillance systems in place for priority zoonotic diseases; and JEE Score 2 for P6.2 biosafety training and practices)
Activity 2.2.2.2 Coordination and capacity building of sentinel surveillance team		
Activities 2.2.2.1 and 2.2.2.3: Community level risk reduction interventions	3.5 Risk Communications	Risk Communication and Community Engagement (RCCE), Indicator R5.2: Risk Communication and R5.3 Community Engagement (JEE score 3 for R5.4 Communication engagement with affected communities)