Increasing One Health awareness at the local-level to bolster passive surveillance: insights from stakeholders from the Asia-Pacific

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Summary
Increasing One Health awareness at the local level and funding risk-communication for farmers and animal health communities could have a positive impact on surveillance systems through *normalising* surveillance effort. This is one of the key takeaways that emerged from discussions with governance stakeholders working in the One Health and/or animal health governance space in four countries from the Asia-Pacific: Bangladesh, Papua New Guinea, Fiji, the Philippines. Through a process combining one-on-one semi-structured interviews and/or focus groups with 60 stakeholders, and later validation through an online session inviting all interviewees to participate, we found that despite the differences in national contexts, there was a generalised lack of understanding and/or knowledge of One Health below the national level. Additionally, across all four countries, gaps in governance means reaching farmers is difficult, and trust between the governance actors and farmers is often lacking. Both can be a hindrance for passive surveillance. However, stakeholders noted that an increased understanding of One Health at the local level could help bolster passive surveillance through capacitating farmers and fostering more trust between animal health practitioners, government representatives and farmers. We reflect on what this means for future One Health and/or surveillance activities in the region.

Methods
The Indo-Pacific Initiative for Sustainable Animal Health Cooperation (IPI-SAHC) is a three-year project funded by the Australian Centre for International Agricultural Research (LS/2022/143) that examines how communities, countries, and regional bodies can build capacity, mobilise and share resources and expertise, and cooperate to improve high-level political commitment to animal health governance. Data collection was focused on ACIAR priority locations across South Asia, Southeast Asia and the Pacific Islands, in the four countries mentioned above and across three levels: national, community, and regional (Griffith Ethics Number 2024/738).

For the national case study, which informed this submission, the IPI-SAHC team interviewed (either 1:1 or through roundtable discussions) a total of 60 participants across the four countries between January and December 2025. The conversations were transcribed and translated when conducted in a local language. Deidentified transcripts were then coded through thematic analysis with an iterative codebook – a template approach. Following the thematic analysis, a follow up session with the participants was convened on Zoom to present preliminary findings and receive feedback in April 2026. Five categories were established: (1) Animal Health Governance (governing animal health experiences); (2) Perspectives on farmers and support systems; (3) Perspectives on One Health; (4) Supranational considerations and (5) Disease and outbreak management. The thematic analysis and the five themes it produced were presented to the stakeholders in the collective session in April 2026. Participants were then invited to move to country-specific breakout rooms to validate findings, offer additional insights and/or identify priorities moving forward. What follows draws on cross-cutting patterns that emerged both from the cross-country comparison and from the collective dialogue that this reporting back process generated.

Results
The four countries reported similar issues with different framings. Four important observations emerged both from the data presented to the stakeholders and were reiterated and reinforced in the collective session. First,

the lack of knowledge/understanding of One Health below the national level. Second, the recognition that there are gaps in governance in animal health, which make reaching farmers challenging across all contexts, albeit sometimes for slightly different reasons. Third, trust was often mentioned as an issue between farmers and governments when stakeholders discussed their views of smallholder farmers and available support. Finally, international funding was identified as misaligned with country-priorities in some of the contexts but highlighted as necessary by each country.

One Health knowledge and understanding

Almost every interviewee had heard of One Health. Some interviewees were experts and very well versed. Others expressed openly that while they had heard the term “One Health”, but that they didn’t know what One Health meant. When asked, most described the link between human and animal health, e.g. zoonoses, but fewer included the environment in their own definition. Some interviewees related their initial skepticism, but One Health is now widely considered important, and some interviewees have become passionate about the concept (it is also important to note that our sample included international One Health experts which were interviewed about their country-level experience). There was an acknowledgement that One Health is particularly important in contexts where livestock live in close proximities to humans, such as in smallholder settings.

What became apparent is that local government representatives and extension workers had less exposure (e.g. through training opportunities) than their national government counterparts to the concept. Stakeholder in the reporting session agreed that “One Health is not very well known beyond the corridors of power” and that raising awareness in farmers would be important to minimize zoonotic disease outbreaks and foster reporting. The four countries are at varying level of implementation of One Health. There is however a consensus that a holistic implementation is necessary to build local understanding, and ensuring implementation includes all necessary partners. For instance, at the April 2026 session, a participant from PNG explained that provinces have not been included in implementing partners. Connected to this are other issues including a lack of sustainable funding, and difficulties to move beyond siloed approaches at the national level. Participants added that field activities in particular are hard to secure funding for.

Additional insights from breakout room sessions shared by the participants included funding received for One Health by PNG, and additional activities undertaken by Bangladesh stakeholders in the One Health space. Philippines participants also wanted to highlight that there are mechanisms of collaboration that may not be termed as One Health but are on One Health such as inter-agency collaboration on food safety, AMR, anti-rabies, and avian influenza. Highlighting that there is so much collaborative work being done in the Philippines on One Health but in the form of specific disease prevention and response programs.

The gaps in animal health governance

AHG structures vary across national contexts, with some having established reporting structures from national to local, and others having coordination and resource allocation issues. Jurisdictional overlaps between different aspects (e.g. food security, biosecurity) can make animal health more difficult to govern, as it can lead to confusion and lack of accountability.

Across all four countries was a consensus that, despite its important contribution to the national economies, the livestock sector is often perceived to be underprioritized as an agriculture sector. The approach to animal health is reactive rather than proactive. The importance of animal health needs to be communicated better to policymakers.

Once again, funding was flagged as an important barrier to better outcomes. Lack of *sustainable* funding for animal health leads to a variety of issues: staff shortage and lack of training, lack of infrastructure (research, vaccine production, diagnostic capacities). This in turn makes it more challenging for countries to respond to outbreaks in a timely manner, due to creating gaps between national level and the field level.

National and local government views on smallholder farmers and available support

Smallholder farms are viewed as essential across the region, crucial for food security and maintaining cultural practices. They are perceived as 'vulnerable' to disease outbreaks due to poverty, the use of traditional methods to care for their animals, and the lack of veterinary services available in some contexts.

Support available varies greatly across contexts, with some farmers being left on their own while others may be receiving more help. The **c**omparison between large-scale farms and small-scale farms often came up, with stakeholder mentioning largescale farms as following better biosecurity practices. There are also mentions of largescale farms receiving more help from the government in the form of loans, trainings and vaccines. A push towards the intensification of agriculture may marginalize smallholder livestock holders further.

For instance, in the extreme case of pig farmers in Bangladesh, national stakeholders highlighted that the social stigma attached to raising pigs led to pig farmers being particularly vulnerable to outbreaks due to fear of engaging with formal animal health governance systems. In Papua New Guinea, pigs are considered highly valuable and pig farmers are considered “super farmers” by stakeholders. However, the barrier is structural: they note that smallholder farmers are mostly left on their own due to a lack of capacity, in a context where provincial authorities are responsible for agricultural extension and farmer engagement, but don’t have capacity to deliver this engagement.

In the Philippines, stakeholders noted that farmers received help for feed, medication, training and/or more. Yet, the need for more coordinated support at the local level is recognized across all contexts. They also noted that supporting farmers groups has been important in giving farmers a voice within animal health governance and needs to be capacitated further. Digital extension tools have been mentioned either as potential to increase support or already being used informally. In PNG, a stakeholder mentioned that increased mobile phone usage could be leveraged to reach farmers. In Fiji, an extension officer mentioned using video calls informally for remote diagnostics, an example of practitioner innovation to circumvent the “reaching farmers” issue.

External actors funding and priorities

Stakeholders repeated that international organisations are instrumental in supporting One Health implementation in national contexts.

The countries rely on donor funding for animal health governance and/or One Health activities, however the nature of funding is inconsistent across donors and some sectors/themes. For instance, some areas of investment receive regular support compared to other areas of One Health that are yet to be consistently funded (i.e. animal surveillance compared to human surveillance), leading to issues related to sustainable funding and, in turn, strengthening system capacity.

In terms of future funding, participants at the April session mentioned that funding for risk communications and One Health awareness at the local level would be helpful, for instance through grounding One Health education at the secondary school. The information could then be passed on from children to parents. Another important element that emerged was the importance of institutionalising experience derived from disease outbreaks. Although countries have had very varying outbreak experiences, a common thread is that outbreaks have often served as “wake-up calls” and led to changes in animal health governance (examples documented in all four countries). Lessons learned from disease outbreaks emphasized early-detection, rapid response and strong communication plans tailored to local contexts and have highlighted the importance of multi-stakeholder collaboration. Published case-studies of outbreaks were also noted as relevant to policy-makers: participant involved in policy-making for a specific disease outbreak noted that these are routinely consulted prior to drafting policies, but are not always available.

Discussion

Through interviews and further discussions, national stakeholders have identified that local awareness of One Health and farmers engagement are lacking. This represents a foundational gap for surveillance, particularly in settings where veterinary capacity is crucially lacking. Aside from the lack of capacity for diagnostic, which is documented and important – countries need domestic diagnostic capacity which they are currently lacking, however, this local knowledge and engagement gap was identified as important to address to strengthen surveillance systems. An effective passive surveillance system requires trained professional but also aware farmers who can notice issues and comfortable reporting those to authorities.

Barriers to reporting, such as stigma, distrust, and poor awareness are well identified in literature (see for instance (Gates et al., 2021))., Those barriers are context-specific and as such, different context-specific solutions may be needed to address those barriers to unlock the potential of farmers to become active actors in surveillance systems. However, research already shows the potential benefits of raising awareness in farmers: for instance, community engagement has proven beneficial in the case of Timor-Leste, where training farmers enabled them to become better at reporting disease but also getting to know the extension staff (Millar et al., 2023).

Investing in One Health awareness at the local level could help through fostering farmers understanding of why biosecurity and reporting is important, while simultaneously building relationships and increasing trust with animal health officials. Animal health officials at the local level would also benefit from receiving One Health awareness training, and this could be conducted simultaneously, capacitating animal health officials who can then reached out to farmers.

One caveat is that reliable communication channels are not always in place. This can be due to social stigma, or this can be due to a lack of resources and remoteness. The materialisation of such activities may vary widely to

account for those context-specific barriers. This is a constraint that needs to be considered when investing in awareness activitie. Some national stakeholders are already thinking pragmatically about how to find solutions to enable two-ways digital communications, such as reflecting on the increased use of mobile phones in PNG or leveraging video messaging apps for diagnostics in Fiji.

Conclusion

The lack of One Health awareness and gaps in capacity identified by national stakeholders are important to address to improve passive surveillance in low-resource settings. While improving national diagnostic capacity is important, investing in capacitating farmers and local animal health actors could improve passive surveillance through enabling local actors to participate. However, this will require careful consideration of available communication channels and potential contextual barriers, which will need to be overcome. Those barriers can be structural such as remoteness, but also social and cultural, such as stigma, contributing to a lack of trust between animal health actors at all levels – from the government all the way to the farmers.

Keywords: Passive surveillance, One Health, Farmers, Asia-Pacific.

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