PROJECT REPORT FIJI

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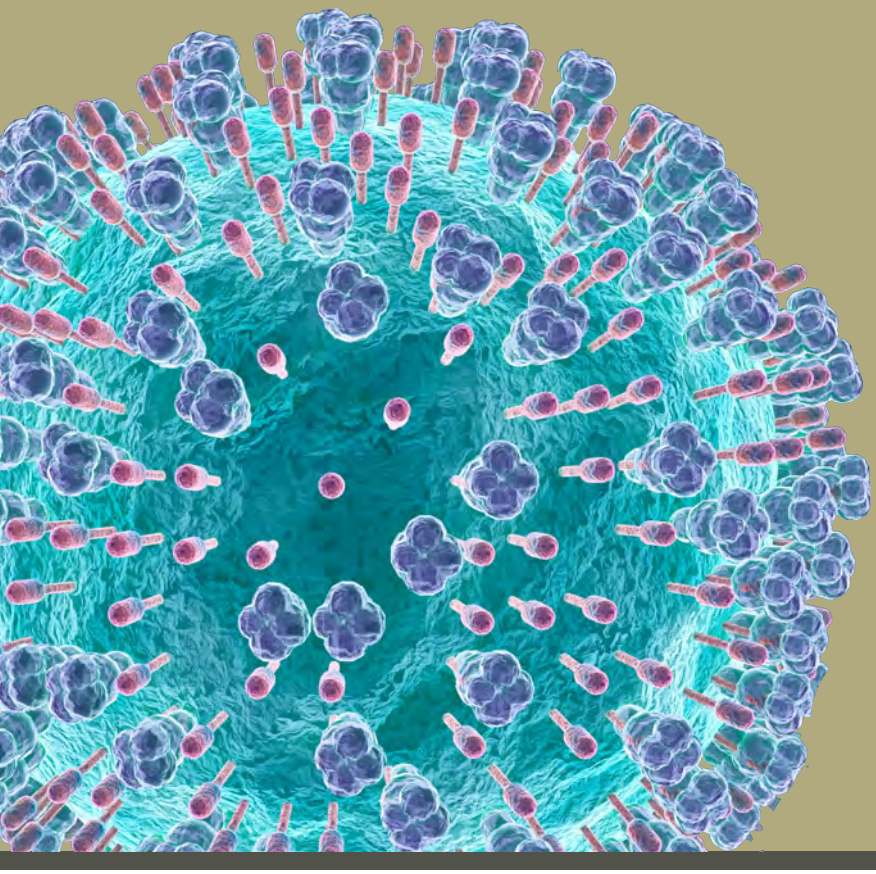
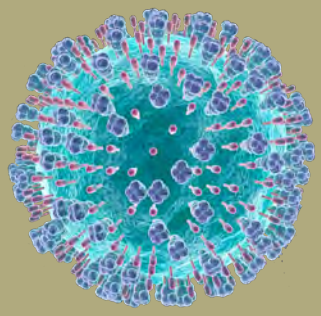
Enhancing multi-agency biological threat preparedness and response in Fiji





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Jone Gucake, Nicholas Thomson and Amelia Turagabeci

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Executive summary

This report explores the different roles, responsibilities and interactions of a range of agencies working at the civilian-military interface across an ever-expanding suite of biological threats in Fiji. It combines material drawn from an ongoing review of the literature with information gleaned from interviews conducted with key Fijian stakeholders working with agencies that have a role or responsibility in preparing for and responding to biological threats. It also draws on perspectives raised by these stakeholders in a national workshop conducted in Suva in the last week of May 2022 to discuss some initial findings of this project. This report begins to inform the ongoing design, implementation and technical inputs required to support a multi-agency structure that can convene a whole-of-government and whole-of-community approach to coordinating future biological threat surveillance, preparedness and response in Fiji.

While COVID-19 is the current – and indeed extreme – biological threat case study enveloping Fiji and the rest of the world, different biological threats are expected to increase in Fiji as a result of climate change and increasing pressure on natural ecosystems across the Pacific region more generally. All biological threats have preparedness and response implications for the civilian-military interface in Fiji, yet there is very little written about the specific interventions, actions or policies undertaken to strengthen communication or coordination in response to biological threats.

This project has allowed us to explore and reflect on the COVID-19 experience and the enormous amount of work that was done and continues to be done by all partners – from the technical leadership provided by the Ministry of Health and Medical Services through to the pre-flight health background work being done by the Department of Immigration and the role of the Ministry of Agriculture (MoA) in rapidly getting out plant stock so people could grow their own food. It has been a monumental effort and, with borders opening and high vaccine rates, the health and economy of Fiji are tracking forward.

At the same time, this project has allowed us to also explore what the future capabilities might be, considering the wide scope of biological threats that will continue in Fiji and around the world. We know that the Biosecurity Authority of Fiji has been working hard with its partners in the MoA and the Pacific Horticultural and Agricultural Market Access Plus Program (PHAMA Plus) to develop emergency plans for African swine fever and other agricultural threats such as fall army worm. We know that public health surveillance experts in Fiji are constantly looking to prevent and respond to seasonal outbreaks of dengue and leptospirosis, and indeed measles.

It is very clear, given the range of threats we are facing, that a way must be found to set up a truly enhanced multi-agency capability that can maximise early-warning biological threat surveillance and clarify the potential implications for line agencies. This structure must allow for escalation when required but also de-escalation just as efficiently. It must allow for each agency to be represented by whoever is available, knowing that they will have the authority and technical awareness to represent the agency and make decisions. Finding the convergence point for all partners to define the terms of reference, operational structure and upward reporting mechanisms of such a multi-agency entity is the work that lies ahead. This project and report provide a platform for ongoing forward momentum.

The Australian Civil-Military Centre (ACMC) funded this project precisely because it understands the importance of supporting cross-agency work. We are grateful for its support.

The findings and recommendations from this project are elaborated on in more detail in Section Two and Section Three.

Findings

1. There is increasing recognition among multiple agencies and stakeholders that there exists a larger suite of biological threats than perhaps have been considered before at a whole-of-government or whole-of-society level. This recognition also includes the various implications of different threats to the health and livelihoods of the Fijian population. Stakeholders understand that in the preparedness to response continuum, roles and responsibilities may constantly change and shift across multiple agencies.

2. A broad range of agencies and systems have been set up to prevent and respond to these threats, and responsibility for biological threat preparedness and response exists within a complex set of legislative arrangements depending on the type of threat. Yet the capability to lead and coordinate the response does not necessarily match the authority. This is particularly pertinent when implementing responses from the national to the sub-national level. Making the various arrangements more joined up will assist in identifying specific roles for specific agencies across a full suite of real and present threats.

3. All stakeholders acknowledged the significant human resource limitations at senior management level and across the breadth of an agency. Senior executives in agencies are stretched and time poor, which limits their ability to consistently engage in multi-agency work. General knowledge of biological threats is very limited among staff at all levels of key agencies – including the implications for occupational health and safety. Addressing baseline knowledge, training and capacity development needs for all personnel in each agency will significantly improve preparedness and multi-agency collaboration.

4. Given the current development of national security planning in Fiji to account for non-traditional security threats, there exists significant opportunity to understand how a broader range of stakeholders – such as those engaged in responding to biosecurity and biological threats – can be represented in national security discourse and strategy design.

5. There is a strong desire to see biological threat preparedness and response capability remain within the civilian sphere of responsibility, leaving the Ministry of Defence, National Security and Policing and the Republic of Fiji Military Forces as supporting partners deploying capabilities as requested and required. This can be achieved, yet there is a need to reach a convergence of perspectives where health is foregrounded as a construct of national security. This would then allow health and all agencies involved in protecting health to be part of national security strategy development.

6. Many agencies described the increasing challenge of misinformation and disinformation and the implications for preparing and responding to biological threats.

Considerations and recommendations

The recommendations in this report are designed for consideration by Fijian and Australian partner agencies. They are given more depth, including consideration of component parts, in Section Three. A separate appendix will be provided to describe next steps and specific recommendations for Australian Government agencies.

This report's recommendations are:

1. Define the scope and suite of biological threats that require work to be done to monitor, prepare and potentially respond.
2. Foster, develop and trial a multi-agency structure, function and governance to oversee early-warning surveillance, preparedness and response.
3. Scale up baseline knowledge of biological threats across all personnel within each relevant agency.
4. Improve capability to counter misinformation and disinformation in Fiji.

Introduction

In August 2018, Australia's National Health and Medical Research Council Centre for Research Excellence, Integrated Systems for Epidemic Response, with contextual input from Fiji's Ministry of Health and Medical Services (MOHMS), facilitated a simulated outbreak tabletop exercise, Exercise Mataika. The exercise was based on the deliberate release of smallpox in a bioterrorism event. It brought together international stakeholders from a wide range of sectors including health, defence, law enforcement, emergency management and relevant non-government organisations (NGOs).[1] In the exercise scenario, the first smallpox case was misdiagnosed at a small private hospital in Suva and it was only a matter of days before several hundred cases were suspected, health systems were overburdened and the military and law enforcement sectors were called in to investigate. The initial geographical focus of the investigation was Nadi International Airport.

In reflecting on Exercise Mataika and its follow-up Exercise Pacific Eclipse, Rear Admiral Louis Tripoli, who at the time was the Command Surgeon of the United States Indo-Pacific Command (INDOPACOM), wrote, 'Workshops that stress our systems, uncover gaps, and propose solutions improve civil-military collaboration and serve to strengthen global health security.'[2] As of May 2022, the need to enhance civil-military cooperation in the context of biological threat could not be any more profound. COVID-19 has highlighted that biological threats to public health can quickly become threats to and considerations for population livelihoods, economies and national security. The project that informs this report was therefore situated within Fiji's Ministry of Defence, National Security and Policing (MoD) and National Security and Defence Council Secretariat (NSDCS). The project has been established to understand how to enhance multi-agency capacity, coordination and communication in the preparedness for and response to biological threats in Fiji.

With the ongoing management of the COVID-19 pandemic as a continuous backdrop, this report explores the different roles, responsibilities and interactions of a range of agencies working at the civilian-military interface across an ever-expanding suite of biological threats in Fiji. The report is based on a series of discussions within and across key agencies and stakeholders in Fiji. It aims to inform and support the ongoing design and implementation of a multi-agency structure that can bring together and coordinate biological threat surveillance, preparedness and response. This multi-agency structure is premised on the idea that there are multiple agencies, departments and stakeholders in Fiji that are engaged in biological threat preparedness and response efforts either directly or indirectly. It is also premised on the idea that biological threats are not limited to novel zoonotic viruses such as COVID-19 but include a range of animal and human infectious diseases, as well as threats related to invasive species and the ongoing pressures on fragile biodiverse ecosystems resulting from development, encroachment and climate change.

In partnership with the NSDCS, we will use the findings and recommendations from this report to inform an ongoing series of discussions with all stakeholders to design and support future technical and programmatic inputs that enhance line agency and multi-agency capability in the preparedness for and response to future biological threats. This report also provides the platform for discussions with bilateral and multilateral partners

to explore how to best harmonise, resource and support technical capability within and across relevant agencies in Fiji.

Background

COVID-19 has highlighted the effects that biological threats can have on the health, economy and stability of nation states. In Fiji, the first, second and third waves of COVID-19 have placed significant pressure on the health system and on the livelihoods of the population more generally. While COVID-19 and the management of a fourth wave remains an ongoing threat to Fiji, there exists a spectrum of other biological threats that can have significant implications for the health, security and livelihoods of the population of Fiji and the region more generally. Biological threats can arise not just from the spread of infectious disease but from invasive plants and animals as well.

Currently in Fiji there exist biological threats with implications for humans, plants, animals and biodiverse ecosystems. These include seasonal outbreaks of traditionally endemic climate-sensitive diseases impacting human health such as dengue, leptospirosis and typhoid;[3] outbreaks of diseases that impact livestock such as bovine tuberculosis (TB);[4] ongoing surveillance to avoid African swine fever;[5] potential threats to maize and sugar cane such as fall army worm;[6] threats to coconut harvesting from the coconut rhinoceros beetle; and threats to native biodiversity and to the subsistence agricultural livelihoods of farmers from the introduced American iguana.[7]

In preparing for and responding to biological threats, all United Nations member countries are required to demonstrate core competency in relation to a range of requirements outlined in the International Health Regulations 2005 (IHR 2005), including that their public security, public health, animal health and plant protection sectors are communicating effectively and coordinating whole-of-government responses. In Fiji, these critical agencies include civil agencies such as the Biosecurity Authority of Fiji (BAF), the MOHMS, the MoA, the Department of Fisheries, the Fijian Police Force (FPF) and the Fiji Immigration Department (FID). The Republic of Fiji Military Forces (RFMF), under the line agency the MoD, also plays a critical part, highlighting the importance of interaction at the civilian-military interface between agencies that have roles and responsibilities in surveillance, preparedness and response to biological threats.

COVID-19 in Fiji and the civilian-military interface

Fearing the impact that COVID-19 would have on the Fijian health system, the Government of Fiji closed its borders during the first wave of the global pandemic and, as a result, was able to avoid significant case numbers. The potential of COVID-19 to wreak havoc on the population of Fiji was based on two main realities. Firstly, Fiji – and the Pacific region more generally – has very high population rates of pre-existing non-communicable diseases such as diabetes and cardiovascular disease, which are significant risk factors that intensify morbidity and mortality associated with COVID-19.[8] Secondly, Fiji's healthcare system and specifically its hospital system has limited capacity (both beds and equipment) to respond to the respiratory and other care needs of people requiring intensive care in relation to COVID-19. However, the closing of borders and then the mandatory lockdown measures following local community transmission of COVID-19 had significant implications including shrinking the economy, resulting in lost livelihoods and an increase in reporting of domestic violence.[9]

In April 2021, a quarantine breach in Fiji resulted in the beginnings of a devastating second wave of COVID-19, with community transmission of the Delta variant resulting in more than 1,000 cases per day at its peak and bringing hospital systems to the point of collapse.[10] While numbers are constantly changing and difficult to verify, there have been over 65,000 cases of COVID-19 as of 31 May 2022, and over 863 confirmed deaths.[11] Despite over 80% of the target population being double vaccinated in Fiji, the country's health system has been incredibly strained. Concerns remain about relatively low uptake of the third dose vaccines.

The MOHMS is the lead agency implementing Fiji's COVID-19 response, including enforcing and managing its quarantine requirements and facilities. The MOHMS established a National Health Taskforce for Coronavirus in January 2020, chaired by the Chief Health Officer. This taskforce provided advice to the Permanent Secretary of the MOHMS through the work of an incident management team. To broaden oversight, the Fijian Government also convened the COVID-19 Risk Mitigation Taskforce, a mandated working group consisting of the permanent secretaries for Economy (Chair), Health and Medical Services, and Commerce, Trade, Tourism and Transport, with secretariat support from the Border Health Protection Unit, the incident management team and the RFMF surveillance team.[36]

In implementing COVID-19 responses, the MOHMS has been heavily dependent on support from both the FPF and the RFMF.[12] In the initial stages of the pandemic, the police and military fined and jailed people who violated mandatory mask wearing and social distancing requirements, in order to drive population compliance with these requirements.[13] Midway through the COVID-19 response, the National Disaster Management Organisation (NDMO) was asked to coordinate sub-national level interventions including the vaccine rollout.

Biological threats and the Fiji national security context

The Government of Fiji continues to build its whole-of-society capacity to enhance national security through its commitment to the Boe Declaration. As with other existential threats such as climate change, water and energy security, Fiji recognises that health is a critical component of national security. Biological threats (both deliberate and accidental) ultimately fall under the responsibility of the MoD, given that at the first signs of a biological threat it may be difficult to understand whether the threat is naturally occurring or a result of a deliberate act. For this reason, biological threats in Fiji are considered under a Bio Threat Matrix (see Figure 1) that begins with naturally occurring biological threats (on the left side of the matrix) and extends through to biological weapons (on the right side of the matrix). In between these two extremes are biological threats of various causation and impact. Depending on the specific biological threat involved, responsibility is assigned to the most pertinent agency to lead. For example, if it is a threat of major public health concern, the lead agency is the MOHMS. If it is a suspected deliberate release of a biological weapon, the lead is the MoD.

COVID-19 has served to focus the Fijian Government's thinking on how to enhance a future biological threat preparedness and response framework and specifically to ensure that biological threat preparedness and response remains a civilian responsibility to all intents and purposes. This requires a review of current arrangements. The process

undertaken for this report has been done to support the review of current and future biological threat arrangements.

Figure 1: Bio Threat Matrix highlighting lead responsibilities that shift between the Ministry of Health and Medical Services and the Ministry of Defence, National Security and Policing. Figure courtesy of the Fijian Ministry of Defence, National Security and Policing.

Project methodology

This project was established to specifically explore the agency and institutional perspectives of key stakeholders from all agencies that have at least some interface, role or responsibility relating to preparing for and responding to biological threats. It is aligned with, and auspiced under, the NSDCS and builds on a series of dialogues with the NSDCS over the last 18 months. This project has also drawn support from an Australia-based stakeholder advisory group established by the ACMC which provided initial project considerations and parameters.

To gather relevant perspectives, the research team from Fiji National University (FNU) and the Australian National University (ANU) embarked on a series of discussions and conversations with key informants representing senior leadership positions within relevant agencies in Fiji. An initial round of conversations with key informants (see Acknowledgments) was held in March and April 2022. An interim set of findings and recommendations was presented to key stakeholders in a workshop convened by the NSDCS in Fiji in May. This final draft report, submitted at the end of May 2022, harmonises initial feedback from key national stakeholders involved in the workshop. A national multi-agency project advisory group was convened by the NSDCS to support and advise this project.

The exploration of key themes in each conversation was built around the following set of questions:

- Can you describe the role of your agency in responding to the current COVID-19 outbreak?
- Can you describe your agency's responsibilities in relation to other biological threats such as African swine fever or TB?
- How developed do you think the biological threat knowledge of your personnel in this agency is?
- Can you describe your experiences working across agencies in relation to the preparedness for and response to biological threats?

- What do you think are the current individual agency challenges and the challenges in working across agencies?
- What technical capacity support would you consider to be really useful for your agency in the future?

To give broader context to this work, we undertook an initial review of the literature to situate the interface of civilian-military partnerships in the context of biological threats within the broader political, societal, health and security dimensions of Fiji. This allowed us to identify key stakeholders and institutions for follow-up conversations that guided this report. It also assisted in identifying specific lines of enquiry. Conversations and discussions were held both virtually and in person with key people from across health, agriculture, military, police, customs, immigration, biosecurity, disaster management and corrections agencies, academic experts, and people from NGOs working as part of a COVID-19 response or on broader issues of biosecurity preparedness and response.

In the lead-up to project implementation, the research team engaged in a series of conversations with key people from the MoD. In these conversations, the outline of an enhanced multi-agency biological threat preparedness and response system was discussed, and an initial multi-agency operational framework was outlined (see Figure 2). This framework has also been used to structure the report, as it allowed the research team to see how different agencies would enhance a national biological threat preparedness and response system.

This report combines the information and perspectives drawn from the series of conversations, the national workshop and the literature review. It includes paraphrased comments from interviews. These have not been attributed to specific individuals but in many cases are clearly agency specific. The wording of the paraphrased comments and the sentiments they express were cross-checked with people involved in the conversations to ensure that their comments are represented accurately. In many instances, information from interviews is embedded within the text rather than paraphrased or quoted. This was done at the request of participants to provide inputs that would resonate across the report. Ethics approval was obtained from both the ANU Human Ethics Committee and the FNU Human Ethics Committee.

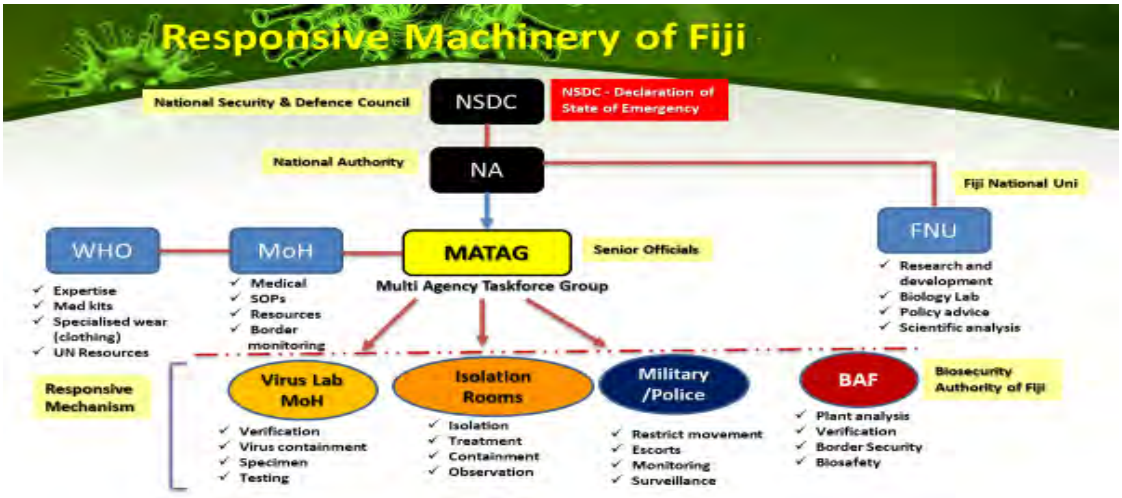

Figure 2: An envisioned integrated multi-agency biological threat preparedness and response system

SECTION ONE: Snapshots of agency and stakeholder engagement, capability and challenges in biological threat preparedness and response in Fiji

1.1 Ministry of Health and Medical Services

Fiji's legislative and policy response to the COVID-19 pandemic has been led by key amendments to the *Public Health Act 1935*, Legal Notice 8 of 2020 'Public Health (Amendment of Schedule 1) Notice', and the promulgation of the Public Health (Infectious Diseases) Regulations 2020. These have had the effect of declaring the novel coronavirus (2019-nCOV) to be an infectious disease subject to immediate reporting, as well as enlivening the powers at Part 7 (Infectious Diseases) of the *Public Health Act 1935* pertaining to isolation, quarantine and restrictions on activities. In essence, these responses established that the MOHMS has primacy in the COVID-19 response.

The Fijian health system has evolved in recent decades yet remains very fragile for two specific reasons: firstly its limited ability to develop, resource and retain the required expertise in the workforce; and secondly the consistent and chronic underfunding of the health system. In many ways, COVID-19 has enhanced the capability of the MOHMS in infectious disease outbreak response. Border health protection units and a significant increase in testing capability from one health facility to seven health facilities are both capability improvements catalysed by COVID-19. Taken together, these initiatives boost the ability of the Fijian health system to protect the population from the threat of transnational infectious diseases and global health emergencies. Yet issues of staffing, resources and geography present ongoing challenges for the Fijian health system in delivering health services to the entire population spread across 332 islands.[14]

Biological threat preparedness and response workforce within the MOHMS

Prior to the development of the Border Health Protection Unit, the MOHMS biological threat preparedness and response capability included sentinel surveillance units in 12 sentinel healthcare facilities coordinated by the Fiji Syndromic Surveillance System, which reports weekly on five syndromes: diarrhea; influenza-like illness; prolonged fever; acute fever and rash; and dengue-like illness. The Fiji Emergency Medical Assistance Team (FEMAT), which conducted its first Emergency Medical Team (EMT) workshop in early 2017, has now been verified by the World Health Organization (WHO) as meeting the WHO Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters. This means FEMAT is considered a Level 1 primary health and emergency care EMT, deployable internationally as well as nationally to sudden-onset disasters.[15] FEMAT has already mobilised in response to national disasters in Fiji and is providing more tangible demonstrations of civilian capability in supporting government efforts in response to COVID-19 in the current Fiji outbreak.

In recent years the MOHMS presided over the countrywide rollout of a meningococcal disease prevention and awareness program in 2018, which included a highly successful immunisation program for people aged 1 to 19 across the country. The MOHMS also successfully managed an outbreak of measles in late 2019 in Fiji through a mass immunisation campaign.

1.2 Biosecurity Authority of Fiji

Aside from infectious disease affecting the human population of Fiji, the primary legislative framework governing biosecurity in Fiji is the Biosecurity Promulgation of 2018 (known as the Biosecurity Act). The Act defines 'biosecurity' as the means of controlling – by legal and administrative means – pests and diseases affecting animals, plants and their products, in order to avoid adverse effects from such pests and diseases on the economy and health of the Fiji Islands.[16] The BAF is the implementing agency and is supported by a board and an executive leadership structure that includes both plant and animal health experts. The most tangible evidence of the work of the BAF is through its oversight of quarantine operations in the airports and seaports of Fiji. While the BAF is the biosecurity lead agency, its personnel and presence at ports of entry is dwarfed by the larger Fiji Revenue and Customs Service, which oversees the movement of goods and includes border security operations implemented by its Border Force division.[17] The other main agency which has a frontline role in overseeing the movement of people at ports of entry and exit – as opposed to the movement of goods – is the FID.

A 2014 memorandum of understanding (MOU) signed between the FID and the BAF was designed to improve information sharing and the joint capacity of the two agencies to respond to biosecurity and immigration challenges through joint training and operations,[18] yet there is no reference to the implementation or impact of such training or operations. The BAF has just finalised its Emergency Response Plan for African Swine Fever, which sets out implications, responsibilities and arrangements for multiple government agencies in Fiji and now serves as an example of bespoke considerations for specific biological threats.

1.3 Ministry of Agriculture

COVID-19 has presented significant challenges to the agriculture sector in Fiji across the full spectrum of supply chains from smallholder food producers to the importation of agricultural supplies and food, resulting in potential issues of food insecurity yet at the same time reinforcing subsistence agricultural practices.[19] In response to COVID-19, the MoA rapidly scaled up the distribution of seeds and seedlings to support subsistence food production efforts for local communities. In recent months, there has been significant work done with animal health and food production workers to understand their baseline familiarity with many prioritised diseases, including avian influenza and African swine fever. Perhaps unsurprisingly, the majority of the animal health and production workers have stated that they would not be able to recognise clinical signs if outbreaks were to occur in their area.[20] This fact, combined with a critical shortage of veterinarians in Fiji and limited financial resources allocated to animal disease surveillance programs, leaves livestock cultivation and in particular the production of pigs and poultry at grave risk from biological threat.[21]

However, there have been some interagency developments in preventing and responding to biological risks in the agricultural sector – specifically in response to the prevention and ongoing eradication of outbreaks of bovine TB, a respiratory infection in cows which can significantly decrease the health and production viability of bovines. In a collaboration between researchers and the Ministry of Agriculture, efforts were launched to raise the capacity of Fiji to prevent, detect and respond to bovine TB. Part of this

effort was to foster partnership between the Ministry of Agriculture and the BAF to develop and implement protocols guarding against the unrestricted movement of cattle and other livestock in Fiji. These efforts resulted in tangible demonstrations of interagency biological threat response. In March 2016, as part of the disaster response of the BAF after Cyclone Winston, a movement restriction on live animals was implemented to discourage movement of livestock without prior approval from the BAF or the NDMO.[22]

These efforts highlighted the recognition that the legal trade in farmed animals at a national or bilateral level is a major risk pathway for biological threats and that partnership across biosecurity, customs and animal production has the potential to mitigate these threats. Researchers have called for increased activities such as awareness campaigns for pig and poultry farmers regarding disease reporting and the need for training of biosecurity officers in basic animal health and import-associated risks to limit the spread of pathogens within the Pacific Islands Countries and Territories.[23] Much of this work is now being supported through partnerships with PHAMA Plus, which is an initiative of the Australian and New Zealand governments to improve livelihoods of populations in the Pacific through increasing quality of production and trade pathways for livestock.

Invasive plants and animals and biological threats in Fiji

In addition to significant pig, bovine and poultry industries, Fiji's agriculture sector is home to the significant crop production of sugar cane and a variety of fruits. The immediate threat to these crops is the march across the Pacific of the invasive fall army worm. In preparation for detecting and responding to fall army worm, the BAF and the MoA are partnering with crop producers to raise awareness of fall army worm and to implement surveillance trapping.[24] In recognition that biological pests – many of which will travel on natural pathways – pose a significant threat to agricultural production and livelihoods, a new plant health laboratory has been built in Fiji. In a collaboration between the Australian Centre for International Agricultural Research and the Pacific Community, a facility has been purpose built to support Fiji and the region. The facility's biosecurity containment capability allows for the study of a range of biological pests and diseases including insects, fungi and bacteria.[25]

Outside the agricultural sector, Fiji has significant geographical areas of internationally recognised – and indeed protected – biodiversity. Critical biodiversity is under significant threat, including from competing economic tensions brought on by mining and agricultural opportunities earmarked in these areas. One such area is the Sovi Basin, which is located in Naitasiri Province on the island of Viti Levu, the largest island in Fiji. A 2016 study of the Sovi Basin highlighted that, in addition to the presence of a diverse range of native plants and animals, a number of invasive species such as rats, wild pigs and cane toads are present.[26]

1.4 National Disaster Management Office

Given the impact of COVID-19, Fiji is in the process of reviewing its *Natural Disaster Management Act 1998*, which currently limits the NDMO's role to only disasters caused by natural hazards such as cyclones and earthquakes.[27] Fiji has long been vulnerable to natural disasters, and their increasing frequency led Fiji to develop its National Disaster

Management Plan 1995, supported through the Natural Disaster Management Acts of 1990 and 1998. Responsibility for disasters is centralised through the NDMO, which takes its leadership from a National Disaster Management Council, drawing on nominated leadership from each of three subcommittees: the Prevention and Mitigation Committee, the Preparedness Committee and the Emergency Committee.

In tangible recognition of the role of civil society organisations, the work of the NDMO is done in close collaboration with the Fiji Council of Social Services (FCOSS), which is made up of a range of NGOs that have capacities in disaster preparedness and response. The FCOSS is an active player in Fiji's disaster management system. The FCOSS has developed protocols to guide and coordinate civil society and community-based organisations at a district level and filter information to government offices.[28] There have been multiple examples of civil-military cooperation in the context of disaster preparedness and response in Fiji, including recent international civil-military engagement in response to COVID-19 in Fiji through both Australian and New Zealand emergency deployments.

The NDMO was thought to have more experience in multi-agency coordination than the MOHMS, and midway through the COVID-19 response was asked to take over all sub-national coordination of COVID-19 responses. Amendments to the *Natural Disaster Management Act 1998* are now being considered to expand the role of the NDMO to include all hazards – including from biological threat. This development will have significant implications for the future design of a multi-agency biological threat preparedness and response structure.

> *The NDMO has an existing ability to organize and manage the responses to the disasters and importantly the ability to coordinate with civil society organisations. The NDMO has unique abilities to support multiple aspects of any response, especially non health specific actions that are required such as coordination. The question however remains among the technical leadership in a health emergency.*

1.5 Fiji Immigration Department

Prior to the Fijian Government closing its ports on 16 March 2020 and Nadi International Airport on 26 March 2020, officials from the FID had already been engaged in additional biosecurity measures in response to COVID-19. Incoming arrivals from high-risk countries were denied entry visas, Fijian nationals were transported from ports of entry to 14-day quarantine, and hygiene measures were scaled up on inbound flights and at the airports. According to officials from the FID, COVID-19 has heightened the need for extensive reform in how the FID engages in biological threat prevention work.

The FID has legislative authority in relation to biological threats. The *Immigration Act 2003*, sections 5(1)(e) and 13(2)(d), provide the power for an immigration officer to require that any person seeking to enter Fiji undergo examination by a medical examiner and undergo any test or investigation which the medical practitioner may require. A further intersection exists with the *Biosecurity Act 2008*, sections 9(2)(a), 22(1), 30 and 54(7), which provides that officers of the BAF may require reporting about those present on board arriving aircraft and vessels, as well as any diseases affecting them. Both the

Biosecurity Act and the *Customs Act 1986* contain requirements around designation of ports and reporting of arriving craft, which also intersect with the work of the FID.

The FID works closely with the International Organisation for Migration and, through a recent review, has identified the need to build an interoperable pre-departure health screening system that connects and works with partner countries and airports to better screen travellers. It has been suggested that a 'single-window' approach could be taken whereby a single set of data and declarations prior to arrival could serve several purposes at once – COVID health clearances for MOHMS, and arrival declarations for immigration, customs and biosecurity. Should this path be pursued, it will be necessary to confirm the legislative framework around these declarations and ensure all agencies that currently require access to arrival card data in particular are still able to access it.

1.6 Fiji Police Force

The FPF has been a frontline presence working across numerous aspects of the COVID-19 response in Fiji. Like many police services across the Pacific, the FPF has enforced public health legislation and mandates designed to limit the spread of COVID-19 such as curfews, lockdowns and social gathering restrictions.[29] Yet the FPF has also been involved in a suite of other activities in support of the Fijian Government's COVID-19 response, including regulating quarantine facilities, supporting emergency food package deliveries and providing communities with public health messaging and information, particularly through the community policing units in remote island communities.

> *We have been so very actively involved in Fiji's COVID response. We have worked in partnership under the direction of the MOHMS and have been the main frontline agency implementing COVID legislative requirements. We have done everything from enforce mask mandates to removing dead bodies from peoples' houses where someone has died from COVID.*

As Fiji's COVID-19 response moved from the first to the second wave, the FPF established command and control centers across Fiji. This was done to provide an operational focus to the technical lead and advice coming from the MOHMS. The command and control centers included the use of quarantine bubbles, which essentially meant there were three units that could at any time be mobilised to stand up or stand down if there was a COVID-19 positive test result.

The FPF ascribed its success in supporting the COVID-19 response to the strategic planning that it had been engaged in over many years of developing and leading police responses to emergencies for the Pacific Islands Chiefs of Police back in 2006. In fact, when the COVID-19 pandemic was declared, the FPF reverted to its 2006 documents and based its COVID-19 protocols and standard operating procedures (SOPs) on those documents. Yet while senior police leadership was able to revert back to previous planning documents, the extent of biological threat knowledge and preparedness across the entirety of the FPF was described as underdeveloped.

> *Honestly speaking, in our police recruit training programs we do not have any focus on biological threats or managing pandemics. We think it would be a very useful addition to our training program if we were able to work*

with our international partners in developing a comprehensive training program for our entire police force.

There is a growing literature on the role of policing in pandemics and in public health more generally. Two main streams of consideration emerge. The first is the normative expectation to support occupational health and safety by equipping police with adequate knowledge, protocols and protective equipment to prevent biological contagion among frontline police. The second is that the act of policing itself must not increase the risk of infection for either the police or the people being policed. In Fiji, previous work has identified that certain policing behaviours and actions have increased the risk of acquiring HIV and other sexually transmitted infections for certain populations such as sex workers.[30] Previous work has also identified low HIV acquisition knowledge among Fijian police personnel embarking on overseas peacekeeping missions.

1.7 Fiji Corrections Service

A major outbreak of COVID-19 has so far been avoided among the approximately 2,500 prisoners across 15 prison facilities in Fiji. Yet outbreaks of highly infectious diseases are a constant threat for prisoners and correctional staff in places of incarceration.[31] In fact, the HIV epidemic in Thailand was shown to have originally spread through the Thai prison system.[32] The Fiji Corrections Service (FCS) has been supported in its COVID management plan through its close working relationship with the International Committee of the Red Cross (ICRC), which provided the FCS with over 20,000 pieces of personal protective equipment.[33] Health staff working within the FCS also recently took part in the ICRC's Health in Detention course.[34] The FCS limited its COVID-19 outbreaks through rigorous attention to strict protocols that were designed specifically to limit the movement of staff and required staff not to leave the facility for certain periods. The FCS drew praise from the Fijian Government and was recognised for its collaborative efforts to support the MOHMS through rotating its staff through other key areas of the Fijian Government's COVID-19 response, such as being part of food security and distribution teams.

The FCS appears to be well connected and coordinated with a broader suite of Fijian Government entities through numerous partnerships and MOUs with a range of government agencies including the MOHMS, the Department of Social Welfare and the Fiji Human Rights and Anti-Discrimination Commission. Furthermore, the ICRC believes that the FCS is moving towards enhanced professionalisation and is on track to meet its obligations under the United Nations Standard Minimum Rules for the Treatment of Prisoners, known as the Nelson Mandela Rules. Yet across the 830-plus staff working within the FCS, significant opportunities exist to enhance preparedness for biological threats and pandemic management. Basic training to become a correctional officer is currently only 12 weeks in duration and provides almost no training in infectious disease management in relation to prisoners or in occupational health and safety in relation to preventing transmission of infectious diseases among correctional staff.

A report into the health of prisoners in Fiji conducted in 2012 recommended an expansion of the existing system for screening and collection of data on key health indicators at prison reception to include mental and physical health assessment and

infectious disease testing. It is unclear whether this recommendation has been implemented, what infectious disease management policies and SOPs currently exist, and the degree to which they are understood by the staff working at the FCS. [35]

1.8 Republic of Fiji Military Forces

The RFMF was heavily involved in the COVID-19 response, predominantly as a partner to the technical lead of the MOHMS. The RFMF was used to support a range of public health interventions including curfews, social distancing and quarantine. In addition, the RFMF had sub-national capabilities and worked closely with all partners, including the NDMO, to support vaccine rollouts and ongoing public health messaging. Initial conversations held with experts indicate that the actual capacity of the RFMF in terms of biological threat surveillance is limited. As with many militaries around the world, the real advantage of the RFMF is its human and infrastructure assets that can be deployed in support of biological threat preparedness and response. Harnessing the potential of the RFMF to engage as a partner in future biological threat preparedness will likely require developing the public health and epidemiological literacy and technical capabilities of a cohort of personnel. At this point in time there is one RFMF staff member who is set to graduate from a Master of Global Health program. Increasing this cohort of technical experts will assist in nuancing the biological threat partnership work that the RFMF can engage in without raising the concern that it would seek to take over from a civilian capability.

> *With reference to the COVID-19 involvement of the RFMF. It required a lot of deployment of resources and manpower. Such activity requires a lot of national planning, development of policy, principles, framework and surveillance agreements to reinforce our technical expertise in confronting non-traditional security threats.*

1.9 Civil society and non-government organisations

> *But as citizens, you too must shoulder our national responsibility of keeping everyone around us safe.*[36]

In the response to COVID-19, the voice of Fijian civil society has increasingly sought to hold the Fijian Government, and its MOHMS, military and police, to account for the COVID-19 response. The Fiji CSO Alliance for COVID-19 Humanitarian Response has brought together multiple civil society organisations (CSOs) from across Fiji with the particular focus of advocating for the rights and dignity of all of the people of Fiji throughout the COVID-19 pandemic. Different sectors in Fiji have come together to form this alliance. At the core of their work is the rights and dignity of all. The alliance coordinates the NGO response as well as directly engaging with government to drive both transparency and coverage of the response.[37] Other NGOs were heavily involved in responses to COVID-19, including Empower, which was the main NGO delivering mental health counselling and support for the population. Empower saw a significant increase in demand for its services, which highlights just how critical the NGO sector is in biological threat preparedness and response. Ensuring future engagement and partnerships with NGOs needs to form part of the consideration of future multi-agency work.

> *The work of NGOs in supporting the COVID-19 response emphasized the importance of the Government recognizing the work of NGOS in providing*

them with assistance in managing the social and mental health counselling support that the people of Fiji needed during the last two years. This was particularly important in supporting citizens through the post mental stress they experienced in quarantine and isolation.

1.10 Bilateral and multilateral partnerships in biological threat preparedness and response in Fiji

It is clear that there are myriad bilateral assistance endeavors that meet the definition of supporting civil-military responses to biological threats in Fiji. For example, the Australian Medical Assistance Team (AUSMAT) has supported health authorities in Fiji across a range of areas in relation to COVID-19 responses.[38] Further to this, we have also seen the emergence of private health service providers working with the Fijian Government, including Aspen Medical, which has supported the government in developing COVID-19 related public health messaging.[39] But bilateral and multilateral assistance fundamentally underpins the current and future opportunities to enhance biological threat preparedness and response capabilities in Fiji. Convening Australian and other like-minded bilateral partners in implementing recommendations from this project will be a key next-step consideration.

SECTION TWO: Emerging cross-cutting themes and challenges

This section describes specific areas that all stakeholders appeared to converge around in some way. While perspectives might have differed, the majority of stakeholders held views which broadly aligned across these cross-cutting themes and challenges. These themes and challenges are described below and further used to frame key considerations and implications in Section Three.

2.1 The need to expand understanding of a suite of biological threats to inform multi-agency and whole-of-society preparedness strategies

While COVID-19 serves as a live case study in how Fiji responds to biological threat, there is a much broader suite of biological threats that can arise from animals, plants, pests and invasive species. A broad range of agencies and systems have been set up to prevent and respond to these threats, yet knowledge across agencies on the suite of biological threats is limited. Through interviews with key agencies and stakeholders it is clear that preparedness and response capabilities in relation to a range of biological threats remain unevenly distributed and prioritised across different agencies.

The majority of stakeholders spoke of the need to improve the evidence base for the consideration of biological threats. Improving the engagement of subject matter experts and academics from a range of disciplines was considered important to advance general knowledge about specific biological threats. Many stakeholders also described the need to ensure much broader representation from the communities most directly impacted by a particular biological threat. For example, the work of the BAF and PHAMA Plus in engaging directly with communities involved in medium to larger scale pig production was seen as critical to improving community awareness and engagement in early-warning surveillance of African swine fever.

To ensure a multi-agency and whole-of-society approach to biological threats, participants thought it important to understand the types of threats and where those threats existed. This would allow specific agencies to focus on particular early-warning strategies in strategic areas of need. For example, the types of threats that can come through airports and ports (giant African snail) are different to the types of threats that can come through on natural pathways (fall army worm) or the types of threats that have zoonotic potential (avian flu). Participants noted that understanding where a threat would come from and understanding the speed at which the threat could escalate would be critical considerations in the functionality of an early-warning surveillance system, which in turn would inform how each agency and community prepared itself.

2.2 The need to build and enhance a multi-agency structure, function and governance

> *We need a pre-formed, whole of government structure that is in place prior to any biological event where everyone knows their role and responsibility ahead of time. This structure needs a very clear distinction between its operational structure and activities and a structure of leadership and key decision making that it reports into.*

It was also clear from the various discussions that most participants could see the value of a multi-agency biological threat preparedness and response structure. Yet how the design, implementation and governance of such a structure could be managed was among the most pressing concerns that participants shared. There was also awareness of a range of existing structures that could be adapted to accommodate or support a biological threat preparedness structure and function.

Participants suggested that before such a structure could work, the authorising and legislative environment that governs and assigns responsibility for responding to biological threats needed to be harmonised. It was described by participants as somewhat confusing and unclear, especially when examining legislative authority versus the implementation of that authority. For example, the BAF has legislative authority to respond to diseases of livestock such as African swine fever but does not have the capability and has to request it from the MoA. The NDMO has legislative authority to lead and coordinate disaster response, but that does not necessarily transfer to biological threats. Making these various arrangements more joined up will assist in identifying specific roles for specific agencies across a full suite of real and present threats.

Participants described any multi-agency structure as needing to have senior representation from across different agencies, but noted that representation could not be the sole responsibility of any one person within an agency. The specifical capabilities required to represent an agency would need to be built and nurtured among several senior and emerging leaders within each agency. This notion builds on ongoing discussions within global health institutions such as the WHO in their current deliberations about the structure and function of national focal points for the IHR 2005. Traditionally, the role of national focal point sits with either an individual within the ministry of health or within a specific unit of the ministry of health. The national focal points are meant to collate and report countrywide information relating to biological threats through formal national, regional and global channels. Even prior to COVID-19, this structure was thought to have limitations given that biological threat surveillance capability has to exist in a range of sectors and geographical places that may not have any direct interface with a national focal point in the ministry of health.

Participants described a model of national focal point capability in a range of agencies that could then collate and centralise information across a range of biological threats. Ultimately, participants recognised the need for any multi-agency structure to be on a preparedness front foot without necessarily overwhelming the structure with updates that may not be considered critical.

> *Any multi-agency structure needs the ability to monitor threats, escalate as required but equally de-escalate just as quickly. We can't be meeting every single time a slight threat comes up. We need a clear mechanism for escalation that doesn't overreact.*

While a multi-agency structure and function could be realistically envisioned as being within civilian capability, it was the question of what this structure would report up to that participants saw as potentially challenging. Within Fiji, there exist a range of entities that such a structure could report up to, including the National Security Council, whose

membership includes key ministers and indeed the front cabinet of ministers. At this juncture, discussions with all stakeholders reinforced a very real desire to see the responsibility for preparedness for and response to biological threat remain within civilian sectors, with the military only deployed in a partnership capacity – when requested – and based on the significant human resource and infrastructure assets at its disposal. There were times in the COVID-19 response when the RFMF had to assume total control in the planning and implementation of a range of responses. In reflecting on this, RFMF representatives stated that they wanted to see the development of a multi-agency structure that continues to ensure that all relevant agencies have a much better ability to prevent future biological threats from becoming real and present dangers to national security and thus avoid the need for the RFMF to declare a State of Emergency.

2.3 The need to scale up baseline knowledge and capacity regarding biological threats across all personnel within agencies

All participants acknowledged the limited human resources across agencies. There are simply not enough people with enough expertise to be able to support line agency or whole-of-government approaches to the degree to which they need to be supported. To address this human resource shortfall, all of the participants described the need for line agency training and capacity building in two main areas: baseline knowledge about different biological threats and therefore what the agency's role would be in preparedness and response as part of a multi-agency operation; and how to protect agency staff and their families from biological threat and contagion.

The issue of occupational health and safety is important in driving and embedding enhanced knowledge around biological threats, specifically for frontline responders. First responders include clinical health workers, public health workers, defence forces, police, paramedics, emergency services, firefighters, customs and immigration staff, and workers in critical infrastructure such as energy. Each group is equally important to the response, and their protection must be planned for. The capability of first-responder sectors is critical to an effective response. Workers may refuse to work if they do not understand the potential threat or receive adequate protection to confront it.[40] Conversely, the use of occupational health and safety as a strategy to improve agency engagement in infectious disease management continues to gain traction across multilateral agencies working with civil security sector agencies.[41,42]

Apart from technical experts employed in some agencies, the knowledge baseline of the majority of staff within an agency is underdeveloped. Yet the majority of agencies in Fiji that have engagement with and roles in responding to biological threats are relatively small in size, ranging from 300 personnel through to 4,000 personnel. Given the small size of these agencies, it is not unreasonable to expect whole-of-agency penetration of training and capability improvement. Key to tailoring training for each agency is to understand the implications of different biological threats for the roles and responsibilities of each agency or population group in society.

For example, the FPF would not be expected to have technical knowledge about antimicrobial resistance, yet they should be expected to be part of frontline investigations into the importation of fraudulent antibiotics which can drive resistance. On the other hand, farmers involved in livestock production should have much better

knowledge of the risks and drivers of antimicrobial resistance.[43] Increasing awareness across all agencies of the type and extent of biological threats, as well as what exactly each agency would need to do to prepare for and respond to these threats, will support improved whole-of-government coordination, preparedness and response.

2.4 Communication and the need to counter misinformation and disinformation

Several representatives from different agencies expressed the challenges of misinformation and disinformation in relation to biological threats. It was widely recognised that the capability to counter misinformation or disinformation in relation to aspects of biological threats was underdeveloped across most agencies. Pervasive use and consumption of social media fuelled opportunities for misinformation and disinformation to spread. In Fiji, the most obvious example of this was in regard to COVID-19 conspiracies, including vaccine conspiracies, and the clear implications for individual and public health outcomes.[44] Yet misinformation has been reported by a range of agencies in relation to biological threats. For example, the MoA has been trying to counter widespread community beliefs that it is safe to consume livestock affected by bovine TB or African swine fever – which it most definitely is not. Further to this, the BAF is regularly confronted by community and news reports that suggest the Government of Fiji will support the rebuilding of swathes of houses that are affected by Asian subterranean termites.[45]

Misinformation and disinformation are existential threats that will challenge any line agency and whole-of-government effort involved in biological threat surveillance and response. Participants noted the need for clear and trusted sources of information in response to misinformation and disinformation. Participants also noted the need to not allow the space for such information to spread because of the lack of existing trusted information. Participants acknowledged the learnings from COVID-19 and highlighted the very recent communication of clear and regularly updated information by the MOHMS in relation to the global outbreak of monkeypox.[46]

Ultimately, there was agreed recognition of the need to work in partnership with trusted local media sources and journalists. This would require that key people within the local media ecosystem are also engaged in developing their technical capabilities in relation to the suite of biological threats and the types of structures and efforts being developed and put in place by the Government of Fiji. It also ultimately suggests that the surveillance of misinformation and disinformation should be part of a connected multi-agency early-warning system, where detecting and reporting disinformation sits alongside the detection and reporting of potential biological threats.

SECTION THREE: Conclusions, considerations and recommendations

> *We need to be really aware of what the leadership of a biological threat looks like to the people of Fiji given the history of Fiji. Keeping the leadership of response within civilian capability will be important. The optics are important here.*

While COVID-19 is the current and indeed extreme biological threat case study enveloping Fiji and the rest of the world, different biological threats are also expected to increase in Fiji as a result of climate change and increasing pressure on natural ecosystems across the Pacific region more generally. All biological threats have preparedness and response implications for the civilian-military interface in Fiji, yet there is very little written about the specific interventions, actions or policies undertaken to strengthen civilian-military communication or coordination in response to biological threats. Furthermore it is widely recognised that the role of the military in Fiji's political system is ubiquitous, which complicates any attempt to understand traditional notions of civil-military dynamics in the context of governance or indeed of biological threats.

Given the current development in national security planning in Fiji to account for non-traditional security threats, there does exist a significant opportunity to understand how a broader suite of stakeholders – such as those engaged in responding to biosecurity and biological threats – can be more broadly represented in national security discourse. This perhaps provides the convergence of ideas to a point where all stakeholders can agree. COVID-19 has highlighted that population health is very much a critical component of national security, yet traditional notions and operations of national security have not necessarily made space for the role of key stakeholders from across government and non-government health and social service providers. This is perhaps also true for key agencies involved in biosecurity and the health of plant and animal agricultural industries. Indeed, it is also true that NGOs and civil society organisations have not traditionally been engaged in national security processes – yet they have been critical contributors to the COVID-19 response in Fiji.

In response to the cross-cutting themes and challenges, we offer the following set of considerations and recommendations.

3.1 Define the scope and suite of biological threats that require work to be done to monitor, prepare and potentially respond

Doing so will support line agencies and communities in early-warning surveillance and detection for specific threats and contribute to a more sensitive multi-agency early-warning and preparedness structure.

Biological threat surveillance is a shared responsibility across agencies and communities. In Fiji, key agencies including the MOHMS, the MoA and the BAF are connected to regional and global networks engaged in surveillance, preparedness and response in relation to a range of biological threats. Building literacy, common understanding and a basic knowledge of each of these threats in all agencies will increase surveillance capability, support each agency to understand what its responsibility will include, and lead to agency-specific SOPs. For example, the implications of African swine fever

appear on face value to impact the BAF, the MoA and people involved in pig production. Yet an outbreak of African swine fever could lead to rapid loss of livelihood and food insecurity, as well as having potential for zoonotic infection. This highlights the secondary implications of an outbreak of African swine fever for health and social services, as well as for coordinating mechanisms such as the NDMO, which may have to coordinate messaging and food packs for affected communities. In defining the scope and suite of biological threats, further considerations may include:

- Each agency should list its top three to five current threats (to be reviewed regularly) and develop a brief communications package for disseminating across agencies and communities to increase general awareness about the level of threat and its implications.
- Lead agencies should develop and engage in a community of practice for each specific threat that brings together subject matter experts, academics, bilateral and multilateral partners, and communities to best describe the potential threat and develop preparedness and response policies, programs and plans that are guided by the best evidence and account for a range of perspectives including health, livelihood, trade, economy and security.

Through the combination of identifying threats and nurturing communities of practice in response to each threat, the roles and considerations for other agencies would become more apparent.

3.2 Foster, develop and trial a multi-agency structure, function and governance to oversee early-warning surveillance, preparedness and response

Any future multi-agency structure will need to take into account how to best engage, communicate and interact given the significant core business-as-usual activities that already constrain the time and resources of key agencies and their senior personnel. This structure would need to take into account the best way of facilitating its operations to foster communication and engagement and to build trust in the cross-agency relationships. In building a future multi-agency structure, further considerations may include:

- Develop the capabilities of three to four personnel from each agency who could represent the agency in the structure, to account for the constant dynamics and shifts in availability of specific individuals. These would thereby become agency capabilities not reliant on one focal point. This would expand the notion of how IHR national focal points are resourced and how they function.
- Provide training for key people from each agency with the aim of building technical knowledge of key biological threats, drawing on emerging educational and professional development offerings that explore cross-cutting drivers of biological threat risk environments. One such offering is the upcoming FNU-ANU Multi-Agency Health and Security Course, which also focuses on developing skills and expertise in engaging in multi-agency work.
- Support the development of a multi-agency structure by resourcing a 12-month trial. The trial would include the development of terms of reference and the use of

a technical facilitator to work with the structure and its personnel to continually refine the organisation and operation of the structure and oversee the technical capability development of key personnel. The trial could also include exploring the best mechanisms for reporting up from the multi-agency structure, including to a national council that includes ministers from across key portfolios.

3.3 Scale up baseline knowledge of biological threats across all personnel within each relevant agency

The only way to ensure an enhanced multi-agency system is to ensure that each component agency's specific role in relation to a range of threats is understood within the agency. COVID-19 has highlighted that what may appear as a health issue requires the engagement and cooperation of multiple agencies and the community at large. One rationale to improve baseline knowledge, behaviour and practices in relation to current and emerging biological threats across all personnel is to ensure the occupational health and safety of frontline agency personnel. Ensuring frontline staff understand how to protect themselves from any potential threat will fast-track overall agency preparedness, including ensuring access to and stockpiling of personal protective equipment and vaccines if required. It will also drive the design and training of standard operating protocols for each specific agency and an overarching protocol to guide multi-agency coordination and collaboration. Further considerations to scale up baseline knowledge may include:

- Contract the design and development of a training program that can be tailored to each agency. The program must account for general baseline knowledge, occupational health and safety considerations, and agency-specific standard operating protocols.
- Work with the senior leadership of each agency to ensure that the training is actually delivered to all personnel within an agency. Agencies may want to consider accrediting the training as part of professional development, as well as using the training to identify personnel with advanced capabilities who may be considered for engagement in ongoing technical capacity development and future engagement with the multi-agency structure.

3.4 Improve capability to counter misinformation and disinformation in Fiji

Given the ability of misinformation and disinformation to undermine responses to biological threats, it is critical to develop the capabilities to counter misinformation and disinformation. While misinformation may not be nefarious or deliberate, disinformation most certainly. Its use has exponentially increased in recent years and has been shown to undermine political systems and societal stability more generally. For this reason, countering disinformation – and specifically in relation to biological threats – should be considered part of an overall national security response to grey-zone activity. Further considerations to improve capability to counter misinformation and disinformation may include:

- Engage in the design and implementation of a national counter-disinformation strategy that includes a focus on biological threats. The strategy could be

developed in collaboration with bilateral defence and policing partners who have expertise in countering disinformation.

- Identify and work closely with trusted media sources to build journalist engagement with the national biological threat preparedness and response ecosystem. Building a media engagement component into the multi-agency structure could improve communication about biological threat preparedness and response to the broader community and increase awareness.

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