FINAL REPORT

THE HEADLINES

1 Environmental insecurity risks, taken as a whole, represent non-traditional threats to regional security, and therefore, to Australia's national security.

2 A lack of a coordinated Australian response to environmental insecurity risks may result in opportunities for other actors to enter the region, creating enhanced geopolitical competition.

3 Australia needs to take a whole-of-government approach to environmental insecurity risks in the Indo-Pacific Region.

4 Defence, whilst not the primary agency for responding to environmental insecurity risks, is critical for environmental insecurity risks, and responses, and should play a considered role in strategic planning and policy.

Environmental Insecurity Risks in the Indo-Pacific Region

Prepared by
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EXECUTIVE SUMMARY

The Environmental Insecurity Risks in the Indo-Pacific Region project (2022-2024) provides new insights from regional environmental insecurity into the national security policy debate and demonstrates the significance of non-traditional security threats to Australia's Defence strategy.

The project identified a need for a whole-government approach to national security, enhancing biosecurity preparedness, applying soft diplomacy, building relations outside of disaster situations and implementing early interventions in the Indo-Pacific Region (IPR) to optimise Defence involvement in environmental insecurity situations.

The project's findings suggest that environmental insecurity should have a more central role in national security planning and Defence policy. Understanding where and how these disruptions occur and cascade is imperative for effective strategic planning.

The research confirmed that environmental insecurity associated with natural hazards, pests and emerging diseases is increasing across the region. These are likely to accelerate in the coming decades which will threaten social, economic, and political stability in the region. This impacts directly on Australia's national security interests and commitments.

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Natural hazards in the IPR often trigger political unrest, and the politicisation of disasters has a major impact on how Australian relief efforts are received. The project identified the need to expand Australia's support for countries in the IPR to prepare for and cope with disasters, maintain the ability of Defence to engage in disaster response operations and build long-term relationships between militaries and government agencies dealing with disasters in Indo-Pacific nations.

In recent years, the IPR has experienced multiple natural hazards, economic and geopolitical shocks, pests and disease epidemics, and diseases such as COVID-19. Each of these threatens regional food security and supply chains. Conflict and border insecurity are the primary drivers of food insecurity globally, followed closely by climate shocks and economic turmoil. Endemic and emerging animal and plant pests are significantly affecting food production, and this can lead to food insecurity, especially in vulnerable communities, thereby threatening social and economic stability in the region.

The IPR also displays many risk factors related to biosecurity and disease emergence. New diseases often emerge in global biodiversity hotspots, many of which are in the region. Whilst the likelihood of disease spillovers directly leading to international hostilities and armed deployment is not high, the project recommends that the Defence sector engage in strategy formulation to determine where it can appropriately support effective prevention and preparedness for, and response to, biosecurity outbreaks that can threaten the national interest.

The project identified opportunities to enhance whole-of-government cooperation and coordination in matters of environmental and biosecurity diplomacy with military and other institutions in states in the IPR. These might prioritise efforts to anticipate threats that directly impact the socio-economic and political stability of the region. Utilising and further building on strong military-to-military ties should be a key pillar of future engagement in this area. Support to broader government efforts to establish early warning, preparedness, protection and incident response to natural hazards and disease outbreaks will ensure timely and appropriate responses to such occurrences, diminish the likelihood of social and political disruptions, and gain favour within local populations for future Defence engagement.

KEY RECOMMENDATIONS

1. Elevate Department of Defence participation in Environmental Insecurity policy development and formulation of National Plans;

2. Improve understanding within the government of relevant Defence capacity and preparedness to support wider Australian government assistance to countries in the Indo-Pacific Region in their preparations for disasters, pest and disease outbreaks;

3. Continue strengthening long-term relationships with Australian Government agencies dealing with responses to disaster and disease outbreaks;

4. Engage with allied extra-regional military forces to optimise collaboration in prevention and response capabilities that support and strengthen IPR states' own efforts;

5. Share relevant information with and contribute assets and training to enable Indo-Pacific partners to enhance their sovereign abilities in surveillance and prediction of disasters, pests, and diseases of production systems and human populations; and

6. Engage with military and civilian agencies of our Indo-Pacific partners to create or enhance existing collaborative relationships that reduce environmental insecurity in the region and align with Australia's own security efforts.
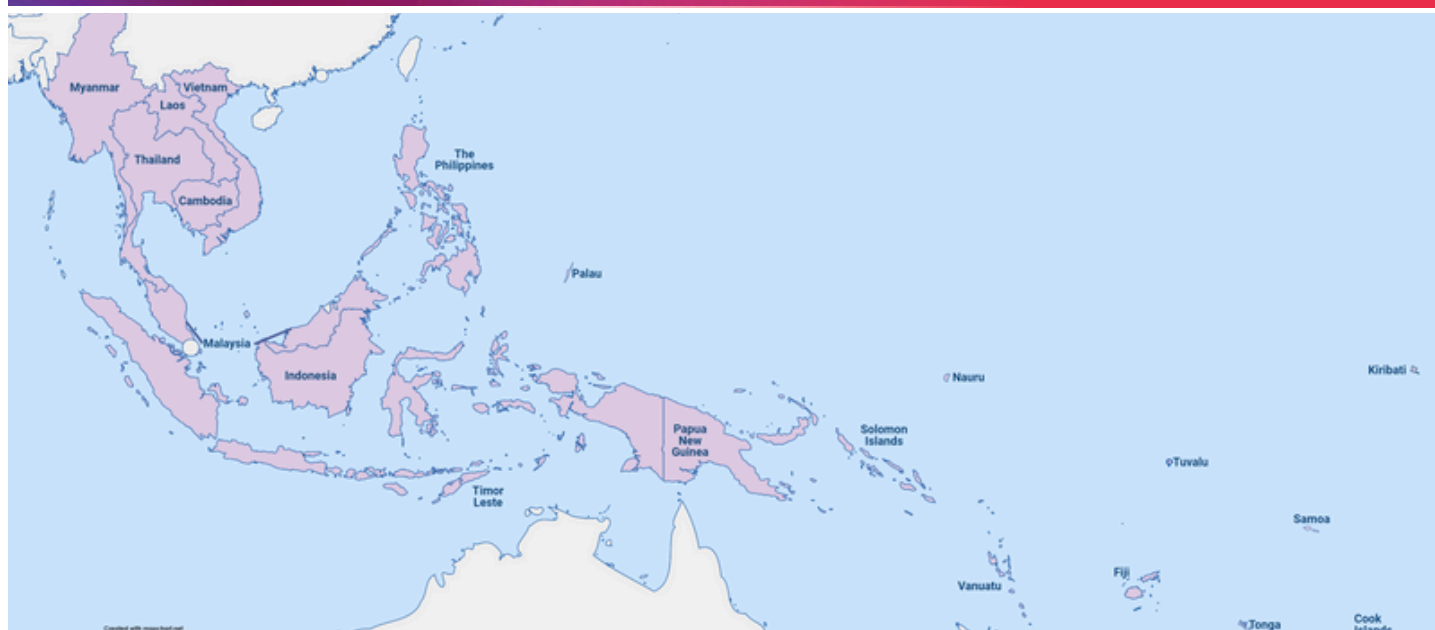
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Figure 1: The countries within the scope of the project in the Indo-Pacific Region and Pacific Small Island Developing States.

SCOPE OF THE PROJECT

The IPR is Australia's critical region of strategic interest as highlighted in the *2024 National Defence Strategy* and the *2020 Defence Strategic Update*.

The region is recognized as having attributes of geography, infrastructure and societal characteristics (including political challenges) that enhance exposure to stressors leading to the creation of "poly-crises". The combination of stressors will potentially create instability in social, economic and political systems, and existential threats to basic human survival. Disruptions from these stressors have already led to Australia's increasing response, including Defence personnel deployments and longterm support.

Our project focused on these environmental insecurity risks in the Indo-Pacific Region, noting the *2024 National Defence Strategy* and the *2020 Defence White Paper*, which identified climate change insecurity, deepening regional multi-polarity, and state fragility as key factors for Australian national security. Our project focused on the following three most critical environmental insecurity risks in the region:

- Multiple natural hazards posed a high mortality risk to >40% of the population (>1.5 billion people) displacing 3.5X more people than conflict between 2008 and 2019;
- Food insecurity -- the uncertainty of access to sufficient food and nutrients for a healthy life – already experienced by 48% of the 2018 Indo-Pacific population, has increased during the COVID-19 pandemic; and
- Pests and disease outbreaks in plants and animals directly reduce food security, economic prosperity, and human health and well-being. The COVID-19 pandemic has also demonstrated the impact of human disease on social, political and economic stability.

Our research examined how environmental insecurity is increasing across the region, degrading social, economic and political stability now and over the next decade, creating the potential to undermine Australia's national security interests and commitments.

This Report identifies where and how these disruptions will occur to inform strategic planning in three thematic areas:
1. Natural hazards impact on conflict and implications to insurgency, government legitimacy and armed violence;
2. Food insecurity implications of pest and disease outbreaks in plant and animal production of the Indo-Pacific Region; and
3. Emerging diseases (including zoonoses) and differential management responses impact national social, economic and political stability.

In translating our findings into a policy context, we have reflected on the *2024 National Defence Strategy* highlighting "the need for a whole-of-government and whole-of-nation approach that harnesses all arms of national power", also noting that "defence policy and activities [need] to be better coordinated with Australia's broader statecraft". Similarly, we have noted that the *2020 National Security Science and Technology Priorities Update* emphasised the critical need for preparedness, protection and incident response to natural hazards and disease outbreaks.

National security and defence implications have been identified and policy recommendations provided in each of the thematic areas. We highlight how a Strategy of Denial, characterized in the *2024 National Defence Strategy*, is highly applicable to natural hazards and pest and disease outbreaks. Our consideration of possible Defence contributions and interventions include Humanitarian-Aid and Disaster Relief as denying other state actors entry into our critical region and enhancing Australia's whole-of-government statecraft.

CONTEXT

The global risk landscape is increasingly dominated by environmental risks negatively affecting the social, economic and political stability of local, national and regional interests. In the short (2 years) and long (10 years) timeframes, global risks include:

- Climate change mitigation and adaptation risks in the short- and long-term;
- Reduction and loss of social cohesion, specifically related to cost-of-living and geopolitical fragmentation;
- Impacts of large-scale environmental damage incidents (e.g. natural hazards, crop and production failures, disease outbreaks); and
- Volatility in multiple domains increases the interacting effects of "poly-crises".

Climate change impacts have been increasingly highlighted as a security issue. It is now widely recognised that climate change acts as a risk multiplier to conflict rather than a direct cause. Climate change impacts lead to increased societal disruption from storm-related damage impacting:

- transportation and energy networks and water infrastructure
- population displacement and migration
- outbreaks of pests and diseases in production systems and populations
- economic disruption
- geopolitical tensions.

The project recommends a whole-of-government approach to addressing climate change as a security issue that considers relevant existing national and international obligations and the obligations of our regional neighbours. Enhancing our neighbours' ability to meet these obligations provides a national security benefit, as described in the attached Policy Briefs.

While these obligations are vast, the following are some of the most important international obligations for consideration: At the global level, the following obligations exist:

- **The UN Framework Convention on Climate Change and the Paris Agreement,** where Australia has committed to reducing its emissions to 43% below 2005 levels by 2030;

- **The Convention on Biological Diversity** and the **Kunming-Montreal Global Biodiversity Framework**. The Convention provides broad, wide-ranging obligations regarding national action plans for conservation, while the Kunming-Montreal Framework provides more specific goals, including halting the extinction of threatened species and ensuring 30% of the land (including inland water and coastal and marine areas) is protected. There is also a specific goal regarding mainstreaming (also referred to as horizontal policy integration) biodiversity across government and business. This last goal is particularly relevant to Defence governance and business as it requires placing one issue more centrally on the agenda of another domain. In this case that would involve the centralisation of the support of whole-of-government conservation policy, within Defence policy;

- The Convention on Biological Diversity also has one of its primary objectives, the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. The **Cartagena Protocol on Biosafety** contributes to this by ensuring the safe transfer, handling and use of Living Modified Organisms (including viruses);

- Animal welfare and disease reporting obligations as a member of the **World Organisation for Animal Health**;

- Plant health reporting obligations for signatories to the **International Plant Protection Convention**;

- **The Agreement on the Application of Sanitary and Phytosanitary Measures** and other **Codex Alimentarius Commission** guidelines on food standards, sanitary (human or animal life or health) and phytosanitary (plant life or health) measures which may affect trade. These are relevant to Defence's movement of equipment and resources;

- **Human rights obligations** under the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, and the UN Declaration on the Rights of Indigenous Peoples; and

- Specific **bilateral trade agreements** with member states of the Indo-Pacific Region, and the recent Agreement for the Establishment of a Regional Animal Production and Health Commission for Asia, the Far East, and the South-West Pacific.

APPROACH

The project focused on the IPR and Pacific Small Island Developing States (PSIDS). Both the IPR and PSIDS are of strategic importance to Australia's national security due to their proximity to Australia in addition to shared marine environments, trade connectivity, financial integration, and close multicultural ties. Countries within the scope of the project include Cambodia, Indonesia, Laos People's Republic, Malaysia, Myanmar, Thailand, the Philippines, Vietnam, and the Pacific Small Island Developing States of Cook Islands, Fiji, Kiribati, Nauru, Palau, Papa New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu (Fig 1.).

The project utilised a multi-disciplinary approach leveraging Murdoch University's world-class environmental science capacity and expertise in law, sustainability, and development studies, coupled with expertise in the socio-cultural, economic, and political dimensions of the IPR, to explore the influence of environmental insecurity on national and regional stability, and its impact on Australia's national security interests.

Co-investigators from other academic organisations (Queensland University of Technology and Lincoln University (NZ)) contributed significant expertise in policy-analysis, environmental management and biosecurity.

The three thematic areas applied a range of methods which included qualitative and quantitative analysis, desktop research, industry consultation and specialised frameworks to analyse data (e.g. DPSIR -Drivers/Pressures/State/Impacts /Responses, and the 4 Pillar Food Security Framework).

The project ran from September 2022 to June 2024 and brought together more than 40 partners and stakeholders at three major workshops, and a final consultation with Defence and other government departments and agencies in Canberra to ensure that the project delivered timely, relevant, and evidence-based policy recommendations. This Report and attendant Policy Briefs represent the policy-focused aspects of the project. The project also produced three academic papers currently under development/review for publication.

KEY FINDINGS AND POLICY-SPECIFIC RECOMMENDATIONS OF THE THREE THEMATIC AREAS

Theme 1: The changing scale and rate of natural hazards in the IPR, and the differential impact on the national social, economic, and political stability of countries

Theme 1 Key Findings:

- Disaster risks are on the rise in the Indo-Pacific Region and increasingly intersect with areas of political instability and geopolitical competition;
- Insufficient disaster preparation and response can facilitate unrest and political extremism. Continuous support for allied governments in preparing for and dealing with disasters will reduce these risks;
- Disasters can also result in temporary declines in civil. war intensity, opening windows of opportunity for aid delivery, international mediation, and defence cooperation;
- The provision of support and relief after disasters helps to improve Australia's image in the region and provides an entry point for wider cooperation. If acting in agreement with partners in the affected country, Defence can play a major role in this regard; and
- A whole-of-government approach and coordination with international partners are key to preventing disaster-related political instability and utilising diplomatic opportunities.

Theme 1 Recommendations:

1.1 Expand support for countries in the IPR to prepare for and cope with disasters. This can mitigate political instability in the affected countries and improve bilateral relations;

1.2 Maintain the ability of Defence to engage in disaster response operations in the Indo-Pacific, expand the relevant capacities in the face of climate change, and support them further through a whole-of-government approach and international partnerships;

1.3 Build long-term relationships between militaries and government agencies dealing with disasters in the Indo-Pacific nations and their Australian counterparts to strengthen sovereign disaster risk reduction abilities, build trust, and avoid politicisation of Australian support;

1.4 Monitor the political climate when providing disaster relief, and proactively engage with major media and political actors to avoid politicisation and to improve bilateral relations with the disaster-affected country. Communicate the support provided by Australia properly;

Theme 2: Increasing food security implications of pests and disease pandemics to plant and animal production in the Indo-Pacific Region:

Theme 2 Key Findings:

- Pests and diseases affecting crops and animals reduce production, leading to food supply shortages, trade disruptions and price shocks, all contributing to food insecurity;

- Food insecurity is a significant concern in the IPR. For example, over 50% of the population in Cambodia is at risk. Food insecurity has cascading effects and can lead to social unrest and political instability;

- The Defence sector is uniquely positioned to leverage its relationships with Indo-Pacific partners to strengthen surveillance for the early detection of crop and livestock disease outbreaks; and

- Defence provides assistance during a significant animal or plant disease emergency in the IPR: planning support, logistics and infrastructure, communications, surveillance, and operational support such as decontamination of vehicles and equipment to prevent disease spread.

Theme 2 Recommendations:

2.1 Building on the long-term relationship with the Department of Agriculture, Fisheries and Forestry (DAFF) in Australia, Defence as part of a whole-of-government approach continues work with Indo-Pacific Region country partners in formulating national plans to prepare and respond to animal and plant pest and disease outbreaks including those outlined in the *Pacific Biosecurity Strategy 2022 to 2027*;

2.2 Stronger collaborative surveillance networks within the Indo-Pacific Region will generate timely actionable analysis. One way of improving surveillance is military-to-military partnerships, in which Australia uses its expertise and commits to helping other militaries develop laboratory and epidemiologic capacity;

2.3 The Defence sector maintains infectious disease surveillance operations in the Indo-Pacific, incorporating diseases in livestock and crops for early detection of biosecurity threats; and

2.4 During a biosecurity incident in the Indo-Pacific Region, Defence supports on-the-ground operations such as the decontamination of crops and vehicles to prevent pest or disease spread, control animal movement, and provide food to animals in movement-restricted zones.

Theme 3: Emerging diseases and management responses across the Indo-Pacific Region:

Theme 3 Recommendations:

3.1 Defence and national security policy may wish to consider a move away from health securitisation in the IPR, to instead coordinate with organisations already on the ground and focus on the long-term promotion of strategic dialogue, trust and friendship through collaborative research and information sharing;

3.2 Supporting prevention involves environmental conservation: addressing the anthropogenic drivers of environmental change that lead to the ecological processes linked to Emerging Infectious Diseases (EIDs). This requires a shift in resourcing from reactive engagement to proactive conservation policymaking;

3.3 Environmental diplomacy can supplement defence sector assistance with emerging infectious disease response to play a vitally important role in the geopolitics of the Indo-Pacific Region. This kind of soft diplomacy allows for the type of institution-building in countries that make outside defence assistance unnecessary;

3.4 Knowing where and when disease spillovers are likely to occur is key to prevention. The Defence sector may support cross-scale mapping that considers the various drivers of disease emergence, to successfully fill data gaps, design policy and make decisions that prevent transmission at the source; and

3.5 A whole-of-government approach establishing effective One Health governance domestically can lead to better multisectoral collaboration with regional neighbours, establishing trust and building long-term relationships.

Theme 3 Key Findings:

- Emerging infectious disease is a matter of national security, a matter often overlooked in Defence sector policy;

- Disease emergence, its drivers and consequences in the IPR is a multi-faceted 'wicked problem' that requires multidisciplinary and inter-agency cooperation;

- The DPSIR framework is a valuable tool for examining the risks of disease spillovers and formulating policy responses in the complex context of the IPR; and

- Increased securitisation of health in the IPR should not be the primary policy response, but instead, supporting prevention at the source by way of environmental diplomacy is an appropriate and necessary policy response for the defence sector.

OVERALL FINDINGS

Environmental insecurity risks, taken as a whole, represent non-traditional threats to regional security, and therefore, to Australia's national security.

We found that the Indo-Pacific Region (including Pacific Small Island Developing States) is exposed to a high level of environmental insecurity, including natural hazards and pest and disease outbreaks that are demonstrably increasing. Environmental insecurity risks cause environmental degradation, loss of social cohesion, economic loss and trade disruption, and political instability.

A lack of a coordinated Australian response to environmental insecurity risks may result in opportunities for other actors to enter the region, creating enhanced geopolitical competition.

A majority of the 20 nations in the Indo-Pacific Region have insufficient capacity to ensure social, economic and political resilience to environmental insecurity risks and are heavily reliant on external support. This reliance on external support provides both opportunity and risk – the Indo-Pacific Region is Australia's geopolitical frontline. Traditionally, this support has come from Australia and its like-minded partners (e.g. New Zealand, USA), however, recent geopolitical tensions have seen the increased presence of other actors providing services and support, frequently through debt trap diplomacy.

The opportunity to enhance Australia's presence and stance in the region through soft diplomacy is well recognised and exercised by Defence. Defence engages with military and civilian authorities in the region through exercises, officer exchange and training, and Humanitarian-Aid and Disaster Relief (HADR) responses. While many HADR responses are aligned to environmental insecurity threats, they are perceived as non-core functions of Defence (2024 National Defence Strategy)

Australia must take a whole-of-government approach to environmental insecurity risks in the Indo-Pacific Region.

Apart from climate change risks being well articulated in the 2024 National Defence Strategy, environmental insecurity risks are largely considered singularly and therefore, considered out-of-scope by Defence. We advance that the risks to regional stability from environmental insecurity pose threats to Australia's national security and that a Strategy of Denial, characterised in the 2024 National Defence Strategy, is highly applicable to counter these existential threats.

A whole-of-government approach will be critical to address these risks, most likely coordinated across agencies and departments by the National Security Committee. At present it remains unclear whether domestic responsibilities for individual environmental insecurity risks map to overseas responsibilities (frequently not within Departmental mandates) or fall to the Department of Foreign Affairs and Trade. The current engagement with overseas environmental insecurity risks by Australian Departments demonstrates a wide array of actors:

- **Natural hazards** - Australia has provided considerable support to develop preparedness and early-warning systems for disasters such as the $68.9 million investment (via GeoSciences Australia and Bureau of Meteorology) to enhance the Australian National Tsunami Warning System contributing to an Indian Ocean Tsunami Warning System and integrating with the existing Pacific Tsunami Warning Centre to facilitate warnings to the South West Pacific region. The post-disaster response includes the Department of Foreign Affairs and Trade (Humanitarian-Aid) and Defence HADR deployments on request from national authorities.
- **Biosecurity risks** in the Indo-Pacific Region are supported by the Department of Agriculture, Fisheries and Forestry and Department of Foreign Affairs and Trade through capacity building and supported response management, however, direct intervention is limited and largely predicated on risks of biosecurity transfer to Australia.
- **Emerging diseases** - are primarily supported by the Department of Foreign Affairs and Trade (and in particular the Indo-Pacific Centre for Health Security), with some support from the Department of Health and Aged Care and Queensland Health for the Torres Strait Islands. This includes aid to build capacity and capability, initiatives for prevention including vaccination programmes, and underpinning research to identify potential emerging diseases.

Defence, whilst not the primary agency for responding to environmental insecurity risks, is critical for environmental insecurity risks, and responses, and should play a considered role in Defence's strategic planning and policy.

It has been noted that Defence is not the responsible agency for environmental insecurity risks, however, the supporting role Defence can play is significant, particularly in capacity building and preparedness training with Indo-Pacific partners -- civilian and military. The frequent contact and trusted relationships provide the opportunity to engage with counterparts who are likely to be the first responders in IPR nations. These activities will also enhance soft diplomacy outcomes.

Data sharing was highlighted in several discussions; however, it was noted that classification may prevent sharing with IPR partners or even with other Australian Departments. A critical analysis of data-driven needs for each environmental insecurity risk and determination of whether data de-classification or internal Defence processing with the provision of high-level analytics would be possible and of value.

We note that Defence is well advanced in its role in natural hazard response; however, this is still considered a secondary activity. It is unclear whether the potential implications to political stability have been incorporated into Defence planning and strategy. We do note that the focus on climate change suggests that this has occurred.

ACTIONS AND POLICIES THAT DEFENCE CAN IMPLEMENT QUICKLY OR WITH LITTLE RESOURCING

Defence consideration of how environmental insecurity risks alter their consideration of geopolitical threats in the IPR.

Defence support for and participation in a whole-of-government approach to IPR environmental insecurity risks, including support for a coordinating body, such as the National Security Committee, and incorporation of environmental insecurity risks into a National Security Strategy.

Consideration of incorporating environmental insecurity risks into the variety of soft diplomacy dialogues and training opportunities.

A critical analysis of:
- Defence assets that could support biosecurity and emerging disease early-detection and prevention, and outbreak actions by IPR partners such as mobile labs, aerial drone surveillance, and rapid detection screening;
- Standard Operating Procedures (SOPs) for biosecurity and emerging disease prevention and management are currently used internally by Defence for sharing and training with IPR partners; and
- Data-driven needs for each environmental insecurity risk and determination of whether data de-classification or internal Defence processing with the provision of high-level analytics would be possible and of value.

LONGER TERMS ACTIONS

Defence to identify internal gaps for managing biosecurity and emerging disease detection, preventative spread and response. Defence operates in foreign and domestic environments that lead to exposure to biosecurity and emerging disease risks. While Defence undertakes efforts to prevent entry of biosecurity and emerging disease risks into Australia, movement between overseas sites and nations may not be as stringent.

Defence modelling of overseas geopolitical stability incorporating environmental insecurity risks.

FURTHER NEEDS

The Environmental Insecurity Risks in the Indo-Pacific Region project (2023-2024) provided new insights for the national security policy debate and demonstrated the significance of non-traditional security threats to Australia's Defence strategy. These findings were inferential and sufficient to contribute to the policy debate, however, we noted further workstreams that were identified in our workshops or as a consequence of our research.

These include:

- Undertaking a cost-benefit analysis of the Strategy of Denial (deterrence) rather than defensive/reactive actions for Themes 1-3;
- Extending data collection and analysis in the IPR to better understand sources of disease risks to develop appropriate policy responses;
- Expanding work to other types and impacts of environmental insecurity such as:

  - *The changing scale and rate of environmental insecurity risks in the IPR*, and differential impact on national social, economic, and political stability of individual nations – this work will highlight specific nations at greater risk

  - *Transboundary impacts on natural resources*, specifically focusing on impacts to fisheries given the high reliance on marine resources in many Indo-Pacific nations and transboundary exploitation enhancing geopolitical tensions
  - *Impacts of climate change on critical infrastructure* for water, energy, and waste.
  - *Forced human migration and displacement in the IPR* in the face of climate change and other environmental insecurity risks and cost/implications for Defence
  - *Environmental insecurity threats in the IPR* – consideration of intentional bioterrorism and emerging disease threats in and from the IPR;

- Building an enhanced biosecurity toolkit for managing allied forces landing in Australian territories; and
- Developing a suite of micro-credential-based professional development opportunities for regional leaders in government (including Defence).

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ANNEX

1. *Acronyms and Abbreviations*

AAPPC	Asia Pacific Plant Protection Commission	HADR	Humanitarian-Aid and Disaster Relief
ADF	Australia Defence Force	HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
ASEAN	Association of Southeast Asian Nations	IPM	Integrated Pest Management
ARDN	ASEAN Regional Diagnostic Network	IPPC	International Plant Protection Convention
ASF	African Swine Fever	IPR	Indo-Pacific Region
CO2	Carbon dioxide	ISI	Inter-Services Intelligence
DAFF	Department of Agriculture, Fisheries and Forestry	NSC	National Security Committee
DFAT	Department of Foreign Affairs and Trade	PC	Pacific Community
DPSIR	Drivers, Pressures, States, Impacts and Responses	PSIDS	Pacific Small Island Developing States
EID	Emerging Infectious Disease	R&D	Research and Development
GIS	Geographic Information System	SARS	Severe Acute Respiratory Syndrome
H1N1	Swine flu	UN	United Nations
H5N1	Highly pathogenic avian influenza virus		

2. Acknowledgements

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- Department of Foreign Affairs and Trade, Indo-Pacific Centre for Heath Security
- Department of Agriculture, Fisheries & Forestry
- Department of Primary Industries & Regional Development, Western Australia
- Department of Health, Western Australia
- Department of Communities, Western Australia
- Wildlife Health Australia
- Australian Strategic Policy Institute

- Institute for Peace Research and Security Policy, University of Hamburg
- Stockholm International Peace Research Institute
- Perth USAsia Centre
- World Bio Protection Research Foundation
- Conciliation Resources (Pacific)
- Murdoch University
- Lincoln University, New Zealand
- Queensland University of Technology
- Deakin University
- University of Queensland
- University of Technology Sydney
- Defence and Security Institute, University of Western Australia
- University of Wollongong

3. *Policy Briefs*

1. Natural Hazards and Political Instability in the Indo-Pacific

2. Food Security and Political Security Implications of Crop and Livestock Diseases in the Indo-Pacific

3. Disease Emergence and Environmental Diplomacy in the Indo-Pacific Region

Acknowledgement of Country

We acknowledge the Traditional Owners of Country, the Aboriginal people of the many lands that we work on and their language groups throughout Western Australia, Queensland and the Australian Capital Territory, and recognise their continuing connection to the land and waters. We respect their continuing culture and the contribution they make to the life of our regions and we pay our respects to their Elders past and present.

For further information on the *Environmental Insecurity Risks in the Indo-Pacific Region* project:

🌐 **www.murdoch.edu.au/research/hbi/research/projects/EIRI-PR**

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