

Policy brief for biosecurity decision makers

One-health approach for biosecurity in the Overseas Territories

Summary

- The one-health approach recognizes that the health of humans, animals, plants and ecosystems are interconnected. A comprehensive biosecurity system is required which includes implementing measures to prevent the spread of all the threats across the spectrum of human, animal and plant health.
- There is a lack of resources and access to expertise in the OTs which restricts their ability to strengthen existing biosecurity systems.

What is the issue?

The issue is the lack of recognition of the need to connect the different sectors responsible for human, animal and plant health. This results in a fragmented and inefficient approach to biosecurity, and is compounded by a lack of resources, and access to appropriate specialist expertise.

Why is this important?

Invasive non-native species threaten livelihoods, food security, water security, human, animal and plant health, biodiversity and ecosystem function. Recognised invasive species threats include pests such as fire ants, vectors such as mosquitoes, plant pests and diseases, and threats to fisheries and biodiversity in the marine environment. Emerging infectious diseases, for example Covid-19, are now recognised as one of the top priorities amongst invasive species risks. Many recent outbreaks of infectious diseases arise in wildlife, create disease in livestock, and subsequently go on to cause infection in humans. In addition, principal drivers of the emergence of infectious diseases are associated with human activities, including changes in the environment and land use, intensification of agriculture, urbanisation, and international travel and trade².



Figure 1. Human, animal and environment issues all effect the emergence of infectious diseases.

Islands are particularly vulnerable to invasive species threats, and as most of the 14 UK Overseas Territories (OTs) are islands they are especially at risk.

What can be done?

Protection against invasive species threats is provided by biosecurity, being the measures put in place to reduce the risk of introducing or spreading invasive non-native species (including diseases) in the wild. There is consensus that owing to globalization and the 'four Ts' (trade, travel, transportation and tourism) biosecurity problems are worsening, and a more resilient biosecurity system is required which includes implementing measures to prevent the spread of infectious diseases.¹ The one-health approach recognizes that the health of humans, animals and ecosystems are interconnected. It involves applying a coordinated, collaborative, multidisciplinary and cross-sectoral approach to address potential or existing risks that originate at the animal-human-ecosystems interface². Increased resources are required to ensure a comprehensive biosecurity system:

- Bringing UK expertise to the OTs;
- Sharing expertise amongst the OTs;
- Facilitating cooperation between human health, animal health, plant health and invasive non-native species interests.

As the OTs move forward it is essential that the one health approach is accepted and promoted, recognizing biosecurity as an all-inclusive term that includes policy and regulation to protect agriculture, food and the environment from biological risk¹.

Where can I find practical help for biosecurity?

A variety of simple and practical tools for planning and delivering good biosecurity were developed under the UK government funded project *Tackling invasive species in the UK Overseas Territories* and can be found at <http://www.nonnativespecies.org/index.cfm?pageid=619>. They include: model biosecurity legislation, priority species on the horizon for all OTs, import health standard templates for a range of commodities, marine biosecurity toolkit, elearning modules on basic biosecurity and biosecurity inspections, field guides, and education and communication materials.

Where can I get more information?

1. Pantaleon, L. (2019) One health and biosecurity – a safeguard against diseases. <https://dairyknowledgecenter.com/one-health-and-biosecurity-a-safeguard-against-diseases/>
2. Mackenzie, J.S. and Jeggo M. (2019) The One Health Approach-Why Is It So Important? *Trop Med Infect Dis.* 2019;4(2):88. Published 2019 May 31. doi:10.3390/tropicalmed4020088 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6630404/>
3. Jeggo, M. (2012) The Australian perspective, the biosecurity continuum from preborder, to border and postborder. In: Institute of Medicine (US). *Improving Food Safety Through a One Health Approach: Workshop Summary*. Washington (DC): National Academies Press (US); 2012. A6. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK114489/>