

## **Submission to the JSCNET Inquiry into local governance on Norfolk Island**

My submission focuses on the issues of governance and implementation of biosecurity for Norfolk Island. In that high quality biosecurity is critical to both the general well-being and financial success of Norfolk Island.

For Norfolk Island, the foci of biosecurity are food security and environmental protection; a robust biosecurity system is fundamental to these. Unlike Australia, biosecurity on Norfolk Island does not need to include a significant focus of the protection of trade/exports, as currently few agricultural exports from Norfolk island occur. However, if the very high plant health and animal health status (significantly higher than that of Australia) is maintained via high quality, robust biosecurity system, it does provide potential niche opportunities for the development of high value, low volume exports around the world for agricultural products produced on Norfolk Island.

Unfortunately there are people who see biosecurity as an impediment to doing business and would like to see it scrapped altogether. It is likely that they do not understand the vulnerability of Norfolk Island to the establishment of new pests and diseases, nor the significant consequences if new pests and diseases do establish on Norfolk Island.

Norfolk Island has a very different plant and animal health status to the Australian mainland and Tasmania. Further, Norfolk Island has a wide range of endemic plants and animals that occur nowhere else on earth except for the ~35km<sup>2</sup> that makes up the Norfolk Island group (Norfolk Island, Phillip Island and Nepean Island); often the area in which the entire population of where an endemic species occurs is much smaller, and can be as little as a few square metres. Hence these organisms are extremely vulnerable to the impacts of introduced plants, pathogens and animals (both vertebrate and invertebrate).

There was a comprehensive series of surveys done across vertebrate animals and plants between 2012 and 2014 (see Maynard, Lepschi & Malfroy 2018), these demonstrated that many of the significant pests and diseases that exist elsewhere are not present on Norfolk Island. This includes some species that are native/endemic to the Australian mainland and Tasmania, some that are viewed as pests and others not so. Some examples of these include snakes and frogs – these do not occur on Norfolk Island; the paralysis tick that occurs on the east coast of Australia, does not occur on Norfolk Island; the Queensland fruit fly that is widespread in eastern Australia does not occur in Norfolk island; codling moth occurs in Australia but not on Norfolk Island.

Done well, biosecurity will enhance the lives of all who live on Norfolk Island; done badly it will drastically impact all who live on Norfolk Island. Done well, food production can occur with limited need for use of pesticides and other management tools; however if it fails and a major pest such as Queensland fruit fly gets into Norfolk Island, there would be significant negative impact on food

production and a consequentially increased reliance on expensive and erratic supplies of imported foods. Such dependancy would then further erode the capability of fiscal stability and goals of achieving a circular economy

There are few, if any, resources (financial, skills and other) that would enable any eradication attempts if/when a major pest gets into Norfolk Island. When the question was asked of local and Commonwealth officials as to who had governance/responsibility of these issues, no one was able to provide a timely answer. The answer to the question posed took more than a week and required official clearance. – In an emergency (that is there is a detection of a significant threat to Norfolk Island) an immediate implementation of actions should take place. There was a recent occurrence where a green tree frog was found by a residence, there was no after hours contact nor follow up – fortunately for Norfolk Island the resident accidentally killed the frog then buried it in their garden – so the specimen was not preserved. There appears to be no contingency plans nor any clear group identified as responsible for undertaking oversight or implementation of a response. Nor are there resources available for management of major pests if eradication is not attempted. Further, Norfolk Island does not appear to have a voice (an advocate that understands the biological and economic consequences for Norfolk Island) in decision making processes when pest incursions occur.

Norfolk Island is very small community on a very remote island with the nearest landmasses being New Caledonia some 700km to the north and New Zealand about 750km to the south. This isolation is both of benefit and disadvantage. The distance to other land masses makes it very isolated biologically from the incursion of pests and diseases. However Norfolk Island is also very vulnerable to the incursion of new pests and diseases because of the mild subtropical climate with relatively moist soils and due to the very small size (~35km<sup>2</sup>) such that if something gets in, it rapidly spreads across the whole island.

The major way that any new pest or disease can enter Norfolk Island is via sea vessels or aircraft. Therefore, by and large, the entry of new pests and diseases can be managed, if the appropriate governance, skills and resources are allocated to do so.

Norfolk Island was protected by extremely strong quarantine/biosecurity until 2015/6. In 2014 this was enhanced by the introduction of a quarantine detector dog. The biosecurity/quarantine system was run by the Norfolk Island Government, who allowed only a limited selection of plants (including seeds) to be imported onto Norfolk Island. Similarly many animal species were prohibited from entering Norfolk Island and companion animals and livestock were imported only under very strict conditions. The prohibitions and restrictions were imposed to protect Norfolk Island's plants and animals (native and agriculture). These measures served Norfolk Island well but were non-compliant with the types of biosecurity systems run elsewhere; but it was the best that could be done with resources available.

Since then the Commonwealth has taken on the governance and implementation of biosecurity, responsibilities are split among at least two Departments with limited clarity as to who undertakes what. Concurrently there has been a broadening of plant commodities that are able to be brought into Norfolk Island these include fruit and vegetables, seeds and bare-rooted plants. Apparently risk assessments have been undertaken to develop conditions to “safe guard” Norfolk Island. However none of these have been released publicly nor has there been any consultation with community on Norfolk Island prior to the implementation of the conditions or the ability for independent experts to assess the appropriateness of the conditions to be implemented. There are considerable concerns with the conduct of these “risk assessments” in that that they are likely not to have been undertaken from the perspective of Norfolk Island, where the Australian mainland (and Tasmania) pose considerable threats to Norfolk Island. pPests (and other organisms) that are not considered problematic in Australia potentially pose significant threats to Norfolk Island. An example of this, is a pest that is already established on Norfolk Island called the guava moth, it is a native of Australia where it causes little or no problems, whereas on Norfolk Island it causes significant problems in a wide range of fruits. So undertaking a risk assessment to develop safe conditions for import of plants and animals into Norfolk Island is a highly skilled and complex undertaking and needs to look at Australia as a significant threat – this is not a consideration that would be routinely undertaken by the Commonwealth officers as the Australian mainland (and Tasmania) is what they are protecting. AND the community of Norfolk Island should be consulted on each one.

Some of the challenges faced by Australian biosecurity officers with regards to Norfolk Island include: officers having to consider Australia as a significant threat to Norfolk Island when all the foci of regulations and training for these officers is for the protection of Australia (which could be construed by certain views a conflict of interest). Norfolk Island has extremely limited resources, equipment and skills to undertake detection and effective diagnostics of organisms; the limited understanding of what constitutes the normal biota of Norfolk Island; the appropriateness and sensitivity of standard techniques to manage the risk of introduction to Norfolk Island of organisms of concern. For example most seeds that are hand-carried by inward bound passengers are permitted entry in to Norfolk Island provided that they have a scientific name written on the package – the issues with this are lack of assessment of potential weediness of these species in relation to Norfolk Island; the lack of capacity to verify that the seed is the plant species it purports to be, and the lack of determination of pathogen status with relation to the particular batches of seeds. Another standard technique that is used to determine that commodities (plants and plant products) are free from pests and pathogens is inspection. Inspection can be appropriate for commodities that are symptomatic for a pathogen or for immobile invertebrates that are intimately associated with that commodity; it is not appropriate for plants or plant products (including vegetables, fruit, flowers) for asymptomatic pathogens or highly mobile invertebrates.

Another area of significant concern is the limited level of testing of plants for planting. The establishment of a new pest or pathogen is much more likely if it is brought in on its host (plant or animal that it feeds on). As such it is critical that only high health status material as determined by specific and appropriate testing, along with full isolation prior to the material being moved, can be safely allowed. Field grown, inspected, bare rooted plants do not come close to meeting this level of quarantine required to meet high health status. Once a plant is in the ground in Norfolk Island, there is very limited opportunity to eliminate any pathogen or pest brought in with that plant.

The move to containerisation and movement of shipping containers onto Norfolk Island introduces another level of complex biosecurity issues. Until recently all cargo brought by sea was unloaded on the ship and transferred to Norfolk Island by “lighters” and before 2015/16 prior to being placed into lighters the goods were inspected on the ships. Now the containers are moved straight onto the island. The containers themselves provide a significant pathway for hitch-hiker pests and pathogens to enter Norfolk Island. These containers are difficult to examine on all sides on the exterior; and very difficult to examine, in a secure manner once opened with the limited facilities available on Norfolk Island. Often the containers are moved directly to the importers premises and then inspected at a later time. Similar difficulties exist with airfreight – there are no biosecure facilities to undertake efficient and effective testing and inspection of airfreight prior to release on Norfolk Island.

These changes in transportation of goods and materials to Norfolk Island, coinciding with the increase in range of plants and plant products permitted to enter along side very limited biosecurity skills and resources, have meant that there is very significant increase in risks to Norfolk Island food security and environmental security. Hence increasing the likelihood of introduction of a high impact pest likely to negatively impact the fragile economy. In addition to this there are no clarity as to the responsibility of who will assist Norfolk Island when something occurs, no ability for Norfolk Island to have input to the decisions with regards to what should happen when something occurs. Further there appears to be no contingency plans to cover such occurrences.

The governance and implementation of a robust, appropriately skilled biosecurity system, operating with Norfolk Island as its focus, (recognising that Australia poses significant biosecurity risks) is vital to underpin the economic well-being of Norfolk Island. It is much more cost effective to prevent the entry of pests and pathogens than to try and eradicate them. At this point this is significantly lacking and there are pressures to further expose Norfolk Island to greater biosecurity risks. One of the major additional financial burdens for the Norfolk Island community is the cost of transportation of goods to Norfolk Island (importation). Therefore minimising the need to import foods is a major economic benefit, hence the need for a high level of biosecurity to protect on-island food production.

Currently the governance arrangements for, and implementation of biosecurity (*sensu lato* - that is the importation of goods, pest detection and surveillance, response to detection a novel pest) for Norfolk Island appear to be somewhat haphazard and chaotic. The Commonwealth biosecurity officers on the island are undertaking the tasks that they are instructed to do, to the best of their abilities; although these processes may be deemed to be appropriate for the protection of Australia; it is likely that are not appropriate for the protection of Norfolk Island.

## Reference

Maynard, G.V., Lepschi, B.J. and Malfroy, S.F. 2018. *Norfolk Island Quarantine Survey 2012-2014 – a Comprehensive Assessment of an Isolated Subtropical Island*. Proceedings of the Linnean Society of New South Wales. Volume 140: 7-244.