

Bio-security: What you need to know

Source: BIO-SECURITY AUTHORITY OF FIJI

The Asian subterranean termite outbreak, presence of American iguanas in Fiji, taro beetles and the re-emergence of the American Foulbrood disease in honey bee farms in the Western Division have brought bio-security issues to the forefront. This week the chief executive officer of the Bio-security Authority of Fiji (BAF), Elvis Silvestrini, speaks on the importance of bio-security to Fiji, what role BAF plays and some key challenges BAF faces in protecting our borders, environment and agricultural industry.

Q. What is bio-security and why is it important for Fiji?

Mr Silvestrini: Bio-security is the protection of the economy, environment, biodiversity and human health from the negative impacts associated with the entry, establishment and spread of organisms including pests, diseases and invasive species. It is also ensuring Fiji has a strong export industry for our produce by maintaining existing trade markets and finding new ones. Bio-security is vitally important to Fiji as we are heavily reliant on agriculture and our natural environment. New pests can not only devastate our food security, but can also damage agriculture or horticultural production, forestry and tourism and affect trade in international markets. The economic consequences of failing to protect Fiji are dire: it could affect our employment opportunities, our human health and also our traditional lifestyle which is highly treasured.

Q. What does Bio-security Authority of Fiji (BAF) do?

Mr Silvestrini: BAF is guided by the Bio-security Promulgation 2008 which outlines a number of functions for BAF. These are:

- Protecting Fiji against the entry of regulated pests and diseases affecting animals, plants, human beings and the environment;
- To carry out surveillance and monitoring of pests and diseases in Fiji and assess the status of regulated pests and diseases;
- To prevent the establishment and spread of regulated pests and diseases and the release of organism that might adversely affect animals, plants, human beings and the environment in Fiji;
- To eradicate, contain or control the movement of regulated pests and diseases that are already present in Fiji;
- To prevent the introduction and spread of regulated pests and diseases not already in Fiji;
- To facilitate the safe importation of animals and plants and their products, and related equipment and technology;
- To facilitate the export of animals and plants and their products in accordance with the Bio-security requirements of the receiving countries; and
- To facilitate international cooperation to prevent the spread of pests and diseases affecting plants, animals, human beings and the environment.

To carry out these functions, BAF has a bio-security system in place which involves pre-border, border and post border operations.

Q. Can you elaborate more on what pre-border, border and post-border operations were conducted by BAF?

Mr Silvestrini: The pre-border operations include conducting risk assessments of the product an importer wants to import into the country to determine whether the product poses a threat to Fiji. Border control involves quarantine inspection for international passengers, cargo, mail, animals, plants, and animal or plant products arriving in Fiji while post-border operations are managing, containing and monitoring of pests and diseases in the Fiji.

Q. What are some of the pests and diseases

the public needs to be aware of which could affect our agriculture and environment?

Mr Silvestrini: There are a number of pests and diseases that public needs to be aware of. We have categorised this in two areas; domestic (endemic) and unwanted (exotic) pests and diseases.

The domestic (endemic) pests and diseases are those that are present in Fiji and if not controlled and contained can have devastating effects on the agriculture and environment. Some of these are:

■ **Dalo beetle** - Dalo is not only considered as one of the most important staple foodcrops in Fiji but Fiji is the major exporter of Dalo in the Pacific. Dalo beetle poses a significant threat to Dalo production in Fiji and could entirely wipe out Dalo in Fiji as it affects yield and quality of Dalo. This could not only destroy our export market but also affect our food security. The beetle is only found in mainland Vitilevu and we have restricted the movement of Dalo, the planting materials and used packaging material from Dalo beetle infested areas to non-infested areas. Movement of Dalo and its planting material is only subject to approval from the BAF.

■ **Fruit flies** - There are two species found in Rotuma that can cause damage to crop; resulting in loss of income from wasted fruit and loss of exports. BAF has restricted movement of fruits or fruit fly host commodities from Rotuma into Fiji and we are also closely monitoring the inter-island vessel movements from Rotuma into Fiji for fruit fly host commodities.

■ **Asian subterranean termites** - this has caused Fiji millions of dollars of damage and can affect our trade, food security, forest industry, and infrastructure and tourism industry. To contain and control this termite, we had put in place Operation Kativuka. Operation Kativuka is in its second phase which involves rehabilitation process. This is progressing well and to date 549 houses and 18 schools have been rehabilitated. Also the number of new cases of termite infestation has significantly reduced from 30 cases per week to barely two cases per week.

■ **America iguana** - Green American Iguana is a much publicised pest. It is present on Qamea; Matangi and Laucala Islands and is a threat to Fiji's native and endemic species and human health. The eradication program for American

Iguana is in place and is proceeding well.

■ **Brucellosis** - Has affected Fiji's dairy industry. Only the farms in Tailevu remain affected. BAF has restricted movement of cattle, farm equipments and machinery from infested farms. We advise people to seek approval from BAF before moving cattles from affected areas.

Q. What are some of the unwanted pests and diseases?

Mr Silvestrini: The unwanted (exotic) pests and diseases are those that we don't want them to come into Fiji because of the threat they pose to the environment, agriculture and other sectors. These are:

■ **Giant African snail** - This is present in the Pacific but not in Fiji. It eats 500 different plant species and can eat the equivalent of a cabbage a day. If it comes to Fiji it will have a devastating effect of our agriculture and horticultural industry.

■ **Asian gypsy moth (AGM)** - The Asian Gypsy Moth can devastate Fiji's forestry, agricultural and horticultural industry. These moths have voracious appetite and can lead to the death of a tree.

■ **Taro leaf blight** - This is a major threat to Fiji's Dalo industry. Samoa was hit by the taro leaf blight in 1995 and they have still not recovered.

■ **Foot and mouth disease** - is one of the most contagious animal diseases known. In 2001, an outbreak in UK saw 10 million animals slaughtered and total estimated costs in damages and losses was £8 billion. Has potential to harm Fiji's livestock industry.

■ **Newcastle disease** - viral disease affecting all bird species including domestic poultry. Is a threat to Fiji's birds and poultry industry.

■ **Rabies** - A viral disease of warm-blooded animals which is almost always fatal. Fiji's greatest threat is from smuggled or undeclared animals on yachts and fishing boats. Any animals on board foreign vessels must be reported to the nearest BAF Office.

Q. What strategies or preventative measures has BAF put in place these pests, diseases and the eradication or control of those that

already exists like the American iguana?

Mr Silvestrini: BAF has a number of strategies in place on border control to prevent pests and diseases from coming in Fiji. BAF screens, inspects, and clears the thousands of people, mail parcels, baggage, ships, animals, plants and cargo containers entering Fiji every year using X-ray machines and surveillance.

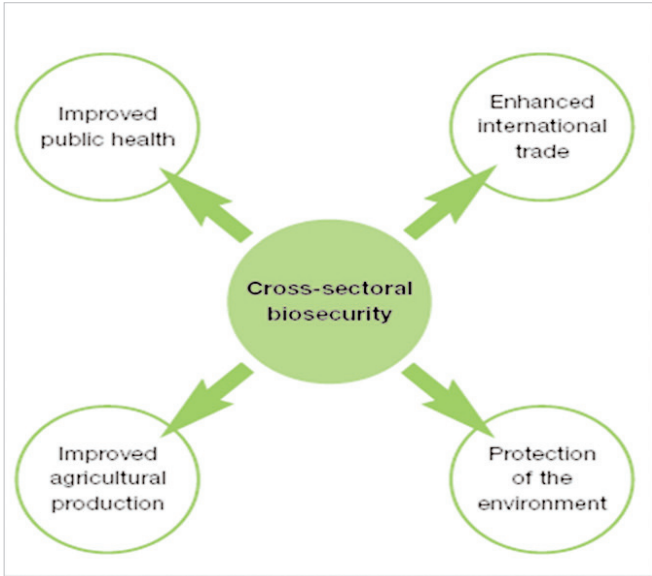
For established pests and diseases such as American Iguana, Asian termites and Brucellosis, BAF works on eradicating these pests. If this is not possible then we step in to control and contain it to the infested areas only. Regular advise is also issued to people not to remove the host material from infested area. A lot of effort goes into training and awareness programs as well.

Q. What can the community do to help BAF?

Mr Silvestrini: We want people to understand the importance of bio-security and BAF and support us in our work to protect our plants, animals, environment, people and economy. They can do this by:

- Learning how to protect their homes against termites;
- Not moving pests such as the American iguana;
- Not transporting dalo from Viti Levu or fresh produce from Rotuma;
- Ensuring movement of livestock from Brucellosis affected areas is approved by BAF; and
- Declaring items when they enter Fiji just to be safe.

Benefits of bio-security



INVASIVE SPECIES OF PRIORITY

EXOTIC



Giant African snails



Asian gypsy moth



Brown tree snake

ESTABLISHED



African tulip



American iguana



Asian subterranean termite