



## PACIFIC REGIONAL INVASIVE SPECIES MANAGEMENT SUPPORT SERVICE

Invasive species are the leading driver of biodiversity loss in the Pacific. They have a significant impact on ecosystem resilience leading to a loss of production in ecosystem services and a reduced ability to adapt to climate change. Regional tracking of Pacific Island countries and territories has identified major gaps both in scope and volume of “management action” underway.

The PRISMSS is a regional mechanism designed to facilitate the scaling up of operational management of invasive species in the Pacific. PRISMSS brings together experts to provide support within the Pacific region with a focus on protection of indigenous biodiversity and ecosystem function. The intention is to provide a comprehensive suite of support services in a cohesive, effective, efficient, and accessible manner to Pacific Island countries and territories. The goal is to reduce the ecological and socio-economic impact of invasive species on ecosystems through the management or eradication of prioritised species and the protection of valued sites. PRISMSS currently provides technical support across five regional programmes for the Pacific region.



### Protect Our Islands

National and inter-island biosecurity and EDRR



### Predator Free Pacific

Removal of invasive mammalian predators from Islands



### War on Weeds

Management of High Priority Weeds



### Natural Enemies-Natural Solutions

Biological control of widespread weeds



### Resilient Ecosystems-Resilient Communities

Priority area ecological restoration



# PROTECT OUR ISLANDS

## NATIONAL AND INTER-ISLAND BIOSECURITY AND EARLY DETECTION/RAPID RESPONSE



Biosecurity is the first line of defence against invasive species arriving and establishing in a new destination. Early Detection and Rapid Response (EDRR) preparation is a key initiative of the Programme. The goal of EDRR is to be able to detect new species early enough to eradicate them. EDRR is enabled by the creation of response plans, training, and procurement of equipment. Critical to the success of EDRR is the support of the community and other stakeholders through ongoing engagement, regular simulation exercises, and greater public awareness to maintain fast responses to incursions.

Pacific Biosecurity is the lead PRISMSS technical partner for this regional programme with support from the Pacific Community (SPC). Established in 2013, Pacific Biosecurity is an initiative of Wellington UniVentures Ltd based at Victoria University of Wellington. The Pacific Biosecurity team has extensive experience and success in collaborating with regional organisations and in-country partners to enhance people's environmental well-being through conservation and pest / invasive species prevention and management throughout the Pacific. SPC is the region's mandated coordinator for national biosecurity and leads representation of the region at international levels. Founded in 1947, SPC provides in-depth support for the mandated in-country biosecurity teams through the Pacific Plant Protection Organisation (PPPO) and works closely with National Plant Protection Officers (NPPOs).



# PREDATOR FREE PACIFIC

## REMOVAL OF INVASIVE MAMMALIAN PREDATORS FROM ISLANDS



Pacific islands connect land and sea. Invasive species such as rats alter ecosystems as they consume the seeds, plants, invertebrates, and seabirds that provide nutrients to forest systems and coastal waters. The prevention, control, and eradication of invasive predators are important strategies for supporting ecosystem-based adaptation to the effects of climate change.

60 Pacific islands have had predators removed.

Island Conservation is the lead PRISMSS technical partner for this regional programme with support by BirdLife International. Island Conservation is the only charitable organization solely dedicated to removing invasive species on islands to prevent extinctions. To maximise its impact, Island Conservation works where the concentration of biodiversity and species extinction is greatest – islands. Since 1994, Island Conservation and partners have deployed teams to protect more than 400 species on 63 islands making the organisation one of the most world's most effective in terms of species saved per dollar spent. BirdLife and BirdLife Partners have eradicated introduced vertebrates from over 30 tropical Pacific islands. These successes are built from a foundation of combining local knowledge with eradication expertise, building support, and growing local capacity with, lessons and successes informing good practice internationally.

# WAR ON WEEDS

MANAGEMENT OF HIGH PRIORITY ECOLOGICAL WEEDS.



Some invasive plants have the ability to transform (damage or destroy) ecosystem function. Weeds outcompete more desirable plant species and disrupt processes such as water flow, fire regimes, soil quality, nutrient cycling, and regeneration. Weeds can also be harmful to human and animal health. Weeds thrive on disturbance and so their harmful impacts are exacerbated by tropical cyclones, strong winds, drought, and fires, all of which are increasing in severity due to the changing climate. Whilst there are several existing weed management programmes across the Pacific, capacity overall is very limited.

This programme is focused on the management of high risk, low distribution weed species, where the objective is eradication or containment.

SPREP is the lead PRISMSS technical partner for this programme. The SPREP Invasive Species Team has over 50 years' experience between them executing weed management projects in the Pacific, New Zealand and internationally. Weed eradication is a highly specialised field of work. SPREP has the experience and skills needed to develop programmes and facilitate successful results on the ground.



# NATURAL ENEMIES-NATURAL SOLUTIONS

BIOLOGICAL CONTROL OF WIDESPREAD WEEDS



Conventional control techniques can be useful when weeds are not yet common and to protect high value sites. However, once weeds become widespread the only safe, cost-effective and sustainable way of tackling them is through the use of natural enemies, which is known as biological control.

This regional programme aims to lower the impact of widespread invasive plants by reducing their vigour by introducing safe natural enemies from the area they, and their host plant, originate from. This technique has been used safely and successfully worldwide, including the Pacific, to manage weeds for more than 100 years.

Natural enemies have been established on 25 weed species in 17 countries in the Pacific, and there are many opportunities both for spreading existing agents available in the Pacific to new countries, from introducing agents available outside the Pacific, and through developing new options for the Pacific.

Manaaki Whenua - Landcare Research, based in New Zealand, is the lead PRISMSS technical partner for this programme. They are acknowledged as a world leader at controlling weeds using natural enemies and have been involved in Pacific weed issues for a decade. In particular they have recently assisted the Cook Island to control 6 of their most serious weeds and are currently working on a similar programme in Vanuatu.

# RESILIENT ECOSYSTEMS- RESILIENT COMMUNITIES

## PRIORITY AREA ECOLOGICAL RESTORATION



Pacific threatened species and ecosystems often exist within high value areas on larger islands where invasive animals and invasive plants will continue to be a threat. A site-led approach to manage multiple invasive species and re-introduce lost native species and ecosystem structure over a longer period of time is the last remaining option to restore and maintain these ecosystems. Communities directly benefit from resilient ecosystems and are an essential part of ecological restoration.

Many priority area ecosystems have been restored over the past 3 decades, mostly in New Zealand. The Pacific has had several pilot sites which have had very successful outcomes with increases in threatened endemic birds.

SPREP is the lead PRISMSS technical partner for this programme. The SPREP Invasive Species Team has over 50 years' experience between them executing ecosystem restoration projects in the Pacific, New Zealand and internationally. This includes priority sites within urban areas to nationally significant larger natural areas. Experience ranges from managing individual sites to wider landscape multi-site projects. The New Zealand Department of Conservation (NZDOC) has had great success with species translocation in the region. NZDOC is assisting SPREP in this regional programme.



## HOW CAN PRISMSS ASSIST YOU?

- ✓ Advice for on-the-ground invasive species activities
- ✓ Advice on the development of new projects
- ✓ Training, coaching, and support for project execution.
- ✓ Provide donors with customised options and successful outcomes



### CONTACT

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