

# ITO Research Conference: Green Jobs for Asia and the Pacific.

Session III: *Employment in a Circular Economy: Recycling and Waste Management*

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In response to Climate Change, sustainable employment will be dependent on using fewer resources, protecting the environment and ensuring workers are well trained and resourced.

The Pacific Islands are at particular risk from climate change, though their contribution to it is negligible. They lack both the wealth of developed countries and the huge human resources of developing countries in the region and are consequently often overlooked. The following is a short description of a offshore biosecurity project led by Dr Dave Nendick of the New Zealand Ministry of Agriculture and Forestry (MAF), which models sustainability, equity and decent employment for a small but significant number of Pacific Island people.

## Managing Biosecurity Risks of Sea Containers

Around 70% of the 80 000 containers from the Pacific Islands were contaminated with crop residue, invasive ants, snakes, frogs etc. which presented a significant biosecurity risk to Aotearoa NZ whose economy is largely dependent on agricultural exports. Produce from the Islands frequently had to be either dumped or subject to refumigation. The cost of inspecting, isolating, cleaning, refumigating and storing containers was becoming prohibitive. A partnership between MAF and the SWIRE Shipping company resulted in setting up the Equivalent Quarantine Programme 2 (EQ2) in three Pacific Island ports: Honiara, Lae and Port Moresby. Port land was acquired, facilities built and people trained to carry out a strict cleaning, spraying and baiting programme. Provision was made for safe storage and containment of run-off to protect the surrounding environment and sea. Proper training, protective gear and safety equipment ensures good practice, worker protection and transferable skills. An efficient programme enables the use of non-persistent baits and chemicals, minimising the risk of building up pest resistance, reducing chemical use and avoiding overdosage. Regular inspections and NZ certification gives quality assurance, reducing the number of inspections necessary in NZ.

This public/private partnership has proved effective in:

- Drastically reducing (by 98.5%) contamination from unclean containers
- Saving shipping company time and costs of >\$1 million annually
- Containing environmental hazards and reducing the use of pesticides
- Developing environmentally sound infrastructure and
- Ensuring sustainable decent employment, with transferable skills, for 25 people in a number of Pacific Island ports
- Potential for further development

### Further opportunities

There is potential for EQ2 to overlap with other waste reducing and environmentally friendly programmes - NZAid's Pacific Export System Treatment (PEST) programme which proposes an organic treatment for fruit fly control which uses High Temperature Forced Air (HTFA), rather than the highly toxic methyl bromide commonly used – the fruit can be loaded straight into the clean containers without further spraying. The HTFA unit can be powered by using copra as a biofuel. Copra production is a "cottage industry" in the Pacific islands. Formerly exported as animal meal, it has since been banned as such because of the high level of aflatoxins.

### Further Information

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