



RESCCUE



ECONOMIC INCENTIVES TO CONTROL INVASIVE SPECIES

OVERVIEW OF THE RESCCUE PROJECT REGIONAL ACTIVITY

HIGHLIGHTS

- ✓ Available resources to eradicate or control invasive alien species are structurally insufficient. Therefore economic incentives are discussed internationally as a complement to more traditional policies and projects.
- ✓ RESCCUE explored a number of existing and potential incentives in the Pacific, with a focus on commercial markets, and conducted real-life field experiments in New Caledonia.
- ✓ This RESCCUE regional activity confirmed the potential of economic incentives to help eradicate or control invasives in the Pacific. Further experiments are needed and could deliver significant local benefits provided appropriate monitoring is in place and precautions are taken to avoid adverse effects.



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BACKGROUND

Invasive alien species (IAS) are a major driver of biodiversity erosion in Pacific Island Countries and Territories (PICTs). They are one of the main concerns for local communities relying on ecosystem services for their livelihoods. They also significantly hinder ecosystems' and societies' resilience to climate change.

While the resources available to governments and NGOs for controlling these species can be effective in one-off situations (on a small scale and for a short time, e.g. rat eradication on a small island), experience shows that they are structurally insufficient in face of the magnitude and pace of the problem as well as the need for continuous intervention.

The situation may seem paradoxical when compared with the predatory behaviour and virtually systematic human overuse of renewable and marketable natural resources to which access is freely granted. This results in the need to actively protect many species from overexploitation, mobilizing tremendous efforts and significant financial resources with uneven success. Put simply, people overexploit many native or endemic species that society would like to protect and under-exploit most invasive alien species that society would prefer to eradicate or, at least, control. The hypothesis on which RESCCUE's regional activity was designed was that with adequate economic and financial incentives, human exploitative behaviour could be turned, for once, to the advantage of biodiversity.

Incentives to control or eradicate invasive species include commercial markets (the species are harvested and offered for sale), recreational harvest (recreational fishing, hunting or trapping), and bounty programmes (a predetermined amount of money is paid upon evidence of collection of the species).



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If used properly, such mechanisms may represent a significant opportunity for ecosystem and biodiversity management while providing economic development opportunities and increasing environmental awareness in PICTs. However, experience shows that there are significant risks associated with their implementation, and there are several examples where the use of incentives resulted in an increased population of the targeted invasive species. Harvests also raise important social and ethical debates in some contexts and for some if not all species.

¹ See Pasko S. and Goldberg J. 2014. [Review of harvest incentives to control invasive species](#). *Management of Biological Invasions* 5(3): 263–277.

In PICTs, the issue of invasive alien species has already received significant attention through numerous publications, research and operational programmes and projects. However, harvest incentives for controlling or eradicating invasive species have been the subject of only a few experiments in the region without the adequate monitoring, evaluation and learning framework. Activities conducted by RESCCUE aimed at filling this gap while allowing the Pacific region to take a more active part in an important global conservation debate.



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AT THE REGIONAL LEVEL

The regional activity was launched during a knowledge café at the IUCN World Conservation Congress in 2016. It gathered over twenty-five participants from the Pacific region and beyond and led to the conclusion that RESCCUE should focus on one specific type of incentive to control invasive alien species: commercial markets.

A first piece of work was dedicated to the [Giant African Snail](#), which is widely spread over the Pacific and a high priority in many PICTs, with direct impacts on biodiversity, agriculture and livelihoods. RESCCUE investigated its biological and ecological patterns, the damages it causes in the Pacific, its possible commercial uses, and the way it is currently traded in various parts of the world. While a global market exists for this snail and may represent an opportunity, encouraging new local uses such as cattle feeding, aquaculture, compost and even human consumption comes up as a promising strategy to help mitigating its damages while providing economic opportunities to local communities in the region.

RESCCUE then extended the scope to the [commercial market potential of invasive alien species in PICTs](#), with a focus on the four PICTs where RESCCUE operated (Fiji, French Polynesia, New Caledonia and Vanuatu) and on the 70 invasive alien species ranked as priorities by the New Caledonia Natural Areas Conservancy (CEN). Overall, the most promising commercial market opportunities identified are the sale of bush meat for Mammals and bioenergy and timber production for Plants. A database complements the study and includes a general description of the species, a brief overview of their negative impacts on the environment, a rapid assessment of existing harvest strategies, a review of their commercial potential and/or proven commercial use, as well as associated references.



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PILOT EXPERIMENTS IN NEW CALEDONIA

RESCCUE looked for opportunities to trial some economic incentives to control invasive species in its seven pilot sites across Fiji, French Polynesia, New Caledonia and Vanuatu. Among the various possibilities identified in preliminary discussions (such as organizing a black bass fishing contest and/or an invasive species cooking contest in the Southern Province of New Caledonia), the project eventually focused on the Northern Province of New Caledonia to contribute regulating the populations of Feral pigs and Rusa deers.



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² Available upon request (jean-baptistem@spc.int)

These species have spread widely and are causing significant damage to forests, farmland and water resources, with major socio-economic impacts. RESCCUE:

- [Built the capacities and strengthened the operational capabilities](#) of a local tribal hunting association, Tipwoto, to increase hunting activities, particularly in a drinking water catchment area, while locally selling the bush meat on the informal market as a source of funding for the association;
- Tested [a lottery and individual hunting competition](#) designed to strengthen hunting activities, and evaluated its impacts and efficiency;
- Studied the possibilities of locally selling wild venison from hunts in New Caledonia as a potential hunting incentive mechanism. This [study](#), which was conducted in partnership with the New Caledonia Natural Areas Conservancy, received extensive [media coverage](#) and political attention. The Northern Province authority is now pushing the issue forward at the country level.



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