

SAVE THE MANUMEA

A National Campaign Strategy

2019-2020



Ministry of Natural Resources
and Environment
Matagaluega o le Puna'oa
Faalenatura ma le Siosiomaga



FLINCH.



SOSAIETE FAASAO
O SAMOA

**“Ufiufi a Manu Gase”
“To Cover Up Dead Birds”**

“If a pigeon sees its mate fall dead, it will drop down and cover the body with its wings, even though it should be killed also. To this the Samoans compare a brother who will rush in among enemy troops after his wounded brother even if he should be killed himself. This is meant to “stand up for a friend or relative, to help him bear his misfortune, to forgive and cover up his mistakes.”

Schultz, D.E. 1906. Proverbial expressions of the Samoans.
The Journal of the Polynesian Society. Volume 58, No. 4 1949

Cover painting by Michael Rothman

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A Manumea destined for the pot.
Photograph courtesy of Art Whistler



An Introduction from the Deputy Prime Minister

On behalf of the Government of Samoa I am proud to endorse this campaign strategy which is designed to help all Samoans work together to Save the Manumea, the national bird of Samoa.

The Manumea has significant value for our culture and our heritage, but many of our people will be unaware that this shy and cryptic bird is now classified by the IUCN as Critically Endangered, with perhaps less than 200 individuals left in our forests. There is also some poignancy that our Manumea is one of the last living relatives of the Dodo, a bird that has been extinct since 1681, but remains an icon of global conservation efforts.

This tooth-billed pigeon provides significant value for the natural ecosystems on which all Samoans depend. It uses its large beak to feed on large, native seeds that cannot be eaten by other birds. By doing this it acts as a crucial seed disperser, naturally restoring the native forest.

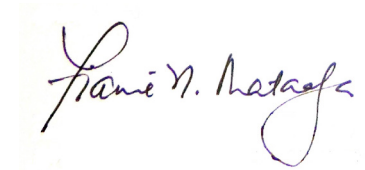
For thousands of years the Manumea has also coexisted with our people, even though it was a traditional and highly esteemed source of food. The traditional pigeon snaring was one of the most distinguished sports among the high chiefs of Samoa, but the advent of non-traditional hunting practices, such as the use of shotguns, has witnessed the steady decline of this unique and special species. The

Manumea is also threatened by the loss and deterioration of its native forest habitat and hunting has continued, despite the fact that a national ban on hunting endemic birds has been in place for many years.

The national bans on hunting all pigeons were enacted because we have long understood the value of protecting our critical native species, such as the Manumea, for our culture and our environment. But these bans, in their current form, are clearly not achieving the desired results. As a nation, we can and we must do better to protect this species which has now truly come to symbolize our changing relationship with our natural environment, our biodiversity and the ecosystem services that sustain our culture and economy. This campaign is designed to do more than simply raise awareness of the Manumea. It will ask all of us to consider changing the actions that many of us are still taking that put our national bird at risk.

I would therefore like to commend all of the six communities that have made the collective decision to do all that they can to protect the Manumea by enforcing local hunting bans on all pigeons. I also commend all Samoans who have made the voluntary decision to forego the purchase, gifting or eating of all pigeon until we can ensure that our Manumea is out of danger.

If we can all work together, we still have one last chance to ensure that our National Bird will continue to live to share its significant ecological values, unique colours and historic evolutionary existence in our islands, for current and future generations of Samoa and the whole world.



Hon. Fiamē Naomi Mata'afa
Deputy Prime Minister of Samoa and Minister of Natural Resources and Environment



Acknowledgements

The campaign team would like to acknowledge all the people and organisations who have contributed to this strategy. First and foremost, we thank the Auckland Zoo and the New Zealand High Commission who funded the strategy development. We thank all the people who provided inputs and made comments in the various consultations held at the village and national levels. We would like to express our special appreciation to the Deputy Prime Minister of Samoa, Hon. Fiame Naomi Mata'afa, for agreeing to act as a public "champion" for this campaign. Last but not least, we thank the people of Samoa for their commitment to save Samoa's national bird, our Manumea, for future Samoans to appreciate. *Faafetai tele lava mo le tou fesoasoani i lenei polokolamme taua.*



A juvenile Manumea.
Photograph courtesy of Ulf Beichle

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Campaign Summary

Taking an Integrated Approach

The Save the Manumea campaign will simultaneously work on addressing five key pressures/actions needed to support the revival of the Manumea population.

Gifting

replacing pigeon with other status gifts

Eating

increasing shame associated with eating pigeon

Hunting

supporting and monitoring locally enforced bans on hunting all endemic flying species

Buying

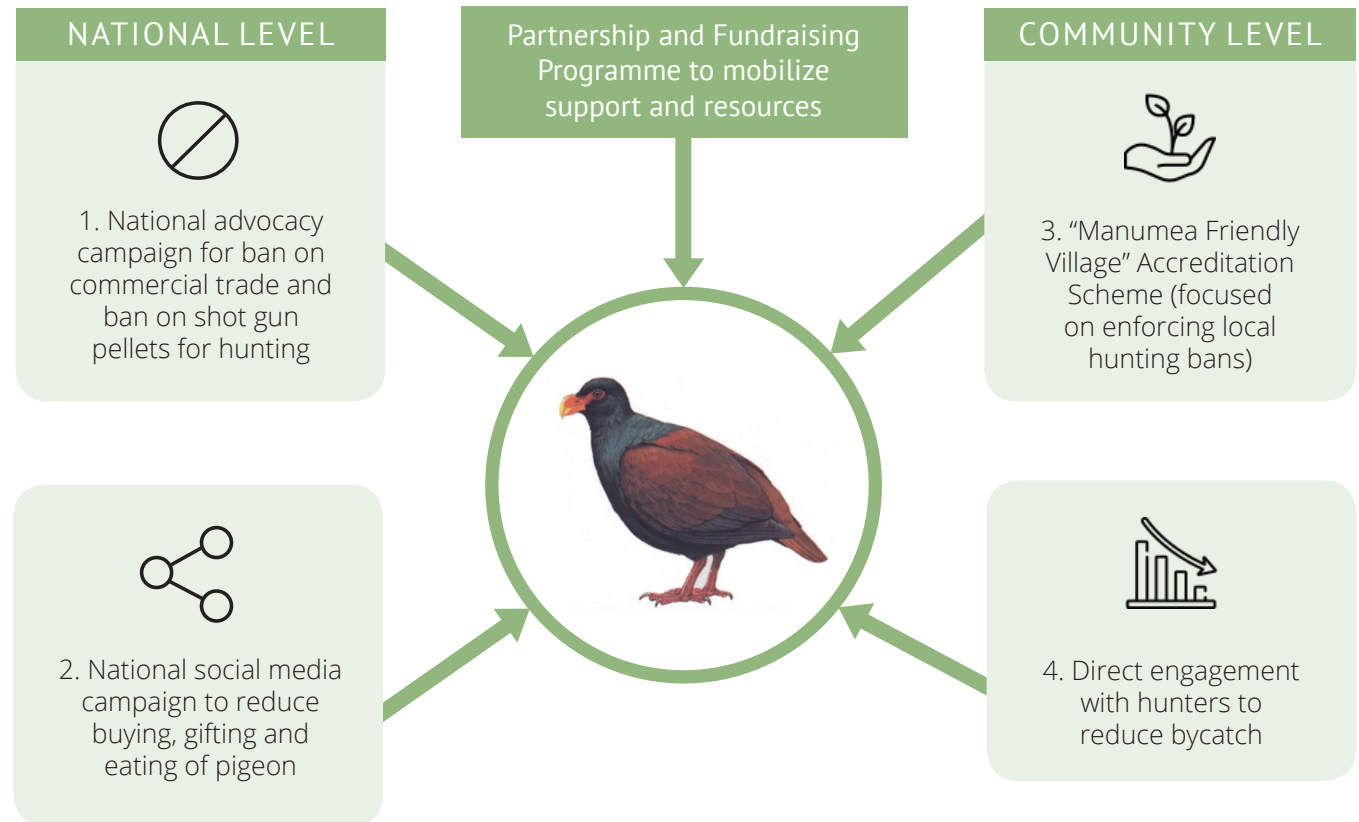
reducing incentives for hunters

Protecting

activities at the community level to directly improve habitats and remove predators (including humans)

Four-pronged campaign strategy

The campaign has been designed to address the key threats to the Manumea via four components that best support protective actions at the community and national levels.



1. Introduction

Samoa's national bird, the Manumea, is a scientific curiosity, a key player in a healthy Samoan rainforest and a cultural icon for Samoa. Unique to Samoa it is also highly threatened and at risk of extinction in our lifetimes. Without special attention it could easily go extinct like its relative the Dodo. To save the Manumea we not only have to build pride in the Manumea as a "Measina Samoa" (sacred treasure) but also, and critically, to change our behaviours. The purpose of this campaign is to identify and adopt the specific changes in behaviour that we need to take to save our national bird, before it is too late.

The USD\$135K (SAT\$350k) campaign is designed to be implemented over a 12 month period (July 2019 to June 2020) but with recommendations for follow up activities beyond this period. This budget is approximately the commercial value of pigeons that are hunted every year in Samoa.

The campaign structure is based on the use of social marketing principles that focus on the efforts needed to change damaging or harmful behaviours by understanding:

- a) What the harmful behaviours are;
- b) "Why" target audiences behave the way they do and;
- c) How the surrounding physical and social environment can be modified to help change these damaging behaviours.

Once armed with this knowledge we can endeavour to create an integrated campaign or programme that seeks to influence the adoption of more positive behaviours by utilizing four behaviour change "levers":

1. Control – enforcement or incentives e.g. fines on commercial sale of pigeons
2. Design – changing the physical environment e.g. designation of protected areas
3. Support – the provision of direct guidance from trusted people or peers
4. Information – the provision of relevant information based on genuine insight about what is most likely to influence specific behaviours such as consumption of pigeon.

It is important to note here that this proposed campaign to Save the Manumea is not simply another awareness raising campaign designed to increase a sense of pride in Samoa's national bird. Such campaigns have worked successfully in the past to increase awareness and pride in the Manumea but numbers have now declined to critical levels with perhaps as few as 150 individuals left in the wild.

The primary focus of this new campaign is to introduce enforceable and sustainable measures needed to significantly reduce the hunting, trade and consumption of all native

pigeons in Samoa by July 2020. The campaign will also be carefully integrated with the revised Manumea Recovery Plan (MRP) to ensure that the campaign supports the MRP's objectives.

The Manumea, or tooth-billed pigeon (*Didunculus strigirostris*), is nicknamed the 'Little Dodo' because it is one of the closest living relatives to the iconic extinct Dodo. The Zoological Society of London has placed the Manumea at number 16 on its list of the world's 100 most evolutionary distinct and globally endangered birds (Guardian, 2018).

In Samoa the hunting of all endemic flying species has been banned since at least 2004 (Protection of Wildlife Regulations 2004), with the threat of a WST5,000 fine. However, this regulation is not enforced and it is largely ignored at the community level. Since 1911 many attempts have been made to legally protect the Manumea and to ban hunting but its numbers have continued to decline dramatically from an estimated 5000-7000 in 1991 to possibly less than 150-200 today (Collar, 2015).

Hunting Manumea for food is a long-held customary practice but the impact of habitat loss, predators, cyclones and non-traditional hunting practices, such as the use of shotguns, has now driven the Manumea

to the brink of extinction. It is now believed that the bird is restricted to only a few areas including the following six villages/districts:

On Savaii:

- Aopo
- Salelologa

On Upolu:

- Falease'ela/Matafaa
- Uafato/Tiavea
- Malololelei
- Aleipata islands and highlands (Aleipata District)

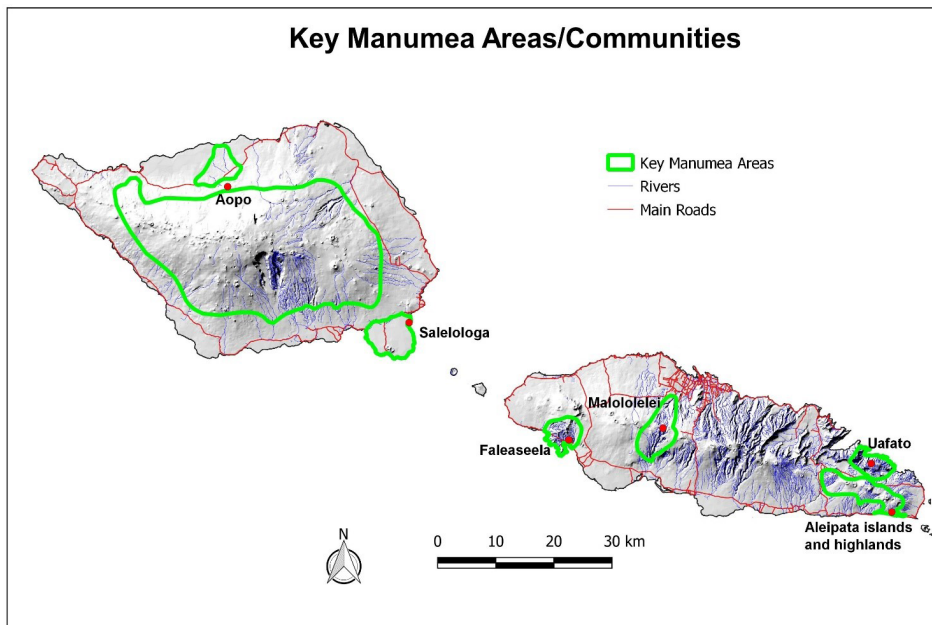
In key villages such as Uafato and Faleaseela there is already a high level of community support and commitment towards implementing greater local efforts to protect the bird. Several key leaders in these villages now recognize that they are the final protectors and custodians of Samoa's national bird. Efforts have already been made to enforce local hunting bans and there is a strong appetite for implementing more activities, such as pest control and restoration of native forest.

At the national level efforts to enforce a ban on hunting native birds and flying foxes has proven almost impossible to enforce. Every year it is estimated that around 100 hunters (Stirnemann, 2017) kill approximately 25,000-33,000 pigeon (Lupe) (Government of Samoa, 2014) and we know that Manumea are still killed as by-catch from the use of shotguns (Serra, 2017). While there are only a small number of hunters, most Samoans connect with pigeon as traders (buyers, sellers, givers) and consumers.

Therefore, given this information, the three primary objectives of this 12-month behaviour change campaign are to:

1. Support local efforts to protect the Manumea in six targeted native rainforest areas customarily controlled by villages including the ban on hunting pigeons within the conservation areas;
2. Gain support for an enforced 1-year national moratorium on the commercial trade of pigeon before the start of the October-December hunting season in 2019 (with the possibility of extension should it prove successful);
3. Reduce demand for buying, gifting and consuming pigeon.

This document is designed to provide an overall framework to help key partners from the Ministry of Natural Resources



and Environment (MNRE) and the Samoa Conservation Society (SCS) to engage with potential funders who may wish to support campaign efforts at the community and national level.

While some funding support has been pledged by partners for the campaign, the campaign is seeking further funds for design, research, testing and implementation. Therefore, this document has been specifically designed to provide a broad strategic framework for fundraising and plan implementation based on existing data and consultation with key stakeholders. A more detailed budget and implementation plan will be developed based on the needs of specific donors and partners at the national and community levels.

This strategy must be treated as an iterative document that will be continually updated as more work is undertaken to mobilize resources, determine project management arrangements, secure dedicated staff and to undertake the required research and testing needed to finalize all campaign messages, activities and partnerships prior to the official launch of the strategy in July 2019.

In order to be successful this campaign strategy will require significant ownership and decision-making by key leaders at the community and national levels. A key purpose of this overall framework is to provide these leaders with the information and context needed to help inform this decision-making process.

Process behind campaign strategy development

Funding for the development of this campaign strategy has been provided to the Samoa Conservation Society by the New Zealand High Commission in Samoa.

The campaign strategy has been prepared by the “Save the Manumea” campaign team which includes:

- Project Team Leader: Moeumu Uili, Ministry of Natural Resources and Environment (MNRE);
- Deputy Team Leader: Czarina Iese Stowers, MNRE;
- Team Member: James Atherton, Samoa Conservation Society (SCS);
- Team Member: Steve Menzies, Flinch Marketing.

The initial draft strategy was produced as an outcome of the National Manumea Protection Campaign Workshop which was funded by Auckland Zoo with the support of the Samoa Conservation Society and hosted by MNRE in May 2017. The stakeholders in this workshop included representatives from: local communities of Uafato-Fagaloa who are already working to protect the Manumea; Samoa's Ministry of Natural Resources and Environment; the Samoa Conservation Society; the Secretariat of Pacific Regional Environment Programme (SPREP); Auckland Zoo; the Samoa Shooting Association, and the Samoa Ministry of Police.

This final strategy was endorsed by MNRE and its partners following a further series of consultations with village (Uafato and Faleaseela) and national stakeholders in March, 2019. The feedback from this consultation process informed several key changes to the initial draft strategy such as the focus on efforts to restrict the commercial sale of pigeon and efforts to directly support protection efforts by those key local communities that live in the six key areas where the Manumea is still thought to live.

This strategy also builds on over 20 years of Manumea conservation efforts by Samoa's Ministry of Natural Resources and Environment together with a number of local, regional and international partners. There have also been a number of awareness and education programs completed for the Manumea including: a campaign in 1994 with the support of Paul Butler and RARE Social Marketing (www.rare.org); the 2006 Regional Natural Heritage Programme (RNHP) Manumea and Maomao Conservation Project; the selection of the Manumea as the mascot for the 2007 South Pacific Games; and the 2013 Conservation Leadership Program (see references).

The campaign team is indebted to Gianluca Serra and Rebecca Stirnemann for their audience research projects into the hunting and consumption of Manumea which have informed the core rationale behind this Campaign Strategy (see references). Long-distant support has also been provided by

Dr Ulf Beichle from Germany and the New Zealand company, Ocular, which generously donated its time to create an animated 3D model of the Manumea to support ongoing consultation and communication efforts.

The campaign team is extremely grateful for the support and advice provided by the Deputy Prime Minister, the Hon. Fiame Naomi Mata'afa, who has kindly agreed to act as a public "champion" for this campaign.



A computer generated 3D animation of the Manumea has been used to stimulate discussion with target villages

2. What is the problem?

- The Manumea is now Critically Endangered (Collar, 2015) and there are estimated to be less than 200 birds left. In the late 1970's and early 1980's the Manumea was still relatively common and easy to see.
- The Manumea's preferred habitat is least modified lowland forest areas where it uses its large beak and mouth to feed on large seeds such as those of Maota (*Dxsoxylum* sp.) that cannot be eaten by other birds – thus acting as a crucial seed disperser, replanting and maintaining the forest (Collar, 2015).
- The Manumea has been impacted by large scale human destruction of native forests starting in the 1970's, major cyclones in the early 1990's and the spread of predatory invasive alien species including cats and rats (Collar, 2015).
- A key threat to the small remaining numbers of Manumea is the risk of being mistakenly or even intentionally shot by hunters who use shotguns to hunt other, more common pigeons especially the Lupe (*Ducula pacifica*) (Serra, 2017).
- Eighty four percent of the experienced/ reliable hunters interviewed by Serra have seen the Manumea either recently or sometime in the past (Serra, 2017).
- Lupe, despite being the main target for all Samoan bird hunters, is still relatively common in Samoa (Serra, 2017)
- In the 1990's there was a suggestion to change the common name from Manumea to Manuma, which means “shy bird” in the Samoan language (Serra, 2017)
- Manumea only breeds once a year, gives birth to one or possibly two hatchlings, nests in sites low on the ground with incumbent high risks of predation and is also threatened by habitat loss and natural disasters (Collar, 2015).
- The behaviour of the bird is often described as highly cryptic and this could be a reflection of a shift of the bird's behaviour induced by increased hunting pressure in recent decades (Serra, 2017).
- Breeding Manumea in captivity is considered problematic because of its low numbers and reports of difficulties encountered from previous attempts to maintain captive birds (Collar, 2015)

Community Management

- The majority of land in Samoa is under customary ownership and over the past two decades there have been a number of local consultations about the need to protect the Manumea (Uili, 2014).
- The Uafato-Fagaloa representatives present at the Campaign Planning Workshop in May 2017 revealed that Uafato village council currently enforces a moratorium for hunting on any flying species with a fine of SAT\$1000.
- The Faleaseela community clearly explained their full commitment to manage their ridge to reef conservation approach with forest restoration programs and a village ban on hunting pigeons with a fine of SAT\$500.
- Target villages also need to find effective ways to deal with hunters coming in from neighbouring villages and the impacts of wealthier people from Apia who are ordering Lupe directly from hunters (pers. comment, Stirnemann).





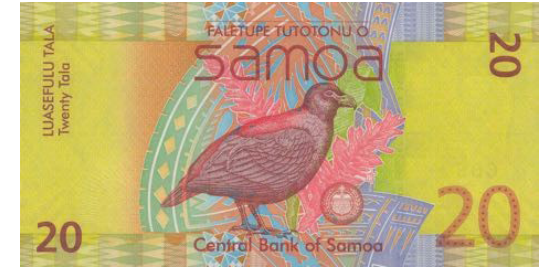
A 2005 painting of the Manumea
by Gordon Bennett

National Management

- A 2006-2016 Recovery Plan for the Manumea (MNRE, 2006) was developed but only a few of its recommendations have been implemented. This recovery plan is currently being revised and updated.

Previous Campaigns

- Manumea was selected in the mid-1990's as the "national bird" of Samoa, featuring on the 20 tala note and the 50 sene coin.
- Several campaigns have helped to raise awareness of the Manumea but they have failed to halt the decline in Manumea numbers.
- More recently the "Save the Manumea" campaign team have worked to generate significant media coverage via BBC World, TVNZ and the Guardian newspaper.
- As part of this work campaign partner, Ocular Design, from Wellington, New Zealand, created a computer generated 3D animated model of the Manumea that was shown to hunters and further refined based on their feedback:
<https://drive.google.com/drive/folders/1PI23pClhgmmxcLEqMtAyApBautGAawOv>



- Rebecca Stirnemann and Jane Vaafusuaga have also helped to generate more awareness with the recent publication of the children's book titled: "Mose and the Manumea" (Va'afusuaga and Stirnemann, 2018).
- Every year annual events such as Biodiversity Day and Environment Week, which are coordinated by MNRE, have conducted competitions for traditional theme songs, posters, costumes or skits to help raise awareness of the Manumea.

Current perceptions/beliefs

- None of the 30 hunters and 10 consumers surveyed by Stirnemann believed that the Pacific pigeon population was over-harvested or that hunting was impacting Manumea populations (Stirnemann, 2017).
- Most hunters interviewed by Serra believe Manumea has declined during their lifetime but most blame major cyclones of the early 1990s as the main cause. However nearly 50% of hunters admitted having accidentally killed at least one in their career (Serra, 2017).

Hunting

- The hunting of all endemic flying species has been banned since 2004 with the penalty of a WST\$5000 fine. However, the hunting, sale and consumption of the Pacific pigeon (Lupe) is widespread.
- It is estimated that approximately 73–114 hunters are actively shooting pigeons for sale (Stirnemann, 2017).
- Some “commercial” hunters in rural areas are effectively commissioned by wealthier members of the community to hunt Lupe for consumption and gift giving (Stirnemann, 2017).
- Sixty percent of hunters gifted pigeon meat to people within the community, such as pastors, church leaders, high chiefs and older family members. Pigeon meat is considered a valuable gift due to its flavour and high market price (Stirnemann, 2017).
- Most hunters believe October-December is the preferred season for hunting because of the important religious celebrations of White Sunday and Christmas. This is also the time of the year when Lupe is apparently “fatter” and thus tastier because of its habit of feeding on seasonally abundant fruiting trees (Serra, 2017).
- It is reported that the call of the Lupe and the Manumea is very similar and this together with the fact that the Manumea tends to hide in thick vegetation makes it difficult to observe (Serra, 2017).
- There is a concern that inexperienced hunters may indiscriminately kill all large birds (including Manumea) they see through the forest canopy in the hope of taking a Lupe. (Serra, 2017)
- Restrictions on sale/use of shotgun pellets/bird shot could possibly have the greatest impact on reducing Manumea by-catch (Stirnemann, 2017).
- There are anecdotal reports that elite groups shoot pigeons in the wild for fun (anonymous).



Pigeon feathers and shotgun shells.
Photograph courtesy of Rebecca Stirnemann

Trade & Consumption

- Lupe is considered to be a delicacy and it is widely consumed. According to a survey of 221 people undertaken in 2006 over half had eaten pigeon (Stirnemann, 2017).
- Analysis of the Household Income and Expenditure Survey (HIES) by Rebecca Stirnemann suggests that approximately 22,000-33,000 Lupe are consumed each year in Samoa (Stirnemann, 2017).
- Pigeons are sold for around 15 tala per bird which makes it the most expensive meat on the island (Stirnemann, 2017). By comparison an uncooked local chicken costs around 5 tala (James Atherton pers. comm.).
- Most pigeons are sold directly by hunters to regular customers and the total yearly trade is believed to be worth around USD\$130K (SAT\$340K) (Guardian, 2018).
- One of the key findings from Stirnemann's research is that 80% of Lupe is consumed by the wealthiest 40% of the Samoan population – and the wealthiest 10% of Samoans consume nearly 50% of all pigeons (Stirnemann, 2017).
- All hunters and consumers interviewed by Stirnemann said the meat of the Manumea was not very appetizing and therefore not commonly consumed (Stirnemann, 2017).
- Serra said there are varied opinions on the palatability and taste of the meat of Manumea among hunters with two describing it is as on a par with Lupe, while three others said it does not taste as good because it is "oily" (Serra, 2017).
- Most hunters interviewed by Serra stressed the fact that wild meat is used only for special occasions. However, some admitted that they have sold birds to wealthy people from Apia and nearby resorts or even to the local church (Serra, 2017).

3. Key Barriers & Assumptions

This campaign strategy is based on an acknowledgement of the following key barriers and assumptions.

Strategic/Operational:

- Urgent action is required. We need to focus our efforts on key target audiences and behaviours that are the source of the main risks to the Manumea;
- The campaign has received indicative funding support from the MNRE's Strengthening Multi-Sectoral Management of Critical Landscapes in Samoa (SMSMCL) project for approximately USD\$35k to support the national social media campaign, awareness signs in Manumea friendly villages and support for village hunting bans;
- The campaign can potentially access funding and support from other sources, such as Auckland Zoo, BirdLife International and the New Zealand Department of Conservation, if these potential funders/supporters are presented with a clear rationale for how the campaign will help to protect the Manumea;
- The campaign currently has no project management or governance systems in place needed to support the design and implementation of the campaign;
- The campaign also currently lacks a dedicated National Campaign Coordinator who can work to support the implementation of campaign activities at the community and national levels.
- The MNRE's Division of Environment & Conservation (DEC) will provide an information paper to support efforts to approve necessary amendments to the wildlife regulation in order to enforce local hunting and national trade bans;
- This proposed 12-month campaign is only the start of what must necessarily require a longer-term effort to return the Manumea population to sustainable levels;
- We need to find effective ways to measure the impact of the campaign in the short and long-term by:
 - o Independently verifying the effectiveness of local hunting bans in the six key areas;
 - o Repeating the survey of household pigeon consumption in a statistically valid way;
 - o Directly determining the impact of the campaign on bird numbers.





Community Level:

- We need to take urgent and immediate action to support community-based activities to protect the Manumea in those six key areas where the bird is still thought to exist;
- We should focus on supporting total pigeon-hunting bans in the six target areas together with specific community-based activities designed to reduce predators (rats and cats), restore native forests and promote ecotourism activities related to the protection of the Manumea;
- Despite the ineffectiveness of the national hunting ban every effort should be made to actively work directly with hunters to try and avoid any risk of by-catch;
- We should focus on efforts to promote awareness and pride in those key communities that want to become accredited as “Manumea Friendly Villages”. Any such accreditation scheme must clearly link community-based activities to protect the Manumea to increased economic benefits via increased promotion efforts focused on international and local tourist visitors;
- We do not currently know how effective or enforceable local hunting bans are. We would need to see direct evidence of fines or other indicators such as decreased household consumption;
- It is vital that the campaign doesn't simply require villages to impose local bans without providing additional means to ensure that the ban is being enforced, monitored and supported by more proactive activities at the community level e.g. trapping rats, planting native trees, developing village-based eco-tours etc;
- More work is needed to understand how existing regulations and local bylaws can be modified to support key campaign objectives to: ban trade in pigeon; enforce local hunting bans and support changes to the national availability and sale of high-risk ammunition.

National/Consumer Level:

- The campaign team accepts that it will be too difficult and perhaps culturally unacceptable to try to enforce the existing national ban on hunting native birds, but it will be more effective to focus on supporting local hunting bans in key areas where the Manumea is still thought to exist;
- Most Samoans connect with pigeon as consumers and the Lupe is highly valued as a food and as a status gift;
- We lack detailed information about who the main consumers are and what they currently feel about eating Lupe;
- There is an assumption that most consumers are more likely to be community leaders who are older, male and more affluent;
- Many people feel the Lupe is still abundant and may be likely to resist a ban on hunting or trading Lupe;
- Currently eating Lupe is likely to be guilt-free action with no direct connection to the by-catch risk posed to Manumea. There is no embarrassment or “shame” attached to the act of buying, gifting or eating Lupe;
- Broad efforts to focus on promoting general public pride in the Manumea or to educate school children about the benefits of protecting the Manumea are unlikely to prevent the short-term likelihood of the bird becoming extinct in the next 5-10 years;
- Most people are likely to be bored/disinterested by campaign messages that focus on environmental benefits when they are focused on meeting their immediate daily food and economic needs;
- Some people may now feel that the Manumea is beyond help – or too costly to try and save;
- It may be more effective to use humour as a way of engaging the wider population before introducing efforts to increase awareness of complicity in the demise of the Manumea by highlighting the risks posed by hunting by-catch and the shame associated with personal contribution to the likely extinction of the national bird;
- The role of pride versus shame in influencing behaviour in Samoa needs to be tested; for example, are the public more likely to be motivated by pride to reject eating pigeon meat in order to save the national bird, or more by shame that eating pigeon meat may endanger the national bird or will promoting both emotions be most effective?
- More audience research and testing is needed to inform the development of key messages for communication via social media and other media platforms such as radio and TV;
- It is extremely difficult to sight the Manumea so the campaign needs to find effective ways to promote the image of the bird in a compelling and consistent way across all campaign signage and collateral. At the moment there are many different representations of the Manumea that are often confusing and inconsistent;
- The campaign would benefit greatly from one clear, consistent and symbolically powerful representation of the bird;
- It is extremely difficult to sight the Manumea so the campaign requires creative and highly visible ways to demonstrate success/progress.

4.Campaign Objectives, Targets & Audiences

The primary objectives, targets and audiences for the campaign are as follows.

Objective	1. Mobilize funding and support needed to develop and implement the campaign 2. Support and promote local efforts to protect the Manumea in six targeted native rainforest areas customarily controlled by villages – primarily by supporting efforts to enforce local bans on hunting all pigeons and flying foxes 3. Gain support for an enforced 1-year national ban on the commercial trade of pigeon before the start of the October-December hunting season in 2019 (with the possibility of extension should it prove successful) 4. Reduce public demand for buying, gifting and consuming pigeon
Campaign Target	Secure funding to launch the campaign in July 2019 Local hunting bans are passed and enforced in six target villages by October 2019 National ban on the commercial trade in pigeon is in place by October 2019 together with mechanisms for enforcement Reduce the estimated number of pigeons consumed by households from 2013 levels by 25% by the end of the campaign period
Audiences	• Key decision-makers within MNRE • Key funders including Auckland Zoo, the New Zealand Government, Birdlife International, private businesses in Samoa and overseas • Village leaders in the six target areas • Village communities in the six target areas • Hunters who operate in these areas • Police who may be required to assist with enforcement • Tourists who want to visit “Manumea Friendly Villages” National decision-makers/policy makers Primary consumers of pigeon (more work is required to segment this audience and understand the key drivers behind consumption and the opportunities to reduce it)

4.1 Campaign audiences and behaviour changes sought

The campaign audiences, desired behaviours and likely drivers of desired behaviour are shown below.

Audiences ▼	Desired actions/behaviour ▼	Likely driver of desired behaviour ▼
Target villages	• Enforce hunting ban • Manumea conservation activities (rat/cat control, forest restoration, monitoring)	• Village pride • Sustainable income & environment
Pigeon Traders	• Stop commercial exchange (sale/trade)	• Threat of penalty if caught
Pigeon Consumers	• Think twice about eating pigeon	• Shame and/or Pride
Pigeon Hunters (approx 100)	• Actively support protection efforts for Manumea	• Income • Sustainability of the resource?
Tourists & Visitors	• Support “Manumea Friendly” villages	• Possibility of seeing Manumea • Supporting/rewarding local conservation efforts
Police	• Enforcement of sales ban and ammunition restrictions	• Enforce the law
National decision-makers	• Support trade ban • Endorse Campaign Strategy • Mobilize resources • Enforce sales ban and ammunition restrictions	• Popular support • Sustainable income and environment • Supporting/rewarding local conservation efforts
Donors/funders/partners	• Support the campaign either by providing funds, technical advice or other resources	• Desire to save an iconic species • Desire to support local conservation efforts in Samoa • Promotion of organisation, business or fund

5. Campaign Strategy

This campaign utilizes an integrated social marketing framework that is specifically designed to:

- a) Reduce the impact of negative human behaviours on the Manumea, primarily hunting pigeon with shotguns and the increased potential for by-catch and the wider trade and consumption of pigeon;
- b) Increase alternative behaviours such as eating chicken or other foods instead of pigeon – or finding alternative gifts with similar status levels;
- c) Increase positive behaviours that may help to support the recovery of Manumea habitats and the bird itself e.g. planting native trees that provide its preferred habitat and food source, reducing predators such as rats and cats.

Social marketing campaigns focus on the integrated use of 4 main behaviour change “levers” that influence both individual behaviours and the social/physical environment that enables these behaviours to be maintained. It is critical here to note that communicating effective messages is just one part of the “integrated” social marketing approach.

1. CONTROL – Regulation or incentives

- Local hunting bans
- National ban on pigeon trade
- National ban on ammunition that is likely to result in by-catch

2. DESIGN – Changes to the physical environment

Creation of clearly designated Manumea protection areas where communities can:

- Manage the eradication of invasive predators;
- Restore preferred Manumea habitat/food sources;
- Encourage ecotourism opportunities

3. SUPPORT – Direct guidance from trusted peers/leaders

- Village leaders publicly commit to local hunting bans and other actions required to become accredited as “Manumea Friendly Villages”
- Senior/influential hunters are recruited to advise and spread key shooting practices designed to reduce risk of by-catch
- Church/community leaders publicly commit to not eating pigeon in an effort to protect the Manumea

4. INFORM – Communicating messages that are relevant to each audience/behaviour

- Use humour to engage the audience in thinking about replacement options for gifting/ eating pigeon e.g. Don't Eat Pigeon. Eat Chocolate! - or Eat Chicken! etc
- Build pride in becoming a “Manumea Friendly Village”
- Increase shame/embarrassment in eating pigeon and putting the Manumea at risk
- Discourage eating pigeon at community/church events
- Increase concern/fear in contributing to the final extinction of Samoa's national bird

The Save the Manumea Campaign is divided into a series of distinct stages including:

1. Mobilizing Support

2. Community-based Protection

3. National Regulations

4. National Social Media Campaign

Stage 1: Mobilizing Support

The first stage of the campaign involves mobilizing support from key decision-makers and partners, raising funds and creating the mechanism required to manage the development and implementation of the campaign.

We are extremely fortunate that the Hon. Fiame Naomi Mata'afa, the Deputy Prime Minister of Samoa, has offered to be the key high level "champion" for the Save the Manumea Campaign. During the campaign development and implementation process every opportunity will be taken to secure her guidance and participation in key components of the campaign. This will be particularly important in relation to national level objectives related to restricting commercial trade in pigeon and modifying rules around the use of ammunition for hunting.

In order to manage, develop and deliver this 12-month campaign we estimate that the target budget of USD\$135K would need to be split about 50/50 between community-based activities and the national media and advocacy

campaign. The initial stages of the campaign will focus on finalizing the plan and mobilising the resources and partnerships needed to undertake campaign activities. Several organizations have already indicated they may be able to allocate funds and resources for specific campaign activities.

One of our priority actions will be to support the appointment of a fulltime Campaign Coordinator who can work to support activities at the community and national levels. MNRE has indicated that they may be able to support the recruitment of a Campaign Coordinator who will be fully dedicated to the development and management of the campaign. This person should have extensive skills in marketing, social media and managing partnerships with key stakeholders.

It may also prove necessary to recruit an additional person to manage all the campaign activities at the community level in the six target areas. This support person could potentially be recruited directly from one of the more active communities such as Faleaseela or Uafato.

MNRE needs to urgently create a project management arrangement for the campaign that meets its own management, governance and reporting requirements. Ideally the campaign will be managed by a fulltime employee with the support of a campaign team that includes representatives from key partner organizations such as the Samoa Conservation Society and representatives from the key communities.

The campaign team should also report monthly to a Steering Group that includes key senior representatives who can provide the team with ongoing advice, guidance and support. Ideally this Steering Group would be chaired by the CEO of MNRE.

The project team is already working to ensure that the campaign strategy is developed in close consultation with key stakeholders and community leaders. However, it is now critical that clear systems are put in place to effectively manage the resources required to finalize the ongoing development and implementation of the campaign.

Fundraising Opportunities

As noted, the campaign has received indicative funding support from the MNRE's SMSMCL project for around USD\$35,000 to support the national social media campaign, awareness signs in Manumea friendly villages and support for village hunting bans.

The campaign team has already developed a range of further targeted partnership and sponsorship opportunities specifically designed to help mobilize awareness of the campaign and the additional resources needed to develop and implement the campaign. The new Campaign Coordinator will be required to manage these fundraising and stakeholder engagement activities.

It is intended that additional funding will be raised from the following activities and will be used to support the research, development, production and dissemination



Wellington Chocolate Factory, supporting an awareness and fundraising activity involving the auction of 200 Manumea gift baskets using organic Samoan cocoa beans

of social media messaging for the national campaign. A social marketing firm will need to be hired to manage the design and implementation of these fundraising activities including audience research, concept development and testing. Ideally the National Campaign Coordinator will be able to call on the support of appropriate members of the campaign team and Steering Group throughout the development and implementation of the campaign.

Wellington Chocolate Factory

Gabe Davidson, the owner of Wellington Chocolate Factory, has very kindly offered to support the campaign by producing 1000 chocolate bars with eye-catching artwork to be auctioned off to raise awareness and funding to support the campaign. Each of these limited edition bars will be divided into 200 gift baskets including a framed print of the Manumea clearly marked with a number from 1-200 to represent each of the 200 Manumea still thought to exist in the wild. Sixty kilograms of Samoan cocoa (koko) beans are required to produce the final chocolate bars at a cost of USD\$600 (NZD\$900@ NZD\$15 per kilogram). The Samoa Conservation Society funded the supply of the first 20kgs and Saleimoa Va'ai from Savai'i Koko generously donated the remaining 40kgs to the campaign. The campaign team will also endeavour to contact Dwayne "The Rock" Johnson to sign these limited edition bars in order to raise awareness of the campaign and to add value to the bars.

It is hoped that the 200 baskets will be auctioned off for a minimum of NZD\$50 per bar for a total amount of NZD\$10,000 (USD\$6,600).

Social media advertising examples have already been produced for this initiative free of charge by Flinch Marketing and there are plans to produce additional social media ads potentially involving the Deputy Prime Minister and other high profile Samoan celebrities. One possible concept is to film these people clearly eating/enjoying the chocolate bars while someone off camera says: "What are you doing?" with each of the celebrities then saying with a knowing smile: "I'm Saving the Manumea" – before cutting to details on how to bid for one of the bars online.

Manumea Murals

Tuiafutea Olsen Va'afusuaga, Project Manager for FEPS, with local SCS and MNRE partners, has been working together with internationally renowned artists, Charles and Janine Williams from New Zealand, to paint murals of the Manumea. These artists will collaborate with Samoan artists to paint these murals on buildings in Apia, Salelologa and elsewhere in Samoa. This initiative will provide a perfect opportunity to raise awareness of the Save the Manumea campaign and potentially help to create a dynamic and engaging image of the Manumea that can be replicated and used on other campaign content.



Stage 2: Community-based Protection

The “Save the Manumea” campaign needs to start first at the community level by working directly with those communities in the six target areas where the Manumea is still thought to exist. The community-based campaign will be divided into two key activities:

Hunter Education Programme

The campaign will work directly with the relatively small group of approximately 100 “regular” hunters, many of whom have already been directly identified by Serra and Stirnemann. The campaign team will work with the Police to carry out workshops with these groups of hunters designed to:

- a) Clearly highlight those six key areas that have now been designated as Manumea Protection Areas, where there is a ban on any hunting of all endemic flying species (including the Lupe and Flying Foxes) and what the penalties will be for anyone caught hunting in these areas;
- b) Highlight the national objectives of the campaign including the introduction of regulations on the sale of shotgun cartridges and .22 rim-fire ammunition that are likely to result in by-catch risks – as well as the national moratorium on the commercial trade in pigeon;
- c) Seek advice from hunters on the best way to minimize by-catch risks;
- d) Discuss the cultural importance of traditional hunting practices and the critical role that they play in protecting the Manumea from extinction.
- e) Identify any possible options to replace livelihood earnings with sustainable alternatives.

“Manumea Friendly Village” Accreditation Scheme

The “Manumea Friendly Village” Accreditation Scheme will form the cornerstone of the campaign to protect the Manumea. This accreditation should be provided by MNRE, in collaboration with the Samoa Conservation Society, following independent and consistent checks to ensure that each village meets the accepted requirements.

A key measurable objective for this campaign would be the number of target villages that achieve the status of a “Manumea Friendly Village” as endorsed by MNRE and the Samoa Conservation Society. Any certified village would receive a large community-based sign and be promoted to tourists as a preferred location for eco-tourism activities via the Samoa Tourism Authority, Samoa Airways and other key campaign partners.

The campaign team will work closely with all the communities in the six target areas to develop criteria for the Accreditation Scheme, with a primary focus on the most appropriate and effective way to enforce the local ban on hunting. The other criteria may focus on efforts to reduce predators, rehabilitate the Manumea’s favoured habitats or even monitor counts of other indicative native species. This work could include efforts to replant native species the Manumea is known to prefer eating, such as Maota (*Dysoxylum* species).

This scheme will provide a highly visible way to demonstrate the key actions that are being taken at the local level to protect the Manumea. It will primarily serve to clearly highlight that the hunting of any native species is prohibited within these designated areas that are under the custodianship of the participating villages. It will also provide a clear way to reward those villages by promoting their efforts to tourists, visitors and funders.

The campaign team is already working with a range of partners to identify mutually beneficial opportunities to preserve biodiversity and protect natural heritage at the community level. As noted the campaign team is working with the GoS-UNDP-GEF Strengthening Multi-Sectoral Management of Critical Landscapes in Samoa (SMSMCL) Project to identify specific opportunities to support elements of the “Manumea Friendly Village” Accreditation Scheme such as local signage, tourist trails and even the possibility of funding a Community-based Coordinator for the campaign.

Other partners such as Auckland Zoo, the New Zealand Department of Conservation and BirdLife International are more likely to support community-based activities that are directly designed to protect the Manumea such as: predator control and reforestation or ecotourism and community education programmes. The accreditation scheme will provide a clear and consistent framework to enable the campaign team to seek funding or in-kind support from these different partners.

The campaign team will also identify opportunities to highlight success stories via local and tourist-focused media and to share best practices via community exchanges. The “Manumea Friendly Village” Accreditation Scheme is likely to work best if key leaders from each of the six target areas are encouraged to share ideas and speak directly with the media, national decision-makers and funders about their efforts to protect the Manumea and its habitat.

It is highly recommended that the campaign team work to develop at least three separate opportunities for all the key people from the six participating communities to come together during the course of the campaign to share updates on their efforts, successes, challenges and lessons-learned from their work to implement and maintain the “Manumea Friendly Village” Accreditation Scheme.

The visual signs associated with being an accredited “Manumea Friendly Village” will also make it easier for tourists and funders to actively support community development activities such as ecotourism or organic agricultural activities that may be seen to provide alternative income generation options in place of hunting pigeon.

The community level campaign should focus on allowing communities to develop their own innovative solutions. Support provided from external partners, such as Auckland

Zoo, could also help to provide communities with practical guidance and support for pest control and habitat restoration.

While the initial campaign is restricted to these six target areas the hope is that the programme will create a halo effect where neighbouring villages may also want to adopt similar local bylaws and approaches. This halo effect could be further facilitated by encouraging the target villages to invite neighbouring villages to observe, participate or advise on local campaign and conservation efforts.

Stage 3: National Regulations

MNRE will support efforts to secure a national 12-month ban on the commercial trade of all pigeon under the existing legislation "*Protection of Wildlife Regulation 2004*". The MNRE's Division of Environment & Conservation (DEC) will be required to advise on necessary amendments to the wildlife regulation in order to enforce any national ban on trade and the specifics around viable penalties, enforcement and monitoring of this ban.

Village commitments to enforce ban on shooting wildlife in particular flying species endemic to Samoa must be strongly enforced and freely guided by the environmental laws of Samoa with the support of key relevant stakeholders such as MNRE and Ministry of Police.

At national level we also need to advocate for the new regulations needed to ban or regulate (terms to be determined) the sale of shotgun cartridges and .22 rim-fire ammunition by October 2019.

It is worth noting here that a series of recent gun amnesties, including one in October 2018, which has enabled the Samoan police to collect hundreds of unlicensed guns. This successful activity demonstrates the ability for government and the police to affect changes which could benefit conservation of threatened flying species and enforcing the current ban on hunting flying endemic flying species.

Stage 4: National Media Campaign

The campaign team will develop, test and implement national social media & media campaign that is primarily designed to reduce trade, gifting and consumption of pigeon. While this would be the primary focus the campaign would still also need to support the following activities:

- Increase general awareness and support for the overall campaign with partners and media
- Provide support to promote the "Manumea Friendly Village" Accreditation Scheme
- Support advocacy efforts for new regulations on ammunition and trade
- Manage risks and issues as they arise.

Depending on the available budget from fundraising activities, a social media firm will be hired to work closely with the new Campaign Coordinator to develop a campaign that is primarily designed to influence the consumers of pigeon (please refer to the behavioural theory section in the Appendix).

We plan to test a combination of different messages in order to determine the best way to engage with consumers of pigeon and to encourage them to reflect on the potential risk that hunting pigeon is having on the last few remaining Manumea.

The campaign will develop a standalone "Save the Manumea" Facebook page and possibly a standalone website. These digital platforms will be used to help test out various message concepts prior to any investment paid advertising via social or traditional media (TV, Radio, print, outdoor).

For example, humour could be used as a way of engaging attention before following up with messages focused on "shame" associated with the increased risks posed by eating pigeon or "pride" associated with actively taking efforts to protect the National Bird. We could also test ideas around fear or sadness associated with the possibility that the Manumea could likely become extinct on our watch – unless we take urgent action.

It may also be useful to help people to consider alternatives to eating pigeon. For example, one concept could involve a middle- aged man hungrily/messily eating chicken with his bare hands while looking directly at the camera. Off camera a voice in Samoan could be heard saying: "Bro – what are you doing?" followed by the reply from the eating person, half smiling and saying: "I'm saving the Manumea!!" Cut to accompanying titles and another voiceover from off-screen saying: "Help Save the Manumea" – "Eat Chicken Instead!!".

If we can confirm that the main consumers of pigeon are wealthier, male leaders then we may need to develop messages that

specifically address or highlight the perceived consistency of their role as community leaders against their current behaviour as the main consumers of pigeon. These messages could help to increase the “cognitive dissonance” needed to help these leaders modify their own behaviour and then publicly lead by example.

Ideally the campaign should also provide opportunities for members of the public to sign an online pledge making a public commitment not to purchase, eat or gift pigeon over the course of the 12-month ban on commercial trade.

The first stage of the research and development process will involve designing a public survey that will be designed to gauge awareness, understanding/attitudes and reported behaviour (related to trade and consumption of pigeon). The process of developing this survey tool will help the campaign team to carefully consider key baseline indicators and opportunities to identify and engage with the primary segment (regular consumers of pigeon).

The next stage will involve running a series of focus groups and individual interviews with members of the target audience segment in order to determine their key motivations/drivers for eating pigeon, opportunities to reduce this motivation and insights into how best to engage with this audience. These focus groups and interviews will also be used to test a range of initial message concepts before they are trialled online via the Facebook page. The most successful online concepts may be adapted and

refined for use via paid advertising platforms on social and traditional media.

The campaign team will contact possible partners in the private sector from businesses such as BlueSky, Digicel, Samoa Air, ANZ Bank and the Samoa Observer to determine opportunities for partnerships and to help in finalizing cost estimates for media production, social media advertising, collateral items such as “Save the Manumea” cloth shopping bag, bumper stickers, t-shirts.

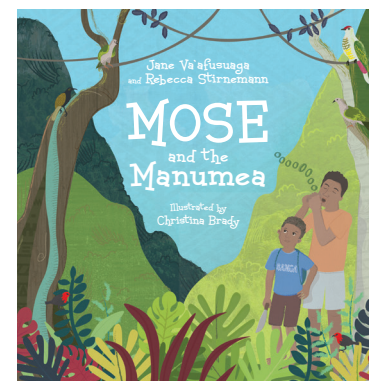
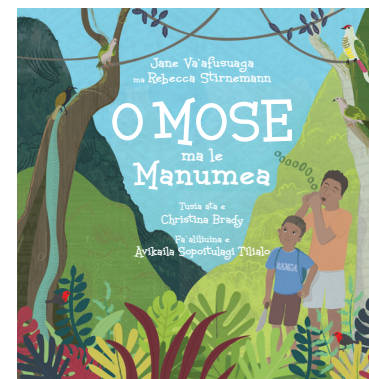
The testing of the social media messaging will also explore opportunities to engage with key champions and celebrities. For example, we are currently looking at the possibility of producing short video messages from children in participating villages inviting Dwayne “The Rock” Johnson to support the Save the Manumea Campaign by signing the giant chocolate bars.

Other social media or radio/tv concepts could involve asking well known local personalities to read excerpts from the children’s book, “Mose and the Manumea”. The campaign team is also exploring the opportunity to refit an existing vehicle as an educational “Save the Manumea” campaign van/bus that can travel from village to village providing fun and engaging activities for young people and the wider community.

Ideally the final, agreed concepts and messages (in Samoan) will be pre-tested directly with target audiences at the village level and in urban areas. The key messages

should also be tested alongside imagery of the Manumea so that we can work towards finalizing one unifying and compelling image of the bird to use on all marketing and media materials such as community billboards, promotions and online platforms.

New Zealand’s Department of Conservation is supporting the social media component of the Save the Manumea Campaign.



The campaign will also take advantage of the recent publication of the children’s book “Mose and the Manumea” which is also available in Samoan as “O Mose ma le Manumea”.

**Ae masalomia na o
le 200 ni Manumea
o lo o totoe i le
vaomatua o Samoa**

**Ia taofi nei loa ona
toe tafanaina lupe
ma fa'atau atu mo
se seleni**

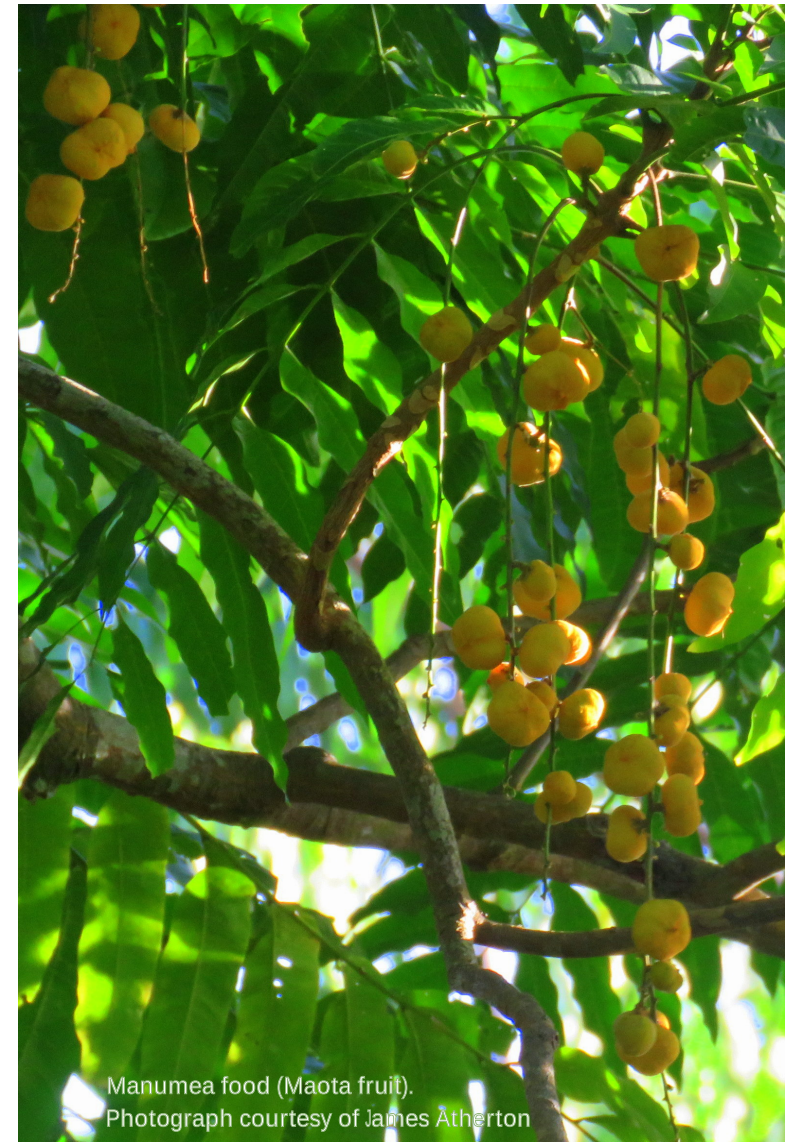
The next stage of the campaign development process will involve testing key concepts and messages with the target audiences.

6. Campaign Timeline

Date ▼	Activity ▼
March 2019	• Consultation with community and national stakeholders in order to finalize the National Campaign Strategy
April 2019	• Revision of National Campaign Strategy
May 2019	• Campaign Strategy Endorsed by MNRE • Secure funds to Recruit National Coordinator • Engage with Wellington Chocolate Factory and other sponsors. This will include online promotion and auction options • Explore partnerships with other potential sponsors/partners including: MFAT; Auckland Zoo; NZ Department of Conservation (DOC); Birdlife International; Samoa Airways etc
June 2019	• Recruit National Coordinator • Continue with partner/sponsor engagement
July-Sept 2019	• Finalize pre/post campaign survey • Pre-test initial campaign messaging/concepts • Finalize the national campaign concepts and messages at the national level – including the social media/media campaign concepts • Prepare for campaign launch • Campaign launched in 4 x 3 month phases • Finalize “Manumea Friendly Village” accreditation concept in consultation with participating communities and partners such as Samoa Tourism Authority and NZ DOC • Phase 1 focuses on achieving key objectives in lead up to hunting season from Oct-Dec 2019 such as developing the Manumea village accreditation scheme and conducting the Hunter Education Programme
Oct-Dec 2019	• Revision of the Manumea Recovery Plan (2020-2030) via stakeholder consultation • Phase 2 focuses on drafting agreements to be signed by Village Mayors, and other stakeholders to formalise a 1-year moratorium on hunting • Continuation of campaign focused on trade and consumption of pigeon for White Sunday and Christmas
Jan-March 2020	• Phase 3 is focused on media including radio, tv and external media including billboards, posters, bumper stickers, posters etc
April-June 2020	• Final campaign phase – including campaign evaluation, analysis of impacts and results and recommendations for next steps

7. Timeline of Key Events in 2019

Date ▼	Event ▼
1 June 2019	Samoa Independence Day
June 2019	Auckland Zoo and partners conduct community pest control activities
7 Jul 2019 – 20 Jul 2019	Pacific Games 2019
2-9 Sep 2019	Teuila Festival
8-10 Sept 2019	Miss Samoa Competition
Oct and Nov 2019	Palolo Rising
Oct 13 2019	White Sunday
Oct-Dec 2019	Pigeon Hunting Season



Manumea food (Maota fruit).
Photograph courtesy of James Atherton

8. Campaign Workplan and Budget

Objective	Activities	Budget (USD\$)	2019								2020					
			May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1. Mobilize funding and support needed to develop, launch and implement the campaign	1.1 Secure funds to launch and implement the campaign															
	1.2 Paint large murals of the Manumea in flight on highly visible walls in Apia and Salelologa	2,000														
	1.3 Hire the National Campaign Coordinator	25,000														
	1.4 Research, pre-testing and evaluation – including the design and implementation of a nationally representative pre/post campaign survey	15,000														
	1.5 Conduct an event to launch the campaign	5,000														
2. Support and promote local efforts to protect the Manumea in six targeted native rainforest areas customarily controlled by villages – primarily by supporting efforts to enforce local bans on hunting all pigeons and flying foxes	2.1 Develop a “Manumea friendly village” accreditation scheme	3,000														
	2.2 Paint large murals of the Manumea in flight at each project village	6,000														
	2.3 Design and install other visible signs that identify and profile each village as a “Manumea Friendly Village”	6,000														
	2.4 Draft agreements to be signed by Village Mayors, and other stakeholders to formalise a 1-year moratorium on hunting and trading of pigeons before the start of the October- December hunting season in 2019	6,000														
	2.5 Conduct community and stakeholder consultations to discuss progress of activities 1 to 4	5,000														
3. Gain support for an enforced 1-year national ban on the commercial trade of pigeon before the start of the October- December hunting season in 2019 (with the possibility of extension should it prove successful)	3.1 Investigate various legal options for the 1 year ban on the commercial trade in pigeon including restrictions on ammunition	2,000														
	3.2 Conduct a hunter education programme	5,000														
4. Reduce public demand for buying, gifting and consuming pigeon	4.1 Design social media including website, Facebook page and associated video production.	20,000														
	4.2 Produce other media including radio, tv and external media including billboards, posters, bumper stickers, posters etc	25,000														
5. Project monitoring and evaluation and recommendations for future campaign effort	5.1 Conduct an independent project evaluation to identify lessons learned and make recommendations for future campaign activities	10,000														
Total Project Budget: USD\$135k (SAT\$350k)																

9. Monitoring and Evaluation

The campaign should be regularly monitored and evaluated against its stated objectives by the campaign team and its Steering Group. The entire campaign should also be independently evaluated at its completion in order for MNRE and its partners to receive unbiased feedback and make recommendations on next steps.

Campaign Objective ▼	Campaign Target ▼	Indicators ▼	Means of verification ▼
1. Mobilize funding and support needed to develop and implement the campaign	Secure funding to launch the campaign in July 2019	Value of support provided including funds and in-kind support	Reports on funds raised by the campaign and support provided
2. Support and promote local efforts to protect the Manumea in six targeted native rainforest areas customarily controlled by villages – primarily by supporting efforts to enforce local bans on hunting all pigeons and flying foxes	Local hunting bans are passed and enforced in six target villages by October 2019	• Number of hunters/police participating in education programme • The number of additional villages enacting and enforcing local hunting bans and/or seeking to become “Manumea Friendly Villages” • Manumea population	• Independent assessment of the “Manumea Friendly Village”- including effectiveness of local bans and other protection activities • Local pre and post survey of community members • Media coverage of the “Manumea Friendly Village” scheme • Survey results of hunters/police following education activities • Survey results of Manumea population
3. Gain support for an enforced 1-year national ban on the commercial trade of pigeon before the start of the October-December hunting season in 2019 (with the possibility of extension should it prove successful)	National ban on the commercial trade in pigeon is in place by October 2019 together with mechanisms for enforcement	Bans and regulations are passed by the appropriate authority	• Confirmation of passage of bans and regulations from legal team • Survey results of public/hunters/police following ban implementation
4. Reduce public demand for buying, gifting and consuming pigeon	Reduce the estimated number of pigeons consumed by households from 2013 levels by 25% by the end of the campaign period	• Number of people signing the online pledge to not trade or eat pigeon • Number of people who say their behaviour has been influenced by the campaign • Manumea population	• Analysis of HIES survey data of pigeon consumption • Analysis of social media engagement/ discussion and support for specific campaign activities • Local pre and post surveys of general public • Survey results of Manumea population

10. Next Steps

Given how highly threatened the Manumea is, it won't be out of danger after the 12-month campaign even if the campaign is highly successful. Further efforts will be needed for the indefinite future to maintain and consolidate any successes achieved in enforcing village-based hunting bans, changes in hunter behaviour and public attitudes towards the Manumea as well as public consumption patterns. The evaluation to be conducted at the end of the campaign will provide recommendations for further work which are likely to fall into the following categories:

- Maintaining the Manumea Friendly Village accreditation scheme;
- Conducting repeated follow up training for hunters;
- Community consultations to discuss progress on activities and way forward
- Continuing habitat restoration and pest management activities in key Manumea sites;
- Conducting regular follow up media events to keep Manumea in the public consciousness
- Continuing the ban on the commercial sale of pigeon subject to the outcomes of the 12- month campaign and public opinion.



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Appendix 1:

Behavioural Theory

Our Campaign Strategy utilizes a theoretical framework from evidence-based “Social Marketing” programmes that have been proven successful by taking an insight-driven approach to behaviour change problems.

Social Marketing is based on the Exchange Theory that suggests target audiences act according to their own self-interest, even when these perceived benefits maybe unconscious or even irrational. In Social Marketing campaigns the objective is therefore to try and increase perceived benefits associated with the desired behaviour and decrease any of the perceived barriers to change.

The benefit of the Social Marketing approach is that it attempts to base campaign design on what the target audience believes or feels is most important, rather than what the programme designer believes is the most important driver or motivation for change. For example, many environmentalists believe that their target audiences should be motivated by environmental or conservation values when this is often simply not the case.

In addition to the concept of Exchange, the design of the Save the Manumea Campaign Strategy has been informed by two complementary behaviour change theories that operate at:

- the community level (Social Change Theory) and;
- the individual level (Social Learning Theory).

At the community level Samoan society is largely governed by a village-based system that works directly to shape community norms around issues such as banning hunting of native bird species. The campaign team believes it will be more effective to work closely with those six target areas where local communities have already acknowledged the need to improve the enforcement of local bans.

Work to establish new community norms in these target villages may provide a useful platform for extending these norms to other villages. To this end it will be important to identify and highlight the key individuals/ leaders in those participating communities who are actively working to enforce local hunting bans and engage the wider community in other proactive initiatives to protect the Manumea, such as rat/cat control, planting native trees and ecotourism initiatives.

Local efforts to support more effective hunting bans in specific areas may also help the police to improve enforcement of the national ban on pigeon hunting that has been in place since 2004.

At the individual level the hunting pigeon is not an issue of direct, personal relevance among the wider Samoan public. It is estimated that there are only around 100 hunters who are hunting pigeon for commercial sale. However, a much larger number of Samoan's buy, gift and consume

around 25-35,000 pigeons every year. Therefore, the campaign team believes that the most effective way to engage the wider public in the campaign is via the trade and consumption of pigeon – an activity that is still practiced widely throughout the community. The campaign will endeavour to help individual Samoan's to reflect on whether their own personal behaviour in purchasing and eating pigeon is contributing towards the extinction of their treasured national bird.

Social Change Theory (Thompson & Kinne)

According to Susan Michie and colleagues in the “ABC of Behaviour Change Theories” *Social Change Theory* proposes that the external environment influences community goals, norms, values and organisations influence social norms (shared rules and expectations) regarding conservation behaviours, which bring about behavioural change at an individual level.

This theory assumes that desired behaviours are best achieved by altering community, rather than individual, norms. Norms' are defined as shared rules and expectations and 'communities' are regarded as systems that share values and institutions and that provide the context for conservation-related activities such as agreements on halting the

hunting, trade and consumption of pigeon. At the community level the focus of our campaign will be to help highlight where our champion communities are electing to change the rules and activities that contribute to the protection of the Manumea via enforced bans, pest control, forest restoration and ecotourism activities.

In our case the six target villages may take on leadership roles and this positive change may spread to other groups within the community through a process of organisational development and diffusion via social networks. As people are exposed to these changing norms, which may be reinforced by influential role models, collective action and changes in the social environment can eventually bring about new norms (i.e. banning hunting of pigeon or the fact that eating pigeon at public events is no longer considered socially acceptable). This is likely to result in widespread changes to individual behaviour change (i.e. fewer people start eating pigeon and more people stop).

Social Learning Theory (Miller and Dollard)

Social Learning Theory primarily aims to explain how people learn through the imitation of others and outlines four factors that are instrumental to learning (drive, cue, response and reward).

- **Drive:** In the case of eating pigeon the innate drive or motivation may be the physical or perceived taste - given its associations as a traditional status gift.
- **Cue:** A cue determines when and where the action will take place. For example, one cue might include environmental stimuli such as saying grace before a communal meal. In our case it could be useful to encourage religious leaders to commit to extolling their followers to abstain from eating pigeon during grace at any religious or community-based celebrations.
- **Response:** Is when the cue is rewarded i.e. the physical and innate satisfaction derived from consuming the flesh of the pigeon.
- **Reward:** Reward is instrumental for the maintenance of that response. If this learned responses repeatedly goes without reward, then it is likely that the tendency for that response to be performed will progressively decrease. If we can increase the placement of effective messages that emphasize the "shame" associated with eating pigeon - and how it is putting the Manumea at risk - then we can potentially create a public dissonance during the communal behaviour when people are carefully (if unconsciously) observing one others' eating behaviours and responses.

All of these four individual factors occur in a social context where peers and role models confirm the desired behaviour through their demonstrated approach to eating and discussing the benefits of eating pigeon. As noted in Michie: *"Learning to copy often occurs in the presence of a third individual who rewards the follower for similarities (with the leader) and punishes them for differences. Ultimately, learning to copy results in a person being capable of independently identifying and responding to cues of similarity or difference."*

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