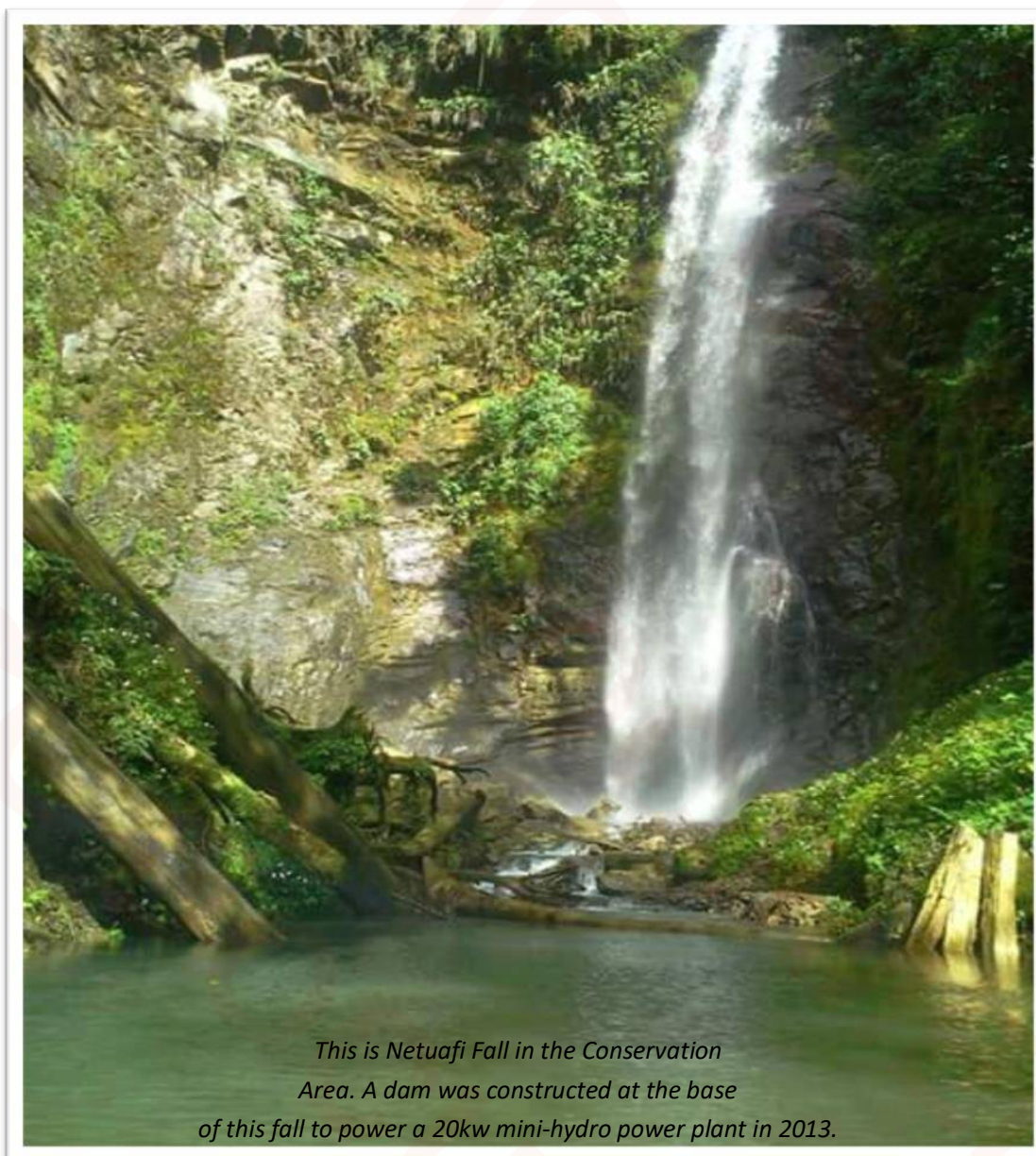


HOGAVE CONSERVATION AREA MANAGEMENT PLAN



This is Netuafi Fall in the Conservation Area. A dam was constructed at the base of this fall to power a 20kw mini-hydro power plant in 2013.

Prepared and Approved by Hogave Conservation Centre Board
Lufa District, Eastern Highlands Province, Papua New Guinea

May, 2023

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Acknowledgments

This management plan has been Prepared and Approved by Hogave Conservation Centre of Lufa District, Eastern Highlands Province, Papua New Guinea in April 2023.

Firstly we acknowledge and thank God for the beautiful creation He has blessed us with and His continued blessings in the Hogave Conservation Initiative.

Special recognition and appreciation is given to Siva Kima for expertly reseaching and putting the documents together and Moses Musalaki Kima for preparing all the maps for the Conservation Area with the assistance of David Waiyamo Vira the Coordinator of Hogave Conservation Centre.

The Hogave Conservation Centre acknowledge that the Hogave Conservation Area is in the customary land of the Hogave Village comprising of three Clans; Laivolo, Mula and Kevoma.

For further information or any inquiries about this Conservation Area or this Management Plan, contact the Hogave Conservation Director through Email: ea_png@zoho.com or cell phone number (675) 71811337.

Cover photo

Photo taken by David Kima Director of Hogave Conservation Centre Inc.

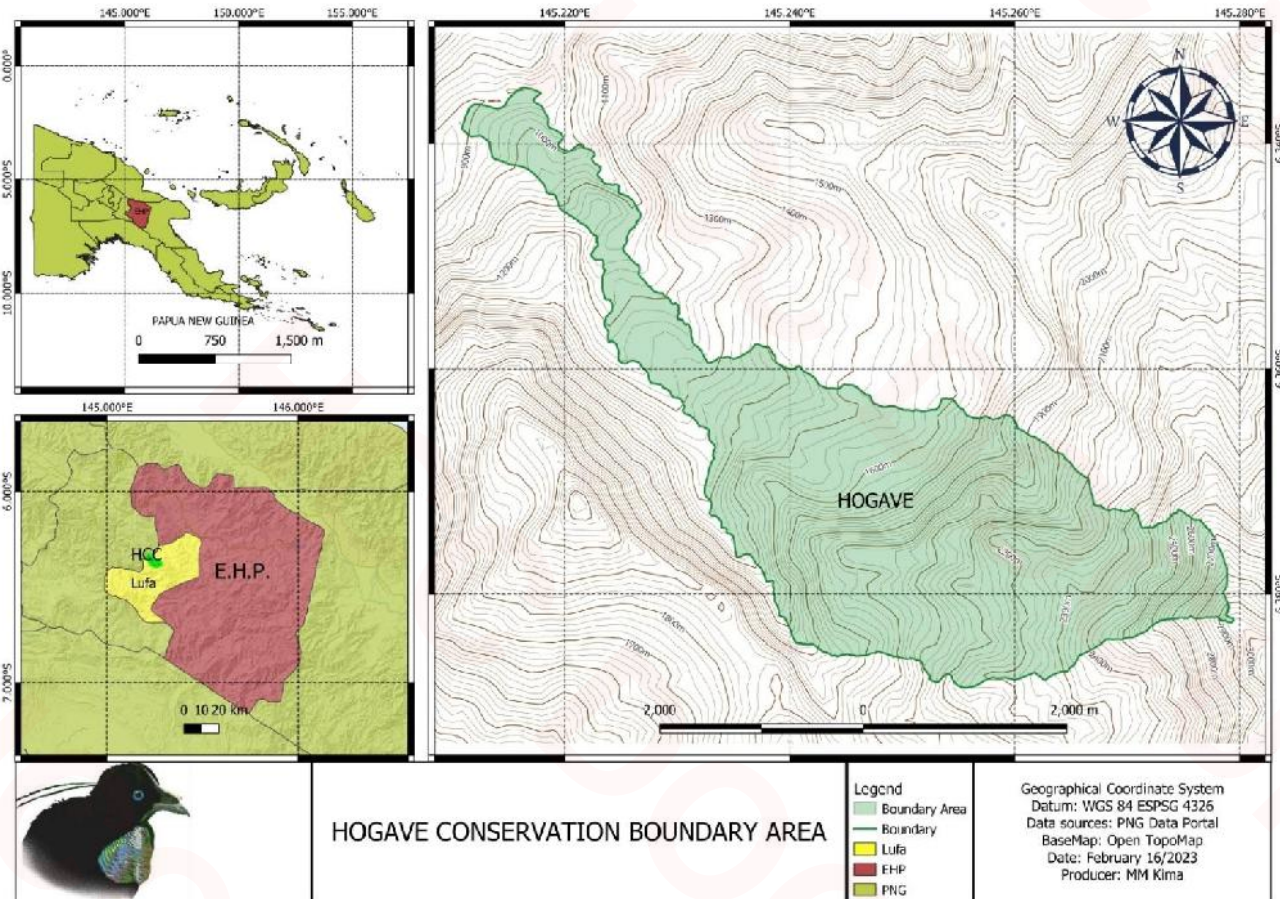
Abbreviations

HCA	Hogave Conservation Area
HCC	Hogave Conservation Centre Inc.
IBR	Institute of Biological Research
BBOP	Blue Bird of Paradise
NGBR	New Guinea Binatang Research Centre
IUCN	International Union for Conservation of Nature
EHP	Eastern Highlands Province
PNG	Papua New Guinea
MOU	Memorandum of Understanding
CITES	Convention on International Trade in Endangered Species

Location Maps of Hogave Conservation Area

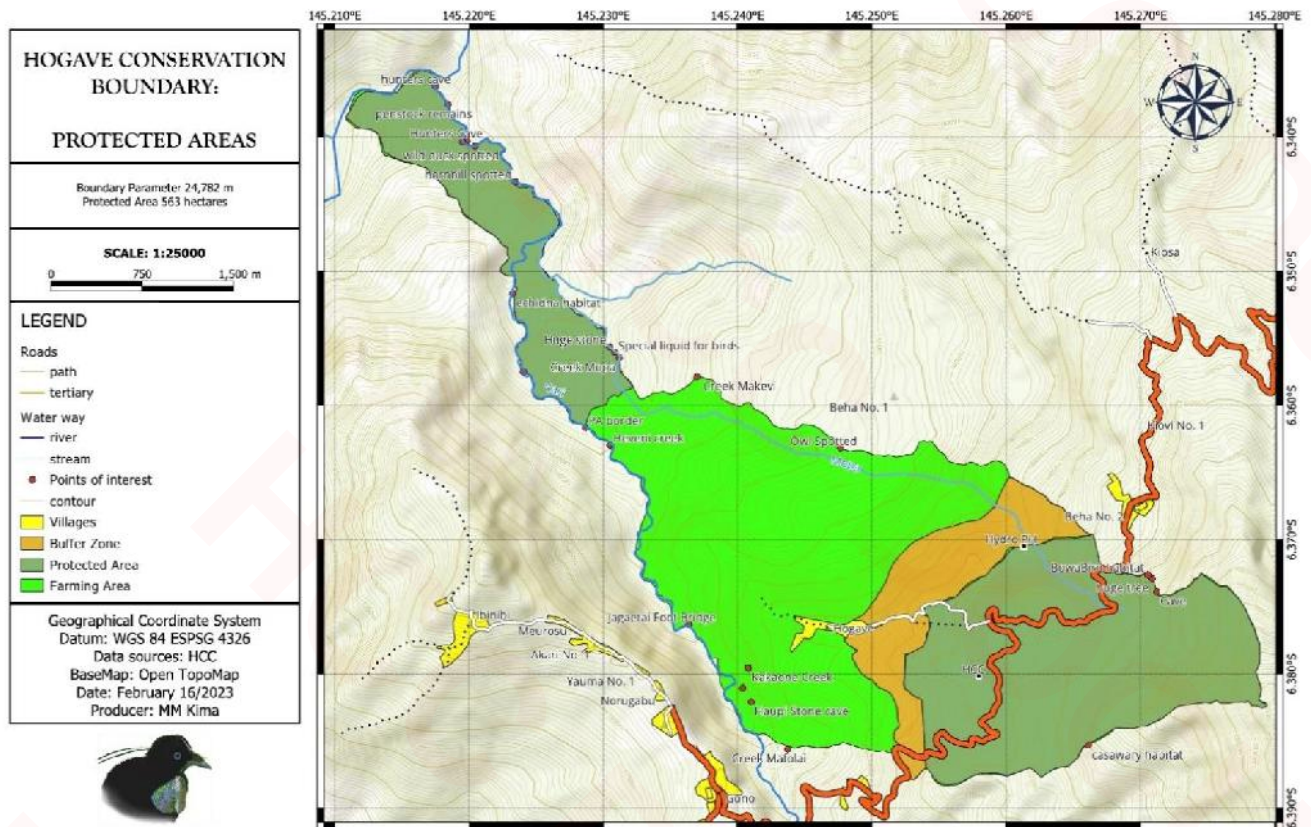
Prepared by: Moses M Kima

Map No.1. Topographic Map of Hogave Conservation Area

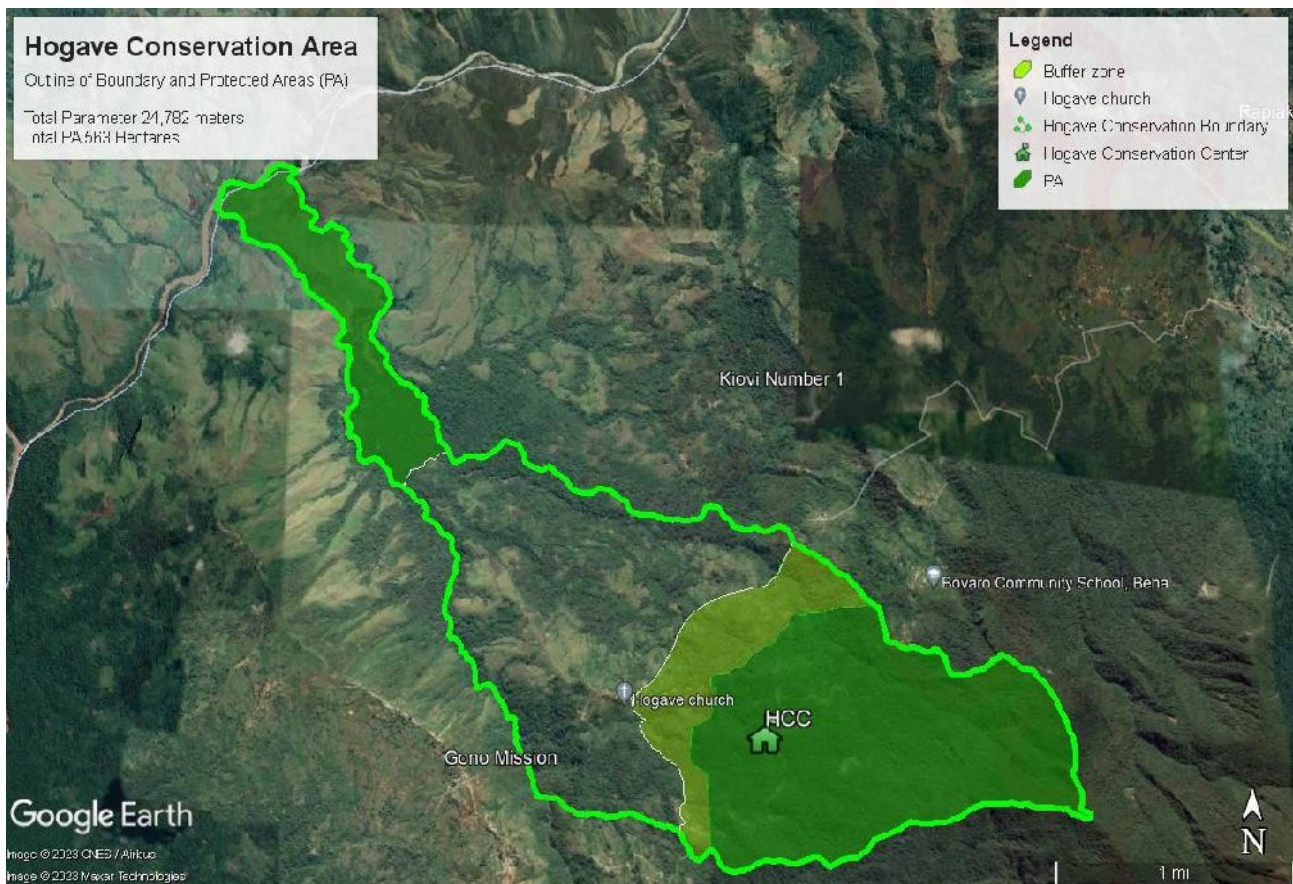


- Location Map of the project site showing, that the conservation area is located in the Lufa District of Eastern Highlands Province in Papua New Guinea.

Map No.2. Detailed Topographic Map of Hogave Conservation Area



- Map No.2, showing some details of the Conservation Area. The Map is showing some key physical features and landmarks of the area. South, East in dark green is the current conservation area with intact primary forest.
- The bottom; South, West in dark green has minimal human activity. It is home to Raggiana Bird of Paradise and other low land flora and fauna, including the Echidna. Half of the lower Conservation Area is covered with savannah grassland with little to no trees. The land area shown in bright green is the village farming areas.



Map No.3 Google Map of Hogave

Map No.3 showing;

- Conservation Area is in dark green with primary forest. Approximately 563 hectares.
- Bufferzone is in light green, separating the conservation area and the villages with gardening areas. Approximately 127 hectares.
- Village Settlement & Gardening Areas. Approximately 540 hectares.
- Lowland Areas where Raggiana Bird of Paradise, Echidna, Cuscus and other lowland flora and fauna are abound. Half of this land is savanah grassland and we intend to plant trees. Approximately 171 hectares.
- Total Hogave Area is 1,229.9 hectares.

The Story of Hogave Conservation

Hogave Conservation initially got started in 1987 as a conservation area by the Hogave people themselves with resilient leadership and direction from David T Kima, Founding Director and late Chief Kima Mulefa. Part of the reason for initiating this project was steady increase in human population and their encroachment on the forest. There was a genuine threat of people polluting the rivers, creeks and springs which this forest provides and serves as a drinking water source for the people that live below the mountains and valleys. Also the population of the Hogave tribe was growing steadily and was posing a threat to the primary forest when they were cutting and clearing primary forests, which were home to many wildlife, for gardening and building huts. Also the people were moving closer to the only public road that runs from Lufa station to Ubaigubi which also serves as a boundary for the forest and villages. There was also a threat of an unidentified mining company going through the area and identifying almost all the rivers and creeks as positively deposited with mineral resources. Potential for logging and minning exploration was also present but people upon prolonged awareness and consultation, opted for conservation of their forest. Traditionally, the people of Hogave had already been practicing conservation and sustainable use of resources, this was then formalised. Hence Hogave Tribal Chiefs through a signed Memorandum of Understanding declared a portion of the primary forest as "Hogave Conservation Area" in 1990.

The Hogave Conservation Area (HCA) is part of the Hogave customary owned land and is under indigenous customary ownership (private ownership) of the Laivolo, Mula and Kevoma clans of Hogave tribe. The majority of these traditional landowners live in Hogave village while others live in other parts of Eastern Highlands Province, and other parts of Papua New Guinea.

Currently, the Hogave Conservation has been recognised by various organisations within Papua New Guinea and is looking at registering the Conservation Area under Conservation Areas Ammended Act (1978) in the near future. There will be more awareness to the people of Hogave and the 3 clans for this legal status of the conservation area. Although, it is not legally registered as a Conservation Area under the laws of Papua New Guinea, the people of Hogave continue to protect the forest. This communal agreement is still effective 35 years after it was locally declared as a conservation area (see appendix for MOU).

Hogave Conservation has been incorporated as an Association in May 2006 under the name *Hogave Conservation Centre Inc.* (HCC). Hogave Conservation is also registered by the Internal Revenue Commission, Certificate Number 501412740. Hogave Conservation Centre holds an Insurance Certificate of Currency, that is a public liability insurance for worker's injury.

This management plan gives detailed information about the Hogave Conservation Area and describes the key issues regarding the implementation, management and conservation of the present forest ecosystems. The management plan has been prepared by the Director of Hogave Conservation after consulting with leaders and clan members of Hogave community at the Hogave Conservation Centre. The Hogave Conservation Centre ensures that the plan is in consistant with their aspirations for sustainable management of their natural resources.

Project Location: Hogave and Mt. Michael are located in the Lufa District of the Eastern Highlands Province of Papua New Guinea. The distance from Goroka town to the project site is about 63km south. Mt. Michael is the highest mountain in Eastern Highlands with the altitude of about 3650 meters. The project area is to the west of Mt. Michael, approximately, latitude 6°22'S: longitude 145°15'E., starting at an altitude of approx.2000m and ascending to approx. 3200m. The project site is accessible by road transportation from Goroka Town.

Population & Project Area: Hogave Village is a sub tribe of the Gimi language speaking group that consists of three clans that have access right and ownership to the south western part of Mt. Michael. The primary forest area is commonly known as Seleta on the topographic map, but locally known as Hogave Bush. Currently the Hogave population is about 1000 people. These landowners have access right to this forest. The immediate

primary forest area to be conserved as initiated by the people can at present be estimated at 20 square kilometers, though the total primary forest area is well over 200 square kilometers and is owned collectively by villages surrounding Mt. Michael. The forest extends to the Crater Mountains which more than 50 tribes or villages have ownership rights. The Hogave tribe has ownership rights to about 20 square kilometers and they have conserved that part of the forest. Nature and conservation officials have advised that 20 square kilometers is an ideal size for a national park. The boundaries of the conservation areas are mostly marked by typical natural features such as streams, ridges, cascading gullies and plants marking the traditional boundaries. These boundaries are agreed upon, mapped and conserved.

How We Use Our Forest: The Hogave Conservation Area and surrounding forest sites contains primary rainforest and secondary re-growths. These forest types are located along either sides of the main public vehicle road and around the village settlement areas, gardens and buffer zone. Some direct benefits the villagers receive from conserving the forest are:

1. Source of fresh, clean drinking water.
2. Unpolluted fresh air.
3. Limited drought/dry weather.
4. Dried wood for fuel/cooking.
5. Selective trees for house making and garden fences.
6. Tree vines and other materials for house making.
7. Traditional medicinal plants and spices for cooking (leaves & tree barks).
8. Forest nuts, various mushrooms and other forest fruits .
9. Protein from forest animals.
10. Protection of some sacred places.

The HCA (current management of the area) including the guesthouse and resource center, has been managed with the aim to safeguard the benefits realized by the people and to preserve the natural value of the natural ecosystems. The area is suitable to be developed into a top scientific research and bird watching center. A five-bedroom guesthouse has been built in the area to facilitate researchers and visitors. Over the years many scientific researchers have visited the area and have highly commended the forest, people and services received at the guesthouse.

Why Our Protected Area is Important (Key Values)

The Hogave Conservation has the following significant values; our landscape and ecosystem, plants and animals, our people & culture, and our rural development project assets.

A. Our Landscape and Ecosystem

Hogave Conservation Project conserves the primary forest and wildlife including birds of paradise and mammals as identified by the former department of environment and conservation in their 1989 preliminary survey and data provided in the Conservation International and Institute of Biological Research (IBR) Survey Report in 2009. Included in this protected wildlife area are many endemic species (see list in appendix). The type of vegetation found in Hogave Conservation Area has high potential for conservation as a source for biological and scientific research.

Hogave Conservation Area is located in Eastern Highlands Province which is located in the central highlands of PNG and covers 11,000 km². The Bismarck Range is on the north of the province reaching a peak of 3546m on Mt. Otto while Kratke Range is in the south reaching a peak of 3647m on Mt. Michael which is the highest peak in the province and the 5th highest peak in PNG. Mt. Michael is an isolated mountain peak, forested above 2100m and below that it largely grassland from gardening and human habitation. Vegetation at Mt. Michael change in composition with altitude, the general succession being secondary forest and grassland at the foothills to mid montane between 2100- 2600m, moss forest around

2700 and alpine grassland above that. Mid montane forest is dominated by *Nothofagus grandis*, *N. pullei* and *N. peryi*. The trees in moss forest zone are stunted and the forest is poorly lit with thick layers of moss covering much of the ground, trunks and branches. Mist and cloud cover these zones for a large proportion of time and rainfall is very high. (*IBR Survey Report in 2009*)

Hogave has an intact primary rainforest with different forest types which provide habitats that support numerous ecosystems and also provides for the livelihood of the local people. The richness of the biodiversity that exists in the land presents a perfect spot for scientific research, ecotourism and biodiversity conservation.

The physical landscape in Hogave comprising of ridges, mountains, waterfalls, mountain streams, scenic views and friendly people with a rich culture, makes Hogave Conservation a highly potential tourist destination. There are also many interesting tourist attractions such as the Netuafi falls seen on the cover page and opportunities to see various Birds of Paradise, bush trekking and climbing Mt Michael, the highest peak in the province and fifth highest mountain in the country.

B. Our Plants and Animals -Flora & Fauna

The importance of conserving the forest of Hogave is detailed in the excerpts from the Mini-Rapid Assessment Program done in 2009 by PNG Institute of Biological Research and New Guinea Binatang Research Centre (NGBR) in the Hogave Conservation Area, funded by A Rocha International.

1. The Birds- by Paul Igag

General Impression of Each Site

Fifty-one species were recorded in 22 groups from all the three sites (Table 1). Species abundance, distribution patterns and abundance varied among the sites. Camp 1 had high species abundance with 34 species while the HRC and Camp 2 recorded 22 and 26 species respectively. Fruit-doves (Columbidae), flycatchers and robins (Eopsaltridae), honeyeaters (Meliphagidae), whistlers (Pachycephalidae), bird of paradise (Paradisaeidae) and parrots and cockatoos (Psittacidae) contributed most species. Species that had higher abundance at Camp 1 than Camp 2 were *Melanocharis versteri* (Dicaeidae, Fantail Berrypecker), *Sericornis nouhuysi* (Acanthizidae, Scrub-wren), *Crateroscelis robustus* (Sylviidae, Mountain-mouse Warbler), and *Ptilinopus guisei* (Meliphagidae, Rufous-backed Honeyeater). Conversely *Sericornis papuensis* (Acanthizidae, Papuan Scrub-wren) and *Clytomyias insignis* (Maluridae, Ornament Fairy-wren) had high abundance at Camp 2 than Camp 1. While species that had restricted distribution or were only netted at Camp 1 was *Peneothello cyanus* (Eopsaltridae, Blue-grey Robin) and for Camp 2 it was the congener *Peneothello sigillatus* (White-winged Robin).

The results show clear distribution of birds along an elevational gradient. The five species that occurred in all the sites are indicative of species with broad altitudinal range. Other species which were found only on one site such as *Cnemophilus macgregorii* are species with narrow altitudinal range. It seems that birds tend to be segregated into different altitudinal zones. The general trend for bird species distribution along an elevational gradient is that species diversity decreased with increasing altitude. However, about the same number of species was found at lower site and the high elevation site. The reason could be that the lower site (HRC) is more disturbed area because it is close to the village and near the main road where there is constant presence of people compared to the mid and high elevation sites. However, the main obstacle during the survey was constant rainfall. Therefore, it is possible that total bird diversity of Hogave is an underestimation.

Mist nets were closed earlier when it rained to prevent birds strangling themselves during the rain. Compared to 1989 survey (used similar methods), this survey recorded 19 more species but missed five

species (*Astrapia stephanie*, *mezomella reseembegii*, *Monarcha axillaries*, *Psttacula bremii*, *Epimachus mayeri* and *Mezomella adolophinae*). This brings the total number of bird species in Hogave Conservation area up to 56.

Hogave Survey Site Map



Species of Interest

Some species of paradisaeidae group had limited range distribution and are CITES species. These birds are; Superb Bird of Paradise, *Lophorina superba* was recorded at HCC, Black Sicklebill, *Epimachus fastuosus* and Loria's Bird of Paradise, *Cnemophilus loriae* were both present at Camp 1, *Cnemophilus macgregorii* was only present at Camp 2, two *Cnemophilus*' overlapped at 2400m and *C. loriae* was replaced by its congener *C. macgregorii* at 2800 m. The only Ptilonorhynchidae Macgregor's bowerbird, *Amblyornis macgregoriae* was recorded at both mid and high elevation camps. *Amblyornis macgregoriae* prefer forest interior and rarely come to the forest edge. The ratite *Cassuaris bennettii* is an IUCN Threatened species. It was identified from droppings at Camp 1. In other mountain peaks of New Guinea, they are present up to timber line, 3000 m.

2. The Mammals – by Enock Kale

Interesting Species

The two non-volant species, *Paramelomys rubex* and *Rattus niobe* are widespread species along the Central Cordillera of New Guinea (Flannery 1995) and both are important species at both elevations in terms of abundance although the number of the former declines at 2800 m. Two volant species, *S. australis* and *N. certans* are important species at 2800 m. According to Flannery (1995), *S. australis* is a widespread species at all elevations especially along the Central Cordillera. Although *P. collinus* was not trapped at 2800 m where both *S. australis* and *N. certans* were trapped, Flannery (1995) has netted all three species at 2300 m which shows that all the three species are sympatric.

3. The Ants– by Katayo Sagata

General Impression of Each Site

Twenty-three ant species belonging to 16 genera in four subfamilies were collected (Table 4). Eleven ant species, nine genera in three subfamilies were collected from Hogave Resource Centre, 13 species, 10 genera in four subfamilies were collected at Kavoyakotutai (Camp 1) and no ants were collected from high elevation site (Camp 2).

A general rule on ant distribution along an elevational gradient is that species richness and abundance are high at warmer low elevations and drop off completely at around 2500-3000m. Here, mid elevation site (Kavoyakotutai) had slightly more ant species than Hogave Resource Centre (lower site). Statistically, there could not be significant difference because there was a difference of only two ant species. The result is not surprising because elevational difference was only 100m and the vegetation type was the same between these two sites. The absence of ants at the high elevation site (Camp 2) was again not surprising because ants usually drop off at this elevation. However, it is possible that total ant species diversity of Hogave is an underestimation because it rained every day during the 14 days of sampling. Rain discourages ants from foraging and wet litter in Winkler sacks take longer to dry which would force ants out into the collecting jars.

Species of Interest

Pheidole is the second largest ant genera with 898 ant species in the world one will almost always find them whenever ants are sampled. Here, three species of Pheidole were found which, is the highest number of species in one ant genera found at Hogave. Unlike Pheidole, Vollenhovia is not as diverse (67 species) but also contributed three species and occurred at two sites. Other species like Tetramorium, Phillidris, Ochtellus and Apheanogaster are cosmopolitan species. Only two species of Ochtellus are known from PNG but could not tease out what species was found at Hogave. Technomyrmex albipes is widespread tropical pest ant. Pest ants are usually found near human habitation and open areas where it is disturbed. Not surprising, T. albipes was found nesting in a ficus species near Hogave Conservation Centre (guest house). Tetramorium pacificum another widespread exotic ant species is not considered as a pest ant. Tetramorium pacificum was found near the guest house and under completely closed forest litter at Camp one, which suggests that T. pacificum must have been in the area for a long time. Strumigenys, Onychomyrmex, Amblyopone, Proceratium, Discothyrea are common inhabitants of leaf litter in tropical forests and not easily encountered.

4. The Plants: By Bega Inaho & Banak Gamui

General Impression of the Site

Overall, 783 trees and 1 liana with DBH ≥ 10 cm were recorded in the one-hectare plot with mean DBH of 21.29 ± 12.76 (\pm SD) for the trees. Size of trees ranged from 10-118 cm in DBH and more than half of the trees were less than 20 cm DBH (Fig. 2). Stem density decreased with increasing DBH (see figure 1). The mean stem density in the 25 sub-plot is 31.64 ± 8.13 (\pm SD)

Interesting Observations

The results show that big trees of 50 cm DBH and over are very few which explain why stem density per plot decreased with increasing DBH. The one-hectare plot, sub-plots and trees were marked permanently, so species identification will be done later. Besides it will be interesting to do a follow up study in the future to study the dynamics of the trees.

5. Birds of Paradise in HCA

The 1989 Department of Environment Survey Report & Mini Rap Assessment Survey Report in 2009

identified the following Birds of Paradise Species that are currently active in Hogave Conservation Area;

1. Lawes Parotia
2. Macgregor's Bower Bird
3. Blue Bird of Paradise
4. Superb Bird of Paradise
5. Princess Stephanie's Astrapia
6. Loria's Bird of Paradise
7. King of Saxony Bird of Paradise
8. Black Sicklebill Bird of Paradise
9. Brown Sicklebill Bird of Paradise
10. Crested Bird of Paradise
11. Raggiana Bird of Paradise (low altitude area, endemic)

The Blue Bird of Paradise, *Paradisaea Rudolphi* is the threatened species currently in focus at the HCC. The Blue Bird of Paradise, (BBOP) is a protected species of Papua New Guinea under the Fauna Act 1966-73. The law allows for limited local sale of the plumes for cultural purposes, however commercial sales are prohibited. The BBOP has iridescent blue plumage and displays exuberant courtship rituals. Its low population is due to habitat loss caused by deforestation and hunting by the locals for their colorful plumes that are used for headdresses during cultural celebrations (*sing-sing*). There have been only few rare sightings of this endemic bird of paradise near the Hogave Conservation Area. When the BBOP displays its animated rituals, it is so immersed in its dancing that it is not attentive to natural dangers that may be around it and sadly that is when it is killed by human beings. In 2001 the BBOP was listed as '*near threatened*' and classified as VU –Vulnerable by the International Union for Conservation of Nature (IUCN).



Mature Blue Bird of Paradise (Wikipedia)



Young Blue Bird of Paradise (Dr. Konrad Wothe)

C. Our People and Culture

The people of Hogave speak the Gimi language and have a rich cultural heritage. Many people in the village are fully aware of the cultural importance of the Hogave area as it was a land conquered and claimed by warrior ancestors. The people in Hogave community are very welcoming and look after guests and visitors well. There

have been such activities carried out that promote and preserve the traditional culture of the people of Hogave. For example, the Traditional Salt-Making project where the food seasoning of salt was made using traditional methods and forest ingredients by the elders of the village. Other cultural activities they have engaged in include traditional 'sing sing' and blowing of bamboo flutes as musical instruments.

The HCA hosts many culturally significant sites of the Hogave tribe. The land is their inheritance passed on from their ancestors and has burial sites as well. Traditionally, the Hogave people have depended on forest resources from the land and river system for food, medicine, tools and shelter. The conservation of culturally significant sites is equally as important as the conservation of our natural environment. Sustaining traditional resource uses practiced by our ancestors is important for future generations.

D. Our Community Development Projects and Infrastructure

The Conservation has provided another source of income over the years through the various projects and incentives that have been implemented. Many projects have been carried out in the past to help improve the livelihood of the Hogave constituents. This includes a village water supply system currently running through the village which project partners have assisted the Hogave Community with. It is currently well maintained and serving the whole community. Furthermore, there has been many training opportunities for the Hogave community throughout the years.

A five-bedroom guesthouse was built at the Hogave Conservation Center in 1999. This guesthouse forms the Hogave Conservation Operational Centre. This facility houses scientists, biodiversity researchers and students when they visit to do their research work in the conservation area. The guesthouse has also served project partners and workers from overseas. The guesthouse log book has recorded hundreds of visitors (researchers, project partners) comments commending the conservation project and hospitable and caring Hogave community. The guesthouse has all basic amenities and is a convenient facility in the midst of the remote forest conservation area.

Threats to Hogave Conservation Area

The natural environment surrounding Hogave village is vulnerable. Today, there are many stresses that impact the health of this valuable natural habitat. Human threats are numerous and compounding. Below are the main threats to the Hogave Conservation Area.

- i. Contamination of Water Source**
- ii. Tree Felling**
- iii. Expanding Human Settlement**
- iv. Overhunting Wildlife**
- v. Logging & Mining**
- vi. Poor Road Construction**
- vii. Climate Change**

Contamination of Water Source

There is a threat to the drinking water supply system from human activity polluting rivers and creeks that are the sources of drinking water for the entire village. The drinking water supply that runs down to Hogave village is situated near the Hogave Conservation Centre which is located at a higher altitude than the village. This water supply source is also closer to the public vehicular road. Once people loiter around this area, the water becomes muddied, polluted and not fit for human consumption as it passes through the water supply system.

There are also other drinking water sources situated at this higher altitude but the more human settlement encroaches on it, the less safe it becomes to drink.

Tree Felling & Expansion of Human Settlement

There is cutting and clearing away of primary forest for subsistence gardening and for building homes.

Trees are being cut to make garden fences and build huts or houses encroaching on the Protected Area.

The unsustainable harvest of resources in our forest area has obvious consequences on the forest ecosystems. The forest provides a habitat for many terrestrial animals and plants and it protects the river banks from erosion during flooding periods. If the forest health is compromised, so too will be its ability to support other life and act as a buffer. The 11 birds of paradise found in the HCA are under red alert listing by the International Union for Conservation of Nature (IUCN 1996), meaning that they are a threatened species. The major threat to their existence now, is the clearance of their habitats and rainforests for gardens as the village grows and expands.

The management plan facilitates people to make small gardens along designated areas as planned (see land-use map). Most of these gardens sites have low impact on the forest ecosystem of environment. However, if population is increasing and gardening intensifies it could become a threat for some parts of the conservation area, especially when more forest is cleared for garden areas. Hogave villagers are moving away from the village and settling near the public road which serves as a boundary for the protected area. Human settlement activity encroaching on the protected area causes disturbances to the natural eco-system.

Overhunting Wildlife

Overhunting will result in terrestrial invertebrates' populations like, possums, bats, native forest rats, declining as they are killed by domestic dogs and cats. Dogs are increasingly being looked after by the Hogave villagers as pets however on many occasions they are seen roaming the forest and killing the wild habitat, the birds or small forest creatures.

Logging and Mining Interests

With the vast number of trees, there is a potential for logging. Also, with gold being mined in the nearby Crater Mountains, there is real potential for mining exploration and mining.

The Conservation area contains numerous trees that could be exploited in the future if they are not protected. This would cause much damage to the natural ecosystems, flora and fauna contained within the conservation area. The conservation project is extremely vital because adjacent to Mt. Michael is the Crater Mountains which has been identified by exploration firms as immensely deposited with minerals (and exploration activities have been intensified so far). It is only a matter of time before full scale mining activity will take place at the Crater Mountains. People and organizations' who are genuinely concerned with conservation need to act faster rather than wait and complain when damage has been done, which seem to be the trend in many communities in Papua New Guinea.

Road Construction

In the past, poor road construction has badly damaged portions of the conservation area resulting in flooding of streams onto the road which causes further destruction of the road system and a lot of land slips. A notable destruction was caused by a company in 2016 when they damaged the sections of the road in the area that caused landslips and much flooding that washed away our mini hydro power dam and penstock pipes.

Climate Change

Climate change can also affect the ecosystems in the conservation area in a negative way. Climate change threats to our area include: warming temperatures of the atmosphere; droughts; increased landslides and earthquakes. It is uncertain to what extent these threats will impact terrestrial ecosystems such as HCA, but there are many ways in which animals and plant populations and humans might be affected. Terrestrial habitats will certainly be affected by both the warming of the atmospheric temperatures and resulting in a deterioration of the forest health. Unusual heavy rainfall and occasional flash flooding can be attributed from the irregular weather patterns and climate change.

The threats discussed above, all result in a less primary forest environment. Overall, research and study facilitation activities offered in the area are likely to be negatively impacted by all the mentioned threats. Currently, scientific researchers and wildlife filmmakers come to Hogave Conservation Centre to experience the primary environment, which supports beautiful rainforest and its wildlife. As resources are depleted, and ecosystem health and balance altered, and the natural environment may become less appealing to scientific researchers and wildlife film makers.

Looking After Hogave Conservation Area: Policy

VISION

Beautifully conserved primary forest area with teeming wildlife freely roaming around the landscape of Hogave and Mt Michael with locals living harmoniously with nature in an improved and content living environment.

Mission:

Conserving the primary forest for present and future generations whilst achieving community development.

Objectives:

The two Primary objectives for this project are:

- **Firstly, to conserve Flora and Fauna of Hogave**
- **Secondly, to improve the general living conditions of the Hogave village people.**

1. Conserve Flora and Fauna (Forest Environment)

1. Plentiful forest trees and forest growth
2. Plentiful megapodes and other land birds
3. Protection and increased population of avifauna, special (endemic) birds and mammals
4. Culture preservation
5. Research study facility & environment
6. Example to other forest owning villages

2. Improved Living Conditions:

1. Clean, uncontaminated fresh drinking water
2. Alternative sources of Income
3. Training and Capacity Building
4. Basic Health & Education
5. Home Improvement
6. Electricity
7. Women Empowerment Program

How Objectives will be Achieved and Opportunities for Improvement

1. Forest Environment

The first objective will be achieved by either declaring the area as a Wildlife Management Area, or a National Protected Area and registered under appropriate government regulation. This has to be worked out with relevant government officials and relevant NGO's. Contacts and field visits had already been made with the department of nature and conservation officials who were very strongly in favour of declaring the area as a registered conservation area. However the current arrangement with local tribal leaders taking ownership in declaring to conserve their forest has worked very well for 35 years after it was locally declared as a conservation area. The Hogave people have kept to their communal pledge and resolve to look after their forest for future generations.

Hunting, cutting of trees and harvesting of other plant materials like firewood in the primary forest are strictly forbidden. Other communities who use the access road that cuts through part of the conservation area are strongly advised not to use the forest or wander off into the forest. Domesticated animals like dogs or cats and even livestock like pigs have to be strictly kept within the owner's premises or within the allowed farming area and not let to wonder off into the forest on its own. Stray dogs or cats roaming the forest are to be removed by

forest rangers.

From the general protection and conservation of all plants and animals, there will be special emphasis and protection on certain threatened species in focus. These are for endemic plants or animals found within the Hogave Conservation Area that are listed as threatened or vulnerable under the International Union for Conservation of Nature Red List of Threatened Species. Programs and activities will be carried out to protect and repopulate these species. Once the population has reached healthy levels, other species of fauna or flora will be in focus to protect.

Community Resolution-The Hogave people therefore had several community meetings and resolved that there is sufficient cleared land for making gardens (farming) and building houses on. It is therefore unnecessary for them to clear the new primary forest areas as they are destroying the environment unnecessarily. This community resolution will continue to be reminded and reinforced to the community as done for over 35 years. The people also resolved that logging or mining would not be a good option even if there was enormous mineral deposits. The people have instead opted for conservation.

2. Improved Living Conditions

The second objective of improving living conditions will be realized when relevant, development organizations, such as donor partners provide technical and financial assistance to the conservation project. Various community development projects can also be seen as incentives provided for conserving the environment. This ensures that sustainable livelihood and development needs of the local community are met. Sometimes there is a lack of funding to help initiate, or develop all desired community projects and sourcing funding is a separate process altogether. The Hogave Conservation has had some valued long term partnerships and engagement with NGOs' and government agencies assisting the conservation efforts. The HCA management desires to maintain these partnerships for longterm fruitful outcomes. Successful implementation of past projects within the HCA have shown that forest conservation and rural development can go hand in hand.

Access to Clean drinking water- There should be little or no human activity and increased human settlement around the source of the water supply which is piped down and supplied along the length and breadth of the village. There needs to be constant inspection to ensure it does not become disturbed or contaminated.

People need to live away or settle far from the water source. There needs to be forest rangers that monitor and ensure that people or children don't wander onto the water source where the pipe is connected.

Improved sources of Income- The Hogave people live on subsistence farming and cash-crop of coffee. Where there is a surplus of food, these are sold for income. Nowadays many are involved in micro-business such as opening small tucker shops and reselling goods bought from Goroka town. There are some members who have jobs in the towns or cities that send money to their relatives in the village. Improved sources of income such as Vanilla or Coffee Export can be looked at as alternative income generating activities. Training on basic finance management would promote sustainable livelihoods.

While there is a high potential for eco-tourism, the management will limit HCA visitors to scientific researchers, wildlife filmmakers and community development projects partners. The possibility of selling forest Carbon credits or Carbon Trading in the future is another opportunity that exists for the Hogave people.

Electricity- Project partners have assisted the Hogave Community with a Micro Hydro Power plant that produced 15-20 kilowatt of power. This hydro power was providing electricity for the village and the Conservation Centre from 2013 to 2017. However, this major construction was severely damaged and unable to function due to a major natural disaster. A land slide and flood damaged the water dam and penstock pipes that carried water to the penstock and turbine. Rebuilding a new mini hydro can be more beneficial to the villagers now as more of them have semi-permanent housing, and small trade stores. There is also a community primary school and church buildings.

Women Empowerment Program- While there is no specific program for them, women have taken part in every project that has happened in HCA over the years it has existed. Women are specifically encouraged to take part in niche commercial farming and financial literacy activities. Hogave Conservation Centre will look at avenues to assist women's farming, animal husbandry and marketing and means of transportation to transport their produce to town for marketing.

Training and Capacity building- There have been many training opportunities that members of Hogave Conservation Project were privileged to attend over the years. These various trainings were all related to conservation efforts and activities related to improving village lifestyles. We envision many more beneficial training opportunities for the people of Hogave in future. This will increase their awareness on conservation values and conservation management and it will be a source of motivation. In this regard, partnerships with local and international established conservation areas and related NGO's are welcomed.

Home Improvement- Semi-permanent or permanent homes provide a better living environment for the villagers. Many elders have respiratory or coughing problems due to breathing in smoke from the fires in the traditional huts. Moreover, a traditional home requires more trees and material to replace over time. Proper sanitation and clean home areas are encouraged. Every home has to have a toilet facility. Many Hogave villagers have now built semi-permanent houses. The management of Hogave can look into providing assistance regarding this so that the people can be encouraged to build and live in permanent buildings.

Basic Health & Education- The nearest clinic is two hours walk away and serves all the basic medical health needs of the people of Hogave. Regarding basic education, there is an elementary education provided by the Education Department which is being currently relocated and rebuilt. Adult literacy levels can be improved if a literacy program for adult is introduced. This can be facilitated with the adult literacy trainers. There can be discussions on options for basic health services going forward.

The Law and Policy

The Conservation Areas Act 1987 allows for the establishment and management of protected areas in Papua New Guinea. As this national legislation is specific to protected areas, it provides policy, direction, and regulations for Protected Areas in Papua New Guinea. The establishment and the management of the Hogave Conservation Area do not go against the relevant conservation laws and policies of Papua New Guinea. They provide direction and sound policies which HCA seeks to emulate. The HCA can be viewed as part of the national conservation efforts in the country as a non-profit organisation. This HCA management plan will be further reviewed and changed in the anticipated process leading up to registration of Hogave Conservation Area as a national protected area.

Hogave Conservation Management

The management and administrative efforts and activities are financially supported by income generating activities such as research facilitation fees and administration fees in community development projects. The HCA is managed by the Director, Coordinator, Hogave Conservation Centre Board, HCA Rangers and the Hogave Community. These management rules and regulations shall be communicated to all management personnel to be made aware of and agreed upon. Hogave Conservation will be managed in such a way that;

- Optimal sustainable livelihood and development needs of customary owners and dependent local communities are met.
- Ecologically sustainable use of natural resources to meet the basic livelihood needs of dependent local communities will be permitted under a strong management regime, particularly in the buffer zones;
- The basic livelihood needs of future generations dependent on the resources of the area will not be undermined or compromised by present generations; and careful use of resources will be encouraged.

Hogave Conservation Center Board

1. HCC Board – The HCC Board is composed of thirteen (13) members. This includes a women representative. All members of the Hogave community are eligible to become members of the HCC Board. Board members can also serve as Community Assistants.

The Current Board Members are:

1. Director/Treasurer- David Kima
2. Chairman-Fero Miori
3. Vice Chairman-Daniel Feto
4. Secretary/HCC Coordinator -David W. Vira
5. Board Member/Assistant Coordinator- Jacob Maura
6. Board Member-Ben Lapau
7. Board Member-Kumoro Kima
8. Board Member-Paul W Patrick
9. Board Member-Gabriel Joseph
10. Board Member-Cannon Navai
11. Board Member-Job Lase
12. Board Member-Pare Noruma
13. Women Representative- Sova Osilo

2. HCC Board Meetings-The HCC board shall meet at least once every year at the Annual General Meeting. The HCC guesthouse and the station area is to be the venue for all meetings unless decided otherwise. In consultation with the Chairman, the Secretary can call for additional meetings should the need arise.

3. Term of Office -The term of office of each member apart from the Director shall be in accordance with the terms set out in the Hogave Conservation Association Constitution. Upon completion of the term, the Board will decide if another term will be filled by the individual.

4. Decision Making -The Board is the body responsible for making decisions regarding the HCA. If the Board cannot come to a consensus, the matter must be referred to the elders of Hogave to advice on a decision.

5. Resolving Disputes - All grievances by any members of Hogave community wheather trivial such as personal differences or serious matters must be heard by the HCC board and addressed adequately. It is the responsibility of the HCC Board to resolve any disputes arising from the administration and uses of the HCA. Any dispute which is trivial in nature and pertaining to ownership rights shall be settled by the principal owners. In these instances, the Board will assist as necessary.

6. Allowances and Stipends -Depending on availability of funds, sitting allowances will be paid to HCC Board for meetings. Also, if available, funding will be used to cover a meal during the meetings. Such allowaces should be determined by the Executive Members of the Board, which include Chairperson, Deputy Chairperson, Secretary, Treasurer and Director. Members of the Board must be residents of Hogave and Goroka Town to enable attendance and participation in HCA management roles.

7. Approval of this Management Plan -Upon completion, this plan was presented to the HCC Board for review. The HCC Board will periodically review (after 5 years) and adjust the management plan to ensure management objectives are being met.

Role of the Hogave Conservation Management

- To implement the Management Plan;
- To employ appropriate staff and assistants to work in administration or management;
- To Appoint Rangers (community conservation officers) for enforcing management rules and regulations;
- To appoint Community Assistants for various HCA activities;

- To work in partnership with other stakeholders regarding conservation management in an organised manner;
- To review and evaluate resources and plans and maximise benefits;
- Approve various activities and resource uses within the HCA
- To involve the community in the planning process, establishment, management, and monitoring process of Hogave Conservation;
- To ensure there are no grievances left unaddressed whether trivial or serious and ensure that everyone is given equal opportunity to voice their concerns or grievances;
- To improve the capacity of Hogave constituents in conservation management;
- To declare any forest sites within the customary areas of Hogave land to be incorporated into specific management sites;
- Recommend training for HCA staff and rangers; and,
- Screen and review all external research applications to conduct research within the HCA

Compliance and Monitoring

The HCC Board will appoint rangers also known as community conservation officers - (CCOs) for enforcing management rules and regulations. The success of HCA, and the achievement of its management objectives, is directly related to the level of compliance with the HCA's Rules and Regulations. People will comply with rules and regulations when they understand and accept them. However, penalties need to be enforced on those who do not comply with, or break, the rules and regulations.

There will be **six (6)** forest rangers employed, two from each clan. The rangers will be supervised by the Director and HCC Board according to the Forest Rangers Manual. These rangers, appointed by the Board Members, are responsible for the monitoring and enforcement of compliance with the HCA rules and regulations that are approved under this management plan. Constituents of Hogave will report any offence to the HCA Ranger for penalties to be enforced. There will be prescribed penalties for individuals who fail to observe the General Prohibitions or carry out a Restricted Activity, without HCA Board Approval.

In the future, where Hogave Conservation has been registered under the relevant Papua New Guinean laws (Conservation Areas Act 1987) offences will have mandatory fines which the offender must pay. The enforcement and compliance system and process will be discussed with the Hogave villagers and other stakeholders when registering the Hogave Conservation Area.

Protecting Our Values and Achieving Our Vision: Management Actions & Desired Outcomes

The protection of the values of HCA is the basis upon which management decisions have been made. The people of Hogave depend on the land for their living and the forest habitat and biodiversity also depend on the people of Hogave to take care of it. Hogave conservation will be managed to protect and maintain the important values to ensure that the benefits derived from them are available to the present and future generations.

Compliance and Monitoring

Management Actions

1. Conduct regular education and awareness activities with schools, communities, and other relevant stakeholders. This compliance education and awareness program will cover:
 - i. The objectives of the HCC
 - ii. HCA boundaries
 - iii. Proposed benefits of HCC
 - iv. HCC rules and regulations

- v. Penalties for breaking the rules
2. Post public notices of HCA rules and penalties within the HCC and relevant notice boards
3. Training and the selection of Rangers. Organize training workshop on monitoring and enforcement of HCA regulations for forest rangers.
4. Develop and establish monitoring and enforcement program for rangers in Forest Ranger Manual that includes rules and enforcement.

Desired Outcomes

- Increase understanding of HCA rules, regulations, and penalties;
- Achieve a high level of compliance with HCA rules and regulations
- Assist in the achievement of the HCA objectives and desired outcomes: and,
- Trained forest rangers

Our Landscape and Ecosystems

Management Actions

1. Prohibit the commercial harvest of all forest resources from Hogave Conservation Area.
2. Prevent Human settlement encroaching on primary forest area
3. Periodic inventory, review and monitoring of some major animal and plant species to measure the health of the forest
4. Prohibit human loitering near drinking water source
5. The community resolution to conserve forest will continue to be reminded and reinforced to the community.
6. Initiate relevant steps to registering HCA as a national protected area under appropriate law.
7. Ensure Road construction companies and workers are sensitive when constructing or fixing roads running through the conservation area.

Desired Outcomes

- Protect the HCA from overharvesting of its resources
- Protect the HCA from all forms of severe degradation through human activities
- Maintain an intact forest with its multi-functional diversity in protecting the fragile ecosystems of the Hogave forest.
- Increase and continue education and training, awareness and community capacity building in conservation management issues and monitoring.
- Uncontaminated clean drinking water source
- Initiate steps to registering HCA as a national protected area

Our Plants and Animals – Flora & Fauna

Management Actions

1. Prohibit the commercial hunting or collection of any animal or plants within the conservation area
2. Sustainable collection, hunting or harvesting of forest resources is prohibited from forest areas, streams and rivers unless authorised by the HCC Board.
3. Educate tribal members continuously on plant and animal life present in the conservation area and the need to protect them.
4. Forest Rangers are to check that there is no prohibited activity going on in the area.
5. Any domestic animals roaming in the forest is prohibited. Keep close control over any domesticated animals looked after in the village.
6. Ensure the community does not introduce and look after invasive species (e.g. rabbits)

7. Look into breeding programs for repopulation of vulnerable and threatened (endangered) species such as the Blue Bird of Paradise and other animals and plants.
8. Where possible increase forest cover across secondary growth through reforestation
9. Make a awareness pamphlets (or poster) from the studies done in the area presenting data on natural features and animals and plant life within HCA to support and facilitate biodiversity research and HCA promotion.

Desired Outcomes

- Plentiful animals
- Increase in population of special and endangered species of wildlife such as the Blue Bird of Paradise
- Healthy primary forest
- Increased understanding by community members of the need to protect plants and animals in HCA

Threatened Species of Focus: Blue Bird Of Paradise (*Paradisea rudolphi*)

Management Action

1. Run education and awareness programs for locals on conserving this species and looking after their old plumes well so that they don't have to kill new ones.
2. Strengthen prohibitions on threatened species killing with higher penalties.
3. Restore their habitats by reforestation programs.
4. Replenish their favorite fruit trees or shrubs.
5. Remove identified invasive or predator species (dogs that hunt birds).
6. Survey species population before and after implementing program

Desired Outcomes

- Greater awareness amongst locals about conserving the threatened species
- Repopulation or substantial increase in population of threatened species in focus
- Restored Habitat for the species concerned.
- Increased population of species concerned

Our People and Culture

Management Actions

1. Encourage the people of Hogave tribe to continue their caring hospitality to outside visitors, (project partners and researchers),
2. Encourage the people of Hogave tribe to continue practicing the use of traditional knowledge and techniques for natural resource management.
3. Promote and encourage projects that preserve the culture and tradition such as the traditional salt making project.
4. Make an inventory and description (photos and GPS) of all culturally important sites within the area.
5. Draft a culturally appropriate Code of Conduct for visitors to HCA and the village .
6. Inform and clearly explain to community members about HCC partnerships and the work they do through pre-arranged community meetings and ensure community members are clearly aware of different partnerships and visitors.

Desired Outcomes

- Maintain the cultural values and hospitality within HCA
- Protect culturally significant sites within or nearby the Conservation Area.
- Ensure visitors do not overstep or break cultural rules
- Ensure future generations can enjoy the same traditional values as past generations
- Ensure traditional skills and techniques and the language is passed on to future generations.

Research Study Facility & Environment

Management Actions

1. Promote and facilitate scientific research activities by scientists on biodiversity. For example; biodiversity and scientific research activities available within the Conservation Area to be advertised to relevant institutions or organisations
2. Apply Conservation Area, admission fees to contribute to the running and management of HCA
3. Establishment proper financial records and practice to record how the money is being spent for accountability and transparency
4. Seek funding support to assist with various projects that will better facilitate HCA research activities.
5. Ensure equal benefit from researchers visiting and project activities.

Desired Outcomes

- Increased scientific research activities in the Conservation Area
- Establish governance/management structure for sound financial management and proper financial records for money spent
- Maintain good relations with current research partners such as Institute of Biological Research
- Source funding for the various projects that will better facilitate researchers.

Improved Sources of Income

Management Actions

- 1 Help organize training workshops by experts on possible livelihood opportunities such as vanilla farming and export, coffee export and honey farming
2. Provide basic financial management or business skills training and assist the community to access basic information on savings such as how to open a bank account
- 3 Women are specifically encouraged to take part in these niche commercial farming and financial literacy activities.
- 4 HCC will look at avenues to assist women's farming and marketing
5. Investigate other alternate livelihood initiatives available and establish partnership and learning networks.
6. Continue existing income generating activities and projects for the community.
7. Form valuable partnerships with stakeholders, such as NGOs and Government Agencies to support in the conservation efforts of the Hogave People through various projects.

Desired Outcomes

- Knowledge to cultivate and successfully harvest alternative income products such as vanilla and honey.
- Increased community understanding of sustainable financing and business skills
- Greater population of Hogave women financially literate and trained in niche commercial farming activities such as vanilla farming and export
- Funding opportunities to carry out training workshops for farming
- HCA beneficiaries partnering and working together with relevant NGO's and Government Agencies that

- can train Hogave men and women in the various farming opportunities for an alternative income source
- Sustainable livelihood
 - Increased training and capacity for alternative and improved income generating activities
 - Good relationships and networks with various project partners

Home Improvement

Management Actions

1. Partner with project partners and continue to facilitate various rural community development projects to improve the livelihood of the Hogave community as incentives for forest conservation such as rural electrification
2. Pigs to be looked after in fences and not roaming freely in the village
3. Every home and family must have their own toilets. Public toilets to be reconstructed at the roadside so that people do not wonder into the forest to relieve themselves
4. Where possible, assist the villagers build permanent or semi-permanent homes
5. Every home area should be kept clean and free from pests like rodents and other health hazards.

Desired Outcomes

- Various rural community development projects for Hogave community implemented such as rural electrification
- Clean healthy villages
- Improved homes/Permanent houses.

Basic Health and Education

Management Actions

1. Evaluate Hogave community's accessibility to basic health services.
2. Review and discuss possible options to improve the health services to Hogave.
3. Provide assistance where possible to the Hogave Elementary School.
4. Partner with and promote Adult Literacy Programs.
5. Gauge views of the community on challenges they face regarding basic health and education and assist where possible.

Desired Outcomes

- Improved access to basic health services
- Improved access to basic education services
- Addressing health and education service challenges and plan practical and achievable pathway forward
- Improved basic health and education services

Conservation Training and Capacity Building

Management Actions

1. In partnership with relevant organizations seek training for Hogave members on biodiversity conservation and monitoring locally and internationally.
2. Designate forest rangers to conduct monitoring within the HCA based on the Forest Ranger Manual.
3. Participation of the *Forest Rangers* in a *Look and Learn* visit to other community based organizations and conservation sites.
4. Participation of the *HCC Management* in *Look and Learn* visits to other community based organizations and conservation sites.
5. Encourage training for evaluation and monitoring by management; annual operations implementation and

reporting by management; finance records keeping by management; project proposal and sourcing funding for management; improved income opportunities for villagers; basic finance management for villagers and other project relevant skills.

Desired Outcomes

- Increased awareness regarding the HCA values, threats, and opportunities
- Increased understanding and capability amongst Hogave tribe members for the successful implementation of the management plan and associated monitoring program
- Monitoring and compliance duties within the Forest Conservation Area are shared amongst community members
- Increased skilled capacity
- Community members putting into practice what they have been trained on.

Our Rules and Regulations

Based on the communal law and resolution to conserve the Hogave primary forest area in 1987, rules and regulations are put in place to effect that resolution. Within the Hogave Conservation Area, it is an offence to do any of the following:

General Prohibitions

1. Carry out industrial or commercial extraction of timber, round logs or non timber forest products
2. Carry out industrial or commercial extraction of minerals including quarrying or gravel
3. Take or remove any plants, animal species or other organisms unless authorized by the management committee.

Restricted Activities

Within the Hogave Conservation Area it is an offence to do any of the following unless authorized by the management;

1. Carry on any agricultural or gardening activities
2. Build any dwelling house or unlawfully occupy the area
3. Light or cause any open fire to be started unless authorized on designated areas
4. Throw, litter, dump or release any chemical waste, sewage, refuse, or rubbish
5. Allow or introduce any grazing stock animal or breed invasive species
6. Erect, install or display any billboard, advertisement or promotional material
7. Cut, destroy or remove any plant or tree
8. Remove, extract, or excavate any sand or gravel
9. Hunt, kill, or slaughter any animal or other living creatures
10. Allow your dog to hunt, kill, or slaughter any animal or other living creatures
11. Destroy or deface any cultural object or monument of biocultural significance
12. Remove or be in possession of any cultural artefact or sacred objects
13. Remove any fossil, archaeological remain or paleontological specimen
14. Sow, propagate or introduce any exotic or invasive plant species
15. Significantly alter or change the natural flow of a river or stream
16. Use a vehicle, bull-dozer or other heavy machinery other than that complying with the dimensions specified by the management
17. Organise or participate in any public meeting, demonstration or gathering
18. Wilful obstruction of a HCA Forest Ranger in the course of his/her duties

Authorised Activities

The following activities have been authorized by the HCC Management:

1. Members of Hogave community may take or remove any plants, or animals for medicinal purposes if approved by the Board but excludes animal and plant species that are special and endemic protected species
2. Members of Hogave community may take or remove any plant leaves, nuts, mushrooms or fruits naturally produced or spices from tree bark used for cooking
3. Members of the Hogave are permitted limited non-commercial extraction of timber and building materials for construction of buildings for approved Conservation projects.
4. Upon approval of the HCC Board, land within the conservation area may be developed to go towards conservation efforts such as bigger research facilities or endemic species breeding facilities.

Our Action Plan

Identified activities for implementation are listed in Table 1. Relative priorities are allocated against each activity as follows:

- **High priority** activities are those essential to achievement of the objectives and desired outcomes. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources
- **Medium priority** activities are those that are necessary to achieve the objectives and desired outcomes but are not urgent
- **Low priority** activities are desirable to achieve management objectives and desired outcomes but can wait until resources become available
- **Ongoing** is for activities that are undertaken on an annual basis or statements of management intent that will direct the management response if an issue arises.

This plan of management does not have a specific term and will stay in force until amended or replaced in accordance with the Amended Conservation Areas Act 1978.

Annual Operations Plan

To guide the implementation of the HCC Conservation Management Plan, an Annual Operations Plan will be prepared on annual basis and reported to relevant stakeholders in line with Table 1 Management Actions. An annual report must be furnished by HCC Management covering the operation, challenges faced and outcomes during the year for the HCC Board and relevant project partners where required.

Table 1: Management Actions:

Action No.	Management Actions	Priority
Action No.	Our Landscape and Ecosystems	Priority Level
A.1	Prohibit commercial harvest of all forest resources from Hogave Conservation Area	Ongoing
A.2	Prevent human settlement encroaching on primary forest area.	High
A.3	Periodic inventory, review and monitoring of some major animal and plant species to measure the health of the forest.	Medium
A.4	Prohibit human loitering near drinking water source	Ongoing, High
A.5	Community resolution to conserve forest will continue to be reinforced in the community.	Medium
A.6	Initiate relevant steps to registering HCA as a national	High

	protected area under appropriate law.	
A.7	Ensure Road construction companies and workers are sensitive when constructing or fixing roads running through the conservation area.	High
Action No.	Our Plants & Animals – Flora & Fauna	Priority Level
A.1	Prohibit commercial hunting and collection of animal and plants within the conservation area.	Ongoing
A.2	Sustainable collection, hunting or harvesting of forest resources is prohibited from forest areas, streams and rivers unless authorized by the HCC board.	Ongoing
A.3	Educate tribal members continuously on plant and animal life present in the conservation area and the need to protect them.	Ongoing, Medium
A.4	Forest Rangers are to check that there is no prohibited activity going on in the area.	High
A.5	Prohibit Domestic animals roaming in the forest. Keep control over any domesticated animals in the village.	Ongoing, Medium
A.6	Do not introduce and look after invasive species (e.g. rabbits)	Ongoing
A.7	Look into breeding programs for repopulating special & endangered species where possible, e.g. Blue Bird of Paradise.	High
A. 8	Where possible increase forest cover across secondary growth through reforestation	Medium
A. 9	Make a awareness pamphlets (or poster) from the studies done in the area presenting data to support and facilitate biodiversity research and promotion.	High
Action No	Threatened Species of Focus: Blue Bird Of Paradise (Paradisea rudolphi)	Priority Level
A.1	Run education and awareness programs for locals on conserving this species and looking after their old plumes well so that they don't have to kill new ones.	Medium
A.2	Strengthen prohibitions on threatened species killing with higher penalties.	High
A.3	Restore their habitats by reforestation programs	High
A.4	Replenish their favorite fruit trees or shrubs	High
A.5	Remove identified invasive or predator species (dogs that hunt birds).	High
A.6	Survey and tracking species population	High
Action No.	Hogave People & Culture	Priority Level
A.1	Encourage the people of Hogave tribe to continue their caring hospitality to outside visitors	Ongoing
A.2	Encourage the people of Hogave tribe to continue practicing the use of traditional knowledge and techniques for natural resource management.	Medium
A.3	Promote and encourage projects that preserve their culture and tradition such as traditional salt making	Medium
A.4	Make an inventory and description (photos and GPS) of all cultural important sites within the area.	Medium
A.5	Draft a culturally appropriate Code of Conduct for visitors to HCA and the village .	Medium
A.6	Inform and clearly explain to community members	Ongoing

	about the partnerships through pre-arranged community meetings and ensure community members are clearly aware of different partnerships and visitors.	
Action No.	Research Study Facility & Environment	Priority Level
A.1	Promote and facilitate scientific research activities. For example; advertise to relevant institutions or companies.	Medium
A.2	Apply Forest Conservation Area fees to contribute to the administration and management of HCA.	Low
A.3	Establishment proper financial records and practice to record how the money is being spent for accountability and transparency.	High
A.4	Seek funding support to assist with various projects that will better facilitate HCA research activities.	Medium
A.5	Ensure equal benefit from researchers visiting and project activities.	Medium
Action No.	Improved Sources of Income	Priority Level
A.1	Help organize training workshops by experts on possible livelihood opportunities such as vanilla farming, coffee export and honey farming.	Ongoing
A.2	Provide basic financial management training and assist the community to access basic information on savings e.g, How to open a bank account.	Medium
A.3	Women are specifically encouraged to take part in these niche commercial farming and financial literacy activities.	High
A.4	HCC will look at avenues to assist women's farming and marketing such as providing transportation for their market produce to town.	Medium
A.5	Investigate alternate livelihood initiatives available and establish partnership and learning networks.	High
A.6	Continue existing income generating activities and projects for the community.	
A.7	Form valuable partnerships with NGOs to support in the conservation efforts of the Hogave People.	Medium
Action No.	Home Improvement	Priority Level
A.1	Partner with project partners and continue to facilitate various development projects to improve the livelihood of the Hogave community as incentive for forest conservation.	Medium
A.2	Pigs to be looked after in fences and not roaming freely in the village.	Medium
A.3	Every home and family must have their own toilets. Public toilets to be reconstructed at the roadside so that people do not wonder into the forest to relieve themselves.	High
A.4	Where possible, assist the villagers build permanent or semi-permanent homes	Medium
A.5	Every home area should be kept clean and free from pests like rodents and other health hazards.	Medium
Action No.	Basic Health & Education	Priority Level
A.1	Evaluate Hogave community's accessibility to basic	Medium

	health services.	
A.2	Discuss possible options to improve the health services to Hogave.	Medium
A.3	Provide assistance where possible to the Hogave Elementary School.	Medium
A.4	Facilitate and support adult literacy training program.	Medium
A.5	Gauge views from the community on challenges they face with regard to basic health and education and assist where possible.	Medium
Action No.	Conservation Training and Capacity Building	Priority Level
A.1	In partnership with relevant organization seek training workshop for Hogave community members on biodiversity conservation and monitoring.	Ongoing
A.2	Six designated community rangers to conducting monitoring in HCA.	High
A.3	Participation of <i>Conservation Rangers</i> and management in a <i>Look and Learn</i> visit to other Sites.	Medium
A.4	Participation of HCC Management members in a <i>Look and Learn</i> visit to other Sites.	Medium
A.5	Encourage various management training for HCC Management and Hogave Villagers regarding project relevant skills.	High
Action No.	Monitoring and Enforcement	Priority Level
A.1	Conduct regular education and awareness activities with schools, communities, and relevant stakeholders.	Medium
A.2	Post public notices of HCA rules and penalties within the HCC and relevant notice boards	Low
A.3	Training and the selection of Rangers. Organize training workshop on monitoring and enforcement of HCA regulations.	High
A.4	Develop and establish monitoring and enforcement program for rangers in Forest Ranger Manual	High

Monitoring, Evaluation and Review of the Plan

It is important to check that the plan is on track to achieve the objectives, outcomes and vision for the protected area. We need to measure progress and collect information to confirm the status of the values and to determine whether or not threats are under control. One of the strategies in this plan is to put together a monitoring and evaluation program.

Table 2 summarizes the indicators associated with each management action discussed in Table 1 as already discussed above. Indicators will be monitored and measured to determine whether or not the individual targets for each value are being achieved. The proposed methods for measuring the indicators are also presented.

Table 2. List of Indicators for the Monitoring and Evaluation Program

VALUE CATEGORY	INDICATORS	MONITORING METHOD
Our Landscape and Ecosystems	A.1 Level of compliance regarding prohibition of commercial harvest of all forest resources	Observations from Forest Rangers
	A.2 Prevented human settlement encroaching on primary forest area.	Monitoring by Forest Rangers
	A.3 Periodic inventory and monitoring of some major animal and plant species to measure forest health. At least once every five (5) years.	Field surveys by scientists and biologists with community assistants
	A.4 Clean, uncontaminated drinking water source	Monitoring by Forest Rangers
	A.5 Number of meeting where community resolution to conserve forest reinforced to the community.	Report by Coordinator
	A.6 Discussions and research done and documents prepared for registering HCA as a national protected area	Annual Opreations Report by HCC Management
	A.7 No damaged landscape from poor road construction by road construction companies	Monitoring by Forest Rangers
Value Category	Indicator	Monitoring Method
Our plants and animals – Flora & Fauna	A.1 Level of compliance regarding prohibition of commercial hunting or collection of animal and plants	Observations from Forest Rangers
	A.2 Sustainable collection, hunting or harvesting of forest resources is prohibitted from forest areas, streams and rivers unless authorized by the HCC board.	Monitoring by Forest Rangers
	A.3 Level of knowledge and understanding of community members on plant and animal life and the need to protect them.	Community Surveys and Interviews by community assistants
	A.4 No prohibited activity going on in the HCA	Field Monitoring by Forest Rangers
	A.5 No domestic animals roaming in the forest and close control over any domesticated animals looked after in the village.	Monitored by Forest Rangers
	A.6 No invasive species introduced (e.g. rabbits)	Monitored by Forest Rangers
	A.7 Research done on potential breeding programs for special & endemic species. Increased BOP population.	Researchers/Scientists Annual Operations Report
	A. 8 Increased forest cover across secondary growth	HCC Coordinator Annual Opperations Report
	A. 9 Publish one awareness pamphlet (or poster) from the studies done in the area to promote biodiversity research.	Annual Operations Report by HCC Management
Value	Indicator	Monitoring Method

Category		
Hogave People & Culture	A.1 Continued caring hospitality to outside visitors	HCC Management Observation
	A.2 Traditional knowledge and techniques for natural resource management captured and passed on to youth.	Community surveys by community assistants
	A.3 Culture and traditional practice passed on to young generation such as traditional salt making	Community surveys by community assistants
	A.4 Inventory made with description culturally important sites within the area.	Inventory by HCC Coordinator and Forest Rangers.
	A.5 Code of Conduct for visitors upon arrival in HCA	HCC Management
	A.6 Community members awareness level of different partnerships and visitors.	Community surveys by community assistants
Value Category	Indicator	Monitoring Method
Threatened Species of Focus: Blue Bird Of Paradise (Paradisea rudolphi)	A.1 Greater awareness amongst locals about conserving the threatened species	Community surveys by community assistants
	A.2 Stong prohibition established in HCA	HCC Management
	A.3 Restored habitat of species in focus	HCC Coordinator and Forest Rangers and community assitants
	A.4 Replenished favourite fruit/food tree	HCC Coordinator and Forest Rangers and community assitants
	A.5 Invasive or predator species (dogs that hunt birds) removed and controlled.	Monitored by Forest Rangers
	A.6 Increased species population-Number of birds increased	Annual Operations Report by HCC Management/Partner Scientist
Value Category	Indicator	Monitoring Method
Benefits and Opportunities: Research Study Facility & Environment	A.1 Number of scientific research institutions or companies interested in coming to HCA	Annual Operations Report by HCC Management
	A.2 Amount of fees collected to contribute to the administration and management of HCA.	HCC Director and Management
	A.3 Proper finacial records for accountability and transparency.	HCC Director and HCC Management
	A.4 Seek funding support to assist with various projects that will better facilitate HCA research activities.	HCC Director and HCC Management
	A.5 Record on distribution of assistance payment by researchers visiting and other project activities.	HCC Director and HCC Management
Value Category	Indicator	Monitoring Method
Benefits and Opportunities: Improved Sources of Income	A.1 Number of Community participants in training workshops by experts on possible livelihood opportunities	HCC Coordinator
	A.2 Increased knowledge in basic financial management or business skills training	Community Survey by community assistants
	A.3 Number of women taking part in these niche comercial farming and and financial literacy activities.	Survey
	A.4 A truck to transport market produce to town	Annual Operations Report
	A.5 Investigate one alternate livelihood initiative available and establish partnership	Annual Operations Report
	A.6 Existing income generating activities and projects for the community continued.	HCC Director and Management
	A.7 Partnership with valuable partners established	HCC Director and Management
Value Category	Indicator	Monitoring Method
Benefits and	A.1 Number of project proposals for rural community	HCC Director and Management

Opportunities: Home Improvement	development projects to improve the livelihood of the Hogave community	
	A.2 No pigs roaming freely in the village or public spaces	Monitoring by Forest Rangers
	A.3 One toilet for each family. Two or three public toilets reconstructed at the roadside.	Monitoring by Forest Rangers
	A.4 Funding secured for home improvement. Number of villagers with permanent or semi-permanent homes.	HCC Director and Management Survey by community assistants
	A.5 Number of clean home areas.	Survey by community assistants
Action No.	Indicator	Monitoring Method
Benefits and Opportunities: Basic Health & Education	A.1 Evaluation Report on Hogave community's accessibility to basic health services	Interviews HCC Management
	A.2 Discussion by management done on possible options to improve the health services	Report by HCC Coordinator
	A.3 Amount in PGK of assistance provided to the Hogave Elementary School where possible	Annual Operations Report
	A.4 Number of adults participated in literacy training and number of new literates	Annual Operations Report
	A.5 Survey Report on views for the community what they face challenges with regarding basic health and education	Report by HCC Coordinator
Value Category	Indicator	Monitoring Method
Benefits and Opportunities: Conservation Training and Capacity Building	A.1 At least one training workshop for Hogave community members annually where possible	Annual Operations Report
	A.2 Number of community rangers appointed	Annual Operations Report
	A.3 At least one Look and Learn visit to other Sites by all forest rangers	Annual Operations Report
	A.4 At least one Look and Learn visit to other community based organizations and conservation sites by members of management	Annual Operations Report
	A.5 Number of anagement personnel and Hogave village members participating in various training	HCC Coordinator/Annual Operations Report
Value Category	Indicator	Monitoring Method
Monitoring and Enforcement	A.1 Number of education and awareness activities done in a year	Annual Operations Report
	A.2 Number of people who are aware of rules and penalties	Community Survey
	A.3 Number of Rangers and number of trainings attended	Annual Operations Report
	A.4 HCA Forest Ranger Manual	HCC Management

Financial Inputs on Key Management Actions

Some of the major activities stated in the 'action plan' and 'monitoring and evaluation' will not be fully realized without the input of financial resources. It is therefore imperative that we have funding to successfully implement the activities shown in this action plan.

Table 3: Financial Inputs

Action No.	Management Actions	Priority Level	Funding Source	Amount
Our Landscape and Ecosystems				
A.1	Prohibit commercial harvest of all forest resources from Hogave Conservation Area	Ongoing	HCC	-
A.2	Prevent human settlement encroaching on primary forest area.	High	HCC	-
A.3	Periodic inventory, review and monitoring of some major animal and plant species to measure the health of the forest.	Medium	HCC	5,000
A.4	Prohibit human loitering near drinking water source	Ongoing, High	HCC	-
A.5	Community resolution to conserve forest will continue to be reinforced in the community.	Medium		
A.6	Initiate relevant steps to registering HCA as a national protected area under appropriate law.	High	HCC & CEPA	10,000
A.7	Ensure Road construction companies and workers are sensitive when constructing or fixing roads running through the conservation area.	High	HCC	-
Action No.	Our Plants & Animals – Flora & Fauna	Priority Level	Funding Source	Amount
A.1	Prohibit commercial hunting and collection of animal and plants within the conservation area.	Ongoing	HCC	-
A.2	Sustainable collection, hunting or harvesting of forest resources is prohibited from forest areas, streams and rivers unless authorized by the HCC board.	Ongoing	HCC	-
A.3	Educate tribal members continuously on plant and animal life present in the conservation	Ongoing, Medium	HCC	5,000

	area and the need to protect them.			
A.4	Forest Rangers are to check that there is no prohibited activity going on in the area.	High	HCC	-
A.5	Prohibit Domestic animals roaming in the forest. Keep close control over any domesticated animals looked after in the village.	Ongoing, Medium	HCC	-
A.6	Do not introduce and look after invasive species (e.g. rabbits)	Ongoing	HCC	-
A.7	Look into breeding programs for repopulating special & endangered species where possible, e.g. Blue Bird of Paradise.	High	HCC & Donor	20,000
A. 8	Where possible increase forest cover across secondary growth through reforestation	Medium	HCC	-
A. 9	Make awareness pamphlets (or poster) from the studies done in the area presenting data to support and facilitate biodiversity research and promotion.	High	HCC & Donor	10,000
Action No	Threatened Species of Focus: Blue Bird of Paradise (Paradisaea rudolphi)	Priority Level	Funding Source	Amount
A.1	Run education and awareness programs for locals on conserving this species and looking after their old plumes well so that they don't have to kill new ones.	Medium	HCC	5,000
A.2	Strengthen prohibitions on threatened species killing with higher penalties.	High	HCC	
A.3	Restore their habitats by reforestation programs	High	HCC	5,000
A.4	Replenish their favorite fruit trees or shrubs	High	HCC	
A.5	Remove identified invasive or predator species (dogs that hunt birds).	High	HCC	
A.6	Survey and track species population	High	HCC	10,000
Action No.	Hogave People & Culture	Priority Level	Funding Source	Amount
A.1	Encourage the people of Hogave	Ongoing	HCC	-

	to continue their caring for nature and show hospitality to outside visitors			
A.2	Encourage the people of Hogave tribe to continue practicing the use of traditional knowledge and techniques for natural resource management.	Medium	HCC	-
A.3	Promote and encourage projects that preserve their culture and tradition such as traditional salt making	Medium	HCC & Donor	20,000
A.4	Make an inventory and description (photos and GPS) of all cultural important sites within the area.	Medium	HCC & Donor	20,000
A.5	Draft a culturally appropriate Code of Conduct for visitors to HCA and the village.	Medium	HCC, CEPA & Donor	5,000
A.6	Inform and clearly explain to community members about the partnerships through pre-arranged community meetings and ensure community members are clearly aware of different partnerships and visitors.	Ongoing	HCC	-
Action No.	Research Study Facility & Environment	Priority Level	Funding Source	Amount
A.1	Promote and facilitate scientific research activities. For example; advertise to relevant institutions or companies.	Medium	HCC & CEPA	5,000
A.2	Apply Forest Conservation Area fees to contribute to the administration and management of HCA.	Low	HCC	-
A.3	Establishment proper financial records and practice to record how the money is being spent for accountability and transparency.	High	HCC	-
A.4	Seek funding support to assist with various projects that will better facilitate HCA research activities.	Medium	HCC & CEPA	-
A.5	Ensure equal benefit from researchers visiting and project activities.	Medium	HCC	-

Action No.	Improved Sources of Income	Priority Level	Funding Source	Amount
A.1	Help organize training workshops by experts on possible livelihood opportunities such as vanilla farming and export, coffee export and honey farming.	Ongoing	HCC, Donor & CEPA	-
A.2	Provide basic financial management training and assist the community to access basic information on savings e.g., How to open a bank account.	Medium	HCC & Donor	-
A.3	Women are specifically encouraged to take part in these niche commercial farming and financial literacy activities.	High	HCC, Donor & CEPA	10,000
A.4	HCC will look at avenues to assist women's farming and marketing such as providing transportation for their market produce to town.	Medium	HCC & Donor	-
A.5	Investigate alternate livelihood initiatives available and establish partnership and learning networks.	High	HCC, Donor & CEPA	20,000
A.6	Continue existing income generating activities and projects for the community.		HCC	-
A.7	Form valuable partnerships with NGOs to support in the conservation efforts of the Hogave People.	Medium	HCC	-
Action No.	Home Improvement	Priority Level	Funding Source	Amount
A.1	Partner with project partners and continue to facilitate various development projects to improve the livelihood of the Hogave community as incentive for forest conservation.	Medium	HCC	-
A.2	Pigs to be looked after in fences and not roaming freely in the village.	Medium	HCC	-
A.3	Every home and family must have their own toilets. Public toilets to be reconstructed at the roadside so that people do not wonder into the forest to relieve themselves.	High	HCC	-
A.4	Where possible, assist the	Medium	CEPA & Donor	-

	villagers build permanent or semi-permanent homes			
A.5	Every home area should be kept clean and free from pests like rodents and other health hazards.	Medium	HCC	-
Action No.	Basic Health & Education	Priority Level	Funding Source	Amount
A.1	Evaluate Hogave community's accessibility to basic health services.	Medium	HCC & Donor	-
A.2	Discuss possible options to improve the health services to Hogave.	Medium	HCC, Gov't & CEPA	-
A.3	Provide assistance where possible to the Hogave Elementary School.	Medium	Gov't Education Office	10,000
A.4	Facilitate and support adult literacy training program.	Medium	HCC & Gov't	5,000
A.5	Gauge views from the community on challenges they face with regard to basic health and education and assist where possible.	Medium	Gov't Health Office	-
Action No.	Conservation Training and Capacity Building	Priority Level	Funding Source	Amount
A.1	In partnership with relevant organization seek training workshop for Hogave community members on biodiversity conservation and monitoring.	Ongoing	HCC & CEPA	10,000
A.2	Six designated community rangers to conducting monitoring in HCA.	High	HCC & CEPA	57,600
A.3	Participation of <i>Conservation Rangers</i> and management in a <i>Look and Learn</i> visit to other Sites.	Medium	CEPA	5,000
A.4	Participation of HCC Management members in a <i>Look and Learn</i> visit to other Sites.	Medium	HCC & CEPA	5,000
A.5	Encourage various management training for HCC Management and Hogave Villagers regarding project relevant skills.	High	HCC, CEPA & Donor	10,000
Action No.	Monitoring and Enforcement	Priority Level	Funding Source	Amount
A.1	Conduct regular education and awareness activities with schools, communities, and relevant stakeholders.	Medium	HCC	5,000

A.2	Post public notices of HCA rules and penalties within the HCC and relevant notice boards	Low	HCC	5,000
A.3	Training and the selection of Rangers. Organize training workshop on monitoring and enforcement of HCA regulations.	High	HCC & CEPA	20,000
A.4	Develop and establish monitoring and enforcement program for rangers in Forest Ranger Manual	High	HCC & Donor	20,000
Admin & Logistics 10% of total costs				35,260
Sub Total				332,600
Grand Total Annual Budget				367,860

Summary

The management plan summarizes the history of the Hogave Conservation Area. The plan provides a description of the site, the flora and fauna and the significance of its conservation. The plan also presents the vision, objectives and descriptions of rules and regulations in the area, and lists the management, governance and monitoring of the Hogave Conservation Area. The plan also shows where finance will be required to successfully implements its projected activities.

As such, it is meant to provide a clear guideline for the Hogave Conservation Board Members, Staff and Hogave tribe members to manage and administer the area in a most proper and beneficial way for present and future generations.

Reference

- i. Hogave Mini -RAP Survey Report by PNG Institute of Biological Research, November 2009*
- ii. Conservation Areas Act 1978*
- iii. Vuri Forest Conservation Area Management Committee (VFCAMC). Sasamuqa, Choiseul Province. Solomon Islands
May 2021*

Appendices

Appendix 1. Chart of Account -HCC Project Activity/Operation Budget

Prepared by: Oino Paku Ted

CHART OF ACCOUNT - HCC PROJECT ACTIVITY/OPERATION BUDGET

Project Name	Hogave Conservation Programme
Project Period	Current
Duration	Current
Funding Budget (K):	524,750.00

BUDGET	Year 1 Fiscal Year 2023				
	Unit	Priority Level	Cost/Unit PGK	No. units	Total PGK
Activity Personnel					
Project Staff (list by position)					
Director/Project Manager	month		3,000.00	12	36,000.00
Coordinator	month		2,000.00	12	24,000.00
Assistant Coordinator	month		1,500.00	12	18,000.00
Expat Consultancy	month		3,000.00	6	18,000.00
Local Consultancy/ Professionals	month		1,300.00	12	15,600.00
Board Members BOM Allowances (13)	month		3,900.00	12	46,800.00
Bush Rangers 1	month		900.00	12	10,800.00
Bush Rangers 2	month		900.00	12	10,800.00
Bush Rangers 3	month		900.00	12	10,800.00
Bush Rangers 4	month		900.00	12	10,800.00
Bush Rangers 5	month		900.00	12	10,800.00
Bush Rangers 6	month		900.00	12	10,800.00
Community Assistants and Volunteers (10)	month		500.00	12	6,000.00
Subtotal Activity Personnel					229,200.00
Non Personnel Inputs					
Computers (incl UPS)	sum		2,500.00	3	7,500.00
Cameras	sum		1,500.00	2	3,000.00
Phones	sum		200.00	5	1,000.00
Other equipment	sum		2,000.00	5	10,000.00
Subtotal Activity Non Personnel Inputs					21,500.00
Activity Costs					
Outcome 1 - Training & Capacity Building for Management/Rangers					
Biodiversity Conservation & Monitoring Workshop	sum		20,000.00	1	20,000.00
Look & Learn Site Visits at other Conservation Sites	sum		350.00	15	5,250.00
Improved Basic Finance Management Training Skills	sum		300.00	15	4,500.00
Inventory & Description of all Cultural Important Sites (Photos & GPS)	sum		500.00	10	5,000.00
Drafting of Code of Conduct for Visitors	sum		100.00	15	1,500.00
Establishment and Application of Forest Ranger Manual	sum		300.00	10	3,000.00
Subtotal Objective 1					39,250.00
Outcome 2 - Hogave People & Culture					
Promote Traditional Knowledge & Techniques for Natural Resource Management	sum		20,000.00	1	20,000.00
Awareness Pamphlets to Facilitate Biodiversity Conservation Promotion	sum		10,000.00	1	10,000.00
Awareness on Community Caring & Hospitality Support	sum		2,000.00	1	2,000.00
Pre-arrangement Meetings & Preparations for Various Visitors & Partnerships	sum		2,000.00	1	2,000.00
Subtotal Objective 2					34,000.00
Outcome 3 - Environment Conservation Sustainability Actions					
3.1 Landscape & Ecosystems Conservation;					
3.1.a - Prohibition of Commercial Harvests of Forest Trees	HCC Personnel				-
3.1.b - Prohibition of Human Settlement on Primary Forest Area	HCC Personnel				-
3.1.c - Prohibition of Human Loitering Near Drinking Water Source	HCC Personnel				-
3.1.d - Construction of Public Toilets Along the Conservation Road Side	HCC Personnel				-

3.1.e - Precautions by Road Contractors along the Conservation Vicinity	HCC Personnel				-
3.1.f - Periodic Inventory Review & Measure of the Forest Condition	sum		5,000.00	1	5,000.00
3.1.g - Stakeholders Research & Steps to Register HCA as a National Protected Area	sum		10,000.00	1	10,000.00
3.2 Plants & Animals - Flora & Fauna					-
3.2.a - Prohibition of Commercial Hunting	HCC Personnel				-
3.2.b - Sustainable Hunting is Prohibited Unless Authorised by HCC Board	HCC Personnel				-
3.2.c - Educate Tribal Members on the Need to Conserve the Flora & Fauna	sum		5,000.00	1	5,000.00
3.2.d - Forest Rangers to Affirm that No Prohibited Activity is Done	HCC Personnel				-
3.2.e - Prohibition of Domestic Animals Entering the Forest	HCC Personnel				-
3.2.f - Prohibition of the Introduction of Invasive Species	HCC Personnel				-
3.2.g - Endangered Species Repopulation Program (eg.Blue Bird Of Paradise)	sum		20,000.00	1	20,000.00
3.2.h - High Penalties for Killing of Threatened Species	HCC Personnel				-
3.2.i - Replenishment of Forest Cover (Fruits/Shrubs) by Reforestation Program	sum		15,000.00	1	15,000.00
Subtotal Objective 3					55,000.00
Outcome 4 - Improved Community Livelihood					
4.1 Sources of Income					
4.1.a - Livelihood Training on Intensive Farming by Established Experts	sum		20,000.00	1	20,000.00
4.1.b - Basic Financial Savings & Management Training	HCC Personnel				-
4.1.c - Highly Engage Women into Farming Businesses	sum		10,000.00	1	10,000.00
4.1.d - Continue Existing Income Generating Projects/Activities	HCC Personnel				-
4.2 Home Improvements					-
4.2.a - Facilitate Development Projects from People's Conservation Incentives	sum				-
4.2.b - Individual Family to have Piggins	sum		15,000.00	1	15,000.00
4.2.c - Every Home to have Appropriate Lavatory Access	HCC Personnel				-
4.2.d - Building of Semi Permanent to Permanent Homes (donors)	sum				-
4.2.e - Clean & Pest Free Homes	HCC Personnel				-
Subtotal Objective 4					45,000.00
Outcome 5 - Basic Health & Education					
Evaluation & Establishment of Health Service Accessibility (govt/donors)	sum				-
Aid for Current Elementry School	sum		10,000.00	1	10,000.00
Facilitate the Support of Adult Literacy Programme	sum		5,000.00	1	5,000.00
Subtotal Objective 5					15,000.00
Outcome 6 - Research Study Facility & Environment					
Promote Scientific Research Activity through Advertisements	sum		5,000.00	1	5,000.00
Ensure Researchers Achieve Satisfaction on Study & Project Activities	HCC Personnel				-
Subtotal Objective 6					5,000.00
Outcome 7 - Performance Monitoring & Enforcement Evaluation					
Regular Revisit to Community, Schools & Stakeholders on Conservation Awareness	HCC Personnel				-
Update Notice Boards of HCA Rules & Penalties	sum		5,000.00	1	5,000.00
Rangers Revision Workshop on Monitoring & Enforcement of HCA Regulations	year		15,000.00	1	15,000.00
Audit of Financial Records for Accountability & Transparency	sum		5,000.00	1	5,000.00
Subtotal Objective 7					25,000.00
OPERATIONS SUPPORT COST (Goroka)					
Direct Office Costs	month		500.00	12	6,000.00
Maintenance & Fittings	month		350.00	12	4,200.00
Travel And Transport	month		700.00	12	8,400.00
Vehicle Maintenance	month		2,200.00	6	13,200.00
Premises & Occupation	month		2,000.00	12	24,000.00
Subtotal Operations Support					55,800.00
GRAND TOTAL					524,750.00

Appendix 2. Table of Birds, Mammals & Ants

Table 1. Bird species list

Number	Group	Taxa	Common Name	HRC 2119- 2179m	Camp1 2292- 2384m	Camp2 2600m
1	Acanthizidae	<i>Gerygone cinerea</i>	Grey Gerygone	✓		
		<i>Sericornis nouhuysi</i>	Large Scrub Wren		✓	✓
2	Acciptridae	<i>Sericornis papuensis</i> [= Collared Sparrowhawk Accipiter cirrhocephalus?]	Papuan Scrub Wren a small Accipiter	✓	✓	✓
		<i>Henicopernis longicauda</i>	Long-tailed Buzzard	✓		
3	Aegothelidae	<i>Aegotheles insignis</i>	Mountain Owlet	✓		
4	Apodidae	<i>Collocalia esculenta</i>	Nghtjar Glossy Swiftlet	✓	✓	✓
5	Artamidae	<i>Artamus maximus</i>	Great Wood Swallow	✓		
6	Cassuaridae	<i>Casuaris bennetti</i> [= Claret-breasted Fruit-dove <i>Ptilinopus</i> <i>viridis?</i>]	Dwarf Cassowary a red bellied Fruit- Dove	✓	✓	
7	Columbidae	<i>Gallicolumba beccarii</i>	Bronze Ground- dove	✓		✓
		<i>Gymnophaps albertisii</i>	Papuan Mountain Pigeon	✓	✓	✓
8	Cracticidae	<i>Macropygia amboinensis</i>	Brown Cuckoo- Dove	✓	✓	✓
		<i>Ptilinophus rivoli</i>	White-breasted Fruit-Dove	✓	✓	✓
9	Dicaeidae	<i>Peltops montanus</i> – identified from Schellenberg photo taken at Hogave	Mountain Peltops	✓	✓	
9	Dicaeidae	<i>Melanocharis versteri</i>	Fantail Berrypecker	✓	✓	✓
		<i>Amalocichla incerta</i>	Lesser-ground Robin	✓	✓	✓
10	Eopsaltridae	<i>Microeca papuana</i>	Canary flycatcher	✓	✓	✓
		<i>Peneothello cyanus</i>	Blue-grey Robin	✓	✓	✓
11	Estrildidae	<i>Peneothello sigillatus</i>	White-winged Robin	✓	✓	✓
		<i>Poecilodryas albonotata</i>	Black-throated Robin	✓	✓	✓
12	Maluridae	<i>Erythrura trichroa</i>	Blue face Parrot	✓		
12	Maluridae	<i>Clytomyias insignis</i>	Finch	✓	✓	✓
		<i>Honeyteater Myzomela rosenbergii</i>	Orange-crown Fairwren	✓	✓	✓
13	Meliphaidae	<i>Melidectes rufocrissalis</i>	Red-collared Myzomela	✓	✓	✓
		<i>Melidectes belfordi</i>	Yellow-browed Honeyeater	✓	✓	✓
13	Meliphaidae	<i>Melipotes fumigatus</i>	Belford's Melidectus	✓	✓	✓
		<i>Ptiloprora guisei</i>	Common Smoky Honeyeater	✓	✓	✓
14	Neosittidae	<i>Ptiloprora perstriata</i>	Rufous-backed Honeyeater	✓	✓	✓
		<i>Toxorhamphus poliopterus</i>	Grey-streaked Honeyeater	✓	✓	✓
15	Orthonychidae	<i>Daphoenositta chrysoptera</i> (white- headed form)	Varied Sittella	✓		
16	Pachycephalidae	<i>Ifrita kowaldi</i>	Blue-capped Ifrita	✓		✓
		<i>Eulacostoma nigropectus</i>	Wattled Poughbill	✓		✓
16	Pachycephalidae	<i>Pachycephala rufinacha</i>	Rufous-naped Whistler	✓	✓	✓
		<i>Pachycephala schlegelli</i>	Regent Whistler	✓	✓	✓
17	Paradisaeidae	<i>Rhagologus leucostigma</i>	Mottled Whistler	✓	✓	✓
		<i>Cnemophilus loriae</i>	Loria's BoP	✓	✓	✓
17	Paradisaeidae	<i>Cnemophilus macgregorii</i>	Crested BoP	✓	✓	✓
		<i>Epimachus fastuosus</i>	Black Sickie Bill	✓	✓	✓
18	Psittacidae	<i>Lophorina superba</i>	Superb Bird of Paradise	✓	✓	✓
		<i>Parotia Lawessii</i>	Lawes Parotia	✓	✓	✓
18	Psittacidae	[= Double-eyed Fig-Parrot <i>Cyclopsitta</i> <i>diophthalma?</i>]	a Fig-Parrot species	✓		
		<i>Charmosyna papou</i>	Papuan Lorikeet	✓		
19	Ptilonorhynchidae	<i>Neopsittacus musschenbroekii</i>	Yellow-billed Lorikeet	✓	✓	✓
		<i>Oreocharis arfaki</i>	Tit Berrypecker	✓	✓	✓
20	Rhipiduridae	<i>Amblyornis macgregoriae</i>	Macgregor's Bowerbird	✓	✓	✓
20	Rhipiduridae	<i>Rhipidura albolimbata</i>	Friendly Fantail	✓	✓	✓
		<i>Rhipidura atra</i>	Black Fantail	✓	✓	✓
21	Sylviidae	<i>Crateroscelis robusta</i>	Mountain Mouse Warbler	✓	✓	✓
22	Zosteropide	<i>Phylloscopus poliocephalus</i>	Island Leaf-warbler	✓	✓	✓
		<i>Zosterops novaeguineae</i>	New Guinea White-eye	✓	✓	✓
Summary						
Total Species recorded at each site				22	34	25
Species Shared between site 1 & 2						7
Species shared between site 2 & 3						14
Species shared amongst all sites						5
Total for all sites						51

10

Table 2. Trap effort for the Mt. Michael mini RAP July 2009

Survey Site	Date	Trap type	# of traps	# of nights	Trap nights
Camp 1 (2400m)	8 -9 July 2009	Live Elliot	30	5	150
		Harp traps	2	5	10
	10 - 12 July 2009	Snap traps	15	4	60
		Mist- nets	Used bird nets	5	
Camp 2 (2800m)	15 - 17 July 2009	Live Elliot	36	3	108
		Snap traps	11	3	33
		Mist- nets	Used bird nets		

Table 3. Mammals caught at the two elevations during the mini RAP

Small mammal types	Common name	Scientific name	Frequency/Elevation		
			2400 m	2800 m	Total
Non-Volant mammals	Mountain Melomys	<i>Paramelomys rubex</i>	10	2	12
	Moss-forest rat	<i>Rattus niobe</i>	8	6	14
Volant mammals	Mountain Pipistrelle	<i>Pipistrellus collinus</i>	1	0	1
	Mountain Tube-nosed bat	<i>Nyctimene certans</i>	0	6	6
	Common Blossom-bat	<i>Syconycteris australis</i>	1	7	8
	Total	5	20	21	41

Table 4: Morpho-species list of ants from Mt.Michael, Hogave, Eastern HighlandsProvince. An X shows ant species present at that elevation

Subfamily	Morpho-species	Site, Elevation and Species Distribution		
		Hogave Resource Centre 2119-2179m	Kavoyakotutai Camp1 2292-2384m	Ulusulu'i Camp2 2800m
Dolichoderinae	<i>Ochtellus</i> sp	X		
	<i>Philidris</i> sp1	X		
	<i>Philidris</i> sp2		X	
	<i>Technomyrmex albipes</i>	X		
Formicinea	<i>Paratrechina</i> sp2		X	
Myrmicinae	<i>Apheanogaster</i> sp1		X	
	<i>Monomorium</i> sp2	X		
Ponerinae	<i>Pheidole</i> sp1		X	
	<i>Pheidole</i> sp2	X		
	<i>Pheidole</i> sp3		X	
	<i>Strumigenys</i> sp1		X	
	<i>Strumigenys</i> sp2		X	
	<i>Tetramorium pacificum</i>	X	X	
	<i>Tetramorium</i> sp1		X	
	<i>Vollenhovia</i> sp1	X		
	<i>Vollenhovia</i> sp2		X	
	<i>Vollenhovia</i> sp3	X		
	<i>Amblyopone</i> sp1	X		
	<i>Discothyrea</i>		X	
	<i>Hypoponera</i> sp1		X	
	<i>Onychomyrmex</i> sp1		X	
<i>Ponera</i> sp1	X			
<i>Proceratium</i> sp1	X			
Total	23	11	13	0

Iconic Birds in Hogave Conservation



Superb Bird of Paradise
at Hogave Conservation
Area



Lowes Parotia at Hogave Conservation

Lowes Parotia in the height
of performance, taken
at Hogave Conservation Area

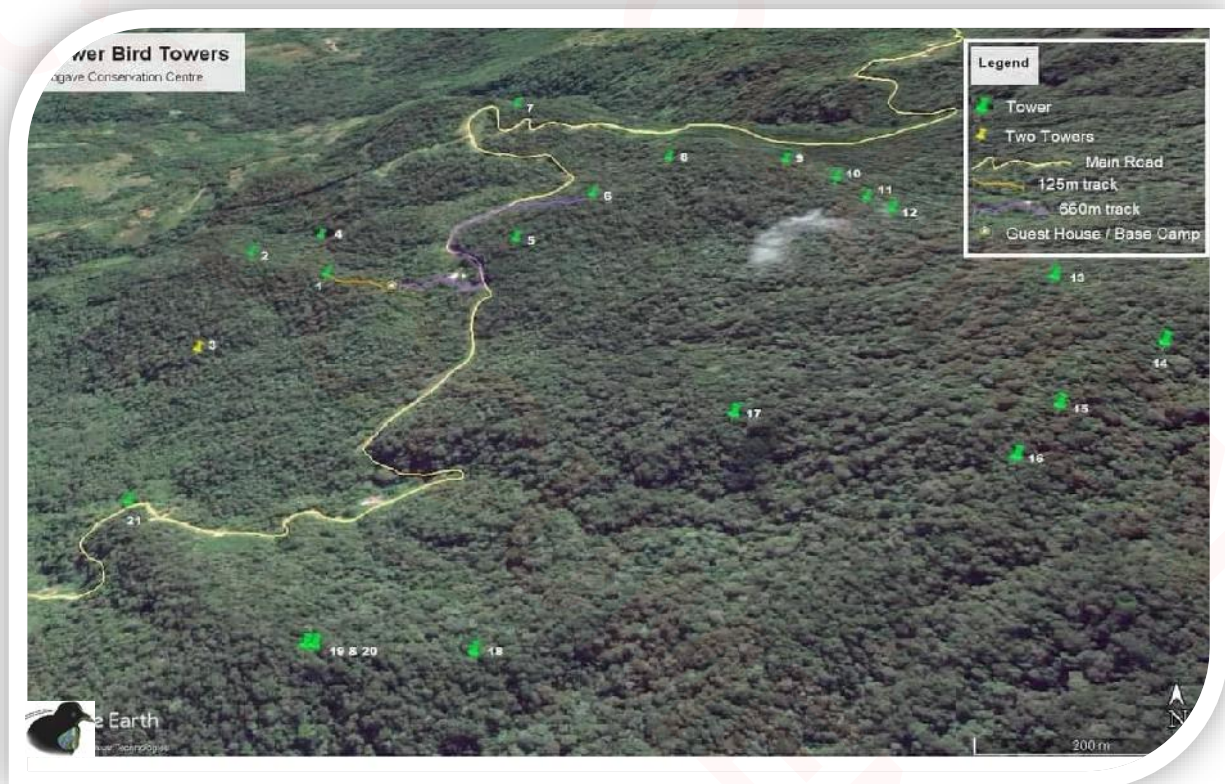


McGregor's Bower Bird



McGregor's Bower Bird constructing his tower at Grampa's Walk, Hogave Conservation Area.

Below is the Satellite city map for McGregor's Bower Bird at Hogave Conservation Area. These McGregor's Bower Bird's Dancing Arenas were found for Wildsrar TV Film Crew 2022.



Common Birds found in Hogave



Common Birds and Animals found in Hogave



Echidna taken at Hogave
Lower Land Conservation Area



Appendix 3. Memorandum of Understanding by Traditional Chiefs of Hogave

Memorandum

To
whom it may concern
Hogave, 8/12/90

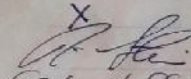
Dear Donor,

We as the customary landowners of the Hogave - part of Mt. Michael, would like to express our strong wish to make our forest a protected area. This beautiful virgin forest is inhabited by many animals and plants, gives us a comfortable climate, water to drink and plenty to eat, and will be the treasure of our children.

We want to protect this forest so that it may last forever and be the home of our children's children. As our ancestors did, we want to take care of our forest and the ancestors rest there in peace and quietness.

Therefore we request our government to gazett Hogave - forest as "Hogave - Nationalpark" and to make sure it will be respected by everyone as a totally protected area.

We are following chiefs
On behalf of our people, & the three clans who made the Hogave village.

	Sign/Mark
1. Kima Mulefa - Laivolo clan	X
2. Fulelu Uimewa Mulefa - Laivolo Clan	X
3. Yame Kalikumamu - Hemula clan	X
4. Wagi Osilo - Alumo clan	X
5. Tovo: David Kima. 	
6. Witness by: Director Wan Eco. Institute 