



FINAL REPORT FOR

**THE RUFFORD SMALL GRANTS FOR NATURE
CONSERVATION**

**Torricelli Mountain Range Conservation Area Training Program
Papua New Guinea**

February 2007 – February 2008

Toricelli Mountain Range Conservation Area Training Program

Executive Summary from original grant application

The aim of this project is to ensure the long term protection of biodiversity and sustainable use of natural resources within the Torricelli Mountain Range, Papua New Guinea. The project aims to build the capacity within the local community so that landowners are equipped with the skills and knowledge necessary for them to make informed decisions on managing their natural resources and establishing a legally protected area of land known as a "Conservation Area".

Two training programs are anticipated which will accommodate the local resource owners at the village level and the local teaching community. Participants will be involved in a training program that offers practical solutions to local conservation issues, a resource manual and skills transfer training that aims to provide people with the capacity to manage their resources sustainably.

Currently the local people do not have the capacity to manage their resources and as a result species are becoming locally extinct and endangered. This is due to an increase in human population and over-hunting, changing cultures and a reduction of habitat from increased gardening. These issues will be addressed in the training programs.

Background Information and Objectives from original grant

Previously the Tenkile Conservation Alliance education programs have informed local people about conservation of biodiversity within the Torricelli Mountain Range and consequently created interest amongst local communities to work towards establishing a Conservation Area on their land. Local people have requested further training in order to be fully equipped with the skills and knowledge necessary to manage their natural resources. The Conservation Area Management training aims to do this.

The Teacher training program conducted in 2005 was successful but requires further local capacity building in order to maintain this form of training in the future. The objective is to provide local teachers with further training so they have the necessary skills and knowledge to conduct their own conservation education training programs independently of TCA.

Once the Torricelli Mountain Range becomes a Conservation Area, it will be legally protected from large scale commercial development such as logging. Local impact such as hunting and harvesting of natural resources will also reduce significantly. This is a "bottom up" approach where resource owners agree to establish the protected area, write their own rules and penalties and then manage it accordingly. The training programs will provide local people with the capacity that is currently lacking in the communities to manage their resources. Local level government and National government then formalise the landowners request by recognising the land under the Conservation Areas Act (1988). The National, Provincial and Local Level Governments are supportive in our aims of developing a Conservation Area within the Torricelli Mountain Range because they recognise the importance of protecting the most endangered animal in PNG.

The content of the training programs will incorporate both scientific knowledge and local indigenous knowledge that can provide practical solutions in land use and natural resource management relevant to the local area. Being a grassroots initiative, participants of the programs will be more

inclined to use their new skills and knowledge on the ground to ensure species and habitat are protected for future generations. Therefore these training programs are necessary for local people to manage their own resources. Once the programs have been implemented it will make a substantial and long lasting contribution to nature conservation because the habitat will be managed at the local level.

The natural resource training program involves the production of a training manual which will be given to each participant and therefore become a future resource manual for locals. Approximately 10 people from each of the 18 villages will attend the training workshop. Once they have completed the workshop they will become the members of a conservation area management committee in their own village and monitor and manage their natural resources. They will essentially act as the “rangers” for their own land. Without the training workshop, it is unlikely the rules and penalties for the management of the conservation area will be enforced.

The training will incorporate biological information about the animals in the area focusing on marsupials which are the most vulnerable to over-hunting, improved gardening practices that minimises habitat loss and farming alternative protein sources.

A revised edition of the teacher training manual that was produced in 2005 will be re-printed. Teachers from all schools within the local area will be invited to attend the in-service training workshop. The teachers who attended the training in 2005 will return as trainers therefore building local capacity and independence for locals to conduct their own conservation education program.

TEACHER TRAINING RESULTS – LUMI AND SIBILANGA September 2007

Two teacher training programs were conducted in Lumi and Sibilanga districts during the month of September. There were a total of 35 people that attended the workshops, 12 from the Lumi district and 23 from the Sibilanga area.

Workshop	School	Participants Name
Lumi Workshop 3 rd – 7 th September 2007	Lumi Primary School	Brother Brendon Nangur Dollyrose Sopi
	Wigote Community School	Godfried Wima Gregory Ibol
	Yaluwape Community School	Killian Eki Belinda Yerwei
	Kamnom Community School	Caspar Woma
	Fatima Primary School	Wendy Rere Melchior Yaisi (Retired Teacher)
	Mapul Community School	Mathew Makari
	Teloute Elementary	Robert Kiyu

	School	
	Tabale Elementary School	Anton Womki
Sibilanga Workshop 17 th – 21 st September 2007	Sibilanga Primary School	Tipi Naiapin Serah Naiapin Richard Yisamben Catherine Itimbien Jimmy Suren Philip Naiapin Tony Nilsamban (retired)
	Kolembi Community School	Mr B Kalmbop
	Warasikau Community School	Dorothy Lulane
	Yambakou Community School	Manuel Kaimo Lawrence Wlpken
	Sengi Elementary School	Nancy Nasa Ken Watamai
	Sibilanga Elementary School	Martha Teble Godfried Mundai Timothy Nimbisan
	Asier Elementary School	Willie Itimbien
	Asier Literacy School	Bethsiba Pokuk Christine Pokuk
	Other Elementary Teachers and interested people	Lorna Neldin Charles Siren Micah Nasam Steven Siren

Table 1 – The list of participants that attended the teacher training workshops in Lumi and Sibilanga during September, 2007

Results

The teacher training manual that was produced in 2005 was updated and re-printed during early 2007. Each teacher who participated in the workshop received a copy of the training manual, an exercise book, various handouts, posters, biro and bag. Throughout the week course, a different unit of work from the training manual was covered each day with an evaluation and graduation held on the last day of the workshop. A local teacher, Mr. Melchior Yaisi, was chosen to assist the program in order to build more local capacity and to possibly run the workshops in the future.

Most teachers provided positive feedback of the workshop during the evaluation. Teachers appreciated the training and the activities during the week. There was great discussion and full participation by those that attended. Following the training workshop some teachers produced various posters regarding conservation, which TCA aims to develop into laminated posters that will be distributed to schools as a teaching resource.

Overall the teachers feedback was very positive with many teachers not attending this kind of training before. Approximately 77% of participants rated the training as outstanding. Some comments were:

"Everything in the manual is excellent. It will be of great help in the classroom because the units are similar to the units in the environmental studies booklet." Serah Naiapin – Sibilanga PS

"Needs more information on global warming" – Martha Teble – Sibilanga elementary school

"A very detailed handbook with enough activities, notes and illustrations. Well fitted into the latest reform curriculum materials. Very handy" – Tony Nilsamba – Sibilanga PS

"The manual is very helpful because all the notes and activities are in one book which is very helpful"

"I will go to my village , clan group and tell them how important is the wildlife and environment. I will also talk with them and tell them we must try and protect our environment and every living creature in it. Tell them we must try and protect our environment and every living creature in it. Tell them also that we must look after it so that our children late will see them and benefit out of them."

"This training has diverted my attitude of destroying the environment. I will apply my learning to other in the comm. I will contribute to the well being of the environment" -Jimmy Suren – SibPai Elementary School

"This is the best workshop or course I have ever attended. Laikim stret nating tru! Thank-you Jim and Jean of TCA Lumi for all the effort and support which make it a success. Brother na Sister stret." Tony Nilsamba – Sib PS

"The Working scientifically unit encourages me to use a variety of methods and strategies in my teaching and empowers students to explore question and test new ideas"

"From unit 2 I have learnt that it is much more easier to teach using the activities or games rather than talk too much and give notes to the children. From the games the children will be able to learn and remember things" Mrs Serah Naiapin – Sibilanga PS

"I learnt many new things during unit 3 which may help me in the teaching of living things in my classroom"

"Very interesting and educational, especially learning about food chain and food web. How living things depend on each other and the environment. It must be looked after and protected for future generations"

"Very interesting to learn more about living things, how they are linked with each other and how one affects the other in different ways or situations " _ Serah Naiapin Sib PS

"In our generation now some things are disappearing so this unit teachers us how to look after our environment and makes us feel proud"

"Unit 4 was very nice – Communities at large would be motivated by this and it will help divert their behaviour to the environment " – Jimmy Suren Sib Pai elementary school

"The knowledge you've presented were quite relevant to increase teachers capacity – Fantastic" Manual Kaimo - Yambakau Primary School

"Very resourceful and worthwhile This unit needs to be extended to in the villages in the Weimang area"

"Melchior is an active trainer motivates the students a lot and makes you think -excellent"

"Melchior, your way of teaching and involving us in small group activities was very good" – Serah Naiapin – Sibilanga Primary School

"We have discovered that some of what we taught in the past are false. We now recognise and understand many new ideas of science and ecology. I have learnt a lot of new things that I never heard of before"

Discussion

Although the teacher training has been a success, the feedback from the participants evaluation forms, Melchior Yaisi and in general discussion, it is obvious more work is needed. Further scientific resources are necessary for the teachers to fully implement the activities outlined within the training manual. In particular pictures, posters, books, thermometers, beakers and measuring cylinders were listed as the most important materials required.

Teachers requested that TCA continue its support with teacher training by continuing the current training program but also including global warming/climate change. Discussions on climate change were so powerful that teachers were begging to have more information at another workshop, rather than developing the current training program. Teachers feel they have learnt a lot from the current workshop but now want to learn more about other things and need more materials, access to information and support from TCA in order to deliver quality scientific and conservation teaching in their classrooms.

In terms of developing the capacity amongst teachers for the future we feel that a greater one on one approach with the people is required to increase local ownership and control. Many participants showed a great level of enthusiasm in terms of building on their new knowledge by raising awareness in the local communities. The results obtained are very encouraging, however TCA feels it will need to duplicate this work and place a greater emphasis in areas where more work is needed.

CONSERVATION AREA MANAGEMENT TRAINING 2007

Aims

The Conservation Area Management (CAM) Training Course aims at providing local resource owners with the training, knowledge, resources and skills necessary to manage their Conservation Area independently. This will help ensure the knowledge is retained in the communities and appropriate conservation action can take place.

Many people within the Lumi and Nuku Districts do not have the capacity or knowledge base to initiate and conduct sound resource management in the area. People do not understand the importance of conservation from not only a local perspective but from a global perspective. The CAM training program aims to build the capacity necessary in the local community so the actual resource owners have the skills and knowledge necessary to inform the members of their own communities and help promote conservation action.

The overall goal of this training was to provide sufficient background information for conservation area committee members so that they can learn more about the environment and how to manage it and also to communicate various conservation messages and motivate behavior change within their community.

Methods

In order to achieve the aims, a training manual was written and produced by Jean Thomas, TCA Capacity Building Officer and formatted by Bridgett Hayes (Wildlife, Conservation and Science Department-Zoos Victoria). Local Papua New Guinean Mr. Melchior Yaisi was employed to help translate the manual into Pidgin English. NB Pidgin English (or Melanesian Pidgin) is the language most spoken in the project area and throughout PNG.

The manual was designed to give people a source of information regarding the unique fauna and flora of Papua New Guinea. It includes information of traditional knowledge regarding wildlife and the environment combined with information relating to how nature works such as food webs and food chains which is based on sound scientific knowledge. Natural resources are defined in the manual and practical ideas are given on how to manage those resources and the consequences associated with how nature works if those resources are not managed properly.

Results

All 18 villages in the project area established their Conservation Area Management Committees. Minor workshops were held with some of these committees both in Lumi and in their villages. Meetings were held with the "Weimang" villages to discuss the establishment of the conservation area and the protection of their natural resources. 21 new "Weimang" villages have agreed to stop hunting the critically endangered Golden-mantled Tree Kangaroo (*Dendrolagus pulcherrimus*) for a period of 2 years. This hunting moratorium is a good pre-cursor to the establishment of the Conservation Area.

During the workshops, a total of 222 Committee members (Table 2) were involved in Conservation Area Training workshops. TCA found that 49% of people increased their knowledge, 37%

remained the same and 14% showed some confusion. Confused responses were referring to the meaning of extinction and food chains. However there was a clear gain in knowledge relating to understanding that insects are animals and the importance of insects in the environment. Also the distribution of Marsupials and the level of endemism throughout PNG was better understood as a result of the training. Participants already had a good knowledge of identifying species and the interconnectedness of living and non-living things.

The attitudes of participants were also tested but there was no significant change in the attitudes, except for one question that asked how they would feel if the 'Guria' pigeon (Victoria's Crowned Pigeon became extinct). Following the training, 17% of people changed their attitude from unsure to sad if they became extinct. It was clear from the attitude assessment that people already had a strong value to protect the environment and the results showed a major concern toward the destruction of the rainforest from logging and people were willing and happy to do something to protect the environment.

Various comments were also made throughout the course of the workshop and they include:

"I have learnt many new things during this workshop especially the classification of animals and biodiversity"

"The 3 most significant things I have learnt this week has been about Marsupials, Monotremes and Placental Mammals"

"This workshop has shown me to change my attitude of destroying the environment. I will now contribute to the well being of the environment and apply my learning's to the other people in the community"

"I will now go back to tell the community about conservation and even do some of the activities with them"

"Some things I will do when I get back to the village is to put up some tok saves (notices) about conservation for the community to read".

"I am very pleased with the content of the training manual and all of it is useful – thank-you"

"All my life I have thought that insects are "samting nating" (something nothing), but now it is clear to me they are animals and they are an important part of the environment. Many people in PNG would not realise this".

Table 2 – List of Conservation Area Management Committee Members for each of the "Tenkile" Villages.

Village Name	Committee Members Name	Committee Members Name
Waieli	Mr Raymond Saikou Mr Peter Manom Mr Raymond Wirri Mr Albert Seiwo	Mr Timothy Ouya Mr Pascal Manom Mr Robert Burku Mr Johnathon Manom

	Mr John Wolopo	Mrs Margaret Ketau
Wuguble	Mr Peter Sua Mr Francis Poike Mr Jerol Sopo Mr Robert Wena Mr Bernard Aiyape	Mr Canesius Koru Mr Pascal Iyo Mr Alois Pinai Mr Canesius Asaila Mr Alphonse Noala
Maiwetem	Mr Mathew Akon Mr Moses Maibine Mr Nelson Kumah Mr John Kumah Mr Jacob Momah Mr David Lauwo Mr Luke Oshou Mr David Moimbi	Mr Peter Pokonam Mr Mathew Yausi Mr Timothy Wital Mr Alois Yausi Mr Lazarus Kamoi Mr Bonny Souepe Mr Kelly Yausi
Soulete	Mr Sim Olikei, Mr Baptist Mokari, Mr Paul Mefyou, Mr Jeffrey Bepe Mr Steven Falu, Mr Andrew Wulu, Mr Clemen Yobi Mr Charles Paino, Mr Paul Malalo, Mr Elija Wameri Mr Titus Mupluai	Mr Clen Paino, Mr Bona Paino Mr Marcus Yongi, Mr Simon Bansolo Mr Titus Mublum, Mr Benjamen Fumo, Mr Terrance Eiki, Mr Joe Wirri Mr William Kilo, Mr Fabian Kilo, Mr Oto Kilo
Wanulu	Mr. James Tibli Mr. Moses Seibe Mr. Max Walion Mr. Joes Saikou	Mr. Hendrick Wombe Mr. Joe Awok Mr. Luke Yebyou Mr. Andrew Yebyou
Yongite	Mr Stephen Einddou Mr Paulus Tommy Mrs Vero Ouyai Mrs Carmel Melu Mr Anton Kounei Mr Joe Sai Mr Salvador Topo	Mr Stanley Lukiye Mr Rodney Paino Mr Stephen Matin Mr Thomas Walion Mr Peter Maniyau Mr Tom Baikruma Mr Albert Kati
Rawete	Mr Luke Kiwen Mr Sebby Kowolo Mr Mathew Waisi Mr Stanley Moko Mr Anton Kowolou Mr Toby Kais Mr Luke Kiwen Mr Bonnie Sarikon Mr Daneil Saiweni	Mr Andrew Saimbu Mr Donald Awok Mr Gerrold Sabion Mr Yohn Yali Mr Joshua Telwata Mr Oti Walion Mr Max Mayfo Mr Mathew Rawi
Wilbeite	Mr Francis Palu Mr Phillip Boike Mr Stius Meitom Mr Denis Moikou Mr Job Yepou	Mr Greg Kouye Mr Casper Wakien Mr Edmun Walet Mr Augustine Ripai Mr Simon Siyei
Miwaute	Mr Bernard Sarikon Mr Greg Yatou Mr Canisius Saweni Mr Segrid Forou Mr Julian Teble	Mr Gerrold Mawaine Mr Andrew Kowil Mr Leo Nameni Mr Job Yeni Mr Mark Wopule

	Mr Kevin Yinowa Mr Austin Sengrebi	Mr Simon Konini
Wabute	Mr Jacob Watei Mr Paul Weibai Mr Linus Pauke Mr Robert Kati Mr John Tumai	Mr Daneil Sarikon Mr Kerry Lopi Mr Phillip Kinei Mr Peter Salpo Mr Sebbby Paiwe
Sarboute	Mr Robert Weriye Mr Michael Tiel Mr Alphonse Yowai Mr Cyprian Reimau Mrs Clara Aiko Mr John Timau Mr Vincent Ainou	Mr Graham Aite Mr Petrus Pirou Mr Stephen Muru Mr Rex Mengai Mr Bablas Maiene Mr Francis Ouyai Mr Zacrias Aiko
Tolgete	Mr Hendrick Asphey Ms Aileen Wilou Mr Barnabas Meimbi Mr Terrance Maise Mr Pais Melik Mr Marius Aulei Ms Natalie Selmatin	Mrs Batricia Meifo Mr Sailas Melik Mr Dennis Mause Mr Thomas Seire Mr Jude Kosu Mr Cannesius Maise Mr Luke Yalu
Wigote	Mr Paulinus Muntol Mr Francis Yilokou Mr Linus Youfei Mr Patrick Konok Mr Primus Wilei Mr Thadeous Sinta Mr Adam Yakei Mr Michael Sapi	Mr Francis Kanbine Mr Marius Aifol Mr Anton Wanembi Mr Julian Manor Mr Julian Baku Mr Robert Sewen Mr Willie Same Mr Keven Kondi
Hapseim	Mr Phillip Pabel Mr Andrew Mause Mr Daniel Molain Mr Techlan Tamatau Mr Fabian Mowun	Mr Francis Yuwop Mr Marius Mosen Mr Justin Nomko Mr Peter Pabel
Yomoum	Mr Rolland Frank Mackson Mr Peter Waynau Mr Aimo Yopos Mr Bruno Poiyu Mr Solanus Womki Mr Clettus Amsu Mr Jerry Poiyu	Mr Richard Boney Mr John Soveni Mr Luvi Amsu Mr Walter Yawoni Mr Otto Tave Mr Florian Wolomusi Mr Lucas Minio Yopos
Lilal	Mr Peter Alman Mr Peterus Manowin Mr Paskal Manowin Mr Steven Aulan Mr Alois Aulan Mr Jakob Wolaki Mr Lukas Ouyam	Mr Robin Yuap Mr Sisa Alman Mr Joel Alman Mr Christopher Yawilan Mr David Alman Mr Canesius Malien Mr Paulinus Ouyam
Mupun	Mr Moris Talou Mr Gebriel Yauani Mr Jos Maitin	Mr Moses Manuna Mr Luckas Nalbe Mr Albert Woui
Sikel	Mr Robert Yanu Mr Alouis Kipai Mr Alouis Taplain	Mr David Suat Mr Walerius Timothy Mr Martin Wruku

Conclusion

The Conservation Area Management Committee members participated well in the workshops and feedback was encouraging. A lot more training and awareness is required in this area. The poor literacy and education level of community members (land and resources owners) make this form of training program difficult to implement and build capacity. Further training is required with different learning techniques such as video and participatory learning activities being delivered.

Unfortunately due to cultural issues women have not played an active role in this program and TCA would like to see this change in the future. A very small percentage of people from each village have been participants in this program and TCA aims to increase the level of active participation by conducting more awareness and training to build the communities involvement in natural resource management.

Overall Conclusion

Generally the project has been successful and the objectives have been achieved. The Teacher Training was very successful with teachers providing very positive feedback. TCA aims to continue capacity building in this area and will attempt to produce a training program which focuses on climate change. This will become an even more important aspect of TCA's work once the Conservation Area is established.

The conservation area management training component requires much more work with each committee needing further training. Although the initial training has provided some good results, local people requested that they need to know more and want to learn more in the area of Natural Resources Management. TCA aims to conduct courses which will be able to provide participants access to a greater range of learning methods including video, activities and practical models for natural resources conservation.