

# KOKODA INITIATIVE – PHASE 2 SOCIAL MAPPING: FINAL REPORT ON FIELDWORK IN KOIARI RURAL LLG 2010-12

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FINAL – MARCH 2013

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FINAL – 4 MARCH 2013

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For  
PNG Department of Environment and Conservation,  
under the Papua New Guinea-Australia Kokoda Initiative

## EXECUTIVE SUMMARY

The Brown-Naoro catchment, proposed by the Department of Environment and Conservation for catchment management for a variety of purposes, is home to some 1500 speakers of the Mountain Koiari language.

As recounted in Chapter 1, Mountain Koiari villages, each located on or near a branch of the Brown-Naoro system, were socially isolated until the 1950s, typically marrying no further than two villages away, and with no known residents absent outside the area, with the possible exception of Seventh-Day Adventist students or lay workers at Bisiatabu, until WWII.

Chapter 2 explains the current governmental structures in the Mountain Koiari area. A key finding is that from the 1960s, with a continuing trend to the present day, Mountain Koiari people have emigrated to other areas, a few to Kokoda following pathways of marriage, but most to various suburbs and settlements in Port Moresby, notably to Saraga.

Chapter 3 discusses our fieldwork in the area, our methods, and the preliminary findings of the social mapping project. Data entry is complete for Wards 15-19 in Koiari Rural LLG, with the major finding that emigrants now outnumber village residents by a factor of 3 to 1.

Chapter 4 considers the design of a community consultation strategy. The chapter discusses the hereditary leadership position of the Mountain Koiari, the *vata biage* or 'land director' within each local branch of a clan, responsible for land knowledge and settling disputes.

The key finding is that considerable thought need to be given to the design of consultation procedures in respect of catchment management and conservation to ensure that the Sirinumu Dam experience is not repeated, where a multitude of land issues arose that were beyond the scope of Sirinumu equivalent of the *vata biage* to solve.

Chapter 5 presents a set of recommendations based on the results of social mapping obtained to date and the analysis set out in the previous chapters.

The information presented here is based on archival studies and fieldwork in the project area, as part of a social mapping project commissioned by the Department of Environment and Conservation as a Kokoda Initiative activity.

## NOTE ON AMENDMENTS IN 2012

### *Mountain Koiari Timeline*

Extra detailed from the *British New Guinea Annual Reports*: the first mention of the new 'Brown River Road', i.e. the Kokoda Track, by Governor William Macgregor (*Ann. Rep. Brit. N.G.* 1897-98, p. 24).

### *Table 4 (p. 37)*

New table: Revision downwards of population estimates for Koiari Rural LLG, Wards 15-19

### *Table 5 (p. 38)*

New table: Major out-migration destinations for Mt Koiari people.

### *Table 6 (p. 39)*

Updated table: Population counts after data entry by J. Burton, E. Kaitokai, J. Onguglo up to 3 March 2013.

### *Multidimensional Poverty Index assessment for Madilogo*

New section on p. 41, and new Table 7 on p. 43.

*APPENDIX E – Compliance with the terms of reference – extra content.*

*APPENDIX F – Aide Memoire. Notes on social mapping and landowner engagement strategies in the Brown River Catchment Area – extra content*

## ACKNOWLEDGEMENTS

### *In 2010-11*

We thank staff at the PNG Department of Environment and Conservation; our fellow team members Elton Kaitokai and Kenneth Miamba; the trekking team from GMS; and all those in the Mountain Koiari area who have been so hospitable during fieldwork; J. Philemon of KDP and R. Hillman of KTA for answering queries.

### *In 2012*

We thank team members Joyce Onguglo of ANUedge, Elton Kaitokai and Alu Kaiya of PNG Department of Environment and Conservation, and Maggie Turnbull of Department of Sustainability, Environment, Water, Population and Communities (SEWPac).

We are extremely appreciative of Karen Fominas of ANUedge and Bruce Wellington of SEWPac for continuing support of the project.

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## MOUNTAIN KOIARI TIMELINE

1874	Rev. William Lawes set up LMS mission at Port Moresby.
1875	Octavius Stone in Port Moresby; describes ‘three tribes’: Motu, Koita and Koiari.
1877	Andrew Goldie opened store; arrival of Rev. James Chalmers; Chalmers and Lawes went with Goldie one day’s walk beyond the Laloki River.
1878	Rush by 100 white miners to the Laloki and Goldie Rivers.
1879	Chalmers explored ‘mountainous country along the course of and between the Goldie and Laloki Rivers’.
1883	George Morrison sponsored by <i>The Age</i> to cross New Guinea, speared not far up the Laloki.
6 Nov 1884	Proclamation of British New Guinea.
1887	Henry Forbes expedition down the Naoro River to Mt Ginianumu (Trotter 1890).
1889	William MacGregor, Lieutenant-Governor of British New Guinea, climbed and named Mt Victoria.
1897	Gold prospector Mr Rochfort attacked and a Samoan assistant killed ‘by the aggressive tribe of Baura’ near Mt Ginianumu and his party forced to retreat.
14 Jan 1897	John Green, Government Agent for the Mambare District, 4 police, 3 prisoners, and Green’s servant killed at Tamata Station. Mambare R. (Colonial Office 1898, pp. 45-46).
Jan 1897	Man of the ‘Hagari’ tribe in the Naoro River area, ‘unknown to the government previously’ arrested for the murder of a woman on the Lower Vanapa River and imprisoned in Port Moresby where he had died by mid-year (Colonial Office 1898, pp. 17, 23-24).
Jul 1897	Report of J. Brownlee on geography of Brown and Naoro Rivers, (Cairns <i>Morning Post</i> 29 Jul 1897).
Aug 1897	MacGregor patrolled into Mountain Koiari area, including along the Naoro, the ‘Wowea Valley’ and the ‘Hagari Spur’. Mentions ‘Wamai’, ‘Eaha’, ‘Baura’ and ‘Agi on the Upper Waumi’ villages. First mention of the ‘Brown River Road’, i.e the Kokoda Track (Colonial Office 1899, pp. 22-24). Newspaper report of a new track from the ‘head of the Brown River’ to the Mambare River ( <i>Sydney Morning Herald</i> , 17 Sep 1897).

1897 (later)	Ballantine and Rochfort engaged in pacifying the 'Agi', i.e. the Kagi people. Village Constables in training for 'Wamai', 'Eaha', 'Baura' and 'Agi' (Colonial Office 1899, pp. 22-23).
Apr 1899	Government Treasurer, Ballantine stays a week among the 'Hagari', the last Mountain Koiari group not to be in peaceful terms with the government (Colonial Office 1899, pp. 23-24).
Apr-Jun 1899	Government Surveyor, H. H. Stuart-Russell, patrols through the Mountain Koiari to find a route from Brown River to the Yodda gold field; 'the natives residing near the line of the track expressed their intention of being at peace with the government' (Colonial Office 1899, pp. 24-26).
1904	Papuan police commence escorting the mail in pairs between Sogeri and Kokoda.
1908	Septimus Carr and Benny Tavodi establish Seventh Day Adventist base at Bisiatabu, Sogeri.
1908-10	Annual Reports say 'severe dysentery' in the 'main range': death rate unknown.
1913	Missionaries Carr, Lawson and Tavodi visit inland villages establishing Seventh Day Adventism among the Mountain Koiari.
1922	First Koiari boarders attend SDA mission school at Bisiatabu.
1923	Geological mapping of area between Kagi and Mt Obree by Evan R. Stanley, Government Geologist.
1924-27	SDA missionary William Lock and family reside at Efogi.
1925	Sabbath School opened at Efogi.
21 July 1942	Japanese landing on the north coast of Papua.
9 Aug-14 Sep 1942	Period of Japanese advance from Isurava to Ioribaiwa, the furthest point reached by Japanese forces.
14 Sep-2 Nov 1942	Australian counteroffensive: Kokoda re-taken.
1954-1963	Laloki Hydroelectric Scheme and Sirinumu Dam construction.
1962	Efogi airstrip constructed.
7 Sep 1963	Sirinumu Dam officially opened by Sir Robert Menzies.
Dec 1967	Completion of Rouna No.2 Power Station.
1972	'Kokoda Trail' gazetted with 20m-wide reserve along its length.
Aug 2001	Port Moresby water supply blocked over a backlog of grievances by Sirinumu landowners. New MOU with government.

11 Jun 2003	Proclamation of Kokoda Track Special Purpose Authority by Governor-General.
5 May 2004	KTA Interim Management Committee established.
23 April 2008	Signing of ‘Joint Understanding between PNG and Australia on the Kokoda Track and Owen Stanley Ranges’ between Somare and Rudd governments (Commonwealth of Australia and Government of Papua New Guinea 2008).
8 July 2010	Signing on ‘Second Joint Understanding between Papua New Guinea and Australia on the Owen Stanley Ranges, Brown River Catchment and Kokoda Track Region’ between Somare and Gillard governments (Commonwealth of Australia and Government of Papua New Guinea 2010).



## ABBREVIATIONS

AOI	Area of Interest – the broad project area defined by a line shown in DEC GIS mapping.
DEC	Department of Environment and Conservation.
ILG	Incorporated Land Group (under <i>Land Groups Incorporation Act 1974</i> )
KDA	Koiari Development Authority. A Special Purpose Authority created by the PNG government in response to landowner grievances in relation to the Rouna Power Station and Sirinumu Dam. Business arm: Koiari Holdings Limited. The KDA was Re-gazetted as in 2002 as the KTA.
KTA	Kokoda Track Authority (in full: Kokoda Track Local Level Government Special Purpose Authority), proclaimed 11 June 2003.
KDP	Kokoda Development Program (lead agency: AusAID).
KTDP	Kokoda Trail Development Project (lead agency: National Cultural Commission).
LLG	Local Level Government.
MPI	Multidimensional Poverty Index.
OLPLLG	Organic Law on Provincial and Local Level Government.
SDA	Seventh-Day Adventist.
SPA	Special Purpose Authority.
TRP	Timber Rights Purchase.
UNDP	United Nations Development Programme.
UPNG	University of Papua New Guinea.

## CHAPTER 1

## ORAL HISTORY, CLANS, CONTACT HISTORY, LINGUISTICS

**Relation to the TOR:** This section describes the historical background of settlement in Koiari LLG.

**TOR objectives:** ‘the identity of landowners’ and ‘oral history and cultural heritage’, and ‘assist with cultural heritage management’.

**TOR Tasks:** (b) ‘Investigate the oral history of communities in Koiari LLG relevant to settlement formation and community identity’, (c) ‘investigate the customary social and political organization of communities in the AOI’, (d) ‘further investigate literature not included in the Preliminary Social Mapping report to determine the contemporary significance of the various names/places/sites mentioned in the records’.

**TOR Deliverables:** (1) ‘A textual report describing ... the oral history, customary social and political organization, and demographic composition of communities in the AOI’.

### Oral history, clans and leaders

#### *Koiari genesis*

Humankind, from a Mountain Koiari, or *Mavota*, point of view extends to include the southern Central provincial coastal people and northwards through towards Orokaiva and Kokoda territories to what is now known as the Oro coastal areas.

The Mountain Koiari form the dominant ethnic group in Koiari LLG and, at the first level of detail, it is a widely held belief that their earliest ancestors originated in the Kumusi-Emo River area on the other side of the Owen Stanley Range in Oro Province.

No timeframe is asserted for this migration and no known archaeological evidence bears on this. Other myths and legends link the Koiari with the Koita people of the Port Moresby coastal plains.

Patrol officers, previous researchers, and Koiari and Koita people themselves, have been writing down accounts of this nature for a century:

The migration of the Kagi and other Central Koiaris from the Kumusi is thoroughly understood and admitted on all sides (Commonwealth of Australia 1916: 49).

The Dutton Papers in the Australian National University Archive contain myths and legends written down in the Mountain Koiari language from fieldwork by Tom Dutton starting in 1966: an effort to precis these in English might be attempted in a longer study (cf. Figure 10 and Dutton 1969).

As in Dutton’s time, today Mountain Koiari people in each lineage group relate a distinct history and place of origin for their forebears, and trace the named members of the lineage back to a common male ancestor three or four generations ago, on average.

*Clans*

Locals use the word ‘clan’ in English to refer to their named local groups and, like journalists in the national newspapers and people generally across Papua New Guinea, they use the word to imply that everyone must have a clan and clans are the things that own land. However, it is not entirely clear what functions the entities that people call ‘clans’ actually have.

One thing we can say is that the configurations of clans change over time. Locals assert that clans are the *umuka* (‘root’, ‘beginning’) that over time grow towards a *valada* (‘stem of the vine’) stage,<sup>1</sup> becoming separate and fairly autonomous entities, and further branching to become *teteve* (‘branches’) as related and yet autonomous entities. The fission of the imagined original clans into smaller branches is attributed to conflicts over land, oral historical knowledge, and personal power and control.

There is a great deal of fluidity in group affiliation among the Koiari people, but the units we can identify as patrilineages or patriline (that is, sections of people united by common descent in the male line) appear to be the most important in daily life.

While people say they inherit names, land and residential rights from their fathers, connections through mothers and sisters are also important. In fact, the rights and privileges that a man may claim through his mother are not cut off, but are instead seemingly left lying dormant, to be perhaps activated at a later date, and at the convenience and social circumstances of the individual.

‘Clan’	Male	Female	Total
Niguri	160	138	298
Vovoli	61	40	101
Babila	28	26	54
Tobo	21	10	32
Oagi	0	2	2
(blank)	47	80	127
<b>Total</b>	<b>317</b>	<b>296</b>	<b>613</b>

**Table 1. ‘Clan’ attributions among people in genealogies at Kagi village.**

Notes: (i) these numbers are ‘all individuals’ whether resident at Kagi or living elsewhere, (ii) ‘blank’ means not recorded (small number of cases) or spouse from outside the Mountain Koiari area.

A local analogy for this process is drawn from the local vegetable vine called *tchokolu* (Choko shoots). As the groups grow in size, fission occurs and patrilineages split from one another, some migrating to new land. Some lineages are quite small and confined to a small area; a few, like Niguri and Eloki, are large and are found in many villages across the region.

<sup>1</sup> At Boridi, the English term ‘clan’ was initially elicited as *iduhu*, but when it was pointed out that this was a Motuan loan word, the correct Mountain Koiari term *valada* was given.

*Case study: clans, oral history and leaders in Kagi Ward*

As we collected genealogies (Chapter 3), family members gave the name of the clan of the founding ancestors of each lineage. Typically we found 3-8 clans represented at each village. Ward 16 ‘Kagi’ comprises two villages, Kagi and Naduri. Table 1 shows the clans present at Kagi village, with the approximate numbers of individuals represented in each. As can be seen, Niguri has the most members, followed by Vovoli. Babila, Tobo and Oagi are minority clans.

Table 2 shows the clans present at Naduri village, with the approximate numbers of individuals represented in each. This time Oagi has the most members, followed by Vovoli and Niguri. Babila and Tobo are minority clans.

‘Clan’	Male	Female	Total
Oagi	100	98	198
Vovoli	66	53	119
Niguri	60	45	105
Babila	5	1	6
Tobo	0	1	1
(blank)	77	80	157
<b>Total</b>	<b>308</b>	<b>278</b>	<b>586</b>

**Table 2. ‘Clan’ attributions among people in genealogies at Naduri village.**

Notes: (i) these numbers are ‘all individuals’ whether resident at Naduri or living elsewhere, (ii) ‘blank’ means not recorded (small number of cases) or spouse from outside the Mountain Koiari area.

Simplifying matters, Kagi is a Niguri place and Naduri is an Oagi place. A legend tells how this came to be:

Two men came over from the Emo River in Oro Province. Originally they lived underground but they poked a hole to the surface, saw sunlight above and came out into the open. They were cold and had no fire. A dog<sup>2</sup> plunged into a pool and brought out the first firestick. They followed the dog and everywhere it stopped it made a fire for them and they were able to make camp and then continue with their journey.

The two men crossed the mountains and came to Kagi to a place called Kaha.<sup>3</sup> One had a pig on a rope and the other carried a sugar cane. The two men decided to climb a tree to look around. The one with the sugar cane put it on the ground while the one with the pig tethered it. When they were at the top of the tree, the man who had left the sugar cane on the ground felt something poke his backside and he looked down and saw the sugar cane had taken root and grown up. He said ‘I will stay here’, so he came down and his descendants became Niguri clan. The second man saw his pig had broken free and was running off in the direction of Naduri, so he came down and pursued it. When it reached Naduri, the pig plunged into a pool and disappeared. The second man stayed here and his descendants became Oagi clan.

<sup>2</sup> The belief that dog brought the first fire is not uncommon in Papua New Guinea, occurring for example in the Eastern Highlands and, in some areas, originating with New Guinea wild dogs.

<sup>3</sup> This is behind where the current Aid Post is located.

(Told by Isaac Matama, Kagi, 23 Sep 2010.)

Current political relations between Kagi and Naduri villages are good, reflecting the shared oral history, the propinquity of the two villages (about 1.5km apart), the shared usage by the children of the two villages of Kavovo Primary School, and marriages contracted each way between the villages (seven wives at Kagi are from Naduri; nine wives and one husband at Naduri are from Kagi).

### *Chiefs?*

The traditional leadership position in Mountain Koiari clans is that of the *vata biage* (lit: 'land owner') or *vata kina* (lit: 'land head'). In 19<sup>th</sup> century photographs (e.g. Figure 5) and in the contemporary media, the word 'chief' is frequently used of Koiari and Kokoda leaders. This overstates the authority of the leadership position in question (discussed further p. 48).

Informants say that succession to the position of *vata biage* follows the principle of primogeniture – the first born male should take the place of his father. From the start of the colonial period the incumbent typically combined his customary role with the various representative positions created by the state – village constable, councillor, etc – though these have become separated again in recent years because the current Ward councillors in the Mountain Koiari area all live outside their home villages and the *vata biage* needs to be living on the clan's land (see example from Efogi Ward).

The succession for Niguri at Kagi is as shown in Figure 1 and, as far as is known, this followed the principle of primogeniture for four generations from the time of Bavaga, who was perhaps born in around 1810 and who may have assumed office around 1850. Kekeve is said to have been the first village constable after the establishment of government rule in the area in the 1920s. In 1958, the 'Tax Census' book shows Kekeve's son, Selu Kekeve, as the Village Constable for Samoli, Kagi's temporary location after WWII. Selu's son, James Selu, was not old enough at the time of his father's death to take the position, and he joined the police force and went to the highlands. The position passed to Selu's brother Matama instead. James Selu could have assumed the position on Matama's death as he had been President of the Koiari LLG for a number of terms, and therefore was a modern political leader for the Mountain Koiari. However, he barely outlived Matama and, whether this happened immediately or not, the position of *vata biage* passed to Havala Laula, a man of about 81 years of age, whose grandfather, Golove, was a 'brother' of Kekeve (although we do not have full information on the genealogical connections). Given plausible assumptions about the intergeneration time spans, this example shows a continuous line of succession for about 150 years.

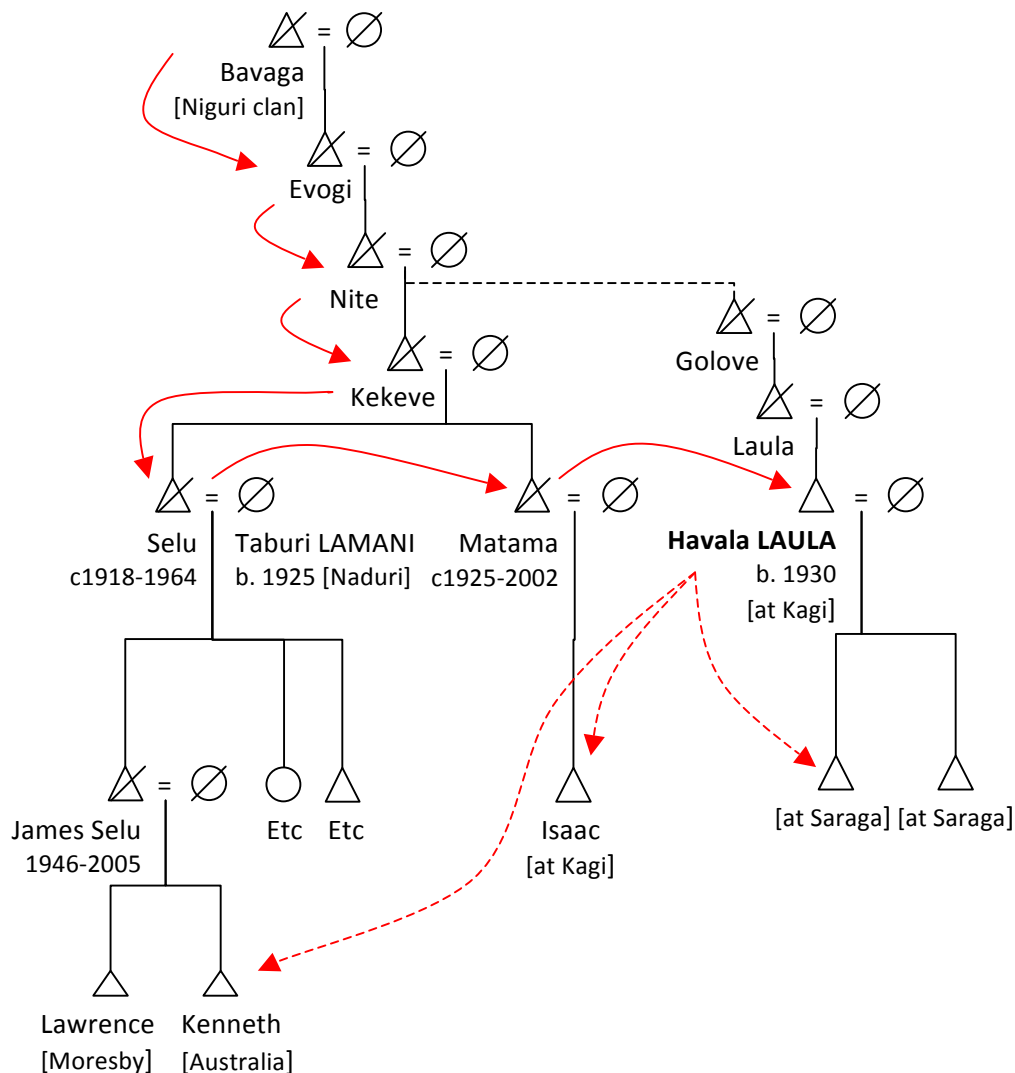


Figure 1. Surmised *vata biage* succession in Niguri at Kagi.

While Havala’s land knowledge is said to be extremely comprehensive, his other duties as a *vata biage* are limited on account of his age and growing infirmity, and Isaac, an energetic man in his 1950s, appears to have assumed many of the leadership functions that a younger version of Havala might be expected to take on himself, though as the first among a number of equals. It might be said Isaac and his age mates are now acting as a group of ‘regents’ for Havala, referring to him for points of land knowledge they do not already know, or it is impolitic of them to assert they know.

The primary candidates after Havala are the living and Kagi-resident men in James Selu’s generation. It is possible that if his sons were forceful and resident at Kagi, the position could pass to one of them, but both live at Saraga in Port Moresby. The succession could pass to Isaac or theoretically resume its original path on the Kekeve-Selu line of descent were James Selu’s eldest (twin) sons, also absentees, to return to Kagi and acquire the requisite knowledge of place names and landscape features. With these uncertainties, it is safest to say that the identity of the next *vata biage* is currently in question.

The limitations of the authority of the *vata biage* are discussed further below, 49ff.

*Case study: clans, settlements and leadership in Efogi Ward*

Ward 17 'Efogi' comprises two villages, Efogi 1, the main village, and its satellite Launumu or Efogi 2. One clan, Eloki, is dominant in the ward in respect of decision-making and control over land. Eloki appear to have granted conditional rights to the other clans present, Elomi, Oagi and Wese, and to individuals over time. The authority of the *vata biage* in the internal affairs of the village and its external relations is only rivalled by that of the Seventh-Day Adventist church.

Originally Eloki, Elomi and Oagi clans lived at what was then Bagianumu, the pre WWII site. To these, Wese clan was recently added, originating from Enivilogo. The Kokoda track runs through the location of Bagianumu through towards Kagi to the north and Brigade Hill to the south.

From Bagianumu, the people moved to Launumu, what is now referred to as Efogi 2. Launumu was the site where Seventh-Day Adventist missionaries built their first establishment in the 1920s, now marked by a mango tree, and began evangelization throughout the Mountain Koiari region. One of the local pioneer missionaries, Faole, for whom the Boui chapel at Enivilogo was named, gained fame and respect from this period (cf. Figure 8).

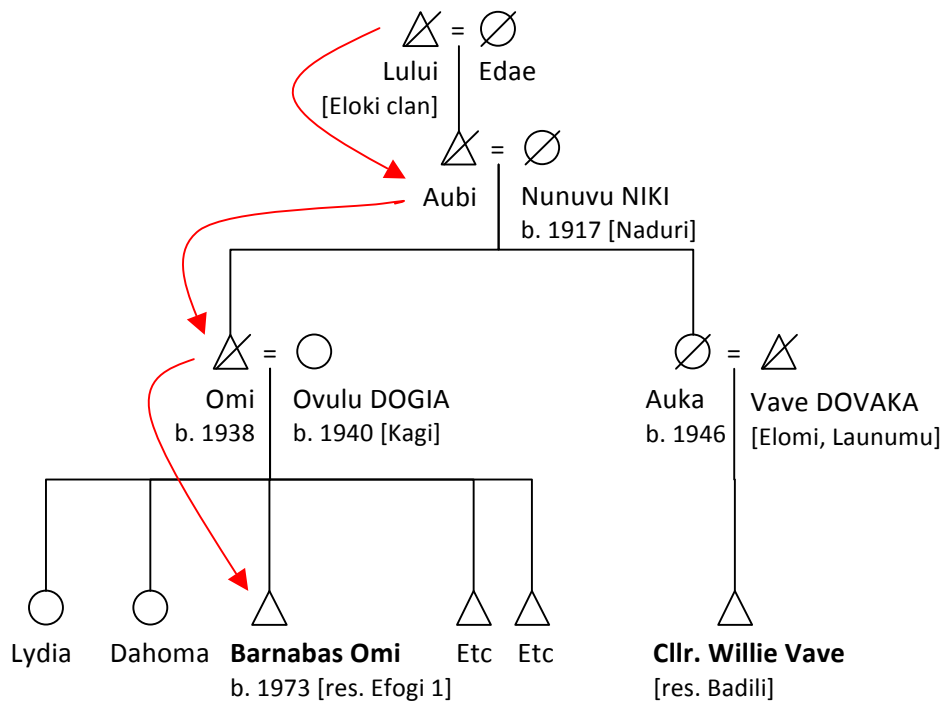
Seeking, among other things, more convenient water access, residents moved and settled at the present Efogi (Efogi 1). The village was initially named Morio, due to its constant cold and misty weather conditions. However, colonial officials changed the name to Efogi and it has remained so ever since.

The *vata biage* at Efogi (or principal *vata biage* as presumably the other clans also each have one) is Barnabas Omi, the senior male member of Eloki.

Barnabas's role extends to many aspects of village governance, as he is comparatively young. We found that it was village protocol that consent for our work needed to be granted by him, not the local representative of government, the ward councillor. In any case, this man, Willie Vave, is not a resident of Efogi, but of the Port Moresby suburb of Badili. The awareness notice concerning the Kokoda Initiative prior to the social mapping team's arrival at Efogi went first to a guest house operator, Gaksy Siosi, who advised the locally resident proxy for the councillor, Marlon Keogi, who in turn advised Barnabas Omi for the actual approval of our presence and work.

Church and other groups were advised through an announcement made by or on behalf of Barnabas. He therefore sits above the other relatively autonomous entities that make up the Efogi community: the clinic, the school, the three other clans, and the Seventh-Day Adventist church. The locals were pretty clear that the ward councillor's authority, if it is effective at all, is also subject to the authority of Barnabas.

As Figure 2 shows, Barnabas and Cllr. Willie are cousins. Both men are descendants of Lului, the presumed earliest known lineage leader. There are many other Eloki people at Efogi, but it is presumed that their ancestors were genealogically in the position of being younger brothers of Lului or younger brothers of Lului's unnamed father. While Barnabas is now the senior male representative of the lineage (the 'senior agnate' – the first son of a first son etc), Willie is descended through a sister (he is a senior 'non-agnatic cognate') and from Elomi clan. It is on these grounds that Cllr. Willie must defer to Barnabas.



**Figure 2. Surmised *vata biage* succession in Eloki clan at Efogi and the relationship between Barnabas Omi and Willie Vave.**

Changes of leadership are theoretically possible if there are personal differences between brothers, but the more likely scenario if a brother disputes the authority of the *vata biage*, at least in traditional times, is that the clan would split into two local branches and one or other would break away to found a new settlement, or join a friendly clan at an existing settlement.

Although avidly denied of its existence since Christianity arrived, sorcery is a cause of such village splits and two examples are the fission about 20 years ago of the former Bodinumumu into the current villages Maraba and Daoui in Ward 15, the fission of Naori into Naori 1 and 2 in Ward 18. Sorcerers may even be commissioned, it is said, from outside of the village.

It is the leader that usually authorizes access and use to garden land use rights, residential spaces and occupation, and also gathering of clans together for a major area of cultivation in a season. This operation may be necessary for larger villagers like Efogi but perhaps not so much for smaller ones like Eleiaseli and Boui at Enivilogo.

We discuss the functions and limitations of the *vata biage* in further detail below, because of the very significant implications for a community consultation strategy (p. 48).

### Contact history

The first missionaries and traders became established at Port Moresby in the 1870s, and there was a brief gold rush to the Laloki and Goldie Rivers thereafter. However, exploration inland failed to solve



basic questions about the main drainage of the Owen Stanleys or the identity of the inhabitants of the Brown River catchment for another decade or so.

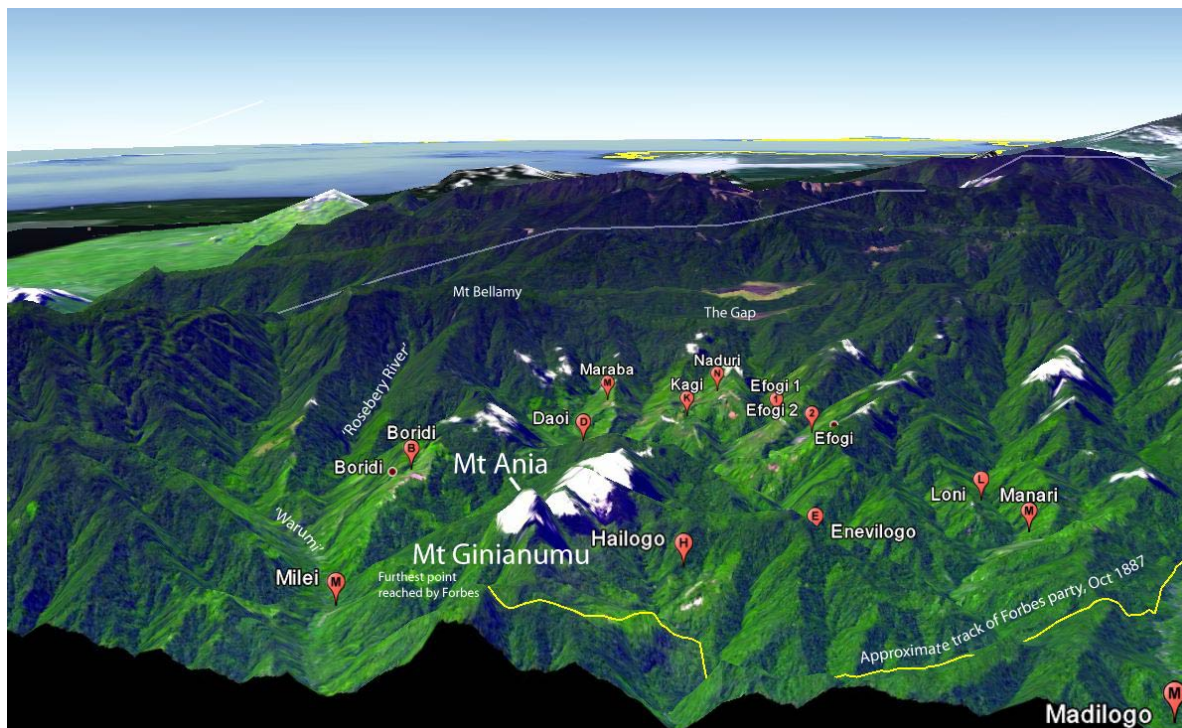
Octavius C. Stone was the first traveller to mention ‘the Koiari, who ... occupy the interior, building their villages chiefly upon mountain ridges’, writing from Port Moresby in 1875 (Stone 1876a: 268). In more detail:

The Mountain Tribe, called Koiari by the Motu, and Kuni by the Kirapuna, are the most widely diffused, occupying a large area in the interior, the limits of which lengthways are uncertain, but which includes the whole country lying behind Anuapata [Hanuabada] so far as Mount Owen Stanley, if not further (Stone 1876b: 41).

In 1878, William Ingham, the Queensland Government representative in Port Moresby also mentions the ‘Coiaries’, probably referring to the Grass Koiari at Sogeri (*Sydney Morning Herald*, 15 July 1878).

In 1887, Henry Forbes (Forbes 1888), accompanied by Gleeson (a miner), George Belford (an ornithologist) and two Pacific Islanders, Jack and Caesar, ascended the Goldie River on horseback to its head, where he found Koiari villages called Ebe, Urava and Origanumu in the vicinity of what is now Ioribaiwa, and followed the valley of the Naoro River downstream, meeting with no inhabitants until he reached a village called Uburukara, which would appear to be about 3km west of the modern Hailogo.

Forbes continued downstream to a ‘bare flat-topped hill’ called Ginianumu close to the junction of the Naoro River with an eastern tributary, before first his carriers and then the ‘Ginianumu people’ declined go further and Forbes turned back (Figure 4).



**Figure 3. Interpretation of furthest point reached by Forbes, October 1887, location of ‘Rosebery River’ etc, viewed from west to east.**

KML imagery source: Aster Volcano Archive <http://ava.jpl.nasa.gov/>.

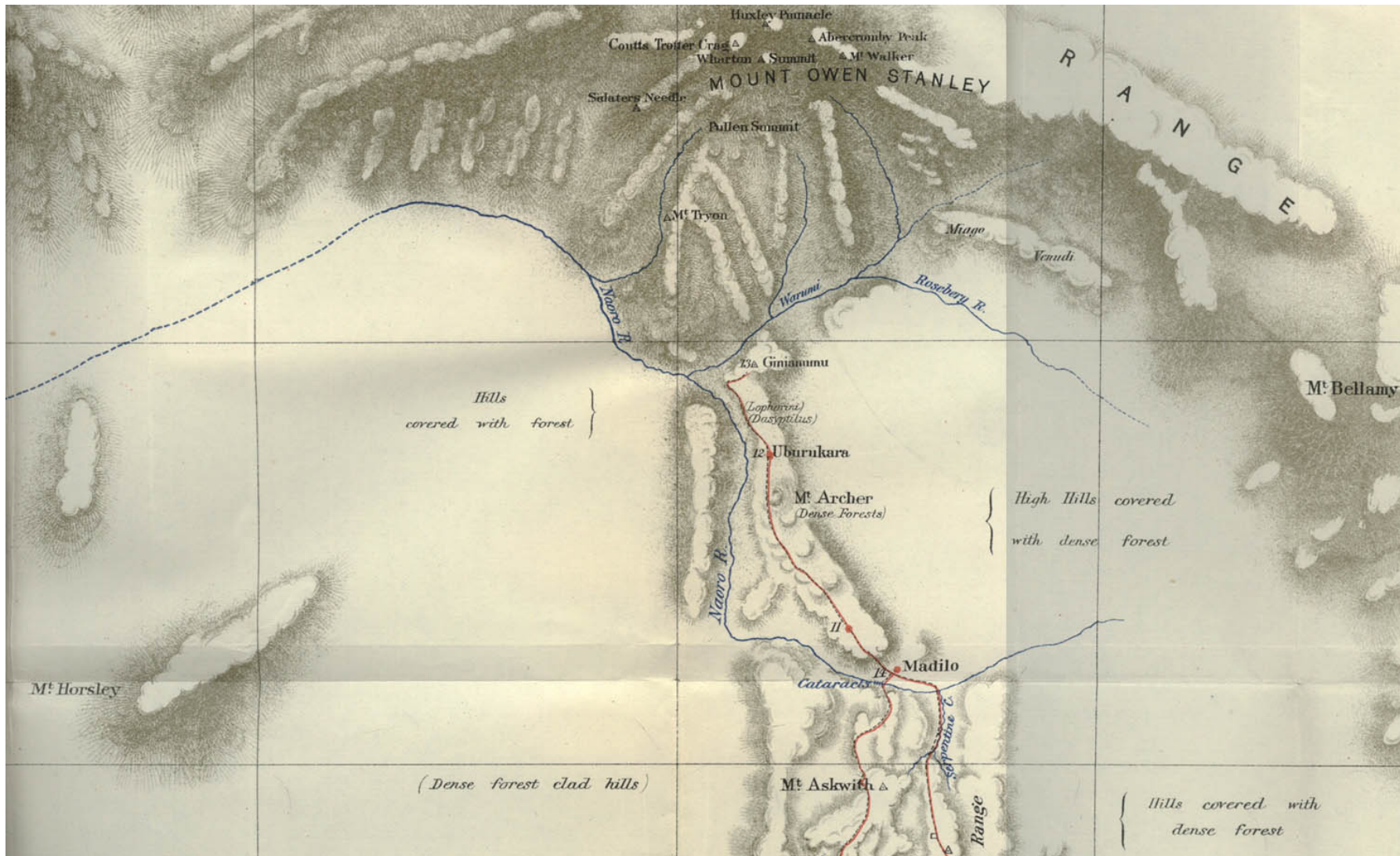


Figure 4. First contact in the Brown-Naoro area. The route of Henry Forbes and party along the Naoro River to Mt Ginianumu, October 1887 (source: Forbes 1890).

Ginianumu is a distinctive mountain 4km southwest of the modern village of Milei, and the eastern tributary is Hoveia Creek. The ‘Ginianumu people’ were therefore the forebears of the Milei people, or possibly their relatives at Manumu. On the return leg, he camped at a locality called Madilo near the modern village of Madilogo, but it was not a settlement.

Forbes did not indicate Brown River by name, showing Hoveia Creek above the junction with the Naoro River as the ‘Warumi River’. Northeasterly and southeasterly tributaries are shown and feeding the ‘Warumi’, the southeasterly tributary being marked as the ‘Rosebery River’.<sup>4</sup> These are distinctive branches and would have been easily visible from Mt Ginianumu; the main branch is Hoveia (the ‘Rosebery River’, whose valley is like a steep straight trench) while the northeasterly one is Hagege (Figure 3).

Significantly, Forbes’ map shows that in its continuation the river was mistakenly thought to flow due west to discharge on its own at Galley Reach as the ‘Edith River’. But it in fact swings south and joins the Laloki 20km before the Laloki discharges into Galley Reach; the ‘Edith River’ is another system entirely – the Vanapa.



**Figure 5. ‘Koiari chief posing with his son’.**  
Photographer, Rev. W. Lawes. British Museum  
image no. AN397730001.

J.W. Lindt’s photographs from ‘Sadara Makara’ – probably Labuka in Hiri Rural LLG – taken in 1886 are among the first visual records of Koiari men (Burton et al. 2009: Plates 2 and 3). A photograph taken by the LMS missionary, Reverend William G. Lawes, and now listed in the catalogues of both the British Museum and the School of Oriental and African Studies, was also taken in this period (Figure 5).

The British Museum information for this image says ‘a Koiari chief posing with his son’ and gives the date as 1881-1889. The SOAS image information says ‘Portrait of Lohia, inland chief, and son, Papua New Guinea, ca.1890’ (SOAS image no. IMP-SOA-CWM-19-10-001-073). As with Lindt’s images, this is likely to have been of subjects within close walking distance of the coastal Motuan villages, and it is therefore probable that these were Grass Koiari men.

In 1889, Sir William MacGregor climbed ‘Mount Owen Stanley’ by following the Vanapa River up from the west, and renamed the peak Mount Victoria (Colonial Office 1890; Trotter 1890).

<sup>4</sup> Named by Forbes for Archibald Primrose, 5th Earl of Rosebery, British Foreign Secretary 1892-94 and British Primate Minister 1894-95. Rosebery visited Queensland, Victoria, Tasmania and South Australia in 1883-84.

By 1897, the course of Brown River was correctly understood as far as the river entered the mountains. J. Brownlee, a prospector and correspondent of the Cairns *Morning Post*, wrote from a camp in the vicinity of Edevu:

In camp on Brown River, June 23 ... six or seven scaly colors were got, not good enough to work ... No natives have yet been met with, but we expect them after we cross the river ... The country [to the east] ... has never been explored and is simply shown on the [map as a valley] with a 'supposed Brown River' flowing through it. In 1887, the Government sent an expedition up the Goldie, under the leadership of Mr Forbes. He found two streams flowing from the west of the Goldie into the valley of the supposed Brown. It seems likely that we have yet to meet with the more northerly of these – the Roseberry [sic]. The natives having proved very hostile, Mr Forbes was forced to return from a point very little north of our present position, but considerably to the East. Since that time several parties have tried to explore the same country but almost invariably found the natives too dangerous.

Mr Ballant[i]ne has taken parties of police there some half-dozen times but on no occasion could he communicate with the inhabitants. As on previous occasions, they left their village this time long before he reached them. By not lighting fires on the last night out and by pushing on rapidly next day he had hoped to surprise them, but not a single native was seen. He passed the Naoro and went several miles beyond the limit of any former expedition but the natives followed the 'Falstaffian' principle of 'fighting and running away to live and fight another day'. In the same part of the country last November, a party led by Antony, a Malay, delayed too long in a deserted village and had one of their carriers speared. On their return, Mr Roch[e]fo[r]t, one their party, was given up for dead, but managed to reach friendly natives after considerable suffering. The report of the number killed was exaggerated greatly. The facts are that a hunting expedition of 11 natives were surprised and 10 killed. As this warlike tribe trade with the Mambare tribes they, no doubt, have been told the tale of Green's murder and feel confident of beating the whites, so there probably be trouble in store for the first of the Brown River track cutters (Cairns *Morning Post* 29 Jul 1897).

The last episode referred to was the killing of the Government Resident, John Green, on the Mambare goldfield earlier in the year, as part of a decade of clashes between police, miners and Orokaiva and Binandere villagers across the range in Oro Province (e.g. *Brisbane Courier* 1 March 1897). Accounts in the *Annual Reports for British New Guinea* suggest that at times groups of thirty or more villagers were killed in these clashes, enough to endanger the existence of some groups and which might make permanent alterations to the pattern of settlement or the relationships among clans.

In the Mountain Koiari area itself, we have thinner reports. In 1897, Governor MacGregor found a new track from the 'head of the Brown River' to the goldfield on the Mambare River, reporting that 'the natives were numerous' (*Sydney Morning Herald*, 17 Sep 1897) but succeeding, nonetheless, 'in pacifying the inhabitants, and since then the village of Ginianumu, so often the scene of the white man's discomfiture, is hardly ever heard of' (Murray 1912: 18).

MacGregor mentioned several geographical features that can be identified, such as the Naoro River, and several that cannot yet be matched with modern place names, such as the 'Wowea Valley', the 'Hagari Spur' and the 'Upper Waumi' where 'Agi' (probably Kagi, see below) was located. Group names he speaks of are 'Wamai', 'Eaha', 'Baura' (or 'Boura'), 'Agi' and 'Hagari'. He makes the first mention of the 'Brown River Road', i.e the Kokoda Track (Colonial Office 1899, pp. 22-24).

Village Constables were selected for 'Wamai', 'Eaha', 'Baura' and 'Agi' in 1898 (Colonial Office 1899, pp. 22-23), while the last group to settle with the government were the Hagari. In 1899, the Government Treasurer, Ballantine, travelled inland:

'... to induce the Hagari tribe to submit to the Government. The Hagari people are one of the mountain tribes that, in conjunction with other mountaineers, for many years made periodical attacks or raids on tribes lying between them and the coast. The effect of these constant attacks had been to gradually depopulate a large tract of country. During the last few years the Government has been able to give more attention to these mountain tribes ... The last named tribe never boldly opposed, but they evaded attempts to get into communication with them. Other neighbouring tribes, such as the Agi and Boura, had been brought into amicable relations with the Government (Colonial Office 1900: 23-24).

'Hagari' was said to have been located 35 miles northeast of Port Moresby (Colonial Office 1900: 51). This places them in the vicinity of Efogi and Manari. A map in the 1914-15 *Annual Report* shows Hagari about six miles to the northwest of Kagi (Commonwealth of Australia 1916: Appendix 3). Such names may relate to former village sites and ongoing fieldwork may clarify where they were.

'Agi', in context, may be provisionally equated with (the modern village of) Kagi.

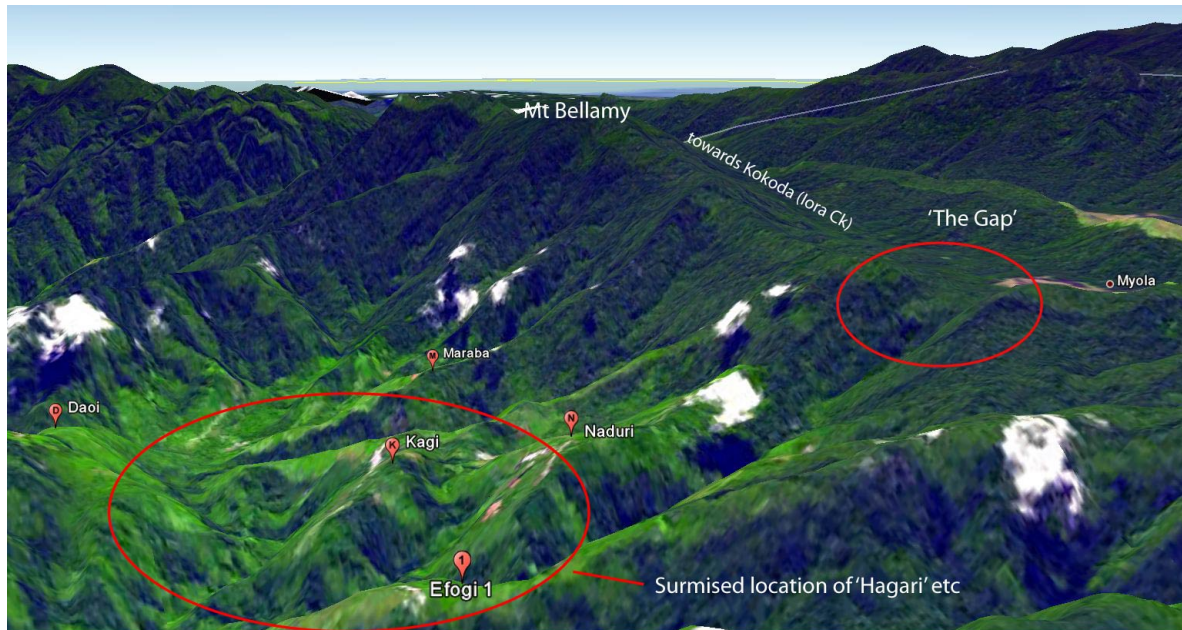
Concurrently, the Government Surveyor, H. H. Stuart-Russell, passed through 'Hagari' on his way through 'the Gap' and on to the Yodda River. He was conflict with villagers there, who suffered 'some loss' and were 'not under the influence of the Government', then returned the way he had come:

A stay was made at the Hagari villages, and from this point visits were made to other tribes. With nearly all of these friendly relations were entered into, and tribes that had not been on good terms with each other were induced to become friends. With the exception of one tribe, which seemed to have no fixed abode, the natives residing near the line of track expressed their intention of being at peace with the Government.

The mountainous nature of the country travelled through prevented a definite conclusion being formed as to whether the route followed was the best one for a future road. The formation of the country at the Gap itself hardly seemed suited for a road, at least for pack animals (Colonial Office 1900: 26).

The Gap was described as 'a marked depression in the Main Range, situated to the south-eastward of Mt Victoria' (Colonial Office 1900: 25). If it is taken to be the Kagi Gap (Figure 6), then Stuart-Russell's track can have deviated little from the Kokoda Track as known today, since Ballantine's route into the area is given as from Sogeri to 'Ebere' (Uberi) and from here to the Hagari, where the party waited for a week thinking to meet up with Stuart-Russell.

At all events, by the early years of the 20<sup>th</sup> century the Kokoda Track came into use on a permanent basis, with Papuan police escorting the mail in pairs between Sogeri and Kokoda from 1904 and the era of frontier violence had ceased.



**Figure 6. Interpretation of place names used in 1899 by Ballantine and Stuart-Russell, viewed from the south.**

KML imagery source: Aster Volcano Archive <http://ava.jpl.nasa.gov/>.

### Summary

The purpose of going into the contact history in the detail I have is to establish connection between the inhabitants of the area at the time and the groups living there now. It was in the minds of the colonial administrators that the warlike behaviour of groups in the mountains were the cause of 'depopulation' between where they lived and the coast, by which they meant there was an empty zone between the fringe of coastal settlement and the mountain people, but nothing they write suggests that (i) people were on the move in this area, (ii) they were under population-endangering attack from others, or (iii) the police actions against them, while severe, were at an intensity likely to have threatened the existence or configuration of their settlements.

In summary, what we learn from the early reports is that a scattered, and wisely distrustful, population inhabited the headwaters of the Brown-Naoro system. The earliest expeditions, such as those of Brownlee and Forbes, encountered limited numbers of people, because they skirted around the edge of the Mountain Koiari population. While the names placed on the tributaries of the Brown and Naoro in this early period have not stuck, the names of a some settlements and localities are recognisable at or close to where they are today.

It is therefore reasonable to conclude that the pattern of settlement and land ownership in Brown-Naoro catchment is an extension into the contemporary period of arrangements existing prior to colonisation.

## The Seventh-Day Adventists

In 1908, Septimus Carr and his Fijian assistant Benny Tavodi arrived in Port Moresby and acquired land at Bisiatabu on the Sogeri Plateau. Here they started the first Seventh-Day Adventist mission in Papua and set out to convert the Koiari people to Christianity.

After a decade spent in establishing good relations in the villages near their station, they started a second base at Efogi and their efforts proved successful with most of the Grass and Mountain Koiari accepting Seventh-Day Adventism in the 1920s and 30s.

The *Australasian Record* is a useful resource for the early history of this. Septimus Carr walked from Bisiatabu to Kokoda and back in June-July 1913, his account showing his detection of a difference between the language spoken by the Grass Koiari and that spoken by the Mountain Koiari (the 'Efogi dialect' or 'Efogian') he encountered on the way:

Altogether fourteen tribes were visited, seven of them for the first time by any missionary. The Owen Stanley Range was crossed, and Kokoda, the government station 110 miles from Port Moresby, was reached ... Two of the mission boys, themselves inland lads, accompanied us the whole trip, acting as interpreters, and they were certainly benefited by the experience. At the same time we were able to compile a rough dictionary of several hundred words of their language, which we found different from the one spoken near Bisiatabu, and yet more dissimilar to the Port Moresby language. The tribes were generally about a day's journey apart, and carriers would take us to the next tribe only, for which each received two strings of beads valued at six-pence, and a dessertspoonful of salt (S.W. Carr, *Australasian Record*, 15/9/1913, p. 3).

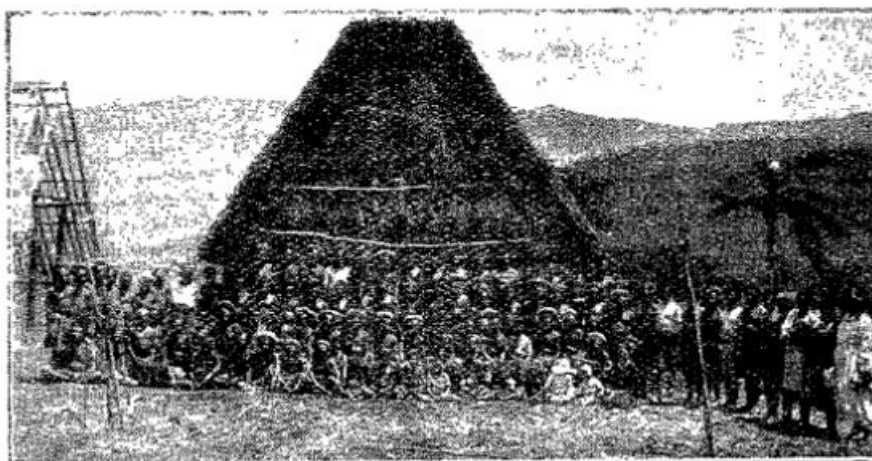
Benny Tavodi returned a few months later:

When Brother Carr and Brother Lawson returned from an inland trip in July, I was appointed to visit some of the tribes they had seen and also enter fresh territory. Three days from Bisiatabu brought us to Efogi, where we found a large feast in progress and where I spent five days ... One day further brought us to Kagi where a goodly number gathered to hear the gospel ... Seragina is a day past Kagi (Benny Tavodi, *Australasian Record*, 22/12/1913, p. 3).

These places are well known today: Efogi and Kagi are probably within a few hundred metres of where they were then, and Seregina is the alternative name for Boridi. A plaque erected outside the SDA Church at Kagi in 2009 attests to the visit: 'In loving memory of the Fijian missionary Ben Tavodi who visited Kagi village in 1914 [sic] with the gospel truth of the SDA Church ...'.



**Figure 7. Koiari people in photographed in 1922: 'All of these have visited the mission, and one or two have joined the mission school' (source: *Australasian Record*, 30/10/1922, p. 67).**



**Company of Worshippers Gathered at the New Church  
in Efogi, New Guinea**

**Figure 8. Villagers at Efogi in 1926 (*Australasian Record* 8/3/1926).**

The first Koiari children to attend school began boarding at Bisiatabu in 1922 (Figure 7) while Pastor William Lock moved with his family to Efogi in 1924 and opened a Sabbath school there in 1925 (Figure 8). In reports from the area around Efogi, the missionaries mention the villages that are known by the same name today: Kagi, Naduri, Manari and so on (e.g. *Australasian Record* 18/6/28).

## WWII and beyond

In the last decade in excess of 3000 pages have been published in Australia on the Kokoda Campaign of World War II. Three popular accounts have been Brune (2003), FitzSimons (2004) and Ham (2004).



Relevant for present purposes are the following questions:

1. Did the war cause an irreparable rupture with the pre-war way of life, permanently altering the pattern of settlement?
2. Did the war cause loss of life significant enough to alter the demography of the area?
3. Did the war result in significant changes to the culture and external relations of the Mountain Koiari, such as in attitudes to government, development, and so on?

Provisional answers may be given.

In answer to the first question, all villages in a corridor perhaps 5-7km wide along the Kokoda Track were completely destroyed, which meant that the residents were forced to temporarily live elsewhere. However, it seems that after a period of post-war recovery affected villages were typically rebuilt on or near the old sites during the 1960s.

Kagi is an example. The village was destroyed in the war and the 1958 'Tax-Census' books show the population was living in two smaller villages for more than a decade after it: Samoli and Eguru. I have not visited the sites, but they are described as being 1-2km from present-day Kagi. An overgrown, former village site was pointed out about 200m from the northern end of the village plaza and an origin story place at the southern end, indicating that the village is essentially where it has been for an considerable number of generations.

Further away from the track, the small number of current villagers at Maraba, Daoi, Boridi and Milei who were born in the 1930s say they hid in the bush with their parents during the actual fighting, that their gardens were stripped of food and all their animals killed, but that they did not need to build new villages.

In answer to the second question, at none of Kagi, Naduri, Maraba, Daoi, Boridi and Milei did people say that any villagers were killed as a direct result of the fighting, injured by stray bombs, spent machinegun rounds, misdirected strafing from the air, or crashing war planes (some of which indeed came down in their forests).<sup>5</sup>

At the same time, I was able to obtain the names of 18 men from these villages who worked as carriers. Of the 18, all six from Milei succumbed to illness near Imita Ridge – probably of dysentery – and one of the five from Kagi died in the village shortly after returning from war service.

This picture should also be qualified by the unreported deaths of vulnerable sections of the population from epidemic diseases, such as dysentery, which are certain to have swept through the villages in the aftermath, as they did elsewhere in Papua New Guinea (Burton 1983).

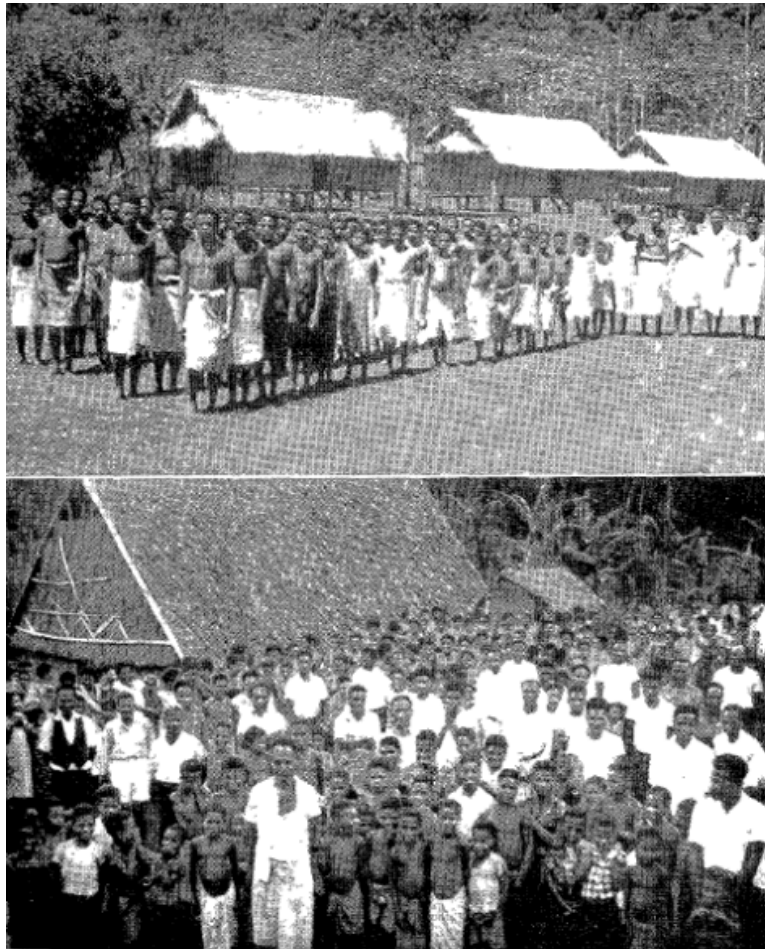
In summary, the Kokoda Campaign was a frightening and disruptive episode, but it lasted locally for a comparatively short time (9 August-2 November 1942), after which it was possible for life to resume much as it was before.

In answer to the third question, the war experience of the Mountain Koiari is certain to have brought about a broadening of outlook, but of the things that paved the way for postwar economic

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<sup>5</sup> This accords with the comparable experiences of Biangai villagers at Wau: none was lost in the Battle of Wau in January-February 1943.

development and 'modernisation', the sweeping away of the paternalism of the pre-war Papuan Administration under Sir Hubert Murray was probably a more significant change.



**Figure 9. Villagers at 'Manarogo' and Bodinumu in 1960, *Australasian Record* 64(4) p. 1, 1960.**

The Seventh-Day Adventists were back after the war as the principal agency of service delivery and photographs from the 1960s show flourishing schools and rows of neatly dressed children in attendance (Figure 9).

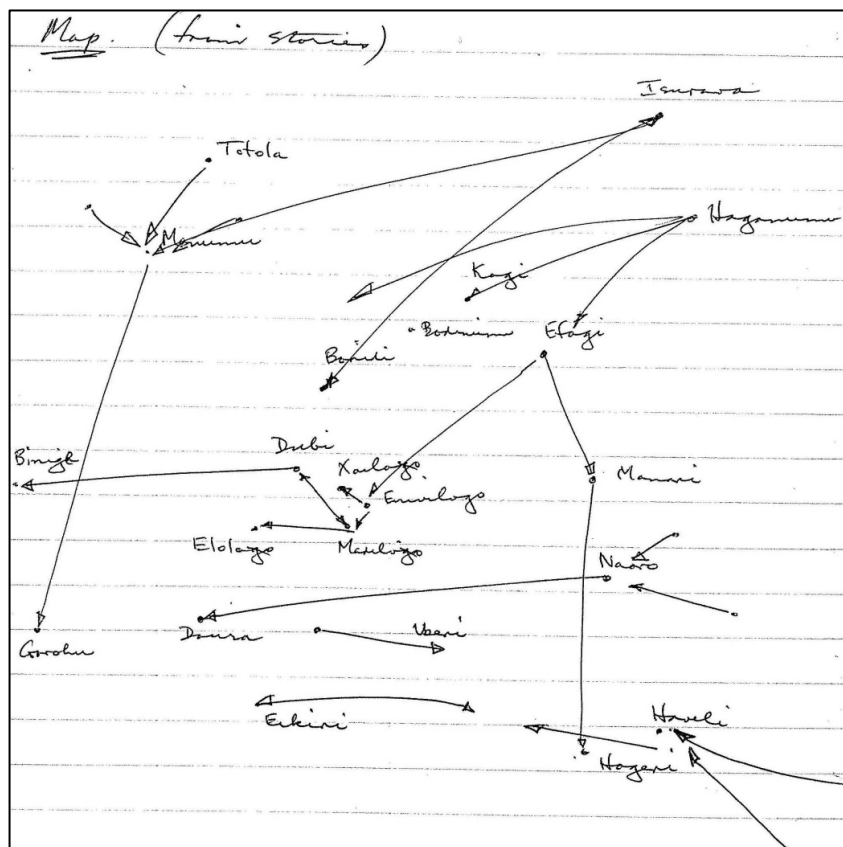


Figure 10. Mountain Koiari language area, map of inter-village connections according to mentions in stories (source: Dutton Papers, notebook 'Efogi dialects –1966', ANUA 314/36).

## Linguistic research

The villages of the Brown-Naoro catchment of the AOI are inhabited by the speakers of a single language, Mountain Koiari.

The earliest extant word list of Mountain Koiari appears to be that of a patrol officer, Loo Brown, who collected words 'spoken by Kagi, Seragina and Dabi peoples' (Brown 1915). It follows a standard 150 word list used by the Papuan Administration and appears to be accurate viz-à-viz the latest work of the Garlands (below).

The Brown-Naoro catchment takes in the entirety of the Central Mountain Koiari villages, plus Naoro, which Dutton classes as a Southern Koiari village. He does not appear to have published a detailed analysis of the oral historical stories he collected in Mountain Koiari, or even to have made fair copies in English for all of them, but a 1966 working sketch of inter-village connections according to their mentions in stories is among the papers he deposited in the ANU Archives (Figure 10). This shows that the villages are linked in loose clusters.

### *The Garlands*

Roger and Susan Garland, SIL linguists living at Efogi from 1970 to 1983, are the source of the most recent linguistic information on Mountain Koiari. They distinguish the following dialects (Garland 1979):

- Efogi (6 villages): Launumu, Efogi, Manari, Enevilogo, Madilogo and Hailogo.
- Kagi (4 villages): Kagi, Naduri, Maraba and Daoi.
- Manumu (3 villages): Manumu, Boridi and 'Sulia' (probably = Milei).

As will be seen, this does not quite correspond with the division of the same villages into local-level government wards.

The Garlands' Mountain Koiari dictionary (Efogi dialect) is available online (Garland and Garland 2009).

Informants in the area broadly concur with this picture, saying they are of one language, that people in the villages of the Kokoda side of the Owen Stanley Range are their relatives but *nek i narapela*, i.e. they speak the mutually intelligible dialect of Northern Mountain Koiari, while the inhabitants of the Sogeri Plateau (the 'Grass Koiari') speak a different language, i.e. Koiari.

### *Others*

A lengthier summary of linguistic research in the wider area, with further references, is given by Ballard in our last year's report (Ballard 2009b).

## CHAPTER 2

### LOCAL-LEVEL GOVERNMENT: WARDS, VILLAGES, REPRESENTATIVES

**Relation to the TOR:** This section describes the formal administrative divisions in the Koiari LLG.

**TOR objectives:** ‘the identity of landowners’ and ‘oral history and cultural heritage’, and ‘assist with cultural heritage management’.

**TOR Tasks:** (b) ‘Investigate customary social and political organization of communities’, (c) ‘Investigate the customary social and political organization of communities in the AOI, (d) ‘...names/places/sites should be documented and mapped’, (k) ‘In the course of field work and in consultation with DEWHA and DEC, investigate and hold relevant consultations with local communities to arrive at a better definition of the AOI with regard to its fit with existing community and LLG boundaries, the need for cadastral precision, and the objectives of the Joint Understanding’.

**TOR Deliverables:** (1) ‘A textual report describing ... the oral history, customary social and political organization, and demographic composition of communities in the AOI’.

#### Wards of the Koiari Rural Local-Level Government

Five wards of the Koiari Rural LLG are located with the project area (Table 3). Four of these, Wards 15-18, are also constituent wards of the KTA (along with two further wards at Sogeri and eight wards of the Kokoda Rural LLG). Ward 19 Edevu is not a member of the KTA.

The Koiari Rural Local Level Government was enumerated as having 10,232 residents in the 2000 national population census. Only 1496 (15%) were living in the project area, the bulk of the population being in the Sogeri area.

In administrative terms, a ‘ward’ is intended to group together collection of nearby villages and hamlets whose residents have shared ethnicity and/or interests. An inherent difficulty throughout Papua New Guinea is that wards frequently group together settlements with divergent interests or ethnic composition, or whose component parts are geographically scattered.

In the project area, Wards 15-18 have a homogeneous ethnic composition of Mountain Koiari speakers residing ‘at home’ on their own land.

Ward 19 Edevu comprises a cluster of settlements on the boundary between the interests of Central and Western Mountain Koiari speakers and with road access to the Hiritano Highway. Some may be villages in a traditional location but others are made up of people from different areas. Gaunaba – not recorded as having residents in 2000 – has a mix of Koiari and Kamea or ‘bush Kerema’ people. The inhabitants of one of the Edevu hamlets are drawn from Mountain Koiari villages further inland, notably Manumu, Hailogo and Madilogo, and who have moved there in the last 30 years.

Ward	Census Unit	Alternate name/spelling	Residents (2000)	Residents (2010)	Absentees (2010)	Absentees (2010)
15 Boridi	002 Bodinumu	2010: split into <u>Daoi</u> + <u>Maraba</u> aka Lamagi	169			
15 Boridi	003 <u>Boridi</u>	Seregina	115			
15 Boridi	004 Dubi	<u>Milei</u>	45			
15 Boridi	012 <u>Manumu</u>		56			
16 Kagi	009 <u>Kagi</u>	1940s: Samoli + Eguru	147	153	447	74.6%
16 Kagi	013 Nadunumu	<u>Naduri</u>	130	184	394	68.2%
17 Efogi	005 Efogi No. 1	Bagianumu	172			
17 Efogi	006 Envilogo		52			
17 Efogi	008 Hailogo		54			
17 Efogi	019 <u>Efogi No. 2</u>	Launumu	66			
18 Manari	001 Manari		206			
18 Manari	010 Madilogo		54			
18 Manari	014 Naoro		89			
18 Manari	017 Ebologo	Elologo	40			
18 Manari	020 Loni		20			
19 Edebu	006 Edebu No.1	Edevu*	17			
19 Edebu	007 Binige	<u>Biniga</u>	7			
19 Edebu	008 Edebu No.2		57			
19 Edebu	009 Gaunaba		0			
19 Edebu	010 Yobenumu		0			
<b>Total</b>			<b>1496</b>			

**Table 3. Wards in the Koiari Rural LLG that are in the project area with residents as enumerated in the 2000 national census (underlined: most common usage).**

\*spelling adopted through this report.

(See Appendix A for sample Google Earth imagery of villages in Wards 15 and 16.)

## About Wards

Identifying people with rights and interests in parts of the environment like river catchments cannot be deduced from public documents, ward gazettals, or maps showing ward boundaries:

- documents showing the gazettals of wards are merely lists of villages;
- there is considerable variety in the make-up and circumstances of different wards across the country and customary interests may in any case extend across several wards;

- LLG boundaries are known only to the extent that LLGs are meant to be wholly contained within Districts, whose boundaries coincide with national electorates;<sup>6</sup>
- Within an LLG, the State makes no attempt to draw inter-ward boundaries, therefore no official maps exist.

Some of the different circumstances of wards found in the Mountain Koiari area are as follows.

#### *Homogeneous wards*

The ideal model of a ward under the Organic Law is one in which the inhabitants have shared ethnicity and have similar interests because they live reasonably close to one another. Ward 16 is the nearest example to this in Koiari LLG, comprising Kagi and Naduri villages about 1.5km apart.

#### *Heterogeneous wards*

If a ward is ethnically heterogeneous – where the inhabitants are drawn from two groups of landowners or where landowners make up only part of the population and the remainder are settlers with permissive rights granted at some time in the past – its representation may be problematic.

An example in Koiari LLG appears to be Ward 19 Edevu.

#### *Geographically fragmented wards*

An example of a geographically fragmented ward is Ward 15 Boridi, containing five villages. The westernmost, Manumu, is at an altitude of 600m while the easternmost, Maraba, is a day's walk away and at 1500m. Given the terrain, shared governance is problematic as only two communities, those who own land around Maraba and around Daoi, are near enough to a centre to be able to share access to services. Until about 10 years ago, this centre was Census Unit 002 Bodinumu which used to have an operating airstrip and a primary school (see next section).

#### *Cycles of fusion and fission*

As already noted, Wards 15-18 are made up of villages mostly in long-standing locations. As is commonly the case in other low population density areas of Papua New Guinea, all the villages are bigger than what we know of pre-contact hamlets, which may have comprised as few as 5-7 dwellings. Part of the increase in size is due to population growth, but in certain instances modern villages are composites, made up of several clans who may once have lived separately on their own land.

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<sup>6</sup> In practice, examples exist nationally of wards that not only fall across District boundaries, but that which also cross into other provinces (e.g. Lake Campbell in Western / Southern Highlands Province).



**Figure 11. Boridi village: one of five villages in Ward 15 Boridi; Milei airstrip in the distance at left.**

Photo: 27 September 2010.

A case in point are the two villages of Daoi and Maraba. Prior to WWII the villages were located a short distance from where they are now, but after the war, informants say, they were persuaded to move to a bigger piece of flat land halfway between the two places where a school could be built and to form the merged village, Bodinumu. For various reasons, one of which, it is said, was accusations of sorcery, Bodinumu split into two in the 1990s and the villagers separated again into two villages. As recounted elsewhere, Bodinumu's school closed permanently in the 2000s.<sup>7</sup> The village site is now abandoned.

Villagers frequently say (all over PNG) that they relocated their village or merged several settlements at the behest of patrol officers during the colonial period, and there are occasions when this was definitely the case. But in reality settlements in Papua New Guinea, and alliances of settlements – today read 'wards' – go through cycles of fission and fusion independently of what any external authority might express a desire for.

Ultimately what determines settlement size is the ability of people to recognise their common interests and to live together amicably or, alternatively, their propensity to find conflicting interests and fall out with one another.

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<sup>7</sup> It may be noted that 'Bodinumu' was counted as a Census Unit in 2000, when it is almost certain the village had already split into two parts by this date.



### *New villages*

New villages are created from time to time, but when they are it is likely that the status of the families of the founder (or founders) in relation to all forms of decision-making and consultation will be privileged compared to that of families who join them later.

An example in the project area Edevu where Jonathan Love is the founder (Figure 12). Jonathan was born at Manumu and says came to the present location in 1980, where he was involved in successful litigation to establish the ownership of land between the Brown and Edevu Rivers – the ‘Ebilogo’ or ‘Elilogo’ land which formed the Edevu TRP [Timber Rights Purchase] operational c1993-2009 – then settled his family permanently at Edevu.



**Figure 12. Jonathan Love, left, settlement founder at Edevu, with a map entitled ‘Edevu TRP. Annual Forestry Working Plan. 2002-2003 Operation.’**

Photo: Edevu village, 22 September 2010.

The implication for consultation procedures are that:

1. While the founder is alive, it is difficult to elicit statements about rights and interests other than ones that are deferential to what the founder says – even if he is not the active spokesperson and regardless of the legitimacy of his position in State law or custom.
2. After the founder dies, statements about rights and interests become highly unpredictable, depending on many factors:
  - how, in customary terms, did the founder legitimise the new settlement – was it on his own traditional land, the land of a forebear he claimed to be the successor to, or some other claim in custom?

- did the founding of the settlement depend on a customary grant of the land by the contemporary owner – a *tok promis* – in exchange for something else, such as rent, economic co-operation, or mutual defence?
- regardless of the above, was the founding of the settlement legitimised through State procedures, such as a land lease or the winning of a court case?

*All of the above* are insecure: the founder's customary claims, unchallenged during his lifetime, can be rejected; the *tok promis* can be dismissed as hearsay or the ownership of the person who made it rejected; and anything won through State law or leasing arrangements can be overturned.

In consequence, many branches of families at the two places are now reported as living at Vabi on Brown River (not located) and in the Vanapa River area; many others live at Saraga and 9 Mile in Port Moresby.

This poses a considerable difficulty for holding effective consultation meetings with people who have rights to the land and waters in the ward. In particular, holding meetings with the current residents of settlements runs the acute risk of talking to people who are living on land (and have permissive rights), but do not own it.

### Migration to the city

At the same time as Mountain Koiari settlements are undergoing cycles of fission and fusion, a social change of greater impact has been underway for the last half-century, namely mass migration out of the area.

A component of this is a process of natural genetic drift as men and women contract marriages with spouses in communities outside their own area. This shows up as a form of population 'movement' over time, but in reality only the exiting marriage partners physically move, with a complementary flow of marriage partners travelling in the opposite direction. The descendants of the emigrant spouses become ever more scattered geographically as time passes – as, indeed, do those of the immigrant spouses.

But the significant trend, beginning in the 1950s, is for all communities within 150km of Port Moresby to become drained of population as their residents move into the city permanently.

A large body of research exists on the dynamics of internal migration in Papua New Guinea, some of which bears on Central Province.

A good account of migration from the Mt Brown area, neighbours of the Mountain Koiari 50km to the southeast in the Rigo Inland Rural LLG, is given by Tilbury and Tilbury (1993). Few Mt Brown people had ventured out of their area until the 1940s, as the area was even more isolated than that of the Mountain Koiari because it did not lie on an inland track. In the 1950s, Mt Brown people began to seek work on the plantations along the coast of Central Province, then in Port Moresby. By 1990 approximately 60% of Mt Brown people were to be found living outside their area (Tilbury and Tilbury 1993: Table 1).

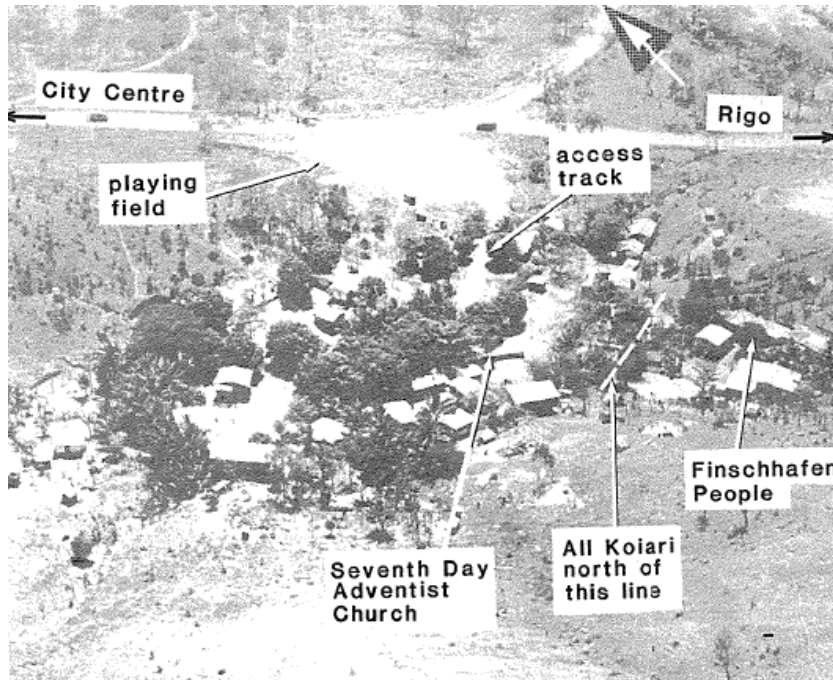


Figure 13. Koiari settlement at Dogura, near Saraga, Port Moresby, circa 1984 (Norwood 1984, Plate 23).



Figure 14. Probable location of Norwood’s air photograph today (Google Earth imagery dated 27 May 2009).

This is much as may be seen in the present area. Fewer than 30% of the descendants of the village populations of the 1950s are likely to be found living ‘at home’. A probable 45% live in Port Moresby,

and the remainder in other locations around Papua New Guinea. Of the Port Moresby residents, more than half live at the settlement of Saraga near Six Mile (Figure 13, Figure 14).

The key drivers of emigration for the Mt Brown people were the lack of services and income earning opportunities in their home area. The few functioning schools meant that children were frequently sent to stay with relatives who had migrated earlier to Port Moresby. The same reasons for migration are given by Mountain Koiari informants today.

The elapse of time means that an ever diminishing percentage of descendants will be found at home, because an increasing proportion of marriages are now contracted with non-Koiari spouses in Port Moresby and elsewhere. If husband and wife were born in the village, their children are more likely to reside permanently away from the village, with visits limited to the Christmas school holidays only.

After Saraga, popular destinations of emigration are: the Kokoda area, Popondetta, Sogeri, Kupiano.

Around the time of the 1980 census, Hugh Norwood mapped the history and ethnic composition all the settlements of Port Moresby, devoting three pages to Dogura, the part of Saraga with Koiari settlers (Norwood 1984: 57-59; Figure 13).

As part of a masters in Town Planning, Blaxland (1976) wrote a subthesis in part covering Saraga, but it cannot be borrowed from the University of Sydney and we have yet to look at it.

## CHAPTER 3

### FIELDWORK IN 2010 AND PRELIMINARY FINDINGS

**Relation to the TOR:** This section describes the formal administrative divisions in the AOI.

**TOR objectives:** ‘the identity of landowners’, ‘understand the nature of customary rights and interests in the project area’ and ‘provide a resource for community planning and the appropriate targeting of social development programs’.

**TOR Tasks:** (a) ‘Undertake a field programme of social mapping within the AOI for this consultancy as described above and consistent with the recommendations of the report entitled *Kokoda Track-Brown River Catchment Region: Preliminary Social Mapping Study*’, (e) ‘Obtain Free, Prior and Informed Consent (FPIC) for the conduct of any part of the work which will involve the collection of personal data on individuals, and determine usage rules for this data’, (f) ‘Create a ‘safe haven’ for the genealogical database following the protocols given above’, (g) ‘Investigate the composition of landowner communities in the AOI by means of genealogical census where FPIC has been obtained to allow this, and return the resulting charts of genealogy to community members’, (i) ‘Take note of any historical or continuing land disputes in the AOI, without undertaking any mediation of such disputes, and document such facts of the cases as community members give their consent to be recorded’.

**TOR Deliverables:** (2) ‘Outputs from a database of genealogy comprising a breakdown of settlement locations and the number of residents and absentees at each, tables of primary data and other analyses from which social development indicators can be calculated, sample genealogies, where permission has been given for reproduction, and tables of customary groups in the AOI and their membership’, (3) ‘A specification of the ‘safe haven’ arrangements and description how the data safeguard protocols have been implemented in a manner compliant with the Information Privacy Principles’, (8) ‘A detailed description of field work carried out including the methodologies of landowner engagement be provided’.

The major task in 2011 was to obtain as much insight as possible into customary rights and interests in the part of the AOI in the Brown-Naoro catchment, and who holds them, through a programme of fieldwork in Wards 15-19 of the Koiari Local Level Government area.

The task was undertaken in two field trips, 20 September-1 October and 10-24 November 2010. John Burton led the first trip and Linus digim’Rina the second, in both instances with Elton Kaitokai and Kenneth Miamba as supporting team members.

#### Consent for social mapping and community understanding of its purpose

The TOR specified that the field teams must ‘obtain Free, Prior and Informed Consent (FPIC) for the conduct of any part of the work which will involve the collection of personal data on individuals, and determine usage rules for this data’.

In, say, a workplace setting or in research with health care patients, it is conventional to obtain this by means of a statement disclosing the nature of the research programme and having participants sign consent forms. The *National Statement on Ethical Conduct in Human Research* (NHMRC and others 2007 §2.2.5) says:

Consent may be expressed orally, in writing or by some other means (for example, return of a survey, or conduct implying consent), depending on:

- the nature, complexity and level of risk of the research; and
- the participant's personal and cultural circumstances.

Consent forms have been used in Papua New Guinea (e.g. Sali 1996 with unemployed youth in Port Moresby), but in a community context this would be an awkward way to handle things. It would also be less than convincing that having members of a community sign pieces of paper would indicate their full understanding of a research programme and the researchers' duty of care towards them. This emulates the behaviour of dubious characters who frequent rural areas today and induce people to sign lists for harmful purposes, ranging from pyramid schemes to signing away land or resources to fraudulent 'developers'.

Luckily, there is a better approach. The *National Statement* says that consent may be obtained by 'some other means' and that this can depend on 'cultural circumstances'.

#### *Goodwill, consent and quality of results*

In general, researchers are given a certain amount of 'credit' in the form of a fund of goodwill extended to all visitors to communities. The credit is depleted as one-way inquiries are made, but replenished when some payoff is achieved.

In particular, tedious, duplicated or ill-directed inquiries deplete the 'research credit' (e.g. form-filling, asking questions that have already been answered, paying too much attention to individuals with a reputation for duplicity), while research that is interesting (e.g. involves going into the bush, connects villagers with relatives outside the area), affirming of authoritative knowledge (e.g. drawing on individuals in the community respected for their wisdom), fun (e.g. involves sport) or is readily perceived as practical and likely to foster development builds it up again. All of the latter count as some form of payoff.

How one arrives and travels around is important. Some arrivals by helicopter are understandable, given distance and time constraints; but it should be understood that this is also alienating. Walking from place to place is immensely creditworthy in a research context; villagers often know what they want to show researchers and a large part of a researcher's work is to understand their area through their eyes. If this can never be done perfectly, it is not rocket science to walk around and see what villagers see.

This flux between using up the goodwill of villagers and restoring it means that a balance must be struck between the depth and content of inquiries, on the one hand, and of maintaining a 'light touch' with the research community, on the other hand. The task of making sure the fund of community goodwill never dips into deficit is the starting point for establishing consent.

It should be added that running out of goodwill through an ill-conceived research design or clumsy field conduct does more than just annoy villagers. The moment those in possession of authoritative

knowledge turn away, individuals with some vested interest start to monopolise the project and the overall quality of research findings goes into steep decline.

*Whose agenda? vs. What content?*

People in the AOI are quite familiar with what poor development outcomes look like in neighbouring areas (Box 1, p. 51) and, combining their own general knowledge with the partial information about current proposals affecting their own area that had already reached them, they had a concept in 2010 of what a programme of social mapping might entail, but one missing a crucial detail: who had commissioned our research project and therefore whose agenda were we running?

We used an introductory discussion at each place we visited to address this issue, distributing about 15 copies of Appendix C at each place with English on one side of the paper and Tok Pisin on the other side.<sup>8</sup>

What villagers knew of in the second half of 2010 was as follows:

- A hydroelectric power scheme on Brown River was under investigation by consultants, some of whom some villagers had personally encountered  
[= a feasibility study being undertaken by Hydro Tasmania, consultants to PNG Power, for dam in the Naoro River upstream of Madilogo to drive a hydroelectric power station on the Brown River].
- Dealings between person called 'Allan' (said variously to be from Malaysia, Japan or China) and parties, referred to as 'the Company', in the Lower Brown area in relation to a separate hydro power scheme  
[= a private scheme promoted by Allan Guo and Warren Woo, proprietor of Papua New Guinea Hydro Development – *The National*, 12 April 2011].

In mid-September, immediately prior to our first fieldwork, two men from the Lower Brown area and claiming to represent 'the Company' passed through the villages we were about to visit a few days ahead of us. We do not know what they said to villagers, but at Boridi we heard they claimed to be behind our social mapping project.

The focus on landowner concerns was on the *human motives* for a course of action – in this case social mapping – rather than its content and so the formal statements about the aims of the project found in our information paper were secondary concerns in village thinking to who lay behind the project: was it a party with political designs on their resources that they were opposed to?

We were able state that the immediate person who had commissioned our work was the Secretary for Environment and Conservation, certainly not a political faction originating in the Mountain Koiari area. Hearing this, village spokesmen agreed for us to proceed with the next step, which was genealogical interviews with each family.

Was this *informed consent*? Not entirely, as it is conceivable that community members could give consent for a research programme when happy with their relationship with its proponents – that

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<sup>8</sup> We were limited in the amount of photocopies we could carry with us.

was it was not been driven by parties who were their known political enemies – yet almost entirely ignorant of what the programme entailed. This would entail *free consent*, but it would not be very well *informed*.

#### *Local understanding of the goals of the Kokoda Initiative*

We digress to relate our discussions at village level with the formal goals of the Kokoda Initiative's *Second Joint Understanding* (Commonwealth of Australia and Government of Papua New Guinea 2010):

1. A safe and well-managed Kokoda Track, which honours its wartime historical significance and protects and promotes its special values.
2. Enhanced quality of life for landowners and communities through improved delivery of basic services, income generation and community development activities.
3. The wise use and conservation of the catchment protection area, including the Kokoda Track, and its natural and cultural resources and values.
4. Building national and international tourism potential of the Owen Stanley Ranges and Kokoda Track Region, supported by a possible future World Heritage nomination.
5. Working with communities, landowners, industry and all levels of government to ensure that activities established under the Kokoda Initiative are sustained into the future.

Goal (2) has an equally high priority with community members; indeed it is what they want about all else. The sense of Goal (3) is understood perfectly well in discussions, but it is the experience of community members that sufficiently enticing offers have a history of trumping conservation values in areas immediately adjacent to their own. In other words, they agree with it in principle, but do not know if it can be backed up with genuine safeguards.

Goal (5) is comprehended, but regarded as abstract and therefore of having little inherent meaning. Goal (1) is guaranteed to initiate discussion, but it is soon clear that 'the war' does not mean the same thing to the Mountain Koiari as it does to war veterans, Australian tourists, or Pacific historians. In the minds of a few, such as Jerry Dimuda, the Community Health Worker at Kagi, who can draw on close oral history about the war itself – in his case, accounts given to him by his war carrier father Dimuda Nirigi – the elements of what happened during the Kokoda and Buna-Gona campaigns are reasonably clear.

However, its 'special values' draw a blank for many in the Mountain Koiari area and, for younger people, a timeline of WWII and the motives and actions of the protagonists are hazy. The tourism potential of Goal (4) are clear enough, as trekking brings in a substantial income, but World Heritage nomination is not a topic on which many could say much.

In consequence, we adopted the simplification in awareness presentations (Appendix C) that, in relation to these goals, the purpose of social mapping was to:

1. Give traditional owners of land, waters, bush, cultural sites, etc in the Kokoda Track area and its neighbourhood the chance to clarify their issues for the benefit of government and non-governmental agencies who must deal with the appropriate people.
2. Assist in developing better consultation for future development, tourism and biodiversity projects.
3. Establish a proper basis for evaluating the success or otherwise of projects in the Kokoda Track and neighbouring area.



This was rendered in Tok Pisin as given in the second page of Appendix C, with ‘assist in developing better consultation for ... development’ translated as ‘helpim gavman na arapela ausait lain toktok gut wantaim ol plesman na meri’ and ‘establish a proper basis for evaluating the success ... of projects’ translated as ‘stretim rot gut long sekim projekt’ and ‘na lukluk long sindaun bilong ol plesman na meri’.

We received a certain amount of feedback at each place on these concepts which indicated what we were saying was broadly understood. This is well illustrated in the transcript of a speech of welcome at Daoui village, which preceded our awareness meeting, made by Mr Ouka Nao on 26 September 2010:

We are so glad to have you here with us today from the Department of Environment and Conservation and the ANU, and PNG University. We want to take social mapping in our area, as you have stated in your points 1, 2 and 3 in your note, so that traditional owners of the land will be aware of what’s happening with natural resources and wildlife, and also assisting developing better consultation with the future develop(ers) so there will be common understanding between traditional owners of the land and the government and the developers. Therefore I would like to say our land, our natural resources, our wildlife is our life. If the future development is going to affect our land, our resources and our wildlife, it’s going to affect the lives of the people as well. Thank you for coming to Daoui, I welcome you on behalf of the people. Thank you.

Mr Nao had received our awareness message in advance of our visit and it shows that he understood perfectly well the implications of social mapping work, even if the details of what we might do had yet to be revealed.

At Boridi on 28 September 2010, opening remarks of a similar nature were made, in which the meeting chairman referred to the awareness message and asked for clarification:

Pepa ya, sampela save lain ol i lukim na ol i save, na sampela ol papas ya, em ol wok long konfus i stap. So inap bai yupela explainim long dispela bipo bai yumi go long program. Thank you.

People who are educated are clear, but many of the elders are confused about what it says. So please can you explain it before we start on your program. Thank you.

But at this village, the former Village Constable, Mr Gaigu Dubi, indicated by his actions that he had a well-formed expectation of what should do. He and his fellow villagers delayed our arrival into the main part of the village in order for him to change into his colonial uniform and for the rest of the villagers to prepare a song of welcome. Significantly, Mr Dubi led us between two lines of villagers up to where four girls were preparing to sing, *carrying the pre-Independence Boridi Village Book* (Figure 15).

#### *The Village Book and attitudes towards census*

The Village Book was a well-known instrument of colonial administration (e.g. Power 2008), and was prior to 1958 a ledger in which the names of village residents were recorded; it was a duty of Patrol Officers or *kiaps* to add the names of newborns and immigrants, and to cross out the names of those who had died and of emigrants, during routine village patrols. After 1958, more elaborate census

books were carried from village to village on patrol, but the old village book was still used to record the observations of the *kiap*, health visitors etc, and kept in the village.

While it is true that village census became linked with the collection of council taxes, and that in parts of PNG where secessionist sentiments were strong this fomented anti-government sentiment (e.g. May 2004: 55), it is more generally the case that older people today look back to the orderliness of the *kiap* system with a degree of fondness. (See Appendix B for sample pages.)

This is because, whether the government delivered services or not, at least it took the trouble to establish who people were. What people like about this is not so much that they themselves were recorded as the members of their villages, but that *other people who were not members of their villages* could not be confused with them.



**Figure 15. Girls singing a song a welcome at Boridi, in front of Mr Gaigu Dubi, former Village Constable with the Boridi Village Book in hand, 27 September 2010.**

This stands in contrast with the situation today where villagers live in justified fear that people living elsewhere will:

1. Intercept their right to speak for their resources, decisions about which it is predominantly a matter to sort within the village (e.g. specific streams, logging coupes, alluvial claims);
2. Hijack processes of political representation that deal with resources spread over areas bigger than villages (e.g. catchments, forests, mineral deposits);
3. Interfere with benefits due to villagers (e.g. in the city, misappropriate money in village or Ward accounts designated for village distribution).

In short, if an orderly system could replicate the certainty of the old Village Books, and be a genuine defence against these *pathologies of impersonation* without introducing some new form of politicisation, then it would be strongly welcomed.

**The genealogical census**

In two trips, 19 Sep-1 Oct and 10-25 Nov 2010, we were able to cover the villages of Wards 15-16 and 17-18 respectively (Figure 16).

As can be seen our routes were generally perpendicular to the southwest-northeast alignment of the Kokoda Track, in order to obtain coverage of the villages away from the Track corridor.



**Figure 16. Routes taken on field trips displayed in Google Earth, viewed from the north-east.**  
 Yellow: 19 Sep-1 Oct. Orange: 10-25 Nov 2010. Green: Kokoda Track.

At each village we held an awareness meeting, lasting approximately an hour, to explain the purpose of the work, present the information handout shown in Appendix C and, as discussed above 30ff., to dispel concerns about hidden agendas.

TAX—CENSUS SHEET

VILLAGE OR GROUP (Place of Residence)		CENSUS DIVISION/TAX DISTRICT				SUB-DISTRICT				
NADUNUMU		MOUNTAIN KOIARI				PORT MORESBY				
No.	NAME (Christian Name)	FATHER'S NAME (Surname)	Relationship		Yr. of Birth		1958	1959	1960	1961
			OF	No.	M.	F.				
✓ 1	IDIKI	KANAVE			A		50540			
✓ 2	BLEKE	AIGMI	W	1		14				
✓ 3	OPOLU	IDIKI	C	2	25		50541			
✓ 4	DĒDULI	OAGI	W	3		28				
✓ 5	NOGO	OPOLU	C	4	49					
✓ 6	LUKUNA	OPOLU	C	4	55					
✓ 7	KADEI	OPOLU	C	4		53				
✓ 8	MOTU	OPOLU	C	4	57		Dec'57			
✓ 9										
✓ 10	BAUGEVE	ONITE				53	Ward			
✓ 11	NOGOU	IDIKI	C	2	30		169584			
✓ 12	HOAGI	OVELA	W	11		30				
✓ 13	HAOVE	NOGOU	C	12	57		Feb'57			
✓ 14	HAVEDO	NOGOU	C	12	58		12.12.58			

Figure 17. Section of census book for ‘Nadunumu’, i.e. Naduri, compiled in late 1958 (marked as accounted for during field interviews).

Note: #3 is Ovoru Idiki, Naduri’s ‘Fuzzy Wuzzy Angel’, who according to the Kokoda Track Foundation’s website was 105 years old in 2010 (<http://www.kokodatrackfoundation.org/adopt-an-angel1/malenta-grade-4.html>). The above suggests he was in fact 86. Ticks indicate individuals located in genealogies.

We were also produced our photocopies of the Koiari census books preserved in the National Archives of Papua New Guinea.<sup>9</sup> We were careful to explain that these were ‘history books only’ and not an attempt by the government, or anybody else, to impose some kind of administrative ruling on villagers – for example, that only people in the book would be accepted as ‘real landowners’.

It was easy to explain that, as discussed above, the books form a *starting point* to learn about each village, and to make sure every family is included, because 1958 was before permanent rural-urban migration had occurred<sup>10</sup> and even adults working in towns and on plantations were still censused at their home.

<sup>9</sup> A total of 19 of these books survive, listing a population 1608 persons in Mountain Koiari Census District in 1958 (Burton et al. 2009: Appendix B).

<sup>10</sup> ‘Ol man i pas long ples’.



Figure 18. Elton Kaitokai interviewing at Boridi, 28 Sep 2010.



Figure 19. Kenneth Miamba interviewing at Naduri, 22 Sep 2010.

We briefly explained the format of the census books.

(In Figure 17, the numbers recorded in the 1958 column are the identification numbers given to men on indentured labour contracts. In this case it can be seen that three men have such numbers; they may have been working in Port Moresby during the year, spending only the Christmas holidays at Naduri, or these may just have been numbers recorded from previous years when they were working. Other useful information are the birth year estimates for most of the population – the family head, Idiki Kanave, was probably no older than 60 but is marked as ‘A’ or ‘aged’ – and more precise date-of-birth information where newborns and infants were encountered.)

Following this, we invited those present to break up into families and to sit down with either of the team’s two interviewers, Elton Kaitokai (Figure 18) and Kenneth Miamba (Figure 19), to commence taking down each family’s details, using a genealogical format as the most suitable way to make sure everyone was covered and there were no omissions.

## Results

### Data entry

Data entry had been completed in Canberra for three villages at the time of the submission of the draft report in April 2011. It was continued for ten further villages by Elton Kaitokai at the DEC office in Port Moresby during 2011-12 and at the ANU in May 2012. Following our fieldwork at Madilogo, 22-25 October 2012, Joyce Onguglo added the extra people we encountered there. After the addition of new features in Community Express aimed at searching for duplicate entries, John Burton has subsequently spend a number of days on quality control tasks and in eliminating as many duplicates as possible from the database. The current standing of population counts for the villages of Wards 15-19 in Koiari Rural LLG are as shown in Table 6.

What will be noted immediately is that our estimates of the total population have been revised downwards by a considerable margin over time since the start of data entry.

What	Koiari Rural LLG, Wards 15-19			
	Residents	Absentees	Total	% Absent
Draft report, April 2011*	2455	5799	8254	70.3%
Note on CE Database, December 2012	2140	5316	7456	70.9%
This report, Table 6	1333	3752	5085	73.8%

**Table 4. Revision downwards of population estimates for Koiari Rural LLG, Wards 15-19.**

\* estimate based on scaling up from count of 2072 individuals by average persons per data sheet.

The explanation for this is that making an accurate count of the resident population of each village is not as simple a matter as going from house to house and adding up the number of residents. In the first place, this is a population dominated by out-migration, predominantly to Port Moresby. Of those that live at ‘home’, many families are quite mobile, spending part of the year in the city or elsewhere. In the case of villages with no local access to schools, one parent may take the school age children of the family to a village with a school and live there during the school terms. The other parent may take on itinerant work such as trek portering to support them.

Apart from physical sightings of people by the interview team, at each village there were at least six kinds of verbal reports about them:

1. People who were reported in the current village as being residents
2. People who were reported by people elsewhere as being residents in this village
3. People whose place of residence was reported as being outside the project area
4. People who were reported to be alive but whose place of residence was not given
5. People whose status as alive or dead was not given
6. People who were reported to be dead, but may in fact be alive

As is extremely common in social mapping situations, our informants constantly inflated the numbers of people resident at their villages, typically asserting that ‘of course’ individuals lived there – it was their ‘home’ village.<sup>11</sup>

We had originally estimated the percentage of absentees to be 70% but after the recent work of the database we must revise this up to 74%.

Many permanent absentees, e.g. people with permanent jobs in the city, have built houses in their villages. Some are empty, but most are used by their parents or siblings. In good faith, therefore, people can say ‘em haus bilong X’, or ‘X save stap long hia’. And a phrase we heard more than once in 2010 was ‘haus bilong em, tasol em go long Mosbi long baim sop’ – a metaphor for all the reasons that people do out-migrate from this geographically remote area.

Because extended families typically had branches in several villages, we often encountered the same names in more than one place. In the other places, it was more common for people to say that particular relatives lived in Port Moresby if that is where they indeed were resident most of the time. This was a reasonable check on actual residence and also helps account for our revision downwards of the total numbers involved as we have identified names as duplicates of the same person.

Where	Resident Ward 15-19 people
5 Mile	307
Morata	261
9 Mile	141
Koki	139

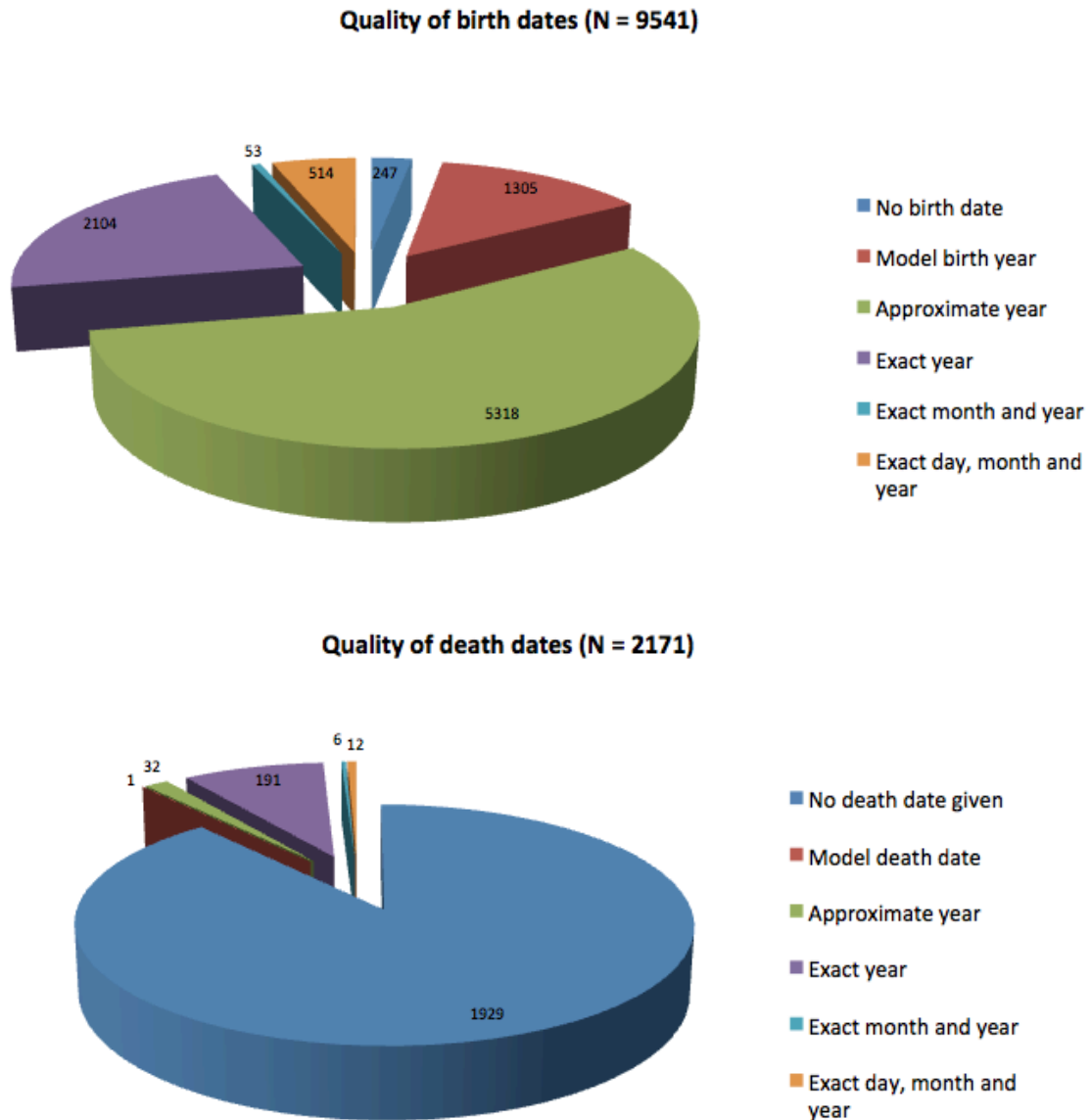
**Table 5. Major out-migration destinations for Mt Koiari people in Port Moresby.**

<sup>11</sup> On a social mapping exercise in Morobe in 2011, involving University of Technology students, the residents of a small remote village contrived to give the survey team assigned to them 2184 names of villagers. At the 2000 census, just 147 people had been counted there, illustrating the lengths informants will go to list every possible relative they could think of if given a chance.

Ward	Village	Dates of fieldwork	Family interviews	Data sheets\$	Latest population counts			Per cent	
					Res	Abs	All	Res	Abs
15 Kagi	Kagi	20-21 Sep 2010	39	39	99	336	435	22.76%	77.24%
15 Kagi	Naduri	22-23 Sep 2010	21	28	131	244	375	34.93%	65.07%
16 Boridi	Maraba	24-26 Sep 2010	21	35	67	228	295	22.71%	77.29%
16 Boridi	Daoi	26-27 Sep 2010	12	22	62	168	230	26.96%	73.04%
16 Boridi	Boridi	28-29 Sep 2010	20	34	62	167	229	27.07%	72.93%
16 Boridi	Milei	29-30 Sep 2010	6	13	38	51	89	42.70%	53.30%
16 Boridi	Manumu	29-30 Sep 2010	12	32	16	242	258	6.20%	93.80%
17 Efogi	Efogi 1	10-11 Nov 2010	29	57	175	335	510	34.31%	65.69%
17 Efogi	Launumu (Efogi 2)	10-12 Nov 2010	22	47	32	452	484	6.61%	93.39%
17 Efogi	Enivilogo	12-14 Nov 2010	15	33	42	316	358	11.73%	88.27%
17 Efogi	Haelogo	15-16 Nov 2010	19	39	43	253	296	14.53%	85.47%
18 Manari	Loni-Manari	17-19 Nov 2010	41	116	199	526	725	27.45%	72.55%
18 Manari	Naoro 2	21-22 Nov 2010	16	57	97	251	348	27.87%	72.13%
18 Manari	Naoro 1	23-24 Nov 2010	11	26	71	48	119	59.66%	40.34%
18 Manari	Madilogo	22-25 Oct 2012	6	20	33	41	74	44.59%	55.41%
19 Edevu	Aunaba	23-26 May 2011	(inc in Binige/Edevu)		18	11	29	62.07%	37.93%
19 Edevu	Binige	23-26 May 2011	4	8	35	13	48	72.92%	27.08%
19 Edevu	Edevu 1+2	23-26 May 2011	11	21	113	70	183	61.75%	38.25%
<b>Totals</b>			305	627	1333	3752	5085	26.21%	73.79%

Table 6. Population counts after data entry by J. Burton, E. Kaitokai, J. Onguglo up to 3 March 2013.





**Figure 20. Quality of birth and death dates in 9541 individuals entered to March 2013.**  
 Notes: (i) 'Model' date means year estimated on the basis of most plausible fit to other information (ii) 9541 individuals is made up of living and deceased persons + 'status unknown'.

As we have mentioned on several occasions, survey work has not been done at major Koiari settlements in Port Moresby such as 5 Mile or Saraga. It is possible that further reductions of double-counted people may be made if coverage is extended to these places; on the other hand greater detail on the families of absentees is likely to swell their numbers.

Table 6 is our best count of residents and absentees up to the time of writing (March 2013).

### *Multidimensional Poverty Index*

The original intention was to collect Multidimensional Poverty Index (MPI) indicators directly in the field in 2010, but members of the field teams, exposed to the methods of social mapping for the first time, proved to have quite enough to do with other data collection tasks (see extended comments, p. 83). Given a smaller settlement and fewer people to have to deal with, this data was collected at the same time as general social mapping was done at Madilogo in 2012.

MPI calculations, which are explained in the United Nations Development Programme *Human Development Report* (UNDP 2010) are done by household, which means that an overall score can be calculated for a sample of households, a village, or a larger area like a district or a country. The ten MPI indicators – which deliberately ignore income – are as follows, where an *observed deprivation* is coded as 1 and 0 if otherwise:

#### Education dimension:

- E-YRS – deprived if no household member has completed five years of schooling;
- E-ENR – deprived if any school-aged child is not attending school in years 1 to 8;

#### Health dimension:

- H MORT – deprived if any child has died in the family;
- H-NUT – deprived if any adult or child for whom there is nutritional information is malnourished;

#### Assets dimension:

- A-ELEC – deprived if the household has no electricity;
- A-WAT – deprived if the household does not have access to clean drinking water or clean water is more than 30 minutes walk from home;
- A-SAN – deprived if they do not have an improved toilet or if their toilet is shared;
- A-HSE – deprived if the household has dirt, sand or dung floor;
- A-FUEL – deprived if they cook with wood, charcoal or dung;
- A-OWN – deprived if the household does not own more than one of: radio, TV, telephone, bike, or motorbike, and do not own a car or tractor.

In general it is not necessary to ask for all ten indicators at each household in a Papua New Guinean village, because if no water supply is in sight, it will be obvious that no household has piped water. Similarly, a single glance in a bush village will register whether the houses are all made of the same materials and will pick out any that might be of a higher standard.

Exactly how housing with a ‘dirt, sand or dung floor’ – an Africa/India biased indicator – should be translated to assess a house in Central or Oro Province is open for discussion, since 99% of houses are built on posts, whether ‘grass huts’ or modern buildings with running water and electricity. The key to an ‘improved house’ in the province is that it should by its construction exclude common disease vectors. This principally means that it must be mosquito-proof. Survey enumerators and villagers alike fall into an easy habit of thinking a *haus kapa*, i.e. a house with iron sheeting on the roof, is an ‘improved house’ but for this survey a house is scored with a ‘1’ (deprived) unless it is mosquito-proof. This means, in addition to an iron roof, it must be framed with sawn timber, have properly fitting windows and doors, and flyscreens in good condition.

The three dimensions are equally weighted and are worth 1/3 each. Scores for the ten indicators are multiplied by the appropriate weighting factor: 1/6 of 10, or 1.66666, for the health and education indicators and 1/18, or 0.555556, for the asset indicators, and summed to give the ‘household

deprivation', or c. A household with a c value of between 2 and 3 is considered 'at risk of being multidimensionally poor' and of 3 or more as 'multidimensionally poor' or MPI-poor.

This is indicated as follows (example scores):

- 5.8 Red lamp – this family is MPI-poor.
- 2.3 Amber lamp – this family is at risk of becoming MPI-poor.
- 1.6 Green lamp – this family is not MPI-poor.

The procedures for calculation (UNDP 2010: 221-222) are easily built into a spreadsheet. The sum of people in households with a c-score of 3.0 or more, divided by the total population, is the MPI headcount or H. (For example,  $H = 0.55$  means that 55% of the population live in an MPI-poor household.) The intensity of poverty, A, is a special averaging of the c-scores of the MPI-poor households to give the percentage of indicators on which a household is deprived. If A is, say, 45%, it means that the MPI-poor households are 'only' poor on 45% of the indicators. If A is, say, 70% it means they are more deeply poor.

Finally, the MPI itself is  $H \times A$  and is a score between 0.00 (not deprived on any dimension; achieved by Slovenia and Slovakia in 2011) and 0.64, the highest score reported in the 'Low Human Development' group of countries by UNDP (for Niger in 2011).

MPI scores will be here classed as follows:

- 0.50 or higher – **EXTREME POVERTY**. 9 countries were in this bracket in 2011 (including Somalia, Ethiopia, Mali and Niger).
- 0.40-0.50 – **SEVERE POVERTY**. 6 countries were in this bracket in 2011 (including Rwanda, Sierre Leone and Liberia).
- 0.30-0.40 – **STRUGGLING TO ACHIEVE DEVELOPMENT**. 15 countries were in this bracket in 2011 (including Côte d'Ivoire, Timor Leste and Tanzania).
- 0.10-0.30 – **IN THE PROCESS OF DEVELOPMENT**. 25 countries were in this bracket in 2011 (including Kenya, India and Bangladesh)
- 0.00-0.10 – **MOSTLY DEVELOPED**. 54 countries were in this bracket in 2011 (including Philippines, Jordan, Viet Nam – OECD countries were not measured).

In Table 7 I have chosen to identify householders. While it is normal to de-identify survey data, I judge that it is more beneficial for future investigators to be able to see all the data than not, on the grounds that a large amount of the past survey data that we could be using today to evaluate progress has been lost, hindering the present work.

The answer is that Madilogo had an MPI score of **0.35** and represented a village **STRUGGLING TO ACHIEVE DEVELOPMENT**. As may be seen, 8 out of 10 households were MPI poor.

While generally not deprived of education – all but one household, if they had children, had them all in school – an astonishing 7 out of 10 households had lost one or more children.

As charts of family structures must be generated for the Ward selected for pilot subcatchment mapping in 2013, it is proposed to combine reviewing these charts in the field with collecting MPI data for other villages. With the charts already prepared, this is a relatively simple task.

Household	E-YRS	E-ENR	H-MORT	H-NUT	A-ELEC	A-WAT	A-SAN	A-HSE	A-FUEL	A-OWN	c	n	q	$\Sigma(q*c)$
Buai	0	0	1	0	1	0	0	1	1	1	● 3.9	4	4	15.56
Jonah	1	1	1	0	1	0	0	1	1	1	● 7.2	5	5	36.11
Gilbert	1	0	1	0	1	0	0	1	1	1	● 5.6	1	1	5.56
Philip	1	0	0	0	1	0	0	1	1	1	● 3.9	2	2	7.78
Shelley & siblings	1	0	1	0	1	0	0	1	1	1	● 5.6	3	3	16.67
Joanne & Robert	0	0	1	0	1	0	0	1	1	1	● 3.9	4	4	15.56
Frank Rabie	0	0	0	0	1	0	0	1	1	1	● 2.2	6	0	0.00
Rhoda & Kei	0	0	0	0	1	0	0	1	1	1	● 2.2	3	0	0.00
Deduri & Jimmy	0	0	1	0	1	0	0	1	1	1	● 3.9	2	2	7.78
Tuksy & Susan	0	0	1	0	1	0	0	1	1	1	● 3.9	4	4	15.56

Families = 58

281 258 1492.78

Headcount Ratio,  $H = \Sigma n / \Sigma q$  0.7353

Intensity of poverty,  $A = \Sigma(q*c) / \Sigma(q)*d$  0.4822

MPI =  $H*A$  0.35

Table 7. Multidimensional Poverty Index (MPI) calculations for 10 households at Madilogo, October 2013.

### *Family circumstances of Adopt-an-Angel students*

The family circumstances of 'Adopt-an-Angel' students gives an insight into actual residential arrangements in Kokoda Track villages.

This is an education programme facilitated by the Kokoda Track Foundation where donors pay the school fees of children at schools in the Kokoda Track area.<sup>12</sup> In 2011 sponsors were found for over 300 students, whose photographs are posted on its web site, accompanied by brief information for the sponsor. An example is:

Alice is from Kagi village and her parents are subsistence farmers in the village. She is attending Grade 6 at Kavovo Primary School in 2011. Kavovo Primary School is located halfway between Kagi and Naduri villages. Alice is currently 16 years old but doesn't know when her birthday is. She has 2 brothers who she lives with in the village.<sup>13</sup>

In this case, Alice is Alice Kenneth, I interviewed her father Lulu Kenneth Matama on 20 September 2010, and recorded Alice's birth date as October 1994.

With the sometimes sketchy information posted on the children, 15 of 17 students attending Kavovo Elementary Primary School (Figure 21) whose details have been posted, can be identified. The school is 30 minutes walk from both Kagi and Naduri and all the children, now aged between 9 and 17 years, reside in one of the two villages.

Only five of the 15 children lived at home with their father and mother.

In four cases, one parent had died. The ages at death of the three parents in question were (approximately) 38, 48 and 51. Two of the children lived with their widowed father. One lived with his widowed mother. The mother of the last child had left the family and he was probably looked after by his grandparents.

One child's family is from, and currently reside, at Emo River in Oro Province and he had been sent to live with his grandmother's relatives at Kagi, presumably in order to attend Kavovo School (or possibly to get into the Adopt-an-Angel scheme).

The remaining five are the children of single mothers. Two of the mothers raise the children themselves. One has a mental illness and her child is cared for by relatives. Two have been adopted by siblings of the mothers.

In summary, what might be called 'normal' family circumstances are not the most common situations in these villages. It is true that the adopted children appear to live in 'normal' families, but without further information it is not possible to say whether the arrangements will last indefinitely.

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<sup>12</sup> <http://www.kokodatrackfoundation.org/whatwedo/education/fuzzy-wuzzy-angels-photo.html>

<sup>13</sup> <http://www.kokodatrackfoundation.org/adopt-an-angel1/alice-grade-6-kav.html>

### *Attractor effects*

We will not be able to describe this statistically until more data entry has been completed, but it is certain that a strong *attractor effect* will be demonstrable in the Kokoda Track area. This is where resources put into particular locations act as a magnet drawing people out of their home locations and the opposite effect being seen away from the attractors, which as a result become hollowed out of population.

Kavovo School, in its location in the Kokoda Track corridor, is one such attractor. It may be inadvertent, but its multiple donor projects<sup>14</sup> have had the effect, both in actual physical improvements and in terms of generating enthusiasm for the school among parents and teachers, of drawing resources away from nearby schools such as Bodinumu, which has closed permanently, and Boridi, closed for the school year 2010 and looking unlikely to have been opened in 2011.



**Figure 21. Kavovo Elementary Primary School between Kagi and Naduri.**

Photo: 22 September 2010.

In the lower parts of Boridi ward, the attraction is to places in the lower altitude areas of the road network west of Port Moresby. People at Milei say they, and villagers at Manumu, can follow the Brown River downstream and at a certain point continue by raft to Edevu and the Hiritano Highway, 35km distant in a direct line. This is, they say, cuts the outward travel time from several days to a matter of hours. At Milei and Manumu there are very limited income earning opportunities by contrast with Edevu, even though this has only modest economic development itself. The effect on

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<sup>14</sup> At a minimum: poultry project given by KTA and K4000 for school supplies given by the KTF in 2005 (Bartlett 2005); donation of books in 2006 (<http://www.freespiritadventures.com.au/about/charity.html>) by Free Spirit Adventures to rebuild the School library after a fire; Adopt-an-Angel programme sponsoring students to attend the school by the Kokoda Track Foundation (<https://kokodatrackfoundation.org/adopt-an-angel1/alice-grade-6-kav.html>); the Matthew Leonard Fuzzy Wuzzy Angel Scholarship in 2009 (<http://www.kokodatrackfoundation.org/news-list/the-matthew-leonard-fuzzy-wuzzy-angel-scholarship.html>).

these two villages is that people have been drawn away: Manumu is currently home to just two extended families and Milei to only a few more.

Edevu Adventist Primary School, about 30 minutes off the Hiritano Highway by road, is one of the destinations targeted by this emigration. The school has a full set of classes catering for Elementary 1 and 2 and Primary Grades 3-8, which makes it a very large school for a cluster of villages where only 81 people were counted in the 2000 census. The headmaster, Timothy Riuhi, said that his school in fact had enrolled students from all the lower altitude Mountain Koiari villages, such as Madilogo, Haelogo, Enivilogo, Manumu and Milei. The Adopt-an-Angel program lists 19 recipients of school fee support at this school; when data entry is more complete, we will identify where they have come from.



*At last we are led to a house to rest our weary bodies*



**Figure 22. Boridi Primary School as it appeared in a Basic Education Development Project photograph in 2009 (upper) and the classroom and teacher's house in 2010 (lower).**

Sources: SIMO Volume 1, Issue 1, 2009 <http://www.pngbedp.com/SimoSeed.pdf> (upper) and photographs taken at Boridi on 28 September 2010 (lower).

A picture of the school at Boridi is shown in an online publication of the AusAID-supported Basic Education Development Project, SIMO, in 2009 (Figure 22).

A key aim of the BEDP is to assist in ‘an ongoing national program of maintenance of primary and community school facilities being independently managed by provincial Department of Education (DOE), local level government and school communities’ and the caption to the photograph is ‘At last we are led to a house to rest our weary bodies’. In fact, if there are houses in the direction of where the figures are walking, it is only the broken down ‘teachers houses’ – two tiny huts – behind the now defunct bush classroom. They go a long way to explain why this school is unstaffed.

In the accompanying text Boridi school is not mentioned and the only school identified by name is Kavovo:

“People from the Mt Koiari area are very co-operative. They want development and are ready to work. One of the schools at Mt Koiari is Kavovo Primary School. The community and parents at Kavovo are enthusiastic and are already working towards improving the school,” Mr Romaso explained.

No doubt the BEDP program is making great strides in assisting many remote schools, but while this is unstated, it is clearly detectable in the remainder of the blurb that interest among parents and teachers collapses quite quickly when a school is forgotten about.



## CHAPTER 4

### DESIGNING A CONSULTATION STRATEGY FOR THE AOI

**Relation to the TOR:** This section makes an analysis in relation to the final goal of arriving at a consultation strategy to assist DEC to manage the Brown-Naoro Catchment. Some tasks are not addressed here (e.g. 'data safeguard protocols ... implemented in a manner compliant with the Information Privacy Principles') as work is incomplete in these areas. Others, notably 'digital maps ... showing the boundaries of customarily owned tracts of land', require the consultation strategy to be rolled out before this kind of detailed data can be collected.

**TOR Tasks:** (k) 'In the course of field work and in consultation with DEWHA and DEC, investigate and hold relevant consultations with local communities [with regard to] the objectives of the Joint Understanding'.

**TOR Deliverables:** 'A textual report describing the conduct and outcomes of the social mapping project, and the oral history, customary social and political organization, and demographic composition of communities in the AOI'.

#### Questions about land

A key TOR output was specified as:

4. One or more digital maps in DEC's standard GIS format showing (a) the boundaries of customarily owned tracts of land, where it is determined that a consensus of local opinion exists on where they are; (b) the local names of human settlements and sites of significance in the AOI; (c) the names of creeks, rivers, mountains and other significant geographical features; and (d) the boundaries of LLG Wards, where these can be agreed upon

Progress was made on (b), (c) and (d), but answers in relation to (a) proved, as might have been expected, to be dependent on the qualifying clause 'where it is determined that a consensus of local opinion exists'.

Much of our efforts in this direction lay in developing the baseline data that will enable the degree of consensus to be determined. We did this in two parts: by means of the genealogical census, just described, and by inquiring about who speaks for land among the Mountain Koiari.

The key questions are: Is it one man? Is it many men? Where do women fit in? What sizes of land tract will we looking for when we do ask about boundaries? We make a start on this here.

## Who speaks for land among the Mountain Koiari?

It was quickly became evident that the eldest living male on the senior lineage of a clan – in technical terms, the ‘senior agnate’ – is considered to have a special right to speak for the land of the local branch of a clan and is also attributed to hold the authoritative knowledge of its history and the locations of its boundaries.

As already introduced (p. 2), the term for this person in the Mountain Koiari language is *vata biage* (lit: ‘land owner’), or alternately *vata kina* (lit: ‘land head’).

The term frequently seen in historical literature and in contemporary media,<sup>15</sup> ‘chief’, is unhelpful in translating this term, because the connotation in English is that a chief is a local ruler. The *vata biage* may be due considerable respect, but he is not a ruler.

Prior to the incumbent holding this position, informants say, his predecessor was his father, who was the eldest son, and before him his father, also an eldest son, and so on back to the earliest known ancestor. In one case, informants could show that the chain of succession stretched back around 150 years (Figure 1).

Just as in other systems of succession, there are cases today where the logical successor does not become the *vata biage*, or where the current *vata biage* says his first son will not be able to succeed him. These situations arise where the lately deceased *vata biage*’s brother is still alive while his son is absent in the city, or his son was born in the city and has never learnt the land history, or does not speak the Mountain Koiari language.

The title *vata biage*, which Koiaris can translate as ‘landowner’ when speaking in English or Tok Pisin, might give rise to the idea that the incumbent is the personal owner of title to the land, along the lines that a feudal lord would have claimed to have been the owner of the lands that accompanied his title. That there is real danger of confusion is indicated by the fact that the first contact the team had with leaders in the area came in the form of a typed list of ‘landowners’ with areas of land indicated against them (in English).

This can now be seen as an attempt to list *vata biage* and the tracts of land they were purported to speak for.

The term ‘landowner’ misrepresents the functions of the *vata biage*, which are, so far as can be discerned, managerial in nature:

- To speak on behalf of rank and file members of the lineage on land matters.
- To master the land knowledge, *vata lulele* (lit: ‘land wisdom’) on behalf of the lineage.
- To showing his own eldest son around the land and its boundaries and teach him the *vata lulele*.
- To consult the senior men in of the lineage before announcing a decision on their behalf.
- To arbitrate land disputes among members of the lineage.

Both Pidgin- and English-speaking Mountain Koiari informants used the more accurate gloss ‘land director’ for the position during our fieldwork.

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<sup>15</sup> Example: ‘Chief of Kokoda Benjamin Ijumi joins the PNG contingent at the Anzac Day march at the Australian War Memorial in Canberra’ <http://www.abc.net.au/news/photos/2011/04/26/3200467.htm?site=canberra>, 26 Apr 2011.

We soon grasped that ‘land ownership’ and ‘leadership’, being introduced idioms, do not exactly fit with the operative indigenous concepts, which have been collapsed onto the English terms, as has occurred all over Papua New Guinea. This is not to say that the Koiaris do not have concepts of ownership and leadership, as indeed they do. But, whereas in Western property law a tract of land assigned to an owner has definable boundaries that unambiguously mark it off from other tracts assigned to other owners, among the Koiari the equivalent concept is more readily expressed in terms of a charter of myth and legend of which traces can be found in the physical landscape: the paths, creeks, rocks, ranges, hills, gullies, and so on mentioned in a clan’s oral history. Obviously, each clan’s oral history differing from the next, what these oral charters mention also varies.

A comparison may be made with the situation where title deeds provide the physical documentation of land ownership. Ancient deeds may not be a great deal more precise than a charter provided by oral history but it is usual that precision has evolved over time such that today rival sets of deeds are likely only to overlap only in respect of small parts like laneways, fence lines and the like. Among the Mountain Koiari, though, the oral history of each branch of a clan may make no reference to the charters of the other branches and of other clans, so that the potential for dispute is much greater.

In the time available to us, and with our preoccupation with getting the genealogies done, we attained only a sketchy knowledge of current conflicts over land (or potential conflicts over land) but a fairly good one of how disputes are likely to be articulated when they do occur.

One means of understanding this is by reference to the history of land dealings for the Sirinumu Dam (Box 1). An essentially identical leadership position to that of the *vata biage* exists among the Grass Koiari of the Sirinumu area.

When their land was acquired for the dam and then flooded, H.W. Morris, a field officer in the Australian Administration, raised the role of what he called the ‘land controllers’, saying that the land acquisition process resulted in an ostensible strengthening of their position but that, because of the multiplication of land disputes, the long-lasting result was not very satisfactory:

Since the dam area was flooded and new garden areas allocated, most intra-clan disputes have resulted from young men disputing the decisions of the various land controllers ([Koiari language:] *watakinaka*) as to which family group of the clan shall cultivate particular areas. In some cases, young men have flouted the now considerably reinforced authority of the land controllers. It was obvious that the solutions agreed in several of these disputes would not last long ...

The revival of ... power vested in the land controllers was very apparent (Morris 1965: 43).

Morris added that the land controller was ‘the leader ... of the senior lineage’ in a clan, which is essentially what we have found among the Mountain Koiari. Indeed, in the Efogi case we might add that he is ‘the leader of the senior lineage ... of the senior clan’ in the village, since the indications were that the other clans present, Oagi, Elomi and Wese had a subsidiary status. Of the three, Wese was said to be in this position because it was a shorter history at Efogi than the others.

As is seen in Morris’ account, the role of the land controllers became problematic. This is very likely because the following equations were made:

- The Grass Koiari have a leadership position called a *watakinaka*.
- The *watakinaka* is translated into English as a ‘land controller’.
- The ‘land controller’ is the man in each clan who makes decisions about land.

- The ‘land controllers’ are therefore the appropriate people to deal with in relation to any matters concerning the use of land for the project.

### Box 1. The construction of the Sirinumu Dam

Over an approximately 15 year period from 1954, the Grass Koiari of the Sogeri Plateau began to feel the impact of a major development project, namely the construction of the Laloki Hydroelectric Scheme and the flooding of 13,000 hectares of their land to create the Sirinumu Dam, opened on 7 Sep 1963 by the then Prime Minister of Australia, Sir Robert Menzies.

Because only 331 people lived in the area of the dam at the time of its construction, not a great number by the standards of recent land-dependent projects in Papua New Guinea, and it took until about 1970 for the water level to rise sufficiently for villagers to fully grasp the extent of their land loss, feelings against the projects were slow to develop.

The 331 people moved to 16 relocation sites on customary land outside the dam area, 12 of which were previously used village sites, and received £52,000 in compensation (Morris 1965: 45). This was the equivalent in 2009 of A\$1.2 million or about K2.9 million. Precedents from mining projects in Papua New Guinea suggest that this was a considerable underpayment. The mine with a leased area most similar in size to the Sirinumu Dam is Ok Tedi; in the early 1990s, prior to the litigation which ultimately drove BHP out of Papua New Guinea, annual land lease payments amounted to about K650,000/year – this was a stream of income for landowners separate from compensation, resettlement allowances and/or housing, and production royalties (Burton 1997).

The key impacts on the affected villages observed at the time related to changes in the pattern of agriculture, due to land loss and also flooding along the Upper Laloki River, which led to the selection of replacement garden sites on other land where cultivation rights were held (Morris 1965: 46), but also a switch from subsistence-only horticulture based on yams and sweet potato to a greater emphasis on the gardening of crops for market sale, with an overall increase in the area of land under cultivation.

In a review of the livelihoods of Sirinumu people, Forbes (1974) noted that Patrol Reports in the late 1960s reported few complaints in the area around the dam, but that by 1973 grievances relating to the neglect of the area by the Hiri Local Government Council resulted in the petitioning of the Commissioner for Local Government for a separate Koiari Local Government Council. At the same time, the Koiari were ‘highly dissatisfied with the amount of compensation paid for their land and gardens’ in the 1960s and now harboured ‘a specific complaint against Elcom’ (Forbes 1974: 15).

Forbes pointed out the Grassland Koiari had historically lost quite significant areas of land, alienated from around 1900 to make up the many plantations on the Sogeri Plateau, and that a patrol officer sent to investigate land alienation at Sogeri in 1950 had already expressed concern about the ‘disintegration’ of traditional life because of the breakdown of traditional settlement patterns. Elcom, he concluded, had a ‘moral responsibility’ to assist the affected communities (Forbes 1974: 18).

There are several false steps in the above which led to an over-reliance on the *watakinaka*. A better summation of the situation would have been as follows:

- The Grass Koiari do indeed have a leadership positions called *watakinaka*.

- One translation into English is ‘land controllers’, but the position is more as the first among equals and *watakinaka* must summarise the majority position on any aspect of land matters rather than attempt to dispense personal authority.
- If this does not work, they must switch roles to that of a mediators, or lose the trust of their followers.
- If this does not work, they have come to the end of their own capabilities and, in the modern context, need to bring in outside resources to try and achieve fair outcomes.

Therefore ...

- The ‘land controllers’ have a role to play in contemporary land dealings, whether acquisition, leasing to developers, or protection, but they need to be supported by modern consultation strategies capable of handling more complex issues than they alone can deal with.

### Further questions about the *vata biage*

During fieldwork, we attempted to initiate discussion of situations in which the *vata biage* either oversteps his powers or is unable to get his followers to follow his will. Many plausible scenarios can be imagined. What happens if the *vata biage* lives in Port Moresby and makes decisions without consulting the villagers? What if the *vata biage* has a personal conflict of interest? If he is made the signatory of a trust account, will he share resource rental benefits fairly? What sanctions does he have to enforce his decisions? If a village splits in two as a result of a conflict, and half the village go to live somewhere else, how is he able to exercise authority over the splinter group?

Unfortunately, we found it difficult to pursue any of the scenarios as informants were unable to visualise any of these issues when we presented them as hypotheticals, asserting always that the *vata biage*'s authority was unquestioned, ‘it couldn’t happen’ etc.

### *Settlement fission*

To take the last of these issues just mentioned, settlement fission, many examples are known from the area. In the last few decades, as already mentioned (p. 7), both Bodinumu and Naoro have split into two halves.

Oral historical accounts say that people ‘spread out in all directions’ and this explains how branches of the same clan are found in different places. For example, at Daoi:

Originally the Daoi people came from inside a cave on the Oro side of the mountains.<sup>16</sup> At this time the coastal people had filled up all the spaces on the coast and there weren’t many places left to migrate to. We left the cave and came to Kagi. We saw sugar cane grew well and all kinds of food flourished. We said, ‘we should stay here, it is good land.’ From Kagi we spread out in different directions. (Told by Ouka Nao, Daoi, 26 September 2010.)

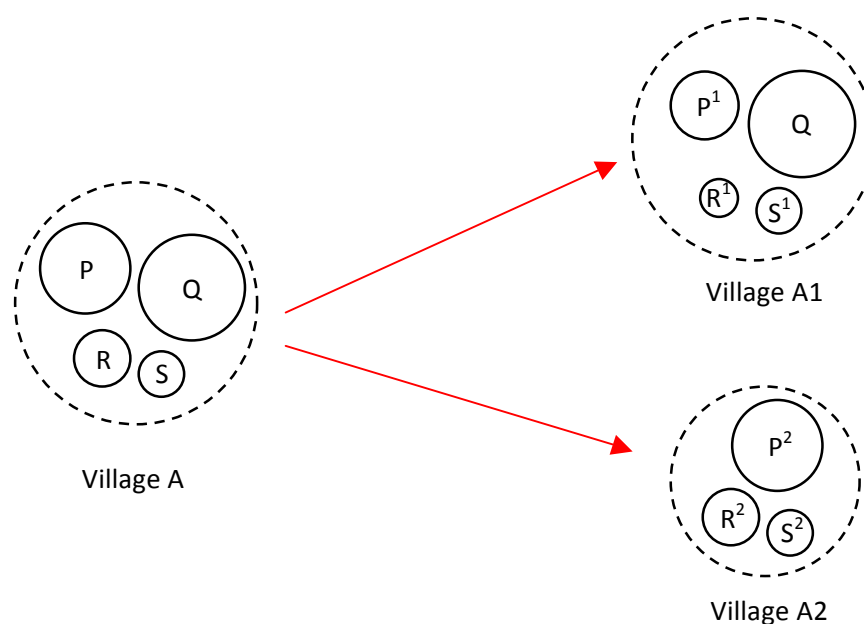
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<sup>16</sup> See version given for Kagi branch of Niguri given by Isaac Matama on p. 3.

A generalised scenario resembles that in Figure 23. In the diagram, Village A, with clans P, Q, R and S, splits into two daughter settlements, A1 and A2. For some reason, clan Q is not represented at A2, but the remainder of the clans are represented at both new villages.

A first question is how are the sections of the clans found at the two new villages related? Initially, we may presume that the originally families of clan P have merely been divided in two branches, P<sup>1</sup> and P<sup>2</sup>, such that half went to A1 and half to A2, and that they still know their common ancestry. The same may apply to the smaller clans, R and S.

Over time, however, it may be that the two sets of families grow apart and the common ancestry becomes more a matter of faith than of recallable genealogy. In the hypothetical case, clan P's branch P<sup>1</sup> at village A1 and its branch P<sup>2</sup> at village A2 cease to have much in common.



**Figure 23. Settlement fission: what happens to the *vata biage*?**

Nonetheless, in real examples the *name* of the clan remains the same; for example, Niguri is simply 'Niguri' at Kagi, Naduri, Maraba, Daoi, and Boridi where branches of Niguri are found, and Oagi is simply 'Oagi' at Kagi, Naduri, Efogi 1 and Launumu where branches of Oagi are found. That is, the local branches are unnamed.

*What of the vata biage in settlement fission?*

If the sets of land tracts that sum to the land holdings of the two branches are now separate, it is likely that each branch of the original clan will have its own *vata biage*, based of exactly the same principle as before – he will be the senior male member of the senior lineage of the local branch of the clan. In Niguri's case, some of the *vata biage* were said currently to be:

- Kagi – Havala Laula (but see below).
- Naduri – John Kerea.
- Daoi – was Simuve, then Nao Simuve. Currently: ?
- Boridi – Soveki Susuve.

At Boridi, men said Havala Laula at Kagi has the most knowledge of the land, *vata lulele*, so that other *vata biage* come and ask him when they do not know something.

At Kagi, Niguri is said to be rather large so that it is subdivided into three local branches, Niguri 1, Niguri 2 and Niguri 3. Each one has a *vata biage*:

- Niguri 1 at Kagi – Havala Laula, aged about 81 years.
- Niguri 2 at Kagi – Was Euvu Dinai, then Gai Euvu, and is now Heni Gai aged 37 years.
- Niguri 3 at Kagi – Was Dimudi Nirigi, and is now Jerry Dimuda aged 58 years.

### Modern consultation strategies – FPIC procedures

One of our TOR obligations was to demonstrate the quality of the Free, Prior and Informed Consent (FPIC) we obtained (TOR Task (e)). We can actually build on this requirement to begin to show how a community consultation strategy for the Brown-Naoro catchment as a whole can be constructed.

#### *The ecological services perspective*

So far community interests in land, waters and other resources have been discussed in terms of land ownership and customary leadership. However, since the orientation of the social mapping project lies in the direction of catchment management, it may be pointed out that there is a further dimension to be considered. Beyond the classic interests of the landowner, an *ecological services* perspective concerns the rather less well acknowledged rights of what often amounts to the majority of the community.

For example:

- When a woman marries a landowner it creates an implicit contract that, in return for wifely duties, she is granted lifetime rights to the ecological services of her husband's land and waters in order to carry them out.
- When an ancestor permitted distant relatives or non-relatives to settle on his land, it created an implicit contract that they will obey certain observances – such as deferring to the political primacy of his family, not seeking to profit economically ahead of his family, and providing a circle of physical security – in return for rights to the ecological services of his land and waters for as long as they continue to hold to their side of the bargain.

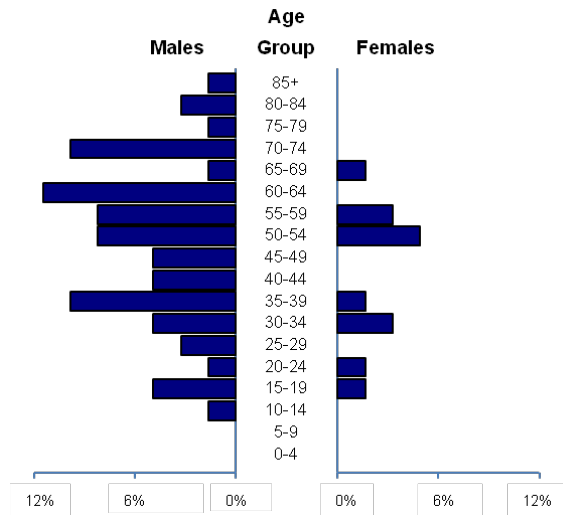
The fact is that male landowners may hold exclusive underlying rights to land, but they do not hold exclusive rights to the ecological services provided by the land, its waters, or things occurring as natural growths within its bounds, as they have contracted some of them away. For both women and non-landowning settlers, it means is that it is inadequate – and unacceptable – for a consultation strategy to yield to the demands of male landowners to take up all available positions in representative committees *when these are concerned with the management of ecological services*.

The *ecological services* perspective become even more problematic if a proposal (e.g. a REDD scheme) is to be considered that involves some kind of rental payment, because precedents in Papua New Guinea are that rentals go to landowners while the means of recompensing those who hold rights to ecological services have scarcely begun to be considered.

*Gender inclusiveness*

Our first meetings were held with the whole community – or as many of as were not occupied outside the village on the day – but only a few people raised their hands to speak. This was generally only a village chairman or similar – and those that did speak were exclusively men between the ages of about 35 and 55.

On the other hand, many people participated in the subsequent interviews with individual families. At Kagi and Naduri, for example, 61 people were interview participants over four days (Figure 24).



**Figure 24. Age and sex of informants at Kagi and Naduri (N = 61).**

Their participation took the form of one or more of the following:

- They were principal informants for their families and provided Elton or Kenneth with information throughout a family interview.
- They assisted the principal informant(s) in their family, adding details not so well known to others, such as birth dates, the names of small children, and the current whereabouts of absentees.
- They mainly observed the interview for their family information, but their physical presence added detail (e.g. being a child in a family).





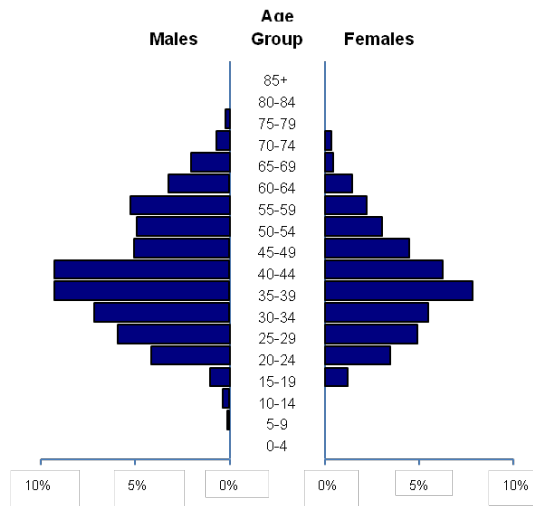
**Figure 25. Predominantly female informants at Maraba, 24 Sep 2010.**

This is a huge improvement over participation in the community meeting and, as Figure 24 shows, people from a wide range of age groups made contributions. While we believe we were broadly satisfying FPIC principles, our efforts were still wanting in one respect: only 20% of participants were female.

To a certain extent, the figures are an artefact of what was recorded – the names and/or head-and-shoulders photographs of the people who participated in interviews the most – because photographs of interviews in progress do show considerable numbers of women in attendance (Figure 25).

However, for us to be able to say FPIC procedures really have worked, we should see a *documented* 50:50 participation by males and females.

Another factor is that these were first meetings with the communities, the nature of the work was intensive, and time considerations did not allow for people with other commitments, notably women with work to do, to come back later. When interactions can be spaced out over a longer period and community members can make appointments to meet the research team when it suits them best, and in a location where they feel as comfortable as possible, an even balance can indeed be achieved (Figure 26).



**Figure 26. Age and sex of 892 informants during 12 months of interviews at Porgera, 2006-07.**

Note: The interview team consisted of one man and one woman. Interviewees were able to meet with the team in a covered outdoor area easily accessible to them, at a time of their choosing.

Did not having a female interviewer make a difference?

Anecdotal evidence suggests that having a female interviewer on the team does improve the chances of women feeling more comfortable to participate in consultative activities, and it is a matter of common sense that this is ideal. However, our judgement is that the main problem during our fieldwork in 2010 was the short time available in each village.

For community consultations in the longer run, though, a balance of team members of both genders should be sought.

## CHAPTER 5

### RECOMMENDATIONS ARISING FROM THE ANALYSIS

In relation to consultation procedures, the analysis of Chapter 4 leads to quite definite conclusions and from them a set of recommendations.

First, it is clear that although clans are typically represented in 3-5 villages, the local branches are essentially autonomous and have their own *vata biage*. This is reinforced by the existence of three sections of Niguri at Kagi; it indicates a definite limit to the number of people in the extended families who can refer land matters to one man and the need for politically separate representation when this is exceeded. Understanding the composition and number of the local branches in detail requires data entry for the places we have already done fieldwork in to be complete. This is a time-consuming task.

*Recommendation 1* *Completing data entry for Mountain Koiari villages where we have completed fieldwork, and doing further analysis of the results, is of higher priority for the time being than extending fieldwork to new areas.*

Second, since the functions of the *vata biage* are centred on land, the interests of the local branches of a clan will be substantively different from each other. In terms of catchment management, it would not be possible to devolve responsibilities to 'Niguri lands', 'Oagi lands', etc, and have dealings with one clan representative for the 3-5 villages where the clan is represented. On the contrary, it will be necessary to isolate what specific land tracts each local branch is responsible for in a subcatchment and have dealings with each local branch for the particular things in the land tracts (e.g. flora, fauna, creeks, waterfalls, pools, fishing spots, forests, gardens, rockshelters).

*Recommendation 2* *The next priority is to break down the overall catchment of the Brown-Naoro River system into subcatchments capable of being matched against the land holdings of the local branches of clans found at each village. The geospatial unit at DEC should take the lead in this work. As much preparatory work as possible should be done in producing satellite maps, topographic overlays etc, prior to starting a round of subcatchment mapping in the field.*

We found village members keenly interested in the process of social mapping and eager participants in reciting family genealogies for us. This needs to be reinforced by bringing back the results.

*Recommendation 3* *The results of social mapping to date should be returned to communities at the earliest opportunity in the form of charts of genealogy, the photographs of individuals taken in 2010-11, satellite imagery of subcatchments, and any other resources requested by community members.*

Third, although the succession of the *vata biage* seems clear in principle, transitional problems are likely to occur when one becomes infirm or dies, if a village splits in two, or if, hypothetically, a city-based candidate successor not in possession of the requisite knowledge were to try and claim the position. This leads to conclusion that reliance on *vata biage* for consultation purposes, however, important they are locally, should be avoided.

- Recommendation 4* A round of village visits will be required to initiate community consultations over subcatchments. The consultations should not be dependent on the customary leaders known as vata biage. Instead, residents' committees or working groups need to be set up in villages, which may include vata biage where present, but reflecting a broader representation of the members of the local branches of clans responsible for the subcatchments.
- Recommendation 5* Community consultations in relation to the subcatchments should focus on the local branches of clans that are their custodians. A direct match will not be found between a local clan branch at a particular village at the first attempt; several iterations of expanding and narrowing the extents of mapped subcatchments will be needed.

It is not enough to say 'we have consulted the community' in relation to land and resources without ensuring that the people consulted correctly represent the relevant land interests. In practice this means that the genealogical database currently under construction must be used to verify who has been consulted, matching these against all the land interests of the village. It must also be shown that the people consulted were in fact residents of the village in question.

- Recommendation 6* The composition of residents' committees or working groups to which community consultation for subcatchments is devolved should be verified with the aid of the genealogical database currently under construction at DEC. Particular attention should be given to ensuring that a lead role is given to village residents and that villagers, including non-resident Ward councillors, whose principal place of residence is outside the area do not attempt to have meetings deferred unnecessarily, to have meetings held outside the village (except for informational purposes), or to control decision-making processes.

Both the *ecological services* perspective discussed above and the requirements of FPIC mandate a need for gender inclusiveness.

- Recommendation 7* The gender balance in residents' committees or working groups to which community consultation for subcatchments is devolved should be analysed with the aid of the genealogical database currently under construction at DEC. Particular encouragement should be given to female spokespersons from the local branches of clans. The reasons for including women may need to be carefully explained. It may be necessary to use particular facilitation strategies to ensure that women's interest in consultation meetings is translated into verbal contributions.

At this point, it will be possible – and probably quite straightforward – to work with the residents' committees in local branches of clans to map the boundaries of lands and waters which each local branch of a clan is the custodian of. Some of this will need to be done on the ground; the recent release of mobile broadband services<sup>17</sup> in Port Moresby will help when knowledgeable informants are found in a coverage area as this is fast enough to allow landscapes to be visualised on Google Earth.

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<sup>17</sup> Notably Digicel's 3G mobile service: <http://www.digicelpng.com/en/services/digicel-broadband-faq>.

Disputation may be anticipated, but progress can be made by detecting dispute areas and then avoiding them altogether – since the objective is conservation of land, not its development, there is no need to come to definite conclusions about every hectare of the landscape.

*Recommendation 8* Authorisation meetings to declare the extents of subcatchments should be undertaken with the residents' committees formed up as above, in the village. The default response to disputed areas should be to treat them as avoidance areas. **CRITICAL NOTE:** Only if mediation can be guaranteed to be trivial in nature should this be attempted.

With this in train, the mapping out of the things that lie in the subcatchments – what the custodians are in fact custodians of – can proceed. These include economically useful land, the other ecological services special to each subcatchment, and cultural heritage as may be found. This should happen in a manner integrated with the development-related activities of the Kokoda Development Program.

*Recommendation 9* Mapping of (a) what lies within subcatchments, in terms of ecological services, cultural heritage, tourism potential, etc and (b) how management of them fits with the development aspirations of community members and integrated with the Kokoda Development Program should be undertaken with the resident's committees, in the village.

Finally, a patchwork of subcatchments should emerge that mirrors the social organisation of local clan branches found in villages. The last task is to sum these into a kind of federated catchment management system encompassing the whole of the Brown-Naoro side of the complete AOI.

*Recommendation 10* The residents' committees that represent the custodians of the subcatchments should from time to time convene joint meetings at one or other of the more central locations in the Brown-Naoro catchment (e.g. Efogi, Boridi, Madilogo) to exchange views and experiences and plan future activities in relation to the environment of the catchment, its heritage and the future development needs of its inhabitants.

However, implementation of this last recommendation lies some time in the future.

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APPENDIX A

GOOGLE EARTH IMAGERY: VILLAGES IN WARDS 15 AND 16

Ward 15 Boridi

Census Unit 002 – Bodinumu

GPS location	Datum	Zone	Easting	Northing	Altitude
Bodinumu School	AGD66	55L	05 73 402	89 92 588	1425m

The village was abandoned as a residential area as long as 20 years ago. Koiari Holdings Pty Ltd is believed to have flown to the airstrip to buy coffee, but the airstrip has been out of use for some years.



Figure 27. Bodinumu Primary School and airstrip.

Source: Google Earth 2 April 2002

In the 2002 image of Figure 27, the buildings of Bodinumu Primary School can be seen, but none of these exist today – it seems likely any useful materials have been transported to Kavovo School.

Informants say the village split into two parts some years ago, half the residents moving to Maraba and half to Daoi. When this occurred is unclear; some time between 1990 and 2000 seems likely.

*Census Unit 002 (half) – Maraba*

GPS location	Datum	Zone	Easting	Northing	Altitude
Maraba SDA Church	AGD66	55L	05 74 786	89 91 794	1505m

Maraba is situated on a spur between Kakave Creek, to the north, and Leili Creek, to the south, 1.7km east of the site of Bodinumu Primary School.

Its position leaves it exposed to what are extremely strong winds of possibly katabatic origin which blow periodically in this part of the Owen Stanley Range. Many house roofs were seen with repaired wind damage in September 2010.



**Figure 28. Maraba village, showing location in relation to the site of Bodinumu Primary School.**

Source: Google Earth 2 April 2002.

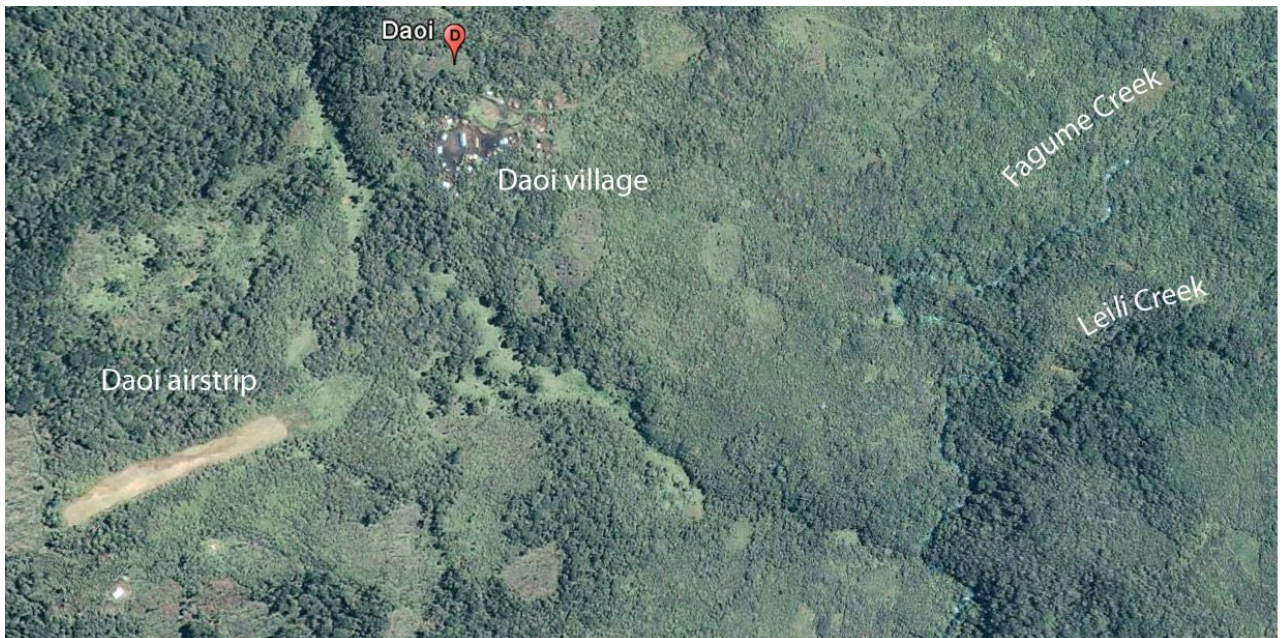


**Figure 29. Maraba village: enlargement.**

Source: Google Earth 2 April 2002.

*Census Unit 002 (half) – Daoi*

GPS location	Datum	Zone	Easting	Northing	Altitude
Daoi SDA Church	AGD66	55L	05 71 535	89 92 096	1435m



**Figure 30. Daoi village, showing location in relation to Fagume Creek and Daoi airstrip.**

Source: Google Earth 2 April 2002.

Daoi is situated at the top of a spur 1.8km west of the site of Bodinumu Primary School, and 1km west of the junction of Fagume and Leili Creeks. About 700m to the southwest, the villagers have constructed an airstrip; it is not known how often the strip has been used.



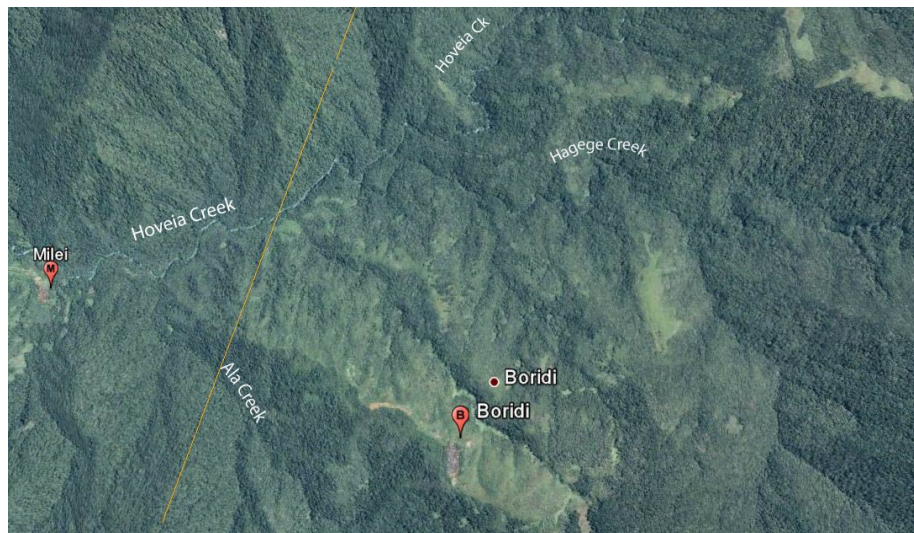
**Figure 31. Daoi village: enlargement.**

Source: Google Earth 2 April 2002.

Ouka Nao says his now 20-year-old son was newly born when people moved to Daoi, suggesting the modern village dates to the early 1990s. At any rate, the residents have been able to construct an extremely fine Seventh Day Adventist Church in the village.

*Census Unit 003 – Boridi*

GPS location	Datum	Zone	Easting	Northing	Altitude
Boridi Aid Post building	AGD66	55L	05 69 973	89 95 382	1376m



**Figure 32. Milei and Boridi villages, showing location in relation to Hoveia Creek.**

Source: Google Earth 2 April 2002.

Boridi is a village site that has been in approximately the same location since at least WWII. It had a bush materials Primary School with two teachers in 2009, evidently built after 2002, but this was unstaffed in 2010. Consequently school-age children were either not in school or had been sent to do schooling elsewhere, e.g. in Port Moresby.



**Figure 33. Boridi village: enlargement.**

Circled: Site of Primary School, operational in 2009.

Census Unit 004 – ‘Dubi’, correct name: Milei

GPS location	Datum	Zone	Easting	Northing	Altitude
Milei, eastern end of airstrip	AGD66	55L	05 69 973	89 95 382	1376m

Milei is a very small village at low altitude on the south bank of Hoveia Creek.



**Figure 34. Milei village: enlargement.**  
 Top: Milei airstrip, opened 5 May 1998.

**Ward 16 Kagi**

*Census Unit 009 – Kagi*

GPS location	Datum	Zone	Easting	Northing	Altitude
Kagi, Aid Post	AGD66	55L	05 73 905	89 90 332	1398m



**Figure 35. Kagi village; large building = SDA Church; footpath at bottom leads to airstrip.**

Source: Google Earth 2 April 2002.



*Census Unit 013 – Naduri*

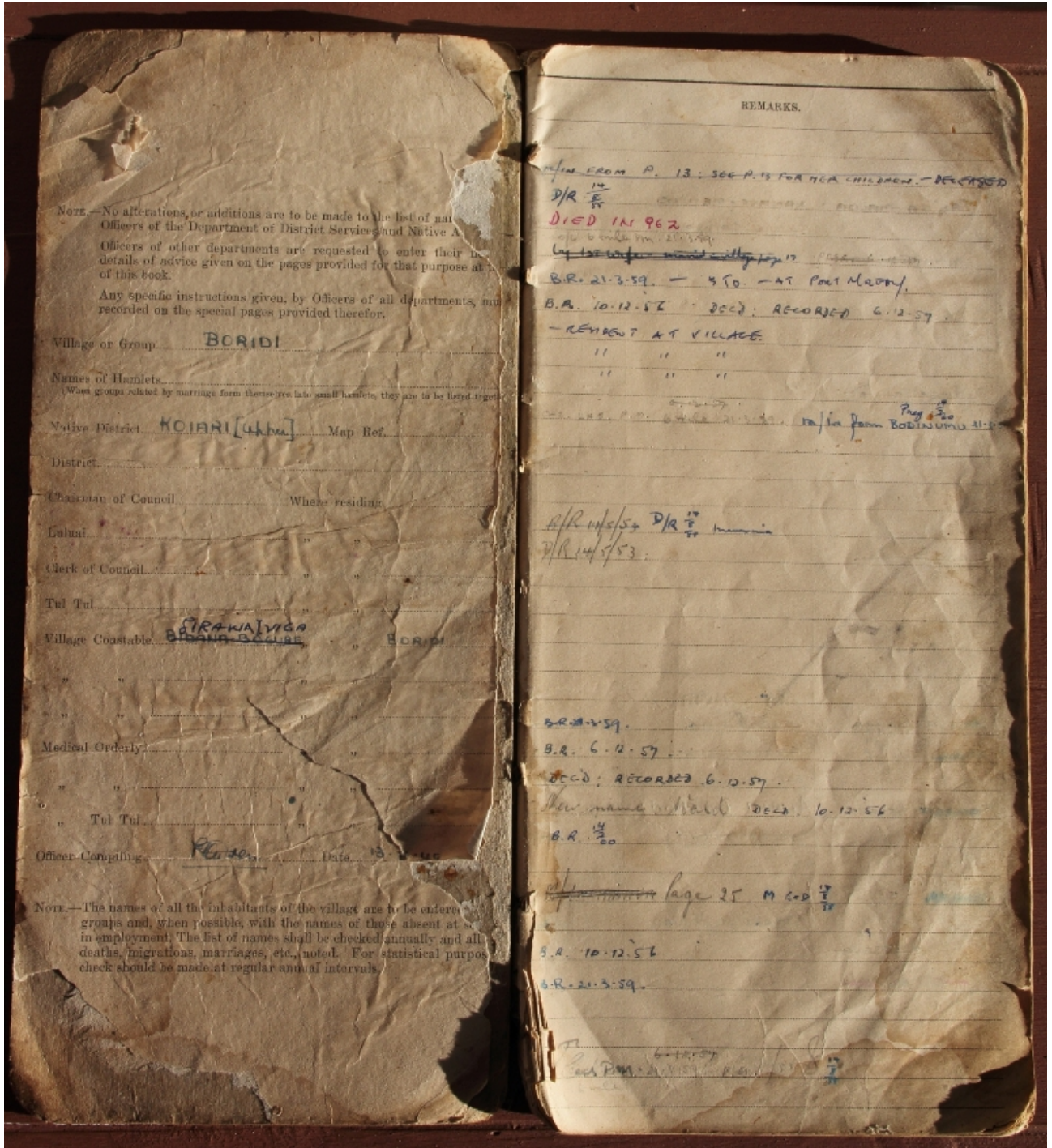
GPS location	Datum	Zone	Easting	Northing	Altitude
Naduri, campsite above church	AGD66	55L	05 75 120	89 89 148	1556m



**Figure 36. Naduri village; large building at centre = SDA Church.**  
 Source: Google Earth 2 April 2002.

APPENDIX B

BORIDI VILLAGE BOOK – SAMPLE PAGES





## APPENDIX C

### KOKODA INITIATIVE COMMUNITY AWARENESS: SOCIAL MAPPING IN 2010 IN KOIARI LLG – ENGLISH VERSION

As a part of the Kokoda Initiative, the Papua New Guinea Department of Environment and Conservation wishes to undertake a programme of social mapping in the Kokoda Track area and its neighbourhood.

The purpose of the work is to:

1. Give traditional owners of land, waters, bush, cultural sites, etc in the Kokoda Track area and its neighbourhood the chance to clarify their issues for the benefit of government and non-governmental agencies who must deal with the appropriate people.
2. Assist in developing better consultation for future development, tourism and biodiversity projects.
3. Establish a proper basis for evaluating the success or otherwise of projects in the Kokoda Track and neighbouring area.

While the intention is to cover a broad area covering the whole of the Kokoda Track area and Brown River Catchment, it is neither possible to complete the whole area at once in 2010, nor is it a task that the Department will try to finish in a hurry.

Everyone with something to say will have a chance to do so, whether in the Koiari LLG or in Kokoda LLG areas, in due course.

In 2010, the department's budget allows the social mapping project to start in Koiari LLG, initially targetting Wards 15 (Boridi), 16 (Kagi), 17 (Efogi), 18 (Manari) and 19 (Edevu). In 2011, an equivalent area will be covered in Kokoda LLG.

Social mapping will include:

- Family history and identity (it's up to you what you wish to talk about).
- Clan history and identity (it's up to you what you wish to talk about).
- Who is included in each LLG Ward and their main concerns.

The Department of Environment has selected a team made up of specialists from the Australian National University and University of Papua New Guinea to do the work. They will identify very clearly who they are and Ward members will be advised in advance.

An important part of the work is for you to say what information can be used as public knowledge and what information you wish to place privacy restrictions on.

The first field team is hoping to begin work at Kagi on 20 September 2010, spending 2 days in each village in Wards 15 and 16 (Kagi, Nadunumu, Bodinumu, Dubi, Boridi, Manumu). This is subject to confirmation closer to the time.

## KOKODA INITIATIVE

### TOKAUT LONG KOMUNITI: SOCIAL MAPPING LONG YIA 2010 LONG KOIARI LLG

PNG Department of Environment and Conservation i tok i laik wokim SOCIAL MAPPING long eria bilong KOKODA TRACK na ol ples klostu long en.

Dispela i kamap long projekt ol i save kolim KOKODA INITIATIVE namel long Australia gavman na PNG gavman.

As tingting bilong wok i olsem:

1. Givim sans long ol papagraun long autim tingting bilong ol long sait bilong graun, wara, bus na kainkain kastom ples long Kokoda Track eria.
2. Dispela i long helpim gavman na arapela ausait lain toktok gut wantaim ol plesman na meri taim nupela projekt i kamap – sait bilong developmen, turis i kam long ples, o lukautim ol wel samting long bus.
3. Stretim rot gut long sekim projekt i save kamap long Kokoda Track eria, na lukluk long sindaun bilong ol plesman na meri wantaim ol projekt.

As tingting i long karamapim olgeta Kokoda Track eria na ol hetwara bilong Brown River, i no inap wokim hariap tumas o pinisim long 2010.

Maski yu stap long Koiari LLG o Kokoda LLG eria, sapos yui gat tok na tingting long autim yu bai inap mekim taim social mapping tim i raun long wokabaut bilong ol.

Long 2010, wok bai kirap long Koiari LLG, pastaim long Ward 15 (Boridi), 16 (Kagi), 17 (Efogi), 18 (Manari) and 19 (Edevu). Long 2011, wok bai kirap gen long Kokoda LLG.

Ol samting i stap insait long social mapping, em i:

- Husat i stap long famili na histori bilong en (kain toktok i stap long han bilong yupela).
- Husat i stap long klen na histori bilong en (kain toktok i stap long han bilong yupela).
- Wanem ples, klen na famili i stap long wanem Ward, na wanem tok bilong ol.

Dipatmen i pikim tim membas long Australian National University (ANU) na University of Papua New Guinea (UPNG). Ol bai tokaut klia na soim ID. Na tu, toktok bai kam long Ward membas pastaim.

Bikpela samting – yu yet i ken skelim toktok long pablik i inap harim bihain, o yu ken lokim toktok we yu no putim long ples klia, na pablik o gavman i no ken harim bihain. Samting i stap long laik bilong wanwan na social mapping tim membas bai respektim dispela.

Wokabaut bilong pes tim i laik kirap long Kagi long 20 September 2010. Ol bai slip tupela (2) nait long wanwan ples long Ward 15 no 16 (Kagi, Nadunumu, Bodinumu, Dubi, Boridi, Manumu).

Dipatmen bai salim tok gen klostu long taim.

## APPENDIX D

### TERMS OF REFERENCE FOR PHASE 2 SOCIAL MAPPING

#### Tasks

- a. Undertake a field programme of social mapping within the AOI for this consultancy as described above and consistent with the recommendations of the report entitled *Kokoda Track-Brown River Catchment Region: Preliminary Social Mapping Study*.
- b. Investigate the oral history of communities in the AOI relevant to settlement formation and community identity.
- c. Investigate the customary social and political organization of communities in the AOI.
- d. Further investigate literature not included in the Preliminary Social Mapping report to determine the contemporary significance of the various names/places/sites mentioned in the records. Significant names/places/sites should be documented and mapped where appropriate. An example of such could be a cultural heritage site (sacred etc), archaeological site etc either by chance find or oral tradition site as per described by the landowners.
- e. Obtain Free, Prior and Informed Consent (FPIC) for the conduct of any part of the work which will involve the collection of personal data on individuals, and determine usage rules for this data.
- f. Create a 'safe haven' for the genealogical database following the protocols given above.
- g. Investigate the composition of landowner communities in the AOI by means of genealogical census where FPIC has been obtained to allow this, and return the resulting charts of genealogy to community members.
- h. Represent in an appropriate GIS format the boundaries of customarily-owned tracts of land, where it is determined that a consensus of local opinion exists on where they are. Where disputes over boundaries exist develop digital GIS layers delineating the area under dispute.
- i. Take note of any historical or continuing land disputes in the AOI, without undertaking any mediation of such disputes, and document such facts of the cases as community members give their consent to be recorded.
- j. Document the existing community groups and legal entities within the AOI including youth groups, women's groups, church groups, landowner companies, incorporated land groups (ILGs) and other business groups.
- k. In the course of field work and in consultation with DEWHA and DEC, investigate and hold relevant consultations with local communities to arrive at a better definition of the AOI with regard (a) to its fit with existing community and LLG boundaries, (b) the need for cadastral precision, and (c) the objectives of the Joint Understanding.
- l. Obtain a peer review of the project report and other outputs, and respond to the peer reviewer's comments.

#### Deliverables

1. A textual report describing the conduct and outcomes of the social mapping project, and the oral history, customary social and political organization, and demographic composition of communities in the AOI.
2. Outputs from a database of genealogy comprising (a) a breakdown of settlement locations and the number of residents and absentees at each, (b) tables of primary data and other analyses from which social development indicators can be calculated, (c) sample

- genealogies, where Permission has been given for reproduction, and (d) tables of customary groups in the AOI and their membership.
3. A specification of the 'safe haven' arrangements and description how the data safeguard protocols have been implemented in a manner compliant with the Information Privacy Principles.
  4. One or more digital maps in DEC's standard GIS format showing (a) the boundaries of customarily owned tracts of land, where it is determined that a consensus of local opinion exists on where they are; (b) the local names of human settlements and sites of significance in the AOI; (c) the names of creeks, rivers, mountains and other significant geographical features; and (d) the boundaries of LLG Wards, where these can be agreed upon.
  5. Report listing the key community groups in the AOI such as youth groups, women's groups and church groups, their membership and an assessment of their effectiveness. Recommendations regarding capacity development needs can be made if any are of relevance to fulfilling the objectives of the Joint Understanding.
  6. Report for organizations such as ILGs which have a formal legal basis to determine whether their establishment and management arrangements conform to requirements under relevant Acts. This review needs to include details of membership, whether the entity has a legal basis, whether its establishment and management conforms with the requirements of relevant Acts. For ILGs assess the extent to which they conform to new requirements in the amended Land Group Incorporation Act (LGI Act). Note: The amended LGI Act is not yet gazetted. The DEC will provide desktop analysis support through its Legal Unit for this aspect of the consultancy.
  7. A boundary description of the revised AOI, with textual commentary on the reasons for the particular course of the boundary along each section.
  8. A detailed description of field work carried out including the methodologies of landowner engagement be provided.

## APPENDIX E

### COMPLIANCE WITH THE TERMS OF REFERENCE

John Burton 6 August 2012

#### 1. Deliverables

Item, DEC Comments / JB Response	How addressed in the report
<p>Deliverable 1, Purpose of collecting the information – (i) ‘Understand the nature of customary rights and interests in the project area’.</p> <p>DEC Comments – ‘Partial’</p> <p>Response – The report contains a full exposition of the nature of customary rights and interests in the project area, in proportion to the duration of fieldwork.</p>	<p>A lengthy discussion of the nature of customary rights and interests is given in the report.</p> <ul style="list-style-type: none"> <li>• The meaning of the term ‘clan’ in the project area is given on p. 2. This is central to understanding how rights are held.</li> <li>• A case study of clans and oral history in Kagi Ward is given 3ff. (authors: digim’Rina and Burton).</li> <li>• The nature of the customary leader known as the <i>vata biage</i> is given 4ff., with examples from Kagi (Ward 16) and Efogi (Ward 17).</li> <li>• This discussion is continued 49ff. where it is explained why the equivalent <i>watakinaka</i> among the Grass Koiari, glossed in English as the ‘land controllers’, has created a problematic legacy in relation to land acquired for the Rouna and Sirinumu Dam area in the 1950s and 1960s.</li> <li>• Since the time of writing, the Rouna people have raised their demands for back compensation from K4m (‘K4m owed to Koiaris over dam’ <i>Post-Courier</i> 21 June 2010) to K291m (‘Koiaris give 14 days’ <i>Post-Courier</i> 7 June 2012) illustrating the depth of feeling over the way land dealings were done in the past.</li> </ul>



<p>Deliverable 1, Purpose of collecting the information – (ii) ‘Provide a resource for community planning and the appropriate targeting of social development programs’.</p> <p>DEC Comments – ‘Of limited use’.</p> <p>Response – The report does set out how these things should be done and is accompanied by a searchable database of people in the project area, a key resource to ensure community planning social development programs target the intended people.</p>	<p>Guidance on how the information should be used is given in the report notably in Chapter 4 ‘Designing a consultation strategy for the AOI’, 48ff.</p> <p>The following represent how the <i>manner</i> the information was collected is intended to inform future consultation for community planning and social development purposes:</p> <ul style="list-style-type: none"> <li>• Guidance on Free, Prior and Informed Consent strategies 54ff.</li> <li>• Commentary on the ‘ecological services perspective’ (p. 54) and on ‘gender inclusiveness’ (55ff.) with advice on how these should be incorporated in consultation for community planning and social development programs.</li> </ul> <p>The resource of the data itself exists in a searchable database which is a companion to the report the uses of which has been subject of a long period of operator training and demonstrations of usage. For example:</p> <ul style="list-style-type: none"> <li>• In the presentation ‘Making a representation of Kokoda Track communities using Community Express’ given by John Burton and Elton Kaitokai at the Kokoda Social Mapping Workshop, 23 May 2012, Hyatt Hotel, Canberra, an analysis was given of ‘name lists’ of the Honiri and Sohova clans created as part of agree-making between a private hydro company and purported resource owners at Edevu 2.</li> <li>• Of 186 persons in the ‘Name list for Honiri clan 2011’ only six persons are identified by us as actually being Honiri people, the implication being that the name list represents a circle of patronage, not a list of clan members as it should be if it is to represent the rights of the traditional owners.</li> <li>• Further, in the ‘Name list for Honiri clan 2011’, three names were identified by us as those of dead people and in the ‘Name list for Sohova clan 2011’, an unborn baby (‘Baby Boio, not yet born’) was listed as a resource owner.</li> <li>• Dead people and an unborn baby are not legal persons, therefore the agreement makers have attached invalid lists of ‘resource owners’.</li> </ul> <p>The conclusion to the presentation was that ‘the Community Express database is a tool for examining whether decision-making over property and resource rights is sound or not’.</p>
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<p>Deliverable 1, Purpose of collecting the information – (iii) ‘Assist with the management of biodiversity conservation’.</p> <p>DEC Comments – ‘Of limited use’.</p> <p>Response – The comments in the previous section apply to this section. Awareness messages in villages directly used conservation examples in discussions with community members.</p>	<p>This is addressed on the basis that the management of biodiversity conservation requires sound decision-making over property and resource rights.</p> <p>The comments in the previous section apply to this section.</p> <ul style="list-style-type: none"> <li>• Attention is also drawn to the ‘ecological services perspective’ (p. 54) in which it is women who are granted full rights of access and usage of ecological services on their husband’s land at marriage. The discussion is present to point out the error of dealing only with male landowners on biodiversity management issues.</li> <li>• The awareness messages used during fieldwork are set out in Appendix C where ‘Assist in developing better consultation for future development, tourism and biodiversity projects’ was explained in communities as one of the three main purposes of the work and was subject to discussion at length.</li> <li>• (It was translated as ‘Dispela [wok] i long helpim gavman na arapela ausait lain toktok gut wantaim ol plesman na meri taim nupela projekt i kamap – sait bilong developmen, turis i kam long ples, o lukautim ol wel samting long bus’.)</li> <li>• Not all consultation methods and topics negotiated during fieldwork are captured in the report for the sake of brevity.</li> </ul>
<p>Deliverable 1, Purpose of collecting the information – (iv) ‘Assist with cultural heritage management’.</p> <p>DEC Comments – ‘Of limited use’.</p> <p>Response – The comments in the previous section(s) apply to this section. Given that there was no aim in Phase 2 fieldwork to survey cultural sites, no examples were given in the report.</p> <p>(There is, however, a cultural survey component in Phase 3 fieldwork.)</p>	<p>This is addressed on the basis cultural heritage management requires sound decision-making over property and resource rights.</p> <p>The comments in the previous section apply equally to this section.</p> <ul style="list-style-type: none"> <li>• The awareness messages used during fieldwork are set out in Appendix C where ‘Give traditional owners of land, waters, bush, cultural sites, etc in the Kokoda Track area and its neighbourhood the chance to clarify their issues for ... agencies who must deal with the appropriate people’ was explained in communities as one of the three main purposes of the work and was subject to discussion at length.</li> <li>• Not all consultation methods and topics negotiated during fieldwork are captured in the report for the sake of brevity.</li> </ul>
<p>Deliverable 1, Purpose of collecting the information – (v) ‘Assist with the implementation of REDD schemes’.</p> <p>DEC Comments – ‘Of limited use’.</p> <p>Response – The comments in the previous section(s) apply to this section.</p>	<p>This is addressed on the basis that the implementation of REDD schemes requires sound decision-making over property and resource rights.</p> <p>The comments in the previous sections apply to this section.</p> <ul style="list-style-type: none"> <li>• In the Phase 2 fieldwork, it would have been foolhardy to raise the possibility of REDD schemes because there were already enough rumours circulating in the area concerning the activities of a purported developers referred to as ‘the company’ (discussed 30ff.).</li> <li>• Inconsequence, REDD schemes were neither raised in the field nor discussed in the report.</li> <li>• Not all consultation methods and topics negotiated during fieldwork are captured in the report for the sake of brevity.</li> </ul>

<p>Deliverable 1, Purpose of collecting the information – (vi) ‘Assist with other matters consistent with the aims of the Joint Understanding’.</p> <p>DEC Comments – ‘Of limited use’.</p> <p>Response – The goals of the Joint Understanding are specifically discussed and examples are given where a correct assessment in the field and further analysis using the Community Express database can be used to monitor progress with KI goals.</p>	<p>The goals of the Joint Understanding are specifically discussed in the report, 31ff. Attention is here drawn to Goals 2 and 5.</p> <p>Goal 2 ‘Enhanced quality of life for landowners and communities through improved delivery of basic services, income generation and community development activities’.</p> <p>Goal 5 ‘Working with communities, landowners, industry and all levels of government to ensure that activities established under the Kokoda Initiative are sustained into the future’.</p> <ul style="list-style-type: none"> <li>• Neither will be achieved without sound decision-making over resource rights and establishing the correct identity of people in the project area, which the report underlines in many places.</li> <li>• The fears of villagers that KI benefits will not reach them are discussed, pp. 32-33, and centre on the hijacking by non-resident Koiari of the processes of political representation and various ‘pathologies of impersonation’ (p. 34).</li> <li>• The presentation ‘Making a representation of Kokoda Track communities using Community Express’, discussed above, contained an illustration of what they were taking about, as do the misappropriation of KTA funds in past years.</li> <li>• The discussion of ‘attractor effects’, 45ff., is aimed at showing how NGO donor and KI programmes alike can create distortions in access to basic services.</li> <li>• The report shows how the AusAID-supported Basic Education Development Project has had a side effect of allowing a KTA-area school to collapse at Boridi, p. 46. We said the school had been ‘forgotten about’. (Has it been forgotten about again?)</li> </ul>
<p>Deliverable 1, Purpose of collecting the information – (vii) ‘Document the community groups and legal entities which exist within the study area, including but not limited to Incorporated Land Groups (ILGs) and Landowner Companies within the AOI’.</p> <p>DEC Comments – ‘Not done’.</p> <p>Response – This is correct.</p>	<p>We did not itemise Incorporated Land Groups and Landowner Companies within the AOI because this tasks was, by agreement, handed over to DEC.</p> <p>A search of ILG and Landowner Company gazettals was organised, during which it was established that the expected government institutions either did not have complete holdings of the National Gazette or were closed (PNG National Library closed for renovations in 2010).</p> <p>This task needs to be resumed. It is not possible to include any search results in the current report.</p>
<p>Deliverable 2. Outputs from a database of genealogy comprising (a) a breakdown of settlement locations and the number of residents and absentees at each.</p> <p>DEC Comments – ‘Done’.</p>	<p>–</p>

<p>Deliverable 2. Outputs from a database of genealogy comprising (b) tables of primary data and other analyses from which social development indicators can be calculated.</p> <p>DEC Comments – ‘Partial. Social development indicators not addressed’.</p> <p>Response – This is correct. The reason of the omission is explained opposite and was not in the control of the report authors.</p> <p><b>Updated response – See new section on Multidimensional Poverty Index calculation at Madilogo, 41ff.</b></p>	<p>The intention was that data entry (report p. 39) would have been done by the end of April 2012, but the DEC premises were vacated before this could be done.</p> <p>As a result, the period 30 April-2 June 2012, intended to be devoted to extracting data, doing social development reporting, and generating charts of genealogy, was wholly given over to completing data entry.</p> <ul style="list-style-type: none"> <li>• The key social development indicator intended to be calculated was the Oxford Multidimensional Poverty Index (MPI).</li> <li>• Thought was given to collecting this directly in the field (as Burton did in Morobe Province in 2011), but both informants and members of the field teams were overloaded with data collection tasks in 2010.</li> <li>• As charts of family structures must be generated for the Ward selected for pilot subcatchment mapping in 2012, it is proposed to combine reviewing these charts in the field with MPI survey work.</li> <li>• Burton tested this methodology in Morobe in 2012. With the charts in hand, it is about 2 hours work in a village to collect the extra data needed.</li> <li>• Results from an MPI survey (a) target three dimensions of deprivation only: health, education and household assets and (b) can be matched with published international results (see UNDP Human Development Reports 2010 and 2011).</li> </ul>
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<p>Deliverable 2. Outputs from a database of genealogy comprising (c) sample genealogies, where permission has been given for reproduction.</p> <p>DEC Comments – ‘Done, although data entry is yet to be completed’.</p> <p>Response – Okay.</p>	<p>The state of data entry is as described in Burton and Onguglo (2012). To summarise:</p> <ul style="list-style-type: none"> <li>• After our October 2012 field trip to Kokoda was cut short, we used the opportunity at DEC’s Port Moresby office over several days to tidy up the Community Express database, search for people not previously located for whom we had photographs, eliminate duplicated people, etc. Out of the 255 locations recorded for people, there were many minor variations in spelling – such as ‘Morata1’ / ‘Morata 1’, ‘Mt Hagen’ / ‘Mt. Hagen’, ‘Tokarara’ / ‘Tokorara’ – which need to be standardised to facilitate statistical summary. Some have been attended to; others remain to be corrected and there remain some other consistency issues to be looked at.</li> <li>• We have now updated Table 4. It now includes results after further fieldwork by Linus digim’Rina and Elton Kaitokai at Edevu in 2011, data entry by Elton Kaitokai in Port Moresby and Canberra up to June 2012, and data entry by Onguglo following fieldwork at Madilogo 22-25 October 2012.</li> <li>• Where we originally estimated 70.3% were absentees from the villages, we now put that at 70.9%. This is to be qualified by the fact that we have not done actual counts of people in the places outside Wards 15-19 where the non-residents live – in NCD and places in other parts of Papua New Guinea. Were we to do updates in the most populous places – Saraga (445 known so far), Morata (306 known so far), Gerehu (149 known so far ) and Koki (127 known so far) – we would undoubtedly increase the numbers there, and probably by some considerable margin. Thus, the figure of 70.% absentees must be treated as an underestimate.</li> </ul>
<p>Deliverable 2. Outputs from a database of genealogy comprising (d) tables of customary groups in the AOI and their membership.</p> <p>DEC Comments – ‘Partial’.</p> <p>Response – Was dependent on the completion of data entry, which was not in the control of the report authors.</p>	<p>Tables of customary groups were given for Kagi (Table 1) and Naduri (Table 2).</p> <p>With data entry complete for Wards 15, 16, 17, 18 and the parts of Ward 19 added to the original TOR, further tables can now be generated (see end of this document, Table 8-Table 21).</p> <p>It is proposed to do this as preparation for further visits to villages in Phase 3 fieldwork, for field checking.</p>

<p>Deliverable 3. A specification of the 'safe haven' arrangements and description how the data safeguard protocols have been implemented in a manner compliant with the Information Privacy Principles.</p> <p>DEC Comments – 'Partially achieved'.</p> <p>Response – Compliance was not achieved and could not be reported on. This was not in the control of the report authors.</p>	<p>Discussions had not been held at the point of completion of the Draft Report on how this would be achieved. Two visits were made out of contract to DEC.</p> <p>A visit was made on 24 June 2011 to set up Elton Kaitokai's workstation with Community Express and to examine the security options available on DEC's network.</p> <p>The data files were established in a file container secured with the public domain encryption utility TrueCrypt.</p> <p>On a subsequent visit on 17 February 2012, it was discovered the DEC IT section had been switching off the computer network each day because of the inability of backup power to protect the system at night. As a result, no nightly backups were being made. At the same time, virus definition updates had not been made for over a year and the USB ports on Elton's workstation were found to be disabled by the system administrator, preventing backup to a portable drive.</p> <p>One data file was found to be damaged on this visit. This was repaired but it was clear that the IT problems made it impossible to establish any form of security scheme that could be described as a 'safe haven' to safeguard data.</p> <p>DEC premises were vacated shortly afterwards.</p> <p>Elton now has the database on a laptop and both he and John Burton have backup copies. This is a stop-gap solution only.</p>
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<p>Deliverable 4. One or more digital maps in DEC’s standard GIS format showing (a) the boundaries of customarily owned tracts of land, <i>where it is determined that a consensus of local opinion exists</i> on where they are; (b) the local names of human settlements and sites of significance in the AOI; (c) the names of creeks, rivers, mountains and other significant geographical features; and (d) the boundaries of LLG Wards, <i>where these can be agreed upon</i> (emphasis added)</p> <p>DEC Comments – ‘Not delivered. These maps are crucial for the development of a successful community engagement strategy’.</p> <p>Response – The report is, in fact, in compliance with the TOR because the conditions in the two qualifying phrases were not met, therefore we could not collect data for this task in 2010.</p> <p>A key aim of the next phase of fieldwork – Sub-Catchment Mapping (see explanation at right ) – is to arrive a point where the conditions in the two qualifying phrases are met and data can be collected.</p>	<p>The report, p. 48, states:</p> <p>Progress was made on (b), (c) and (d), but answers in relation to (a) proved, as might have been expected, to be dependent on the qualifying clause ‘where it is determined that a consensus of local opinion exists’.</p> <p>Much of our efforts in this direction lay in developing the baseline data that will enable the degree of consensus to be determined. We did this in two parts: by means of the genealogical census, just described, and by inquiring about who speaks for land among the Mountain Koiari.</p> <p>The key questions are: Is it one man? Is it many men? Where do women fit in? What sizes of land tract will we looking for when we do ask about boundaries? We make a start on this here.</p> <p>Details of the progress with (b), (c) and (d) are set out on pages 48ff.</p> <p>The maps requested in the TOR may be crucial but are subject to the two qualifying phrases in the TOR (left).</p> <p>We found that a consensus of local opinion <i>did not exist</i>, or community representatives did not treat it as publicly available information that could be obtained casually, in respect of either the boundaries of customarily owned tracts of land or the LLG Ward boundaries.</p> <p>A key aim of the SubCatchment Mapping component of the Phase 3 fieldwork is to bring community representatives (male, female, <i>vata biage</i>, ‘ordinary people’) together to workshop this more formally: 1<sup>st</sup> in a general way at a central place, 2<sup>nd</sup> in a detailed way within a selected ward.</p>
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Deliverable 5. Report listing the key community groups in the AOI such as youth groups, women’s groups and church groups, their membership and an assessment of their effectiveness. Recommendations regarding capacity development needs can be made if any are of relevance to fulfilling the objectives of the Joint Understanding.

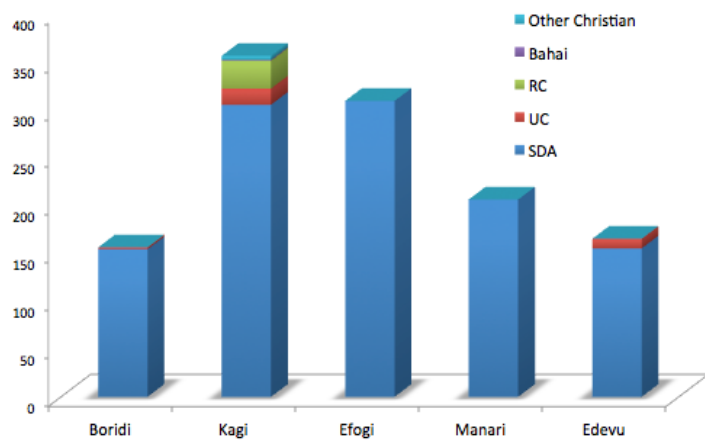
DEC Comments – ‘Not delivered. These maps are crucial for the development of a successful community engagement strategy’.

Response – Compliance was not achieved because of the delay in completing data entry. This was not in the control of the report authors.

Note: it is not expected that ‘maps’ will be produced for this deliverable.

As the completion of data entry was delayed, the essential monitoring framework – the Community Express database – that would make the identification of such groups meaningful was not in place at the time the report was originally written.

- The report gave an analysis of the influence of a particularly strong *vata biage* on all community groups and committees at Efogi, 6ff.
- As can be seen from the graph below, taken from the 2012 Electoral Roll, Seventh-Day Adventism has an overwhelming hold on the Mountain Koiari: only small numbers of United Church worshippers defy this at Kagi and Edevu, and Roman Catholics at Kagi only.



- This means that it is not so much the existence of church, women’s or youth groups that is the issue, but how non-SDA worshippers interact with the majority SDA worshippers in the organisation of non-church activities and the formation of such groups.
- We are now in a position to assess this with follow-up fieldwork in (a) selected Ward(s) during the Sub-Catchment Mapping phase.



<p>Deliverable 6. Report for organizations such as ILGs which have a formal legal basis to determine whether their establishment and management arrangements conform to requirements under relevant Acts. This review needs to include details of membership, whether the entity has a legal basis, whether its establishment and management conforms with the requirements of relevant Acts. For ILGs assess the extent to which they conform to new requirements in the amended Land Group Incorporation Act (LGI Act). Note: The amended LGI Act is not yet gazetted. The DEC will provide desktop analysis support through its Legal Unit for this aspect of the consultancy.</p> <p>DEC Comments – ‘Not delivered. These maps are crucial for the development of a successful community engagement strategy’.</p> <p>Response – Correct. See above, p. 82.</p> <p>Note: it is not expected that ‘maps’ will be produced for this deliverable.</p>	<p>This has been dealt with above under Deliverable 1 (vii), this appendix, p. 82.</p> <p>(Note that the task of searching for Incorporated Land Groups within the AOI was, by agreement, handed over to DEC.)</p>
<p>Deliverable 7. A boundary description of the revised AOI, with textual commentary on the reasons for the particular course of the boundary along each section.</p> <p>DEC Comments – ‘Not delivered. These maps are crucial for the development of a successful community engagement strategy’.</p> <p>Response – Correct. See above, p. 86.</p>	<p>The matter of being able to discuss any boundary with community members has been dealt with above under Deliverable 4, this appendix, p. 86.</p> <p>Our key findings, 48ff., were that it was neither feasible nor appropriate to question community members in detail about boundaries on a first encounter. At many places, people expressed genuine fears about the hijacking of the political processes of representation in the AOI, pp. 32-33 (this doc p. 82).</p> <p>It should be noted that a boundary description of the 2009 AOI, with textual commentary, was presented in our 2009 Phase 1 report.</p> <p>We had not noted any significant change between the 2009 boundary and the 2010 boundary, although revisions may now have been made and an output of the proposed Sub-Catchment Mapping should be to add commentary about the AOI / IPZ boundary where this fall within the area being investigated.</p>
<p>Deliverable 8. A detailed description of field work carried out including the methodologies of landowner engagement be provided.</p> <p>DEC Comments – ‘Done’.</p>	<p>–</p>

## 2. Tasks

ToR Tasks	DEC Comments / Significance	JB Response
a. Undertake a field programme of social mapping within the AOI for this consultancy as described above and consistent with the recommendations of the report entitled Kokoda Track-Brown River Catchment Region: Preliminary Social Mapping Study.	Field programme was carried out for most of the Wards. Some are yet to be completed.  Significance: n/a	–
b. Investigate the oral history of communities in the AOI relevant to settlement formation and community identity.	Investigations carried out.  Significance: n/a	–
c. Investigate the customary social and political organization of communities in the AOI.	Investigations carried out.  Significance: n/a	–
d. Further investigate literature not included in the Preliminary Social Mapping report to determine the contemporary significance of the various names/places/sites mentioned in the records. Significant names/places/sites should be documented and mapped where appropriate. An example of such could be a cultural heritage site (sacred etc), archaeological site etc either by chance find or oral tradition site as per described by the landowners.	This task has only partially been addressed; there is little information on the contemporary significance of names/places/sites mentioned in the records. There is little mention of any sacred or archaeological sites.  Significance: Minor.	We did pickup up the oral history of one site, Kaha, and reported on it (p. 4).  Since we not go near any of the archaeological or sacred sites mentioned in the Preliminary Social Mapping report, most being around Sogeri, so we could not productively investigate the literature on them or report on them.  Fieldwork was extremely intensive on the tasks we did report on.
e. Obtain Free, Prior and Informed Consent (FPIC) for the conduct of any part of the work which will involve the collection of personal data on individuals, and determine usage rules for this data.	FPIC obtained.  Significance: n/a	–
f. Create a ‘safe haven’ for the genealogical database following the protocols given above.	Yet to be established.  Significance: Medium	See discussion of Deliverable 3, this doc p. 85.
g. Investigate the composition of landowner communities in the AOI by means of genealogical census where FPIC has been obtained to allow this, and return the resulting charts of genealogy to community members.	Data collected from most wards. Not all data entered so that charts can be produced.  Significance: Medium	See discussion of Deliverable 2, this doc p. 84.  (No further fieldwork has been done where charts could have been returned.)
h. Represent in an appropriate GIS format the boundaries of customarily-owned tracts of land,	Not addressed. This information is critical for the successful engagement of communities.	See discussion of Deliverable 4, this doc p. 86.

where it is determined that a consensus of local opinion exists on where they are. Where disputes over boundaries exist develop digital GIS layers delineating the area under dispute.	Significance: Major	
i. Take note of any historical or continuing land disputes in the AOI, without undertaking any mediation of such disputes, and document such facts of the cases as community members give their consent to be recorded.	Chapter 3 deals primarily with the collection of genealogical data and village demographics. There is no discussion of historical or continuing land disputes.  Significance: Medium	See discussion of Deliverable 4, this doc p. 86.  A land dispute was encountered and concerns the registration of an ILG in Ward 16 by Port Moresby-based Koiari, apparently to claim title to land in the Myola area.  However, it was decided that insufficient information existed to do an analysis of the purported members as the ILG survey was not completed (circumstances, see this doc p. 82).
j. Document the existing community groups and legal entities within the AOI including youth groups, women’s groups, church groups, landowner companies, incorporated land groups (ILGs) and other business groups.	Community groups and legal entities not documented. This information is crucial for successful community engagement.  Significance: Major	See discussion of Deliverable 5, this doc p. 87.
k. In the course of field work and in consultation with DEWHA and DEC, investigate and hold relevant consultations with local communities to arrive at a better definition of the AOI with regard (a) to its fit with existing community and LLG boundaries, (b) the need for cadastral precision, and (c) the objectives of the Joint Understanding.	Not addressed. Community consultations were held but there is no advice in relation to the fit of the current AOI boundary.  Significance: Medium	See discussion of Deliverable 7, this doc p. 88.
l. Obtain a peer review of the project report and other outputs, and respond to the peer reviewer’s comments.	Not addressed. The report would benefit from a peer review to ensure the terms of the contract were achieved.  Significance: Major	Yes, we need to agree on the final form of the report, and then get a peer review.

Tables of 'clan' by place. Note raw counts only – total may include absentees.

Clan	Persons
Elei	1
Elili	2
Elomi	5
Madili	1
Naolavi	1
Niguri	67
Sena	76
Tobo	91
Vovoli	48
(Not stated)	52
<b>Total</b>	<b>344</b>

**Table 8. Clans at Boridi (raw counts only).**

Clan	Persons
Babila	1
Elili	1
Elomi	1
Kaiari	2
Niguri	195
Oagi	1
Samori	1
Sena	62
Tobo	13
Vabari	1
Vovoli	6
(Not stated)	61
<b>Total</b>	<b>345</b>

**Table 9. Clans at Daoi (raw counts only).**

Clan	Persons
Aeae	12
Bereka	7
Bogura	2
Elei	4
Elili	56

Elomi	1
Goribi	1
Honiri	37
Madili	3
Niguia	22
Niguri	3
Samori	28
Sohava	5
Tobo	16
Vabari	2
Vahuia	4
Vamai	27
Varagadi	8
(Not stated)	39
<b>Total</b>	<b>277</b>

**Table 10. Clans at Edevu 2 (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Eloki	293
Elomi	19
Kolili	1
Niguri	1
Oagi	291
Vamai	5
Vovoli	2
(Not stated)	169
<b>Total</b>	<b>781</b>

**Table 11. Clans at Efogi 1 (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Aeae	1
Egani 2 (Deave)	1
Eloki	54
Elomi	295
Goribi	2
Niguri	1

Oagi	153
Samori	1
Sena	1
Sohava	1
Tobo	2
Vamai	27
Vovoli	5
Wese	22
(Not stated)	127
<b>Total</b>	<b>693</b>

**Table 12. Clans at Efogi 2 (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Elili	5
Eloki	52
Elomi	63
Goribi	1
Kolili	201
Niguri	1
Tobo	2
Vamai	49
(Not stated)	107
<b>Total</b>	<b>481</b>

**Table 13. Clans at Enivilogo (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Elili	34
Eloki	85
Elomi	47
Hodori	1
Kolili	1
Niguri	1
Oagi	1
Tobo	142
Vamai	2
(Not stated)	79
<b>Total</b>	<b>393</b>

**Table 14. Clans at Haelogo (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Babila	56
Elili	1
Eloki	2
Elomi	2
Niguri	303
Oagi	2
Tobo	42
Vovoli	96
(Not stated)	115
<b>Total</b>	<b>619</b>

**Table 15. Clans at Kagi (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Eloki	2
Elomi	38
Goribi	58
Guluvi	17
Habo	21
Hodori	2
Kaiari	1
Kolili	3

Kori	20
Madili	3
Manari Kori	18
Niguri	1
Oagi	7
Vamai	146
Vovoli	51
(Not stated)	206
Total	594

**Table 16. Clans at Loni/Manari (raw counts only).**



<b>Clan</b>	<b>Persons</b>
Egani 1	1
Elili	1
Niguri	195
Oagi	18
Sena	18
Tobo	2
Vovoli	99
(Not stated)	80
<b>Total</b>	<b>414</b>

**Table 17. Clans at Maraba (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Elili	69
Elomi	2
Niguri	5
Oagi	1
Sena	8
Tobo	1
Vovoli	1
(Not stated)	37
<b>Total</b>	<b>124</b>

**Table 18. Clans at Milei (raw counts only).**

<b>Clan</b>	<b>Persons</b>
Babila	6
Elili	1
Eloki	2
Elomi	1
Kolili	1
Niguri	97
Oagi	188
Tobo	6
Vovoli	111
(Not stated)	131
<b>Total</b>	<b>544</b>

**Table 19. Clans at Naduri (raw counts only).**

Clan	Persons
Babila	10
Egani 1	1
Elei	66
Guluvi	20
Hodori	2
Kaiari	1
Kovuia	7
Niguia	35
Tobo	1
Vamai	1
(Not stated)	39
Total	183

**Table 20. Clans at Naoro 1 (raw counts only).**

Clan	Persons
Egani 1	81
Egani 2 (Deave)	86
Elei	22
Goribi	3
Habo	2
Hodori	104
Kaiari	62
Naolavi	38
Niguia	30
Vamai	9
Vovoli	2
(Not stated)	83
Total	522

**Table 21. Clans at Naoro 2 (raw counts only).**

**APPENDIX F**

**AIDE MEMOIRE – NOTES ON SOCIAL MAPPING AND LANDOWNER  
ENGAGEMENT STRATEGIES IN THE BROWN RIVER CATCHMENT AREA**

**Colin Filer, Australian National University, August 2010**

# AIDE MEMOIRE

## NOTES ON SOCIAL MAPPING AND LANDOWNER ENGAGEMENT STRATEGIES IN THE BROWN RIVER CATCHMENT AREA

**Colin Filer, Australian National University, August 2010**

In these notes, the Brown River Catchment Area (BRCA) is understood to be part of the larger Kokoda Initiative Area of Interest (KIAI) which includes all LLG wards currently represented in the Kokoda Track Authority (KTA), as well as the LLG wards (including Edevu) which are located in the upper part of the catchment.

### Documentation of existing landowner organizations

There are three types of landowner organization in the KIAI: (1) landowner companies, (2) landowner associations, and (3) incorporated land groups (ILGs). The first two are registered with the Investment Promotion Authority (IPA), the third with the Department of Lands.

We already know of a number of landowner companies in the AOI:

- **Honeri** [Honiri? Koneri?] **Timber Resources Development (HTRD) Pty Ltd**, which was awarded the Edevu-Elologo Timber Permit (TP 3-34) in 1989. Its registration may now have lapsed since the permit expired in 2008 or 2009. A newspaper report from 1994 cites John Love [Jonathan Love?] as the company chairman.
- **Western Koiari Development Services (WKDS)**, which has apparently signed an MOU with PNG Power, and may have been the recipient of compensation payments for disturbance associated with hydro-power pre-feasibility studies.
- **Atura Nambawan Pty Ltd, Varagadi Resources Development Pty Ltd, and Brown River Development Trust Pty Ltd** were said to be in dispute over the Varagadi teak plantation back in 1990. The dispute was apparently between two brothers, Paul and Henry Rove [Love?], whose clan names were variously given in newspaper reports as 'Tomare', 'Mahuri', 'Varagadi', and 'Edevu'. According to these reports, Atura Nambawan may have been a foreign company, not a landowner company. [Note that the Varagadi teak plantation currently falls outside the KIAI because it lies to the south of Edevu/Edebu Creek, yet it may fall within the boundaries of Ward 19, and there is a complex history of relationships between the Koiari people living north and south of the creek.]
- Some of the local **'trekking companies'** (which may or may not be registered with KTA) should also be counted as landowner companies, and we need to know more about them.

**Ben Passingan** is apparently checking IPA documentation for WKDS. If **Elton** can get additional information from IPA on the other companies, that would be good. The **Social Mapping Team** should be on the lookout for documentation relating to these and other landowner companies during their patrols.

**Elton** needs to make photocopies of all pages in the National Government Gazette (NGG) between 1994 and 2010 showing applications for registration of ILGs in three districts – Kairuku-Hiri (Central), Goilala (Central), and Sohe (Northern/Oro). These three districts cover a much larger area than the KIAI, but it will be useful to see how the process of incorporation within the KIAI compares with the same process in neighbouring areas. Brian Aldrich (AKT Associates) has a complete set of NGGs for the past 20 years and has offered to host Elton's inquiries. Jonathan Love says that he organized the incorporation of the Honiri-Ilili-Madiri ILG in 1995. It is very unlikely that any ILGs were registered in the KIAI or surrounding areas before 1994.

**Elton** should have a list of wards and villages in the KIAI with him while looking through the NGGs because there are some cases in which the NGG cites a ward or village name as the name of the LLG area in the record of an ILG application. When entering information from the photocopies into spreadsheet format, the correct LLG area name should be given.

While browsing through the NGG for ILG applications, **Elton** may come across notices relating to landowner companies or landowner associations in the KIAI. The relevant pages should be photocopied and placed in a separate file.

### **Investigation of National Forest Service records**

The original Timber Rights Purchase agreement between the old Department of Forests and the Edevu-Elologo landowners is said to have been lost in the fire which consumed a lot of National Forest Service (NFS) records in the 1990s. However, John Burton has been given the name of a local landowner who may have a copy of the agreement.

We are told that the NFS has also mislaid the file relating to the Edevu-Elologo Timber Permit. **James** should ask NFS to keep looking for this file because it should contain records of timber royalty payments to individual landowners (or tree owners) in the TP area. This would be very useful information. Jonathan Love has a copy of the Forest Working Plan for the TP area, but we don't yet know if he has copies of any other documents that would be in the NFS file.

We are told that there is a Forest Management Agreement (FMA) over the Varagadi teak plantation (which is currently being harvested). Although this lies outside the KIAI, it would be interesting to see the NFS file relating to the FMA because this should contain records of land group incorporation in the area.

We are told that NFS staff have not been involved in a process of land group incorporation anywhere within the BRCA, including the Sogeri-Efogi area which has now been removed from the list of Potential Areas for Future Development (PFDs) in the National Forest Plan. However, there is an FMA over the Ioma Block 5 PFD in Oro Province, and the FMA area boundary seems to overlap the boundaries of some of the wards represented in the Kokoda Track Authority. We should therefore try to access the NFS file for Ioma Block 5 in our work plan for 2011.

## Hydro-power feasibility and impact studies

It was rather disturbing for us to discover that Hydro-Tasmania, in their capacity as consultants to PNG Power, have asked staff of Pacific Adventist University (PAU) to conduct some kind of ‘social mapping study’ in the BRCA. In discussion with PAU staff, we established that their work should be regarded as a set of baseline studies for a future process of social and environmental impact assessment to be undertaken in conjunction with a full feasibility study for the Brown-Naoro hydro-power scheme. The main focus of their work is on the bio-physical rather than the socio-economic environment.

It was agreed that PAU staff would not use the phrase ‘social mapping’ to refer to any socio-economic baseline study because of the obvious risk that this would cause confusion amongst the local landowners. In any case, it seems that **Jennifer Litau** (ex-ANU PhD student), the PAU staff member who was asked to do the ‘social mapping’ study, will not have time to do any fieldwork in the BRCA until the end of the teaching semester. In the meantime, we recommend that Jenny be given a copy of the Phase 1 Social Mapping Study report, and that DEC make provision for our Phase 2 **Social Mapping Team** to advise her of the progress of our work in order to minimize any risk of duplication.

Lines of communication between DEC and PNG Power need to be improved to the point at which this same information is provided to relevant staff of **PNG Power and Hydro-Tasmania** in order to inform their ongoing negotiations with ‘landowner representatives’ in the BRCA. Whoever gets to undertake a future process of social impact assessment for the Brown-Naoro scheme should also be advised of the findings of our social mapping studies.

## Oral Histories and Cultural Knowledge Project

We have been given a copy of some draft terms of reference for a study ‘to record the oral histories and cultural knowledge’ of communities in the KIAI. These have been produced by staff of DEWHA, and have yet to be endorsed by DEC. The scope of work envisaged in the TOR is very broad indeed, and some of it appears to overlap with the TOR for our social mapping studies.

The social mapping studies will document those elements of oral history relating to migration, settlement and social organization, and those elements of local cultural knowledge that deal with relationships between people and place, including the local names for prominent features of the landscape. Other forms of local knowledge will be discovered in the course of our inquiries, but will not be systematically investigated.

A separate study of what we would call ‘traditional ecological and agricultural knowledge’ (TEAK) could be warranted, but we strongly recommend against a superficial study of this subject through a short-term consultancy. The job should either be done properly or not at all, and while a proper job may seem like an ‘academic exercise’, this impression could be countered by clarification of the ultimate purpose of the exercise. At present, it seems as if there is a short-term need for the sort of information that might be relevant to the design of new business initiatives (e.g. eco-tourism) in the KIAI, and a longer-term need for information about ‘cultural heritage’ that would be relevant to a World Heritage nomination. A proper study of TEAK among the Koiari people would be a suitable topic for a PhD thesis, which means that it would take at least three person-years to complete. It could be supported

by DEWHA through a partnership with an Australian university to apply for an Australian Research Council Linkage grant, and the grant application could make provision for an Australian researcher (not necessarily a PhD student) to work with one or more Papua New Guinean counterparts in order to establish a greater sense of national ownership over the findings and get the job completed in a shorter timeframe.

A separate study of those elements of oral history that are not covered by the social mapping studies could also be warranted, but the expertise required for this kind of study would not be the same as that required for a TEAK study.

Any studies of local people's knowledge raise important political and ethical issues about the distribution of intellectual property rights. The standard consultancy contracts issued by DEWHA and DEC would result in a wholesale transfer of such rights from local people to the State, which we believe to be unacceptable. It is certainly not acceptable in the Australian Aboriginal context, and there is no good reason to think that the situation is any different when dealing with indigenous knowledge issues in PNG. We therefore recommend the development of an institutional mechanism for dealing with IPR issues under the Kokoda Initiative.

### **Establishment of a Scientific Advisory Group**

From previous observations, there is an evident need for some kind of scientific advisory body, firstly to limit the risk of duplication and confusion between the work of different teams undertaking scientific studies in the KIAI, and secondly to develop rules of engagement for dealing with IPR issues arising from these studies.

Given the bureaucratic and political complexity which already surrounds the Kokoda Initiative, we are not suggesting that such a body be established by formally inviting the heads of relevant national institutions (National Cultural Council, National Museum, National Research Institute, PAU, UPNG, etc) to nominate representatives to another committee reporting to the National Taskforce. Instead, we suggest that a Scientific Advisory Group (SAG) be allowed to grow in an organic fashion, through a process in which the DEC Secretary invites the senior Papua New Guinean member of each scientific team working in the KIAI to join the group once that team is assembled, and then invites the SAG to provide advice on issues as they arise. For example, invitations could now be extended to **Dr Linus Digim'rina**, from the Phase 2 Social Mapping Team, and **Dr Fifaia Matainaho**, who appears to be the leader of the PAU environmental assessment team engaged by Hydro-Tasmania. If a SAG of this kind were already in existence, it could be asked to advise on the merit of each new proposal for social and/or natural scientific studies in the KIAI, including the TOR for the Oral Histories and Cultural Knowledge Project. In due course, the SAG could evolve into a more formal committee which provides advice to any future statutory body established to protect the KIAI, or to the national body responsible for World Heritage matters.

In order to achieve both of its aims, the SAG should not only include social and natural scientists working in the KIAI, but should also include some members from within the KIAI who are not selected by political criteria, but rather because they have been identified as senior local knowledge experts who (preferably) do *not* have a political agenda. The **Social Mapping Team** may well be able to identify a shortlist of such individuals in the course of their inquiries and furnish this as an appendix to their Phase 2 report.