Land Ownership in the Near-Western Nomad Sub-District

(Honibo, Oybae, Gebusi, Samo, and Kubor)

Western Province, Papua New Guinea

Submitted to

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By

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June 8, 2013

Tribal and ethnic composition

- The ethnic groups or "tribes" of the near Western Nomad Sub-District form a chain-link cultural and linguistic continuum just east of the Strickland River. Practices, beliefs, and customs of social organization, kinship, marriage, residential organization, and spiritual life are widely shared and understood across this region. From north to south, the relevant groups are Kubor, Samo, Gebusi, Honibo, and Oybae.
- Persons from one tribe can typically understand the language of the neighboring group (excepting the Biami people to the East of the area under consideration). The Samo, Honibo, Gebusi, and Oybae have been documented to be linguistically related via mutually intelligible dialects, with 70-88% cognates of basic vocabulary (Knauft 1983 [doctoral thesis]:Table 1).
 - However, the degree of understanding and active participation is easily skewed by relying on the language of one group, for instance as interpreters, when visiting a neighboring or further distant group. Using primary support personnel and translators from the specific group being surveyed is highly recommended.
- The general outlines and specific principles of land ownership described herein are held in common across the Samo, Honibo, Oybae, and Gebusi. I am somewhat less sure of the applicability of this report to the Biami (who are outside the track lines in question) and, to some extent, the Kubor.
 - The Oybae peoples to the south (as well as the Kabasi peoples yet further to their south and east) share basic patterns of land ownership but differ in residential organization in being very thinly settled across extensive clan lands, and relying more extensively on mobile subsistence patterns of hunting, fishing and sago production with relatively less reliance on the raising of plantains or root crops in gardens.
- As described further below, basic features of land marking history and land marking designation are also generally shared across the Samo/Honibo/Gebusi/Honibo region (possibly or probably also including the Kubor as well).
- The present report is based on three decades of my own research in this region, including extensive consultation of patrol report and government records at the Nomad station and elsewhere as well as extensive reading of available ethnographic publications plus intensive discussion with local land owners in and around Gasume corners.
- My understanding has been recently sharpened and focused through the experience of conducting systematic land surveys and discussions with landowners in the Gebusi vernacular while taking GPS waypoint markings of Gebusi clan boundaries during treks, including to the deep forest to tribal boundaries in areas where no paths or trails exist.
- This report has been verbally translated into the vernacular and checked on substantial points of land ownership custom and history in collective

public meetings attended by some 50 people in Gasume Corners, twenty minutes walk south of the Nomad Sub-District Office. The assent of local people concerning the accuracy of this report, including its applicability across the region, increases confidence in its veracity. The final clarifications of local people have been incorporated into the substance of this report further below.

Local governance context

- In the 1990s, a new "ward system" local governmental system was setup whereby each 3-4 major villages elects one of their members, called a "Council," to represent them.
- Of the relevant tribal groups in question, Samo are said to have 5 elected council members, Oybae 1 -- and the much more populous Bedamini 16. Southwestern Gebusi and Honibo share one Council among the villages of Kukudobi (Honibo), Yehebi (Gebusi) and Gasume (Gebusi). This Council member is presently Dowe of Yehebi Village.
- The Sub-District Nomad Council members are about 38 in total including representatives from Kubor and other groups more distant from Nomad. They have a President among them and are said in principle to meet four times a year at the Nomad Station.
- As the Nomad airstrip is largely closed, government workers, including the Officer-in-Charge and the Police, have left the Nomad Sub-District. Most of them are presently living -- and continuing to collect their regular pay – in Kiunga.
- In the absence of government officers, the work of the local government ward council members is desultory and has no oversight and little support. *However*, it would be highly advisable to convene a meeting of these members to explain the process of social mapping and anticipated pipeline construction at such time as the Pynang/Faiwol Gas Project is determined to be moving forward as presently projected in the Nomad Sub-District east of the Strickland River.
- At the present time, representatives from Samo, Oybae, and Biami as well as Gebusi have come to find out about my activities they have heard about in relation to social mapping and GPS markings and to be appraised of the general prognosis of LNG development in the Sub-District. I talked to them at night in the "talk time" following a traditional feast and, tried to address their various questions, and apprized them of the undetermined and as yet, unpredictable fate of the anticipated Pynang/Faiwol project as well as the uncertainty of the route that any pipeline would take.
 - Some people were under the false impression that the Nomad region is ripe for extraction of "minerals." The difference between a gasfield extraction area versus pipeline passage was also important to emphasize.
 - Given the spread of rumor and projection, it is important that clear and effective open communication be made when any larger scale social mapping in the region is planned. One High School-educated man

- thought that my GPS could extract "minerals" from the ground and wanted to be sure I was not stealing them on my device and taking them with me on leaving the area. A number of questions were also asked, and answered, concerning the brief appearance of Garrick Hitchcock by helicopter south of the Nomad Station to confer with me.
- I was pleased that those present appeared to fully accept as well as understand my explanations in the vernacular, and that they did not seem to doubt my honesty in conveying the uncertainty of the project and its proposed route/s.
- o Given the general context of the Nomad Sub-District, calling a general meeting of the Sub-District Councils to openly and publicly inform them of Exxon-Mobile and/or SIMP activities in the Sub-District would seem expedient at such time that social mapping is anticipated to begin in earnest.
 - Care should be given to include Biami Councils in Sub-District information meetings, especially insofar as the Biami are numerous and potentially aggressive, and that unfortunate rumors can easily spread in the absence of accurate information.
 - Simple explanations punctuated by basic diagrams and maps would be important to convey information locally in the case that pipeline development and associated social mapping move forward in the Nomad Sub-District.

Land History

- Prior to the presence and influence of Westerners, land boundaries were shifting and uncertain, except where a major river prevented major interaction -- or warfare and raiding -- between groups.
 - The first colonial officers considered the people of the region to be "nomads," per the naming of the Nomad Sub district and the Nomad Patrol Post (later the Nomad Sub-District Office.).
 - o In fact, the tribes of the region did have permanent settlements, though they frequently foraged, hunted, and gardened in areas outside their primary settlement, sometimes living weeks in temporary garden or forest shelters. Almost half of the time, people slept in an area outside their primary settlement about half of the time (See B. Knauft, *Good Company and Violence*, and *Exchanging the Past*, 2002). This percentage is probably yet greater among the Oybae and southerly Kabasi people, who often "go bush" for extended periods.
- Population movement and land relationships
 - Prior to Western contact during the 1960s, pronounced and largely asymmetric raiding on downstream groups by the more populous Biami people to the East caused a domino- or ripple-effect

- demographic pressure in which upstream groups moved downstream to live with their downstream neighbors.
- This movement was often or typically not resisted but welcomed by downstream inhabitants, including because large combined settlement were more able to withstand proximate and longdistance Biami attacks.
- Western presence and its impact on settlement and land identification
 - o In most of the Nomad Sub-District, first contact was not established until 1962/63, when Australian colonial patrols first crossed the Strickland River from Kiunga and established the Nomad airstrip (in 1963).
 - Australian colonial administration made little or no effort to clarify or concretize land boundaries.
 - Australian effort during the late 1960s and early 1970s was centered on suppressing Biami raiding through saturation patrolling. These efforts were largely successful and allowed downstream groups to live more stably. Combined with the major impact of the introduction of steel axes and metal knives, village houses and gardens became larger and more residentially stable.
 - o For administrative and census purposes, Australian officers in the Nomad Sub-District emphasized that villagers should identify with and stay in stable settlements, especially for purposes of reporting to colonial census patrols, which were concerned to document the extent and distribution of the shifting population.
 - Peoples continued to stay opportunistically in the deep forest, including for extended periods, but they did develop stable identification with larger ad increasingly permanent villages.
- Concretizing and marking land boundaries
 - o Following Independence in 1975, the Papua New Guinea government of the Nomad Sub-District enjoined inhabitants to establish local "Committees" to establish land boundaries.
 - o This occurred when Tom Nawi was PNG kiap at Nomad, probably in late 1976, 1977, or early 1978.
 - Through their Committees, residents of the region established clan borders and markers between clans for purposes of land ownership.
 - Given that land was very extensive in the lowland areas between the Nomad Sub-District Office and the Strickland River, disputes in the process of land marking in this area seem limited to sites of special outside development such as in and around the Nomad Sub-District Office and airstrip (a dispute which is still unresolved) --

- and not in rural areas OR in marking borders and boundaries between tribal groups.
- o FYI: The Nomad River was the border accepted between the Honibo and the Samo.

General land ownership context

- In the present absence of police or other law enforcement officials for the Sub-District at the Nomad Office, there is presently no way to formally resolve disputes except to talk out the issue over time or simply fail to reach an agreement (as concerning the land on which the Nomad station and airstrip are constructed) and let the de facto situation stand.
- In the awareness of those consulted, no cases of land dispute in the area in question have been taken to court or subject to official judicial judgment or determination.
 - Extensive inspection of the Nomad police records during the 1990s revealed very few complaints of land dispute in the Western Nomad Sub-District. The few cases mentioned seemed minor.
- The above situation is facilitated by the very liberal extension of "use rights" by owners to non-owners on extensive lands, as described further below.
- Most land boundaries between clan lands are asserted and assessed both by straight lines between clans and by marked natural features such as rivers, streams, or ridges. Land boundaries inland are most frequently marked by natural features such as a particularly large tree or a significant watercourse – and occasionally by the trails developed for colonial offers to walk more easily between major settlements.
- Aside from the dispute concerning the land on which the Nomad and airstrip are based, no major historical land disputes are known along the anticipated oil pipeline track in this region. It is widely asserted that land boundaries in the forest have been mutually and amicably agreed upon between clans, and that disputes between them were infrequent – except where major resources or compensation was received or expected by one group.

Ownership versus Use rights (Proprietary versus Usufructory rights to land)

- With land abundant and dramatically so in southern areas such as Honibo, southern Gebusi, and Oybae – clan owners are typically quite amenable to having families from other clans use their land.
 - Casual foraging in others' clan land is not prevented, though land is plentiful enough that each clan typically has plenty of resources in its own clan land. This is particularly true south of the Nomad River.
 - O At present, landowners are largely flexible about persons from other clans using their land resources as long as these persons ask permission first from the landowner. Very commonly, landowners have actively facilitated their affinal kin – in-laws, and relatives of their mothers, maternal as well as paternal nephews, and others -- to use their clan land, including and especially in forming a larger and more permanent settlement.

- There is a strong positive value on larger settlements that combine persons, including adult men, from a range of clans. In contrast to significant parts of Papua New Guinea, including major areas of the Papua New Guinea highlands, settlements are actively and assiduously multi-clan. However, the owners of the land are members of a single clan. Land is not owned collectively by those residing upon it, including for an extended period; it is owned by a single clan.
- It is asserted that if persons from another clan use one's clan territory, this is not a problem *except*:
 - If the person uses major resources and establishes residence, including the cutting of gardens, without permission.
 - If the durable resources of the land are alienated by those from other clans and either wasted or sold for profit without telling the land owner.
 - For instance, a southwestern Gebusi land owner found that someone from the Nomad station was cutting several logs on his land and curing them on racks set up on his land in order to constructing a house at Nomad. He said he would NOT be angry about this as long as the timber was actually used by the person taking the wood to construct his own house. However, if the timber were to be sold, alienated to others, or wasted, he would be angry – and could have the culprit/s put in jail.

Principles of clan and lineage relationship to land

- Patriclans are the ultimate and exclusive owners of land; no joint ownership arrangements are known.
- All the groups of the region recognize very extensive and important ties of coresidence and social alliance through a diverse range of in-law and marital relations, including via brother- or father-in-law, mother's brother/sister's son, and men who marry sisters but who are otherwise unrelated to each other. Classificatory kinship allows these relations to be widely and diffusely attributed.
- Despite various kinship and residential ties, proprietary land ownership and transmission does not occur except through the line of clan and lineage patrilineal descent, from father to son.
- In clans that have two or more sub-clan branches, the subclan that has long been residing on the land is considered its primary proprietary owner.
 - Often not typically, subclans are designated by their relative upstream/downstream location to each other, that is, "on top/upper dwelling/upstream" versus "underneath/bottom dwelling/downstream." Typically these sub-clans were *not* residentially co-resident but originally lived in significantly different lands that were upstream/downstream from each other.
 - Given historical patterns of NE to SW demographic pressure and movement – from upstream to downstream -- in the lowland areas of the proposed pipeline route near the Strickland River, the original and

- exclusive clan owners of most clan lands that have more than one subclan are very likely to be the "underneath/downstream" segment (e.g. "haymi bwi') as opposed to those who have been dwelling further upstream (haymi bwi).
- o If a subclan has become extinct, another subclan within the tribe that has been "shown the land" and has lived there historically by invitation of original owning subclan becomes the exclusive owner of the land in question.
- If a lineage or sub-clan has died out and its remaining clan members have long resided in a wholly different tribal land, these clan members do not inherit the land in question.
 - Several clans, including Yugul, Wapsiayk, Keke, and apparently Arlo, among others, have clan segments across in different tribes – across Samo, Gebusi, and Honibo or Oybae, for instance.
 - O These clan identities do not afford rights of land ownership across tribal boundaries, that is, if a clan has died out in one tribal group but not in another. In this case, the land in question is not inherited by same-named clan members who are distant residents in a different tribal group but by the brother clan that lived most proximately, and who called the extinct clan members "brother," father," "son," &tc. -- as described further below.
- Sub-clans are subdivided into small patrilineages, whose members can trace
 actual genealogical connections among them. As genealogies are very short –
 typically only three generations patrilineages in this region usually have
 only a very few adult men
 - Land ownership by the patrilineage is very strong and takes precendence over sub-clan ownership and brother clan ownership; original patrilineage owners are the most primary land owners.
 - Lineage or subclan ownership is exclusive when other subclans of the clan in question have been living in other areas and have not been long living by historical invitation on the land in question.
- Women may care-take land for their sons, but they do not own land in their own right.

Impact of demographic changes

- A number of clans have died out completely; extensive genealogies have been collected for clans that had many members in the past but presently have none remaining. I anticipate this trend may be greatest among the highly dispersed Oybae people to the south.
 - It is striking generally, and especially to the south of the area in question, how small clans and lineages are, and how many of them have completely died out during the decades prior to colonial contact and during the early colonial period.
 - o This decline of population was noted and investigated by the early Australian administration. Based on my own investigations as well as colonial records, this decline was due in significant part to a domino-

- effect of upstream-to-downstream raiding instigated by the Biami -- in addition to frequent execution of sorcerers within communities themselves.
- o A homicide rate of 32% of all adults in an extensive sample of almost 400 Gebusi deaths was documented by Knauft among western Gebusi for the period c. 1950-1982 (*Good Company and Violence,* 1985).
- These demographic pressures were exacerbated by the effects of epidemics caused by introduced infectious diseases during the 1960s especially, apparently, in southerly areas south of the Sio (Rentoul) River.
- The fact and threat of residential displacement, combined with the apparent need for extensive subsistence mobility especially to the south, plus a sparse distribution of wild protein resources precolonially, led to unstable residential and social affiliations.
- o In the early 1980s, neonatal mortality (death of infants between birth and one year of age) was assessed, between primary research and government records) to be 38%.
- Population has increased substantially grown in recent years including a doubling in size among the Gebusi since 1980 – due to a combined effect of the following:
 - o infant and mother inoculation campaigns, and rudimentary health care for adults
 - o increased residential stability
 - o larger gardens and houses given access to steel axes and knives
 - increased incorporation of nutritious root crops into the diet especially cassava, sweet potato, taro, and manioc -- along with introduced foods such as peanuts, corn, pumpkins, squash, and pineapple.
 - o dramatic and enduring reduction of homicide across the region including a reduction of homicide from 32% among adults to 0% for 25 years among the Western Gebusi (see Knauft 2012).
- Given how extensive clan lands are relative to small tribal population sizes throughout the region, land pressure and land disputes remain minimal to nil despite high fertility rates and significantly lowered mortality rates for both infants and adults. Land pressure based on demographic growth is unlikely to be significant at least in the near to mid-term. (This may be slightly less the case in relative terms among Samo, who are the largest group numerically and in population density among those in question.)
 - Land issues are likely to be much more prominent and disputed among the Biami, to the east – and some Biami may be tempted to relocate to areas further west and south in response to the allure of land compensation in these areas.

Land inheritance in cases of clan extinction

- If a clan dies out with no male heirs remaining as has happened not
 infrequently, especially southward, rights to land revert to nearby "brother
 clans" that are recognized as agnates and who have lived together in the past.
 - Brother clan members typically assert that, "We originally lived together as one big group" – including not marrying each other's women but marrying women primarily from the same (affinal) clans.
 - Two named clans that are brother clans call each others members "father," "son," "elder/younger brother" &tc. so they are "like one big clan" even though that have different clan names.
 - Brother clan land inheritance in cases of clan extinction is complete and exclusive; the brother clan takes ownership of all the land of the extinct clan.
 - In particular, brother clan inheritance takes precedence if the extinguished clan had invited a range of other non-clan relatives (or non-relatives) to reside on their land, including if these people continue to hold the land, or parts of it, through use rights and as residents.
 - Co-residence that is co-incident with intermarriage in the present or ascending generations typically confers *use rights* to land, but it is does *not* confer *ownership* rights to land.
 - Most Gebusi settlements are multi-clan and have a high incidence of coresidence between BW/ZH (brother's wife/sister's husband = brothers-in-law), and between MB/ZS (true mother's brother/sister's son).
 - Affinal (in-law) relations do not afford land ownership rights -even if the principals and/or their descendants have been coresident for a substantial period of time.

Clan survivorship

- As long as one single male heir in the original land-owning clan survives, the entire land of the clan is considered to belong to him and to him alone, even if he is only a child.
 - As male children grow up, they are actively taught the extent and boundaries of their clan land, including if they are the only male heir and it is their mother or other close relative who does this.
 - Women do not own land in their own name but may care-take it for their children as heirs of a deceased husband.
- Increasingly as one moves southward in the Western Nomad Sub-District, including among the Gebusi, Honibo, and especially Oybae, the primary and ultimate clan owners are only 2-3 adult male owners from a single lineage, or only one man as in the case of the southernmost Gebusi clan, Sornoy.
 - This pattern is likely to pertain, for instance, in the two major settlements south of the Nomad River, at Kukudobi (Honibo) and Honaybi (Oybae) – both of which the present author has visited in years past.

- In cases of men from different lineages or subclans of the same clan, one lineage (or subclan) is typically recognized to have lived "above" (upstream") of the other "downstream."
 - In the terms of the area presently under consideration for gas pipeline passage, many of the land owners inside the area will be "downstream" of the members of the same clan that were invited to live on and use their land as coresidents.
 - The original lineage or subclan owners retain rights to their land over and above linages of subclans of the same clan that have not been invited to live there and that have long been living in more distant (non-contiguous) locations.
 - o Non-clan members cannot inherent clan land. If the clan is extinct, its land is transferred to "brother clan" agnates; it is not transferred to coresident affines or to other coresidents no matter how long they may have exercised use rights to live on the land.

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Practical considerations

Talisman operations at Yavo

- People across the Nomad Sub-District are highly aware of major construction including for a wharf and airstrip at the previously very remote and very thinly settled Strickland River land at Yavo.
- As described by a principle landowner of Yavo presently at Kiunga having recently registered the primary land title there, a total of only six landowners at Yavo anticipate a windfall payment of 232 million Kina from Talisman in stages as follows: 132 million kina, 80 million kina, 16 million kina, 6 million kina.
 - This land owner group wants to demand payment of the initial
 132 million kina before rather than after they sign a contract
 - o The landowner above, Mam (Mak) Itisa, presently does not have a working cell phone, as he cannot afford to charge its battery.
 - The landowner said that if the claim of the six landowners was effectively disputed, the contract and their payout may be delayed, but he doubted this would be the case.
 - O Another group of landowners disagrees and is taking the issue to court in Kiunga. They assert that claims of the six land owners in question, as well as further counter claims by peoples residing well to the south, in Lake Murrary, unfairly exclude their own rights to their land.
 - The perception as well as the partial or potential reality of such circumstances if well and highly known across the Strickland in the Western Nomad Sub-District (which also encompasses the West bank of the Strickland peoples)

- Pa/Bagar peoples living East of the Strickland are going back en mass to Yavo and to natal areas west of the Strickland to get, or in hopes of getting windfall land compensation payments.
- These developments strongly influence the perception and reception of outsiders coming to map the pipeline for Exxon-Mobile just across the Strickland River among the Kubor, Samo, Gebusi, Honibo, and Oybae.
- The extensive desire to do things to attract company influence and money was documented for the Kubor by Peter Dwyer ("Waiting for Company")
- O Given the great extent of graft and corruption in Papua New Guinea and in the Western Province of PNG specifically, it is possible that the outcome of land court cases in the province will be influenced or even determined by the salaries paid by litigants to lawyers and/or subsidiary payments or transaction fees paid to others.
- The ability of those with cash from the Highlands of PNG and other areas beyond the local region to come and "buy" the legal system can influence the outcome of land disputes brought to court.

Compromised air access and absence of governance at the Nomad

- The Nomad Sub-District Office originated as the Nomad Patrol post in the early 1960s and was the active site of governance for a extensive range of tribal groups in the area for some forty years.
 - By 1998, the Nomad office had several dozen paid employees working in a number of government departments, a fully functioning school, and aid post, and various governmentfunded development projects
- Increasing problems of delivering government pay for employees and especially for upkeep of the Nomad airstrip led to increased periods of airstrip closure during the past ten years.
- Absence of government workers and disuse or closure of the Nomad airstrip have been mutually reinforcing:
 - With the disuse or closer of the airstrip, government employees have left Nomad; many of them are now living and receiving their wages while at Kiunga, while Nomad is unattended.
 - Nomad officials living and drawing pay at Kiunga have little incentive on structural grounds to work from afar to renovate the Nomad airstrip, which could raise the expectation that they move from a relatively favored major town location such as Kiunga to the Nomad outstation, where they are supposed to be working.
- At present, the Nomad Sub-District Office is virtually abandoned; except for five school teachers, government offices are not functioning and government buildings are closed up.

Conditions on the airstrip have deteriorated to the point that MAF will no longer fly to Nomad. With no further work on the airstrip anticipated as far as is known, it seems likely that charter services of Central Aviation, Niugini Air, and others will eventually be suspended and that the Nomad airstrip will be completely closed.

Mapping and land compensation in very low population density areas

- There are particular challenges of land compensation in low population density areas with traditionally flexible land use rights and very small and in some cases extinct land-owning groups.
 - It may be difficult to completely consult land owners given their expansive spread across the land, especially if a survey team has not put out advance word to hire laborers from throughout the area.
 - This advance word may itself attract biased attention and presence of others who may not have a natal claim to land in the area.
 - Conflict and tension may arise in areas where collective ownership and common use rights were easily and widely extended – especially if anticipated windfall profits are in cases of legal land ownership by only a very few individuals.
 - Oybae peoples are considered to have almost "died finished." Even among Gebusi, I have record of several clans, several of which had quite extensive recordable clan genealogies, that are presently extinct.

Compensation for mapping work and challenges of this:

- Given the generally depressed monetary economy and desire for money and goods in the region, a social and land mapping survey team can easily "buy" its way into a region by hiring local people. However:
 - O It is important on either landing in or entering by foot a new area to immediately and openly call everyone present together and explain as clearly, openly, and fully as you can who has come, what is being done, and what specific benefits or hiring/wages are proposed for local people, including day laborer and carriers.
 - There is a pronounced tendency for people throughout the region to agree to leading questions superficially, only to withdraw their support or agreement in particular situations afterward.
 - This draws on a cultural value and orientation to avoid confrontation with powerful and/or wealthy outsiders – such as the Western or outside PNG leader of a local social mapping team.

- It can be important to phrase questions with an equally balanced negative versus positive response: Is the answer X, or is the answer not X but Y. If phrased, is the answer "X," the significant tendency is to answer in the affirmative, but only in a superficial and non-binding sense – especially if the question is posed by someone seen as a powerful outsider upon whom one is receiving money or goods.
- O Given the depressed nature of the local economy with the effective closure of the Nomad airstrip and the lack of any roads in or linking the area to other parts of PNG -- the extent of money and goods that can trigger the above interaction sequence is small and easy to underestimate. Even the giving of subsistence food such as rice and tinned fish, the provision of bush knives that people may keep after work is completed, and payment of nominal resources for labor such as carrying goods or clearing trails, can engage the interactional sequence described above.
- o It is especially productive to employ local persons from the tribe itself as carriers and facilitators within their territory.
 - Perception that money and goods are being paid to persons of adjacent tribal or other affiliation, especially if these persons are chosen over and above those living on the land in question, can be resented and lead to problems.
- Conflict and tension and potential social divisiveness may potentially occur over time with in-resident people – either long-term in-residents or opportunistic short-term co-residents who claim land rights despite not being land owners per se.
 - Insofar as possible, people working and facilitating marking of land boundaries should be from within the group being mapped rather than outsiders.
 - Hiring facilitators/laborers from the group being mapped helps congregate people across very thinly settled areas such as Oybae and Kabasi -- for whom land owners may not be found, as they may be living elsewhere at other bigger settlements when the survey team comes through.
 - It will likely be important in mapping Oybae and Kabasi areas to the south to accurately determine if persons claiming to be returned land owners do have a longer historical connection as land owners.
 - Those who are known to be longstanding residents in the area in question are likely to be good sources of information.

 Collection of genealogies, including the residence location of ancestors – where they married, moved, and died – and cross-checking these with known resident members can be useful to ascertain the proper status of in-migrating land claimants.

Inter-tribal blockage and tensions

- Two Honibo high school leavers have instructed Honibo people, at Kukudobi, to not let any white outsider into their territory for reconnaissance, including for GPS mapping, without their presence and approval, for fear of being taken advantage of.
 - The two persons in question are Elwi Eba, who is a university graduate and presently a school teacher at Popondetta, and Maso Hewabi, who finished grade 12 and is in engineering training – apparently living now in Kiunga.

Relation between the more populous Samo people and more thinly settled groups further south:

- It is significant to note the intrusive historical role of the Samo vis-à-vis the Honibo and the Gebusi and the ease of projecting the influence of one group onto another via social mapping, especially if members of one group are used as interpreters or carriers in a neighboring group.
 - The tribal name of the Gebusi was incorrectly attributed by Westerners for manys years due to unwitting Samo influence. Early research with Samo informants suggested that "Bibo" was the name of the Gebusi, whereas in fact "bibo" is in fact merely a Gebusi word for one of their three-dozen varieties of plantains and bananas.
 - o I have seen the tribal boundary between the Samo and the Honibo drawn as an E-W line south of the Nomad River on some maps though the border between Samo and Honibo is definitively assessed by Gebusi as being the Nomad River.

Practical provisos and recommendations

Avoiding conflict of interest

While conducting social mapping in the area in question, information locally provided, including provision of access to GPS boundary waypoints, needs to be proprietary to SIMP until the exact route of the pipeline is otherwise determined by Exxon-Mobile. Otherwise, local suspicion would be well founded that those conducting social mapping are "stealing" information that could be used against them without their knowledge – for instance, to encourage Exxon-Mobile to skirt the pipeline route outside of their territory.

The principle of social mapping data being independent and separate from the determination of the pipeline route needs to be clearly communicated to local people.

Determination and support of local land tenure custom

It can be highly important for social mapping done by SIMP:

- to clearly and accurately assess land ownership and transmission principles as determined by longstanding custom in local areas
- to communicate the rights of land owners back to them, and...
- to stand by the veracity of its effectively ascertained local land custom when cases are brought to court.

Community relations

Perhaps the best practical contribution that Exxon-Mobile can do to facilitate good community relations at the present time – including throughout the Nomad Sub-District – is to improve the Nomad airstrip.

- First established in 1963, the Nomad airstrip is a collective resource shared by all the groups of the area
- Decline and frequent closure and disuse of the Nomad airstrip has been increasingly common at least 2008. This severely negatively impacts school, medical clinic, government presence, police, and the general economy of the entire Sub-District.
- The airstrip is so large that renovating and upgrading even part of it would enable plans to land more safely and dependably, including MAF, which is the most important and frequently supplier of air services to outstation areas in the region and which refused to land on the Nomad airstrip given its present poor condition and safety risk.
- Renovation of the airstrip will significantly improve access to the area for social mapping -- and would presumably be requisite for largescale construction in any event.
- The airstrip footprint is extensive and could allow landing of significantly larger aircraft if the entire airstrip were properly footed and sealed.
- Serious consideration could be given to a Sub-District policy prohibiting opportunistic landing at Nomad for persons who do not have employment or previous connections with those in the area. Company operations at Nomad could facilitate such a policy.

GPS equipment

It is recommended to provide those who are marking waypoints with a better GPS than the eTrex10. This was found to be a user-unfriendly device and arduous to make notes on. Additionally, my eTrex10 additional had a compass function that only worked on the last day of our trek, compromising our ability to take reasonable bearings at our most relevant waypoint sites.

Computers

During our recent trip to the area in question, one of two new MacBook Air computers overheated – even when off -- and then became dysfunctional (won't turn on). Insofar as high humidity and high heat pose a threat to many small computers in the area in question, recommendations concerning computer equipment would be appreciated.

Note: A separate document can be submitted to include explanatory notes and rough sketch maps of GPS Waypoints marking tribal and clan boundaries near and at the Oybae-Honibo-Gebusi border. This includes remote tribal border areas that were accessible only after sleeping in the forest coming and going, and with the aid of guides to clear passage through the deep bush.