# Socio-Economic Baseline Report for Across The River - A Trans-boundary Peace Park for Sierra Leone and Liberia

## Liberia Results

#### **Project Team**

Prof. Dr. E. Bulte (Wageningen University)
Ms. E. Mokuwa (African Knowledge Associates)
Prof. P. Richards (Wageningen University and Njala University)
Dr. M. Voors (University of Cambridge)

Report submitted to Across The River: A Trans-boundary Peace Park for Liberia and Sierra Leone

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A large team of research assistants was involved in the data collection. The field team was led by Ms Esther Mokuwa. For more information please contact the project manager Dr. Maarten Voors (<a href="mainto:maarten.voors@wur.nl">maarten.voors@wur.nl</a>) or the teams field manager Ms. Esther Mokuwa (<a href="mainto:esther mokuwa richards@yahoo.com">esther mokuwa richards@yahoo.com</a>).

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For ARTP

Albert Schenk

Project Manager ARTP

For the interuniversity team

Prof. Dr. Erwin Bulte

Wageningen University

#### 1. Introduction

This report summarises the outcomes of a socio-economic survey implemented in 27 villages around the Gola Forest in Liberia.

The research results from a collaboration between Across The River - A Trans-boundary Peace Park for Sierra Leone and Liberia project (ARTP), the Society for the Conservation of Nature in Liberia (SCNL) and the Forest Development Authority (FDA) and a team of scientists from Wageningen University and the University of Cambridge.

ARTP was launched in 2009 as an effort to protect the critically threatened and important cross border rainforest areas of the Upper Guinea Forest Ecosystem in West Africa and to secure their effective management through National institutions and authorities with the active collaboration of local communities.. The anticipated transboundary Peace Park will unite the Gola National Forest in Liberia (98,000 ha) and the Gola Rainforest National Park in Sierra Leone (71,070ha: established in 2010), with around 50,000 ha of additional forest to provide corridors for the movement of wildlife between them, creating a protected area of over 2,000 km2.

The importance of the forests to the livelihoods of the local communities cannot be over emphasized. All local communities in and adjacent to the Gola Forest in Liberia and Sierra Leone rely directly or indirectly on forest resources for their livelihood and wellbeing. To ensure effective participation of these local communities, the project will support and implement targeted livelihood improvement initiatives and activities.

In Sierra Leone, conservation and livelihood actions have been going on for many years in and around the Gola Forest, hence data and information required for planning and implementation of activities is widely available. The University Team has been involved in a socio-economic research project, encompassing about 180 villages, in the Sierra Leonean part of the Gola Forest, in collaboration with the Gola Forest Programme in Sierra Leone. The research helped reviewing on-going livelihood initiatives funded by the program and designing new interventions.

In the Liberian portion of the Gola Forest, conservation, research and livelihood actions have more recently been initiated. As a result, solid data and information to design targeted interventions and take informed decisions to enhance livelihoods and conservation efforts is needed. Hence, the need for collaborative research and socioeconomic studies.

The data presented in this report provide a rich set of background material useful for assessing the impact of current and future ARTP and other livelihood support interventions. In section 2, we discuss our sampling strategy and implementation of the survey. Section 3 offers a descriptive summary of the villages around the Gola Forest. In section 4 we present a general evaluation of the field work. Section 5 concludes.

### 2. Sample and implementation

The survey was implemented in villages in Gbarpolu County (Northwest Liberia) and Grand Cape Mount County (Western Liberia) which are the fourth and sixth largest counties in Liberia (in terms of surface area). Villages included in the survey lie around

the Gola Forest and include Sorkpo Clan in Porkpa district, Grand Cape Mount County and Tonglay and Zuie Clan in Kongba district, Jaweijah Chiefdom, Gbarpolu County.

There are 60 villages in both counties, 24 in Gbarpolu and 36 in Grand Camp Mount. Appendix 1 lists the names of all 60 villages. Of these, we visited 31 villages and implemented our survey activities in 27 villages. In four villages, we could not implement our survey as an authorization letter from the Clan Head was not given (Gbanjui), because it was abandoned (Nyorkor, Longlay) or because we did not obtain permission from the town chief (Camp Alpha).

The team did not manage to visit the remaining villages within the available time frame and budget.

Figure 1 provides a map with the included villages. Table 1 list the names of the villages included in the surveys as well as the sample size per survey.

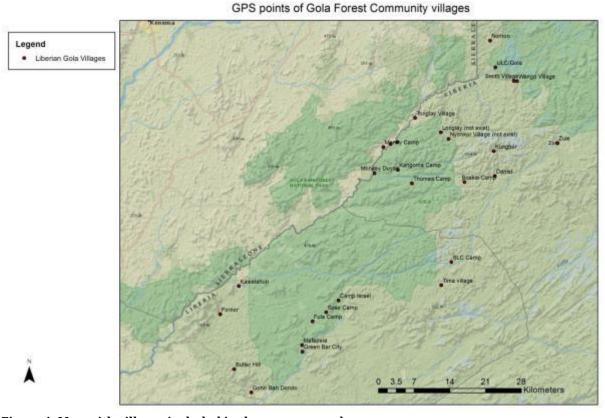


Figure 1. Map with villages included in the survey sample.

We implemented two types of surveys designed to capture the basic socio-economic profile of the villages in and around Gola Forest in Liberia.

(i) *a village survey*, administered in a group meeting with village leaders and all other interested parties present. This survey captures village characteristics, such as population, vegetation, type of cultivation, when the land was founded etc.

The village survey tended to take about 3 hours. It includes modules on village demographic information, disease and infrastructure indicators, market access, farming practices in the village, community bylaws and institutions, communal experiences during the war, conflicts and attitudes towards conservation.

(ii) *a household survey*, conducted with 15 randomly selected households in each village. When the enumerators arrived in a village, they assigned a number to each household in the village. A drawing was then held to decide the 15 random households that would be interviewed. If there were less than 15 households in a village we surveyed them all. Interviews were conducted in private and the interviewees were given an assurance that their answers would be anonymous. This survey took approximately 2 hours to complete. It includes modules on the farming practices and productivity, household expenditures, labour allocation, events involving the family during the war, public offenses, access to credit, attitudes towards conservation, and social capital.

Table 1. Villages included in survey

Village name	Code	Chiefdom	Clan	Household Survey	Community survey	Resource Map
SLC	13111	Zuie	Zuie	15	1	1
Tima village	13112	Zuie	Zuie	16	1	1
Zuie	13113	Zuie	Zuie	15	1	1
Nomo	13231	Jaweijah	Nomo	15	1	1
Smith	13232	Jaweijah	Nomo	9	1	1
ULC	13233	Jaweijah	Nomo	15	1	1
Wango	13234	Jaweijah	Nomo	8	1	1
Money camp	13241	Jaweijah	Tongay	10	1	1
Boakai camp	13242	Jaweijah	Tongay	3	1	1
Kangoma camp	13243	Jaweijah	Tongay	2	1	1
Monkey Dunya	13244	Jaweijah	Tongay	7	1	1
Tonglay	13245	Jaweijah	Tongay	10	1	1
Sokpo <sup>1</sup>	13246	Jaweijah	Tongay	5	1	1
Daniel camp	13247	Jaweijah	Tongay	10	1	1
Kungbor	13248	Jaweijah	Tongay	15	1	1
Sonah Creek <sup>2</sup>	13249	Jaweijah	Tongay	6	1	1
Thomas camp	13250	Jaweijah	Tongay	3	1	1
Umaru camp <sup>2, 3</sup>	13251	Jaweijah	Tongay	2	1	1
Butter Hill	26005		Sokpo	15	1	1
Camp Israel	26007		Sokpo	15	1	1
Fula Camp	26012		Sokpo	15	1	1
Fornor	26016		Sokpo	30	1	1
Green Bar City	26019		Sokpo	11	1	1
Gohn Bah Dondo	26020		Kposo	5	1	1
Kawelahun	26028		Sokpo	15	1	1
Mafapeya	26031		Sokpo	9	1	1
Soso Camp	26036		Sokpo	24	1	1
Gbanjui <sup>4</sup>	No data		Sokpo			
Camp Alhpa <sup>4</sup>	No data	Jaweijah	Tongay			
Nyorkor <sup>5</sup>	No data	Jaweijah	Tongay			
Longlay <sup>5</sup>	No data	Jaweijah	Tongay			
TOTAL				305	27	27

Note: (1) new village, (2) GPS data missing, (3) village location is moved, new GPS data taken), (4) no permission, (5) deserted

The surveys were conducted between January and March 2012. For the implementation of the survey, nine local research assistants were hired in Monrovia. The research assistants were selected from a pool of undergraduate and graduate students of the University of Liberia. Selection criteria included, performance during the training, ability

to speak Mende and Liberian English, and ability to work in under harsh field conditions involving extensive walking distances and extreme weather conditions.

In addition, three research assistants who participated in research activities in Sierra Leone were recruited. Prior to the implementation, the research team spent a lot of effort to train the research assistants (during a three week intensive training) and pretest the surveys to minimize various common biases such as interviewer compliance bias. We implemented two pilot tests in Latia (Grand Cape Mount County) and Kungbor (Gbarpolu County). During both training and pilot testing we took special care to stress the importance of confidentiality and the importance of proper behavior of the research assistants in local communities. Each research assistants signed a contract detailing remuneration, working conditions, responsibilities and expectations, before the field work commenced.

Introduction: CMO



Counting of household: Discussion



Purpose of visit: Team Leader



Community visit (E. Mokuwa)

Before both pilot testing and field trips into the communities, letters were sent by the SCNL staff to inform the community about our upcoming visit. Staff from ARTP and SCNL accompanied the enumerators in the field and helped sensitize the communities to the purpose of the survey. In any village visited, either a Community Mobilization Officer (CMO) from SCNL or a Team Leader informed the village's elders about their presence and to explain the procedures of administrating the questionnaire to the community in the community gathering. Survey interviews were conducted for the most part in Mende and enumerators recorded the results in English.

The data collected for this baseline are unique for several reasons. First, detailed household data covering a large number of villages and respondents in a developing

country are rare, especially for post-conflict countries. Second, the quality of the data is high, as non-response rates were low; virtually none of the randomly selected households refused to take part in the interviews, and item non-response was low as well (however for some attitudinal questions respondents said 'don't know'). Similarly, village members actively participated in the focus group sessions, and indicated that the surveys were well understood and communicated.

The surveys are included as an appendix to this report.

### 3. Descriptive summary

Below we present a descriptive summary of the communities included in the survey. Given the vast nature of the data, we present the main village characteristics only and concentrate on demographics, religion, wealth, access to facilities and infrastructure and attitudes towards conservation.

Types of settlements. Table 2 below shows some general information on the communities in our sample (such as village size, stability, languages spoken, main economic activity).

There are no large communities, compared to settlements in Tunkia, Gaura and Malema Chiefdoms on the Sierra Leone side of the Gola Forest. Over 50% of the villages have fewer than 100 inhabitants. Kungbor has the largest population, followed by Zuie and Nomo. Butter Hill, Nomo, Fula Camp, Camp Israel, Fornor, Kawelahun and Kungbor are of medium size. There are two types of communities: the more permanent and stable communities - which have developed retail services, palm oil production, cocoa and coffee cultivations and more established houses (with zinc roofs), and the unstable transient towns or camps which are newly established or only inhabited in the dry season when mining activities take place. Kungbor, Zuie, Kawelahun, Fornor, Tonglay Village, etc. are classed as permanent communities. On this basis, six forest edge villages in Grand Camp Mount County and eleven in Gbarpolu County are classed as permanent settlements. Five communities in Gbarpolu County are classed as not stable while none are classed as not stable in Grand Camp Mount County.

Gender ratio. The men/women ratio is on average 3 (Table 2), implying that on average there are 3 times more men than women in the communities. In 70% of the villages there are more men than women. This may be explained by the presence of mines close to the village as mining is mainly done by men. In one village, Sonah Creek, the population consisted solely of men. Similarly, gender ratios in Soso camp (17 times more males) and ULC (9 times more males) are highly skewed towards males.

**Table 2. Community information** 

Village	Founded	Houses	Households	Population	Males	Females	Males/Females	Main Economic Activity	Type of people	Permanence
Boakai camp	1961	3	3	13	12	1	12.0	Farming and hunting	Mixture	Not-stable
Butter Hill	1968							Mining (gold)	Mixture	Stable
Camp Israel	1986	59	85	1800	1000	800	1.3	Mining (gold and diamond)	Mixture	Stable
Daniel camp	1975	14	17	70	40	30	1.3	Mining (gold)	Mixture	Stable
Fornor		50	124	760	340	420	8.0	Farming	Mende	Stable
Fula Camp	1980	59	84	1500	1100	400	2.8	Mining (diamond)	Mixture	Stable
Gohn Bah Dondo	1840	17		130	40	90	0.4			Stable
Green Bar City	1983	12	15	46	37	9	4.1	Mining (diamond)	Mixture	Stable
Kangoma camp	1981	3	2	6	4	2	2.0	Farming	Mandingo	Stable
Kawelahun	1932	80		500	300	200	1.5	Farming	Mende	Stable
Kungbor	1959	172		3460	1600	1900	8.0	Mining	Mixture	Stable
Mafapeya	1935	11	6	25	15	10	1.5	Mining (diamond)	Mixture	Stable
Money camp	2003	15	13	77	43	34	1.3	Mining (diamond)	Mixture	Stable
Monkey Dunya	2005	17	9	50	40	10	4.0			Stable
Nomo		47	117	2700	200	700	0.3	Farming	Mende, Vai	Stable
SLC	1984	14	44	350	250	100	2.5	Farming	Mixture	Stable
Smith	1988	15	13	54	29	25	1.2	Farming and hunting	Mixture	Stable
Sokpo	2011	2	5	40	10	10	1.0	Farming	Gio	Not-stable
Sonah Creek	1960	3	6	25	25	0	all males	Mining (gold)	Mixture	Not-stable
Soso Camp	1925	28	39	1800	1700	100	17.0			Stable
Thomas camp	1976	3		10	8	2	4.0	Farming	Kissi	Not-stable
Tima village	1984	62	94	1500	900	600	1.5			Stable
Tonglay		7	13	42	28	10	2.8	Farming	Gola/Mende	Stable
ULC	1987	40	60	500	450	50	9.0	Mining (gold)	Mixture	Stable
Umaru camp	2012	4	2	16	8	8	1.0	Farming and hunting	Gio	Not-stable
Wango	1985	15	12	45	20	15	1.3	Hunting	Mixture	Stable
Zuie	1830	117		3000	1200	1800	0.7	Farming	Gola	Stable
Average		33.4	57.4	712.3	361.5	281.8	3.0			

Note: Empty spaces indicate no data

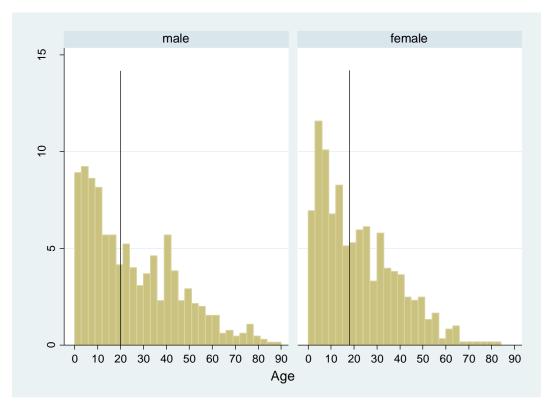


Figure 2. Age buildup by gender

*Age buildup*. The average age of the people included in ours sample is 23 years old. The median age is 19 years, implying that 50% of the people are below that age. This figure is slightly higher for males (20 years) than for females (18 years), see Figure 2. Only 5% of the people is above 58 years.

Language. In terms of language, Mende is now the common language spoken in most communities. Mende seems easier to acquire, compared to Gola language of the indigenes. However, people of Gola descent still use Gola language for societal and political gatherings (see Mokuwa & Richards 2012, The Significance of the Gola Forest, Working Paper).

Ethnicity. Some of the larger, permanent settlements are ethnically mixed (Table 2). In Kungbor, for example, there are many Mandingo traders, and meetings are translated into both Mende and Mandingo. Kawelahun also has a mixture of residents from different parts of Liberia, and from Sierra Leone, but all meetings are done in Mende. Kawelahun declares its age by a circle of cotton trees marking an old war fence. At the other end of the spectrum, Thomas Camp is also an old village, has no more than three houses, and is without evidence of any war fence. It was established by a Kissi man from Sierra Leone. People in this community still speak Kissi, but all interviews were carried out either in Liberian English or Mende.

*Religion.* In terms of religion, in the community survey respondents were asked to give an estimation of the different believes in their village. Table 2 summarizes. Most people are either Muslim (46%) or Christian (44%). In addition, people practice African Traditional Religions (ATR) in addition to being Muslim or Christian.

**Table 3. Religion in the communities** 

Variable	Obs	Mean	Std. Dev	Min	Max
Christian	27	44	24.2	10	100
Muslim	27	45.9	22.4	0	85
ATR and Muslim	27	3.7	5.3	0	20
ATR and Christian	27	3.4	4.4	0	15
ATR and other	25	1	2.5	0	10
Other	25	1.4	6.0	0	30

Wealth. As cash flows are low, erratic and not recorded often other measures to assess community level (financial) wealth are used. Figure 3 indicates the types of roofing and wall materials used on housed in the communities. On average, the majority, 61 percent, of the roofs in a village are made of thatch, which they can find around the village. On average 33 percent of the roofs in a village are made of the more expensive zinc and only 4 percent of the roofs is in general made of straw which can also be found around the village. On average only 2 percent of the roofs in a village are made of the more expensive tarpaulin.

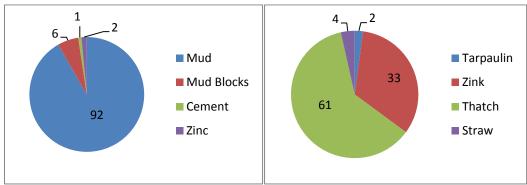


Figure 3. Wall materials and roofing

The vast majority, 92 percent, of the walls of the houses are made of mud and sticks. In general only 6 percent of the walls are made of mud blocks, which is slightly more labour intensive than building walls with mud and sticks. Only 2 percent of the house walls are made of the more expensive zinc or cement.

As an additional measure, Table 4 shows availability of amenities in the communities, such as access electricity (28 percent has a generator). In 89 percent of the communities a radio is present. Only 7 percent has a cement drying floor (used for drying rice, cocoa etc), 26 percent has a palm oil pit and 11 percent have a public toilet.

**Table 4. Amenities in community** 

Tubic II IIII cilities III	Community
	% of communities that
Amenities	have this amenity
Electricity	0%
Generator	28%
Radio	88%
Cement drying floors	7%
Palm oil pits	26%
Public toilet	11%

Access to facilities. At present, the visited villages have virtually no facilities. Table 5 summarises the access to schools, health posts, etc. Few communities have a school in their village (40 percent). 28 Percent of the communities have to walk up to 2 hours to reach a school. Only 9% (2 villages) have a health centre. 50 percent of the communities have to walk between two hours and a full day to reach the nearest health centre. For example Kungbor has a health centre, but another larger town, Kawelahun, has none. There, medical cases are often taken to health centres in neighbouring Sierra Leone. Most children are sent to stay with relatives in Monrovia for educational purposes. These large distances, combined poor roads and general lack of transportation facilities, make it difficult to reach a medical care in case a community members falls ill.

Table 5. Walking distance to facilities

Walking distance to	In village	Outside the village up to 2 hours	Between 2 hours and a full day	More than a full day	Sample size	Does not know
Primary school	40%	28%	28%	4%	25	2
Health clinic	9%	9%	50%	32%	22	5
Pharmacy	5%	10%	67%	19%	21	6
Police Station	5%	5%	57%	33%	21	6
Produce shop	21%	7%	36%	36%	14	13
Construction shop	13%	0%	44%	44%	16	11
Mosque	60%	12%	24%	4%	25	2
Church	42%	25%	29%	4%	24	3
Palava hut	55%	5%	32%	9%	22	5
Local well	47%	18%	24%	12%	17	10
Hand pump	40%	25%	30%	5%	20	7

Next to poor access to health clinics, only 5 percent indicate to have (any type of) pharmacy within the village. Furthermore, shops are far away from the villages.

It is interesting to note the sometimes high numbers of non-response. There are two candidate explanations, (i) either the facilities are very far away and hence people simply don't know how far, or (ii) the respondents do not permanently occupy the villages and hence are less familiar with the area.

Governance. Each village belongs to a Chiefdom and to a District and has a Paramount Chief and a Commissioner appointed by the Presidency. The Clan Chief is selected by Paramount Chief, while the General Town Chief is selected either by the Commissioner or the Paramount Chief. Town Chiefs are selected (or elected) by the community. Only Kawelahun has both a General Town Chief and a Town Chief. Other villages have only a Town Chief. The Town Chief of Butter Hill is selected by both the Paramount Chief and by the Commissioner of Kporkpa District. Grand Cape Mount has five districts while Gbarpolu has six. The Gola National Forest falls in Sokpo Clan in Kporkpa District, Grand Cape Mount County and Tonglay Clan in Gbarpolu County.

All the visited areas have some form of agro-based activities (mainly farming activities such as rice and cassava cultivation). The newly established villages Sopko, Tonglay and Nomo, etc. are likewise involved in farming activities, with limited amounts of hunting,

mainly for domestic use. Other villages are known for their mining activities. These include Money Camp (diamonds), ULC (gold) and Camp Israel (gold and diamonds).

Overall, nineteen villages had no infrastructural projects undertaken by the community (e.g. Kawelahun, Fornor, Fulah Camp, SLC, Nomor). Zuie has a newly built court barrie, Kungbor has a school and health Centre, Camp Israel has a hand pump and a school, and Butter Hill has a school.

Access to infrastructure. Similar to the facilities mentioned above, the distances to main towns and infrastructure are far (Table 6). For example, the vast majority, 85 percent, of the communities is more than a day away from the County headquarters. Only 35 percent of communities are located along a vehicle road. During dry season 22 percent of the communities are less than 2 hours away from vehicle road. 35 percent of the communities are between two hours and half a day walking away from a vehicle road, 9 percent is more than a full day of walking away from a vehicle road. As can be expected, the walking distance to the nearest usable vehicle road increases during the rainy season. The villages that are located along the road are still along the road during rainy season, but for the other villages it seems to get more difficult to reach the road. For 17 percent of the surveyed communities the closest vehicle road is less than 2 hours walking during the rainy season. 35 percent is between two hours and half a day walking away from the road and 13 percent is more than a full day of walking away from a vehicle road during rainy season.

It is interesting to note that almost half of the communities (13 out of 27) do not know where the community farm is. This and the communities little knowledge of the distance to the produce shop points to a lesser reliance on agriculture in favour of mining or logging.

Table 6. Walking distance to infrastructure

	Walking dis	stance				
Walking distance to	In village	Outside the village up to 2 hours	Between 2 hours and a full day	More than a full day	Sample size	Does not know
County Headquarters	0%	0%	15%	85%	26	1
Major Town	0%	26%	67%	7%	27	0
Market town	9%	13%	65%	13%	23	4
Community farm	14%	86%	0%	0%	14	13
Road dry	35%	22%	35%	9%	23	4
Road rainy	35%	17%	35%	13%	23	4

Community network. No village stands alone. Instead a complex network exists between villages where some act as centers where other are dependent on both politically, economically and socially. For example, one of these centers is Kungbor which for 44 percent of the surveyed villages is the most important neighbor community they depend on (Figure 4). Kungbor is a relatively large community of 3460 people with a market that runs each day of the week, a health clinic, produce shop and a police station. Other center villages are Camp Alpha (on which 17 percent of the villages depend), Fula Camp, Bambala and Weajue.

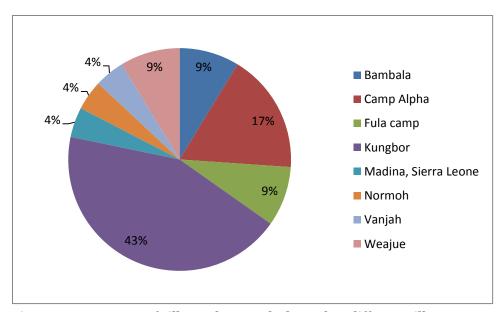


Figure 4. Percentages of villages that mostly depend on different villages

Table 7. Network of villages

Village name	Primarily depends on	Secondarily depends on	Villages depending on this village	Village mostly depending on this village	Village depending on this village	Village depending on this village	Village depending on this village
SLC	Camp Alpha		3	Doilei Village	Nyaguo Village	James Sumo Village	
Tima village			4	John Bannana Village	Gio Village	Friday Village	Old Lady Village
Zuie	Kungbor	Bomi hills	4	Njaboi	Nga Ngama	Gealah	Jaweijah
Nomo	Kungbor	n. serria leone	3	Lain	Jaweijah	Kpokoo	
Smith	Kungbor	Normoh	3	Galahun	Bombohun	Center Bridge	
ULC	Normoh	Kungbor	0	None			
Wango	Kungbor	Nomo	4	Galahun	Bombohun	Smith Village	Center Bridge
Money camp	Kungbor	Camp Alpha	4	Monkey Dunyah	Umaru Camp	Sobeath Village	Kangoma Camp
Boakai camp	Kungbor	Camp Alpha	2	Sign board Village	Dakie Camp		
Kangoma camp	Camp Alpha		2	Gola Village	Matthew Camp		
Monkey Dunya	Camp Alpha	Kungbor	2	Money Camp	Kangoma Camp		
Tonglay	Madina (SL)	Kungbortown	3	Golee (SL)	Banisella (SL)	Mesela (SL)	
Sokpo	Kungbor	Mogbama(SL)	0				
Daniel camp	Kungbor		4	Solomon Camp	Ali Camp	Mandingo Camp	Sahr Baker Village
Kungbor			4	Borbor B	Tongay	Zuie	Nomo
Sonah Creek	Kungbor		2	Money Camp	Nyorkor Farm		
Thomas camp	Camp Alpha		0				
Umaru camp	Kungbor	Mogbema (SL)	1	mogbema(sierraleone)			
Butter Hill	Bambala	Mono River Congo	4	Gbanju	Runkia	Bussa Village	Small Banduma
Camp Israel			4	soso camp	Fula Camp	Varney Camp	Bearbear Camp
Fula Camp	Weajue		4	middle east	Green bar City	Mafapeya	Kpelle Village
Fornor	Bambala	Mano river (kongo)	4	Nyekehun	Bassa Village	Kpelle Village	Iron gate
Green Bar City	Weajue	Fula camp	2	Neikey	Mafapeya		
	Vanjah		4	Nyekeh	Ma-Cargo Village	Weago Village	Gio Village
			4	Fornor	Morlah	Nyekehon	Old lady Village
Mafapeya	Fula camp	Weajue	1	green bar city			
Soso Camp	Fula camp	Israel camp	3	Beakinea	Kpelle Village	Barry Village	

Attitudes. As part of the household survey, respondents were asked about their attitudes towards conservation and forest activities. Table 8 summarises these responses. A few key findings:

- Declared knowledge of ARTP, FDA and (especially) laws dealing with forestry or community issues is low. Only 40% and 50% (respectively) of respondents claimed awareness of ARTP and FDA. As few as 10% admitted to have any familiarity with the forestry and community forestry laws. What is not clear is whether this represents a strategic response (in effect, claiming ignorance to deflect any scrutiny of illegal activities) or whether the ignorance is genuine. Lack of knowledge of the community forestry law is perhaps understandable since it is very recent legislation. The number of strangers (and foreigners) in the sample may also help explain these low figures.
- Only 18 respondents can correctly name the head (Managing Director) of the FDA.
- People on average support conservation, and feel their leadership does too (average answers to each question are all above 2.5 -- the mean of the 5 point answer scale)
- Respondents report the level of most resources from the forest (mushrooms, rattan, herbs, medicine, etc) has on average remained stable (averages are all close to 2 (resources have remained stable), except for the levels of bush meat (monkeys and duikers) which are somewhat decreasing (averages are below 2).
- A great majority of people use the forest for their livelihood. Over 90% of the people use the forest as a source of food, income, bush meat and medicine. Over 60% use the forest as a sacred place and sees it as a place for wildlife and biodiversity.
- Most people feel that land conversion for agriculture, hunting, mining and logging are somewhat impacting on the forest (averages are above 2, the mean value of the scale) and that this impact is driven mostly by village members, rather than strangers (averages are below 2).1
- Most people feel the quality of the forest is going down and that this is a negative change.
- Most people feel the water flow in streams around the village is decreasing but that this is not (yet) problematic.
- Most people feel that humidity, temperature and the force of wind is not changing.

**Table 8. Attitudes towards conservation** 

Variable	Obs	Mean	Std. Dev	Min	Max
Are you aware of ARTP? [%yes]	309	40%			
Do you know the Forest Development Authority? [%yes]	312	47%			
Are you familiar with the 2006 law on forestry? [%yes]	312	10%			
Are you aware of the 2009 community law? [%yes]	312	8%			
Respondent can correctly name head of FDA	312	6%			
Do you support conserving the forest?					
[1=strongly disagree,, 5=strongly agree]	287	3.3	1.5	1	5
Do you feel your village leadership supports conserving the forest? [idem]  Do you feel your Paramount Chief supports	207	3.2	1.4	1	5
conserving the forest? [idem]	157	3.7	1.1	1	5

<sup>&</sup>lt;sup>1</sup> Strangers here are individual who are not part of the community, for example commercial miners, hunters and loggers

Do you feel the President of Liberia supports	202	4.4	1.0	1	r
conserving the forest? [idem] Do you feel people outside of Liberia support	203	4.4	1.0	1	5
conserving the forest? [idem]	179	4.3	0.8	1	5
What is happening to the following forest resource [1= more scarce, 2= stable, 3= more abundant):	ces over the	past 5 years			
Monkeys	312	1.7	0.9	1	3
Duikers	312	1.6	0.8	1	3
Mushrooms	310	1.9	0.6	1	3
Rattan	311	2.1	0.7	1	3
Spices	309	2.0	0.7	1	3
Herbs for medicine	311	2.1	0.7	1	3
Fruit and vegetables	305	1.9	0.7	1	3
Do you use the forest as [% yes]:					
A source of food	314	90%			
Sacred place	311	60%			
Source of income	314	90%			
Place for wildlife/biodiversity	314	60%			
Source of bush meat	314	90%			
Source of medicine	313	90%			
How much are the following activities impacting 1 = Not important,, 4 = Very important	the forest?				
Conversion of land to agriculture	312	2.6	1.1	1	4
Logging by commercial loggers (strangers)	311	1.8	0.9	1	4
Logging by village members	313	2.4	1.0	1	4
Hunting by commercial hunters (strangers)	314	2.0	0.9	1	4
Hunting by village members	314	2.7	1.0	1	4
Mining by commercial hunters (strangers)	313	2.2	1.1	1	4
Mining by village members	312	2.9	1.1	1	4
What is happening to quality of the forest? [1= decreasing, 2= same, 3= increasing]	237	1.8	0.8	1	3
Do you see this as positive or negative? [%	287	60%	0.0	1	3
positive] Is the water flow in streams around your	207	0070			
village changing? [idem]	275	1.5	0.7	1	3
Do you see this as positive or negative? [% positive]	291	30%			
Is the humidity in the forest around your	246	1.8	0.8	1	3
village changing? [idem] Do you see this as positive or negative? [%	246 293	50%	0.0	1	3
positive] Is the average temperature in your village	293	3070			
changing? [idem]	259	1.9	0.8	1	3
Do you see this as positive or negative? [% positive]	295	50%			
Is the force of the wind around your village	286	2.1	0.8	1	3
changing? [idem] Do you see this as positive or negative? [%	299	0%	0.0	1	3
positive]	4 J J	070			

Constraints to development. A major impact resulting from the war is the loss of life, especially of males. Figure 5 shows the population levels in before (1989) and after

(2003) the war and current population levels. A clear trend emerges where population levels fall dramatically in the war period. Only one village, Soso Camp, experienced a rapid increase in population size, more than doubling in size (going from 150 to 480). On average population sizes shrank 51 percent over the 1989-2003 period (excluding Soso Camp results in a decrease of 67.1%. After the war population sizes increased in most villages, but very unevenly and never reaching pre-war population levels (except in Soso Camp).

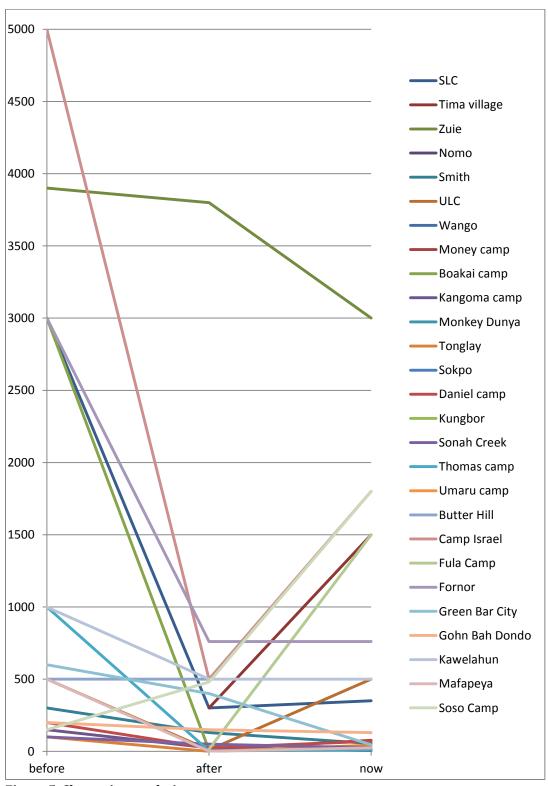


Figure 5. Change in population

Self-indicated constraints. Community members expressed a range of constraints they see as limiting their development. Most frequently mentioned is limited access to health, clean water, roads and education. See report prepared by Paul Richards (2012 PROPOSED LIVELIHOODS INTERVENTIONS for Across The River - A Trans-boundary Peace Park for Liberia and Sierra Leone (ARTP), African Knowledge Associates, Zetten, NL) for a discussion on proposed interventions for this region.

Forest use. All communities in the sample make money with resources from the forest. Table 9 summarizes forest use. 22 Percent of the villages cut trees themselves close to their community for commercial sale and 31 percent indicate to have been approached by loggers (2 times on average in 2011). 86 percent of the villages gave the logger permission to cut trees.

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Table 9. Forest use	
Commercial sale forest	
Make money from the forest	100%
Logging	
Cut trees close to their community for commercial sale	22%
Ever been approached by logger	31%
Gave the logger permission	86%
How many times on average were they approached by loggers in 2011	2 times
Bylaws prohibiting logging <sup>2</sup>	41%
Hunting	
Hunt close to community for commercial sale	89%
Ever been approached by an outsider to hunt	48%
Gave the hunter permission	100%
How many times on average were they approached by hunters in 2011	3 times
Bye-laws prohibiting hunting	37%
Mining	
Close to a mine	84%
Bye-laws prohibiting mining	44%
Engaged in mining	85%

89 Percent of villages responded that they hunt close to their villages for commercial sale. 82 Percent of the communities hunt at least a few times a week (see Figure 6). 19 Percent of the communities hunt to eat while 81 percent of the communities hunt to both eat and sell (commercial purpose). 48 Percent has been approached by an outsider to hunt close to the community in which case the community always gives permission (3 times on average in 2011), while 37 percent of the communities do have bylaws prohibiting hunting.

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<sup>&</sup>lt;sup>2</sup> Bye-laws are customary community rules and exist at various levels and vary by location. At the village level, bye-laws exist often contain rules on community work, treatment of strangers, abstaining from violence and abusive language, obeying elders and the chief, and on sexual misconduct.

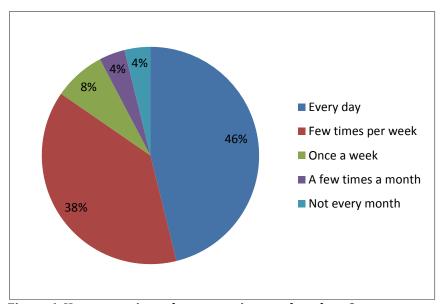


Figure 6. How many times do community members hunt?

84 Percent of the communities say they are located close to a mine. All mines around the villages are either gold or diamond mines. 72 Percent of the mines located close to the villages are diamond mines. 44 Percent of the communities have bylaws regulating mining. Of all the communities in the sample 85 percent of them are engaged in mining in the forest. Table 11 shows how many times communities have been approached by different types of miners. 63 Percent of the villages have ever been approached by an individual miner with a permit that request to mine close to the community. In 94 percent of the requests the community gave the miner permission. That means that out of the 27 communities 16 communities gave an individual miner with permit permission to mine close to their community.

Only 19 percent of the communities were approached by an individual miner without a permit. When the individual was without a permit the community is (somewhat) less likely to give their permission, only in 75 percent of the requests the community gave their permission. 41 Percent of the communities have ever been approached by a mining company with a permit to mine close to the community. To 82 percent of the approached villages gave their permission. Only one village was ever approached by a mining company without a permit, that was in 2008 and they gave the company permission.

Table 10. What percentage of communities was approached by miners and gave permission

	Individ	lual miner	Mining	company
With permit	yes	no	yes	No
Ever been approached by this type of miner	63%	19%	41%	4%
Gave the miner permission	94%	75%	82%	100%



Pictures of Wango (with dried animals for sale), Kungbor (morning mist) and road to Normor

Table 11 shows that 35 percent of the communities sets aside any of their forest for conservation. Only 8 percent of the communities is involved in replanting or regenerating activities. On average in the agricultural cycle of the communities land is resting for 7.5 years.

Table 11. Land that is not used

Variable	Obs	Mean	Std. Dev.	Min	Max
Land set aside for conservation? [% yes]	26	35%			
Does community replant or regenerate the forest? [% yes]	26	8%			
Time is led to rest in farming cycle [years]	26	7.5	3.1	3	15

#### 4. Impressions and local attitudes

Impressions. Fieldwork uncovered a number of constraints to the conservation of the Liberian Gola forest. Unlike the Gola forest in Sierra Leone there is, as yet, not an agreed National Park boundary. The boundary of the Gola National Forest was demarcated in the 1950s, but the area is too vast for management under strict conservation regulations. The Forest Development Authority (FDA) is planning to delimit a smaller area for the establishment of a National Park, but although the formal process of gazettement has been initiated by the FDA, the process is taking long and communities have up to now inadequately been informed on the plans, process, progress and delays.. As a result, meanwhile, local rumors abound that the "new" boundary will enclose areas that belong to settlements outside the forest boundary surveyed in the 1950s, and that as a result the FDA will drive people from farming in these places and ban farming and mining in community forests. These rumors are fuelled by law enforcement activities of personnel from the FDA, who are increasingly applying and enforcing the country's conservation laws and have started to confiscate meat smoked in local "bandars", as reported by two different communities.

Another constraint encountered was that community people were not well informed about the baseline survey and the uses to which it would be put (such as helping land-owners claim their rights in community forests). This meant that each time a survey team reached a settlement the team leader had to explain at length to the community the purpose of the survey, how it was to be conducted, and the advantages it might bring.

Problems arise due to cross-border interactions, especially those involving mineral exploitation. The proposed Gola National Park in Liberia will runs adjacent to the Gola Rainforest National Park in Sierra Leone and one of the purposes of the Trans-boundary Peace Park is to establish corridors for wildlife to move between the two protected areas. The Gola forest in Sierra Leone is now established as a National Park, but is presently encountering some challenges in places like Tunkia and Nomo Chiefdoms due to discoveries of minerals (diamonds, gold and iron ore). In Tunkia chiefdom, a section of the local opinion favours a bid by a Bangladeshi mining company to exploit iron ore. Both Liberian and Sierra Leonean interests are exploiting diamonds and gold in the two forests. This is mostly work carried out by a floating population of "strangers" to the forests. In Liberia, many of these strangers arrived in the Gola forest as hunters, and they carry guns. Some of the hunters are associated with former fighting factions. Both hunters and miners cross the border at will, but those caught in Sierra Leone are now arrested and charged since Sierra Leone is now declared as a gun-free country. Some Liberians have been caught and imprisoned in Sierra Leone, and this creates misunderstanding and ill-feeling in the villages that act as hosts to these hunters and miners. The hosts benefit, of course, from the wealth that miners and hunters bring into the community. The Sierra Leone anti-gun laws are not well understood in the villages on the Liberian side of the border. Some wild stories go around that Liberians are being arrested, imprisoned and even killed and thrown in the Moro River in Sierra Leone.

Much ill-feeling is thus directed against the Gola Rainforest National Park in Sierra Leone, and Liberian villagers fear the same constraints will start to be applied on their side of the border once the National Park is established in Liberia. Thus when community members hear strangers talking about forest, swamps, meat, mining, hunting, logging etc they become suspicious, and hardly willing to be interviewed. This means the implementation of questionnaires was much slower than in Sierra Leone. The

household survey instrument takes about 4 hours to implement and the village survey takes about 3 hours. This is due to the need to offer constant reassurance and encouragement concerning the motives behind the survey. There are also many breaks in administering the questionnaire, since respondents need to attend to other matters, such as cooking, child care, attending family meetings and so forth.

All the areas visited are somehow involved in mining activities and have large stranger populations. Whenever there is a new discovery of diamond or gold in a forest village there is a large migration of both miners and business people to the place. One example is Maimu village. People from all over Liberia and beyond rushed to Maimu village because gold was found. These mining villages are often empty when the team arrives because the inhabitants are mainly off in the forest, mining. This was the team's experience in for example Wango and Tonglay. If the head of a sampled household is not around it is often because they are busy mining.

All the Liberian Gola forest villages were affected by the war (1989 – 2003). Some people were killed and others became refugees. Some never returned, and this weakened the local landlord-stranger system, so that in some mining camps there is hardly any control and respect for traditional authorities any more.

Other constraints in the field worth mentioning include the long distances that had to be covered to reach many of the forest villages. The track sometimes lies through high forest and can barely be described as a path. The team leader and the research assistants spent a considerable amount of time checking routes, and sometimes were misled by the porters about the route or the time required to get to a place. The teams were often exhausted by the walking and had to rest until the following day before beginning interviews. Some journeys involved crossing quite large rivers or streams in canoes and on rafts. The work was much more demanding than expected, and funds ran low before all villages could be covered.



Picture of administering questionnaires (E. Mokuwa)

Local attitudes to the baseline survey. Implementing the survey was not an easy endeavor. All villages showed some signs of resistance to the survey. Resistance was especially marked in Fornor, Thomas Camp, Money Camp and Monkey Dunyah, and most extremely in Kawelahun. These are all in the group of communities closest to Sierra Leone, and resistance possibly reflects the importance of cross-border economic activity (often illegal) and/or a hostile reaction to the establishment of the National Park in Sierra Leone and the consequential increased enforcement of the rule of law. The purpose of the survey was carefully explained to all these communities; it was pointed out that assistance for infrastructure development and livelihoods assistance depends on good research to put the community "on the map" and make its needs known. Some of the resistance came from younger people including young women. The youth were often openly hostile to local rulers. Possibly this reflects a difference between Liberia and Sierra Leone. Chieftaincy in Liberia is not hereditary as it is in Sierra Leone, where the authority of the chief is bolstered by the support of land-owning groups with a right to contest for chieftaincy. In Liberia, the Paramount Chief, County superintendent, and District Commissioner are all government political appointments. The Clan Chiefs and General Town Chiefs are likewise political appointees. Only Town Chiefs are selected or elected by the community members. In some places - Camp Alpha, for instance - Town Chiefs oppose government policy because they have backing from the villagers (in the case of Camp Alpha, these are largely members of a gold mining community). In effect, central government tries to impose conservation measures on the forest, expecting to receive backing from the local hierarchy of appointed officials, but villagers (led by town chiefs) seek to continue to use forest resources as they wish. This will be the nub of any future conflict over forest governance if not adequately addressed.

One further aspect was noticed. The baseline survey operates at the household level, but a lot of the younger part of the population is not strongly attached to households. Young people in mining camps in particular 'float' within the social structure. They reside alongside households, but are often little more than casual lodgers. It is suggested that when an opportunity arises to complete the baseline survey care should be taken to census every building. There should then be randomization of all inhabitants of a building, to capture this floating population.

#### 5. Conclusions

Because of financial limitations, access problems and early rains, the teams did not visit all forest edge villages for the Baseline Survey in 2012. Comparing the two Counties in terms of logging, hunting and mining activities, Gbarpolu County seemingly has less logging but more hunting activities than Grand Cape Mount County. In all, 31 villages were visited (10 in Grand Cape Mount and 21 in Gbarpolu), and 305 household questionnaires, and 27 village surveys were administered.

Some key insights emerge from the surveys.

- 1. The forest is vast and settlements are few.
- 2. Many settlements are both recent and temporary (connected to mining of gold and diamond).
- 3. Although there are few settlements, these are scattered all over the forest and not just around its margins.

- 4. Government presence in the area is weak, and in some areas even absent.
- 5. There is some supervision by traditional authorities, but centers of such authority are very few in relation to the number of temporary mining camps.
- 6. The landlord-stranger system is the main means to regulate activities of migrants to the forest (mainly miners), but the system is currently weak (distances are vast, roads, transportation and communications very poor, and some chiefs are not correctly installed or properly elected and therefore lack authority).
- 7. Local explanation for the above is that the native Gola people became refugees during the war and were slow to return and reassert control of their villages and lands.
- 8. There is local hostility to central government. This is explained in terms of prewar absence of government in the area (according to one group of villagers the state has had no real presence in the area (quote) "since the foundation of Liberia in 1822").
- 9. The proposed National Park is perceived as a major potential imposition of government authority in the area, and is feared by some land-owners because it is not understood (especially the issue of community land rights).
- 10. The long process of the establishment of the proposed Gola National Park and the consequential delimitation and demarcation of the park boundary makes matters worse, because of the resulting uncertainty.

Although the communities have been or are involved in mining, hunting, and logging activities, most people are also involved in rice, cassava and pepper farming. Rice and cassava are grown for consumption, while pepper is intended for sale in Monrovia. All communities use products from the forest, but have few ideas about the sustainable use of these natural resources. Some communities are now interested in cash crops like cocoa, coffee, oil palm, etc. There is strong presence of strangers (e.g. Mandingo from Guinea, Gio from Nimba County, and Sierra Leoneans) in all these communities.

Most of the areas visited lacked proper governance. Chiefs are not honoured and respected as they are in Sierra Leone. Strangers are not known to the chief of the town as long as the stranger has a stranger 'father' (landlord). A majority of problems found in these villages seem to be caused by strangers, who travel back and forth across Liberia or to neighbouring countries. This way they escape any control or punishment for wrongs. However, local communities do create some bye-laws. Whether these bye-laws are imposed or not depends a good deal on the strength and personality of the Town Chief. Chiefs handle cases directly. There are no Native Courts to handle civil cases as in Sierra Leone, but there are laws on woman damage (adultery), fighting, stealing, etc. Hunters seemingly have backgrounds of association with militia groups during the war, but have undergone a demobilization process and now seem to be integrating well into the community.

The lack of progress over demarcation of the National Park limits understanding and acceptance of conservation activities. Only recently, progress is being made (by ARTP) towards developing alternative livelihoods to replace the mining, hunting and logging activities on which the local communities still mainly depend. Villagers are genuinely

puzzled about government intentions, because on the one hand they see preparations for a National Park and on the other hand the government still gives concessions to both local and international companies for mining and logging in the forest margins. In the cases where village sites are long established, people are afraid of being re-located, and refer to the importance of ancestral grave sites and locations for society activities in the forest. Villagers were not well informed about the aims of the Baseline Survey, and thus were sensitive about the team's visits. This slowed down the work, and made it more expensive. Funds now need to be located to complete the study during the next dry season, and to further assess the activities and attitudes of the "floating" population of young people not fully embedded within households

# **Appendix**

## Appendix 1

### Table 1A Names of villages in Grand Camp Mount and Gbarpolu County

Gran	Grand Camp Mount		Gbarpolu		
1	Afred Quiah's Camp	1	Sonah Greek		
2	Bassa Village	2	Beakende		
3	Borborbu	3	Bear Bear Camp		
4	Butter Hill	4	Boakai		
5	Camp Israel	5	Camp Alpha		
6	Caterpilllar	6	Daniel Camp		
7	Claim 20	7	Dunor Camp		
8	Claim 21	8	Fulah Camp		
9	Claim 5	9	Hunter Camp		
10	Corwood Village	10	Kangoma Camp		
11	Fahnyema	11	Kungbor		
12	Fofana Camp	12	Money Camp		
13	Fornor	13	Monkey Dunyah		
14	Fula Camp/Garson	14	Nomo		
15	Gbanjarla	15	Nyokor		
16	Gbanju	16	SLC		
17	Gohn	17	Smith Village		
18	Green Bar City	18	Thomas Camp		
19	Guworbu	19	Tima Village		
20	Iron Gate	20	Tonglay		
21	Kamara Camp	21	ULC/Gola Village		
22	Kawelahun	22	Umaru Village		
23	Kingston	23	Wango Village		
24	Konjay	24	Zuie		
25	Kpelleh				
26	Kpelleh Village				
27	Kranhn Town				
28	Loleah				
29	Mafapeya				
30	Middle East				
31	Morlar				
32	Nyekehun				
33	Old Lady Village				
34	Paye Village				
35	Soso Camp				
36	Talaban Base				