

Appendix 1



Figure A1.1: Localities surveyed where Sacred Agroforests were found in North Western Liberia

Table A1.1: Site description and kinds of AfDE encountered during regional survey

	A	B	C	D	E	F	G	H	I
1	lat.	lon.	County	Language / Clan	Name	Site Description	Currently forming AfDE surrounding village/town	Swidden field on abandoned AfDE site	Sacred Agroforest on abandoned AfDE site
2									
3	7.08889	-9.81751	Bong	Southern Kpelle	Baletulah	old town spot, planted with rice.	0	1	0
4	7.07657	-9.86948	Bong	Southern Kpelle	Bosama	old town spot, planted with maize and vegetables.	0	1	0
5	7.06638	-9.87518	Bong	Southern Kpelle	Boyeta	old town spot, tree crops	0	0	1
6	7.10962	-9.63111	Bong	Southern Kpelle	Dumah	old town spot with very black earth, in 2nd year of cultivation, first year was rice, now sugar cane. Various tree crops retained	0	1	0
7	7.01911	-9.94176	Bong	Southern Kpelle	Faulknero	old town spot with coffee etc., another had been farmed but now fallow	0	1	1
8	7.11018	-9.6156	Bong	Southern Kpelle	Gaytoi	old town spot, dark soils, tree crops	0	0	1
9	7.03329	-9.92971	Bong	Southern Kpelle	Gbamokollie-ta	old town spot with forest, some tree crops. Town surrounded by black middens, has been in the same spot for v long time. population 1000. middens planted with plantain, orange etc.	1	0	1
10	7.07843	-9.86167	Bong	Southern Kpelle	Gbogbo-ta	population 600. surrounded by middens, plantain, cocoa, kola etc. 4 old spots, 2 with cacao, kola etc., 3 was farmed, now fallow, 4 is a vegetable garden (Bosama)	1	0	2
11	7.62699	-9.57501	Bong	Gissima Loma	Gbokolomie	Satellite village for Wenwuta, used to be much large. Circular AfDE around village with ring of plantain and tree crops. Population <100	1	0	0
12	7.11623	-9.7795	Bong	Southern Kpelle	Gbonota	population 4000, still in old spot, middens. Towns with old spots closeby: Bongay, old spot with cacao, fruits. Belleman, old town spot with cocoa, orange, piata, old spot with cacao, kola.	1	0	3
13	7.08921	-9.67017	Bong	Southern Kpelle	Gokai	3 old spots, 1 is tree crops, 2 others see Jaqui and Jaq-old (old spot for Jaqui)	0	0	1
14	7.08416	-9.70181	Bong	Southern Kpelle	Gwamtayea	3 old town spots, all with tree crops	0	0	3
15	7.08527	-9.66593	Bong	Southern Kpelle	Jaiqui	old town spot, center left with tree crops, adjacent areas cultivated with rice & cassava	0	0	1
16	6.99127	-9.95493	Bong	Southern Kpelle	Junkar	old town spot with dark soils, center left with orange, coffee, kola, cacao trees, adjacent field in 2nd year of cultivation with rice, corn, bulgar wheat, cassava, plantain, bitter ball etc.	0	1	1
17	6.99915	-9.95144	Bong	Southern Kpelle	Kamara	old town spot with kola etc. Adjacent to village however there was old rubber grove with dark brown soils, locals say no memory of it being an old spot, but found iron tools there. Planted with rice and corn. No way of knowing if these soils are anthropogenic without testing	0	0	1
18	7.08482	-9.83746	Bong	Southern Kpelle	Lamanta2	midden behind village with plantain etc. old town spot tree crops	1	0	0
19	7.05057	-9.89431	Bong	Southern Kpelle	Lamanta	old town spot, tree crops	0	0	1
20	7.11646	-9.6112	Bong	Southern Kpelle	Lanyah	hilltop dark earth site, planted in rice + womens crops, kola and cutting trees retained	0	1	0
21	7.08735	-9.71856	Bong	Southern Kpelle	Leku-ta	3 old spots, 1 planted with veg, now fallow, 2 & 3 cacao, orange etc.	0	0	2
22	7.0599	-10.4872	Bong	Southern Kpelle	Mopomai	old Town Spot close to Bopolu, now cleared into two different rice fields. Soils dark and repele with ceramics but not too different to natural dark brown soils observed in the region.	0	1	0
23	7.08471	-9.79908	Bong	Southern Kpelle	Nyain	middens, old town spot with cacao	1	0	1
24			Bong	Southern Kpelle	Sanoyea	moved from old town spot in the 1930s, which is located on a nearby hill, and the town moved because of water shortage there. The old spot is planted with tree crops, but rice farming on the hillside.	0	0	1
25	7.10168	-9.76273	Bong	Southern Kpelle	Tayama	old town spot, tree crops	0	0	1
26	7.08682	-9.73622	Bong	Southern Kpelle	Wayemue	2 old spots, 1 cacao grove, 2 graveyard	0	0	1
27	7.0624	-10.4869	Gbarpolu	Multi	Borborta	Old Town spot adjacent to Bopolu town, now with settlement ontop	1	0	0
28	7.06557	-10.4924	Gbarpolu	Multi	Darkforest	AfDE area under urban Bopolu	1	0	0
29	7.07042	-10.4977	Gbarpolu	Multi	Goldcamp	Old Town spot adjacent to Bopolu town, cleared for planting with vegetables.	0	1	0
30	7.07965	-10.4707	Gbarpolu	Loma	Sapema	Town close to Bopolu, with distant old town spot	0	0	1
31	7.05212	-10.3994	Gbarpolu		Totoquelle	Old town spot adjacent to current settlement, some coffee planted and kola etc., but mainly used for secret society activities Biggest town visited. Pop 13,900. Before was 7 villages which joined together to defend themselves during tribal war. These villages have old town spots with coffee, cocoa, kola etc. Forbidden to make rice farm on old town spots. The town today has a large old town spot surrounded by AfDE, which was abandoned during the war, and is now being reinhabited by some people, but most of the population has created a new town spot in an adjacent old plam plantation. While this town has the largest area of AfDE we have encountered, only a few areas were cultivated, large areas were reserved for individuals who were going to reconstruct houses. There were only 3 proper gardens in AfDE. 1 planted with edo, with cacao and coffee behind, 2 with potato, edo, plantain and aubergine, 3 with rice, maize and plantain.	0	0	1
32	7.90799	-9.4584	Lofa	Multi	Borkeza		1	4	0
33	7.82698	-9.46753	Lofa	Gissima Loma	Fisebu	We stopped briefly on the way to Borkeza. Old town spot with AfDE is now reinhabited by people, some small kitchen gardens	0	1	0
34	7.63972	-9.5207	Lofa	Gissima Loma	Gayflor	Village adjacent to Yanzisiy AfDE site. Population 300	0	0	0
35	7.50623	-9.55309	Lofa	Barlain Kpelle	Gbonyea	Population 3500. Town is formed from 5 quarters, each has an old town spot. According to the people each has dark soils and tree crops We visited one (see Jangay)	1	0	0
36	7.29565	9.35579	Lofa	Barlain Kpelle	Jangay	This site was abandoned and its inhabitants moved to Gbonyea. It was some 1.5 hours walk from Gbonyea, including wading across river. Jangay is on low hill, now covered in old cacao, kola and massive cotton trees. black AfDE underneath and visible walls.	0	0	1
37	7.47639	-9.60692	Lofa	Barlain Kpelle	Kollita	Old town spot on hill 20 mins fom Kpayakollie. Dark soils + pottery at each edge of ridge. Cocoa, coffee, citrus, and certain useful plants found at old town spots, such as "medicine pepper." The slopes of the hill, also with dark soils cultivated with rice.	0	0	1

	A	B	C	D	E	F	G	H	I
38	7.46692	-9.60617	Lofa	Barlain Kpelle	Kpayakolle	Old town spot now four hours walk away, not farmed. Some current middens. There are 4 old town spots closeby with dark earths associated. One is Kollita (see above), another has a village and tree crops, the chief has another planted with cocoa, while the final one is planted with tree crops. 3000 people live in town today, with 2000 in satellite villages	1	0	3
39	7.498	-9.62219	Lofa	Barlain Kpelle	Kpeteyea	In its original spot, ring of AfDE around and under town, orange, banana plantain, but not particularly taken advantage of. Town soon to profit from giving timber concessions	1	0	0
40	7.4896	-9.62855	Lofa	Barlain Kpelle	Kponwonsanyea	No old town spot, this is located in its original spot on a hilltop, which is surrounded with middens. Population 1000 / 1500. Middens planted with plantain, cacao etc., but restricted because of erosion due to hilltop location	1	0	0
41	7.61664	-9.4931	Lofa		Salayea		0	0	1
42	7.66392	-9.53743	Lofa	Barlain Kpelle	Vorkorzu	One of the old quarters of Zolowo. Now covered in anthropogenic forest, essentially a sacred grove on AfDE. Its chief explained "our forefathers moved and planted tree crops for memory. Nobody can make farm on old spots, they still bury people there. When a child is born a kola tree is planted, which is then protected. These are still planted in old town spots or adjacent to them.	0	0	1
43	7.60993	-9.57463	Lofa	Gissima Loma	Wenwuta	Town is now located on its original old spot, but did once relocate before moving back, creating an old spot closeby. This is our most promising research location to date. Town is surrounded by a large, deep circular AfDE ring site. The inner ring with "active" middens (still receiving nutrient additions in the form of garbage, charred material such as palm nuts etc) is cultivated with plantain, sweet potato, edo (malanga), papaya. This area is also mined for soil in plant seedlings. The outer ring of middens is planted with cocoa, orange, kola, avocado etc. Village is also surrounded with massive cotton trees. Further out are rice fields, some have dark brown soils, these are not old town spots, but have charcoal at great depths. These soils certainly have a long history of farming, and therefore may be terra mulata analogues. Caution should be taken with this interpretation however. There are plenty of natural dark brown soils in this region (Ultisols I imagine). As expected, the common assertion that Lib	1	0	2
44	7.63598	-9.52601	Lofa	Gissima Loma	Yanzisiy	3.3 km from Zolowo. Large hilltop / ridge AfDE site. Big cotton trees, old cocoa and even taperiba (hog plum, AfDE indicator species in the Amazon). The center of the AfDE site is not cultivated, but either side were planted with rice, banana, maize etc.	0	2	1
45	7.65754	-9.54452	Lofa	Gissima Loma	Zolowo	Large market town. Zolowo itself has AfDE under parts of the town, and in a large midden area planted with tree crops, furthermore, each quarter of the town has its own old town spot, which were abandoned after town centralised. Tree crops were planted by people after they were abandoned, as soils are fertile. These and other trees are left there for "rememberance"	0	0	5
46	7.04664	-9.25457			bleitoi		0	0	0
47	7.01762	-9.27252	Bong	Kpelle	Bobofarm	site close to Palala, had been planted with maize etc. soils not convincingly anthropogenic	0	0	0
48	6.98155	-8.90094	Nimba	Mano	bopakpor	Hilltop dark earth site, agroforest with cocoa, coffee, avocado, orange plantain, coffee	0	0	1
49	7.01316	-8.80708	Nimba	Mano	Boweh	Town, pop 1870, close to Saclipea, on the road to Bahn. Large area of black earth surrounding it, with extensive cacao grove with cotton tree and taperiba and LOADS of ceramics. A little bitter ball planted in dark earth close to town	1	0	0
50	7.03127	-9.27519	Bong	Kpelle	Dumbar	americo-liberian farm on AfDE site	0	0	0
51	6.93007	-9.11817	Nimba	Mano	Duo	Town, pop. 5000, close to St. John river in Nimba, various large AfDE sites / old spots closeby, 2 with agroforests listed here, for others see duool, powiempa and tudenkpoa	0	0	2
52	6.92677	-9.11848	Nimba	Mano	Duool	Old spot for Duo town. Dark soils, cacao grove, very small pepper swidden.	0	1	1
53	6.90748	-8.9133	Nimba	Mano	Ganweekpoo	small swidden with cassava, rice, edo, banana, pepper.	0	1	0
54	7.0079	-9.40182	Nimba	Mano	gbanjah	Homestead, with dark earth around the house, in an adjacent cassava field, and under rubber plantation	1	1	1
55	6.91418	-8.84285	Nimba	Mano	Gbanquoi	town, pop 3800, close to Saclipea, on road to Tappita. Various old town spots (including Gwehpakpoa). All save the swidden at Gwehpakpoa have cacao agorforests	0	0	3
56	7.00452	-9.39692			gbaota		0	0	0
57	6.8607	-8.91428	Nimba	Mano	Gbehyigarwonnpa	town, 5 old spots, all with cacao, kola, 1 with rubber, plantain	0	0	6
58	7.00418	-9.30354			Gbeneta		0	0	0
59	7.05735	-9.25977			gonicana		0	0	0
60	6.98623	-8.90579			Graveyard		0	0	0
61	6.88285	-8.90574	Nimba	Mano	Guawin	town, population 1715, 4 old spots with kola, coffee, cocoa	0	0	4
62	6.92143	-8.8489	Nimba	Mano	Gwehpakpoa	Old town spot, with rubber, cacao and swidden. Swidden with rice, cassava, plantain bitter ball. Cultivated continuously for 5 years. Soils not dark or convincingly anthropogenic	0	1	1
63	6.97933	-8.91865	Nimba	Mano	Kpallah	town, west of saclipea, population 4196. Various old spots, see kpallah kpor, mopakpor, wawinkporo and bopakpor	0	0	0
64	6.98737	-8.90536	Nimba	Mano	Kpallah Kpor	Kpallah old spot. Covered with old cacao grove, part of which has recently been cut, planted with cucumber, the pepper, and owner will rehabilitate cacao after harvesting pepper.	0	1	1
65	6.90119	-9.12977	Bong	Multi	Lango camp	A village made up of former railroad workers, bassa, mano, kpelle, gio. 250 people. They claimed to have 4 vegetable farms on AfDE, but unable to verify because of distance and weather	0	4	0
66	6.97812	-8.91375	Nimba	Mano	Mopakpor	old spot close to Kpallah: cacao grove	0	0	1
67	7.00524	-9.30329	Bong	Kpelle	More Farm	Large AfDE site on road close to Gbarnga, planted with maize, okra, cabbage and lettuce	0	1	0
68	6.8938	-8.8707	Nimba	Mano	Nyasin	town, population 1410, surrounded by large AfDE site, with cacao, grapefruit, kola	1	0	0
69	6.89506	-8.87243			Old		0	0	0
70	7.00146	-9.28995			Palala		0	0	0
71	6.92193	-9.11863	Nimba	Mano	Powiempa	AfDE site with cacao, kola, taperiba, cotton tree. Around the edges, swidden with plantain, pepper, maize	0	1	1

	A	B	C	D	E	F	G	H	I
72	6.95813	-8.86011	Nimba	Mano	Sanquor	this site is on close to Saclipea, to the west, town rapidly encroaching. Black earths, cocoa groves, larger trees being removed for wood. ceramics. Large swidden that was cleared in 2008, cultivated with rice, 2009 with corn, 2010 with corn. Also some plantain, okra, bitter ball there	0	1	1
73	6.906	-8.92032	Nimba	Mano	Tengbhin	town, population 1205, 3 old spots close to town. 2 cocoa farms, 1 small swidden with cassava, rice, edo, banana, pepper. See zoazoah and ganweekpo	0	0	1
74	7.04662	-9.25456			Tomato Camp		0	0	0
75	6.91063	-9.12581	Nimba	Mano	Tudenkpoa	hilltop AfDE site right by st. john river. Center of site cotton trees, cocoa, grapefruit, kola, on the site, cleared for a swidden with mostly pepper, some plantain, edo, okra, yam, aubergine, bitter ball	0	1	1
76	6.86312	-9.16931			Veg		0	0	0
77	7.13389	-9.06572			Venn Town		0	0	0
78	6.97868	-8.90227	Nimba	Mano	Wawinkporo	cassava farm in 2009, agroforest	0	1	1
79	7.15042	-9.05249			Wolena		0	0	0
80	6.85754	-9.16078	Bong	Kpelle	Yopea	Town, population 1000. 6 old spot, 5 with cocoa, kola, citrus, 1 with vegetables and cocoa	0	1	5
81	6.92029	-9.19782	Bong	Kpelle	Zebay	large town, with middens around it	1	0	0
82	6.96114	-8.82447	Nimba	Mano	Zennepa	planted with rice in 2009, and again in 2010.	0	1	0
83	6.90768	-8.91815			Zoazoah	AfDE site with cacao, close to tengbhin	0	0	1
84	6.81504	-9.18923	Bong	Kpelle	Zowenta	town, population 4750, surrounded by ring of black soil with cacao, coffee, edo, 15 old spots all with cacao, some with rubber and coffee	1	0	15
85	7.05099	-9.46901	Bong	Kpelle	Koryah	Large AfDE site on road from Gbarnga to Lofa. Road goes straight through the site. Very black soils. 60 people live there. Lots of bananas and plantain, cocoa, kola, avocado, grapefruit, cotton tree	1	0	0
86	7.59821	-9.58615	Lofa	Gissima Loma	Bacurtazi	Old town spot for Wennwuta quarter. Large site area planted with cocoa, kola, cotton tree. Middens mixed in with non midden areas. Two adjacent rice fields possibly on AfDE, while kitchen area with AfDE surrounding it is close	0	0	1
87	7.61687	-9.54864	Lofa	Gissima Loma	Yarwaluwu	Satellite village for Wennwuta, used to be much larger. AfDE site adjacent. 1 rice field, 1 coco farm	0	1	1
88	7.63099	-9.56697	Lofa	Gissima Loma	Wizita	small village, AfDE around it with fruit trees	1	0	0
89	7.63322	-9.53582	Lofa	Gissima Loma	Volowozu	village with AfDE surrounding it, plantain, orange cocoa etc.	1	0	0
90	7.63474	-9.5379	Lofa	Gissima Loma	Volowozu Old	old spot for Volowozu, planted with cocoa, kola and cotton trees	0	0	1
91	7.63285	-9.58962	Lofa	Gissima Loma	Yankea	village, 1 old spot with cocoa	0	0	1
92	7.62726	-9.60118	Lofa	Gissima Loma	Makesu	village, 2 old spot with cocoa	0	0	2
93	7.6656	-9.51335	Lofa	Gissima Loma	Babazu	Hilltop site with AfDE on side of hill with young fallow. Was planted with veg, some banana. Old town spot with cotton tree, ciciam coffee in middle. Owners are not related to previous occupants (unusual), who left in owners grandfathers' time. Also with sacrificial stones, graves	0	0	1
94	7.66654	-9.51911	Lofa	Gissima Loma	Betewalazu	village, surrounded with AfDE, fruit trees	1	0	0
95	7.6629	-9.52842	Lofa	Gissima Loma	Borlorwotorsu	village, surrounded with AfDE, fruit trees	1	0	0
96	8.01506	9.44038	Lofa	Gissima Loma	Kpassagissia	On border with Guinea, population 7000. Town historically on hill, with dump areas extending down the hill. Now the town has spilt down the hillside and therefore the AfDE has houses on it. Small gardens of plantain and coffee. Women planting small patches of onion.	1	0	0
97	7.90792	9.58751	Lofa	Gissima Loma	Boi	Population 5000+. Large area of AfDE. Ring 0.5km thick where we observed it. Town has extended onto AfDE, so some small kitchen gardens on it. AfDE planted with cacao, and with secret society area. Man noted that not all AfDE was dump, but also old fields that had been cultivated many times.	1	0	0
98	7.96424	9.46238	Lofa	Gissima Loma	Wakesu	coffee	0	0	0
99	7.96424	9.46238	Lofa	Gissima Loma	Wakesu old	coffee	0	0	0
100	7.76459	9.43176	Lofa	Gissima Loma	Zorzor	AfDE under town, used for kitchen gardens	0	0	0
101					Total		26	32	94