

Table S2. Social network analysis scores. Degree centrality in information, decision and work sharing of each institutional actor and network cohesion measures of all the study villages based on social network analysis.

Village A					Village B					Village C				
Institution	Degree centrality				Institution	Degree centrality				Institution	Degree centrality			
	Info	Decision	Work	Mean		Info	Decision	Work	Mean		Info	Decision	Work	Mean
Ward agr. officer	23	15	19	19.0	Ward agr. officer	21	16	18	18.3	L.N.R. dept distr.	15	12	10	12.3
Village chair.	20	15	14	16.3	Vill. REDD group	19	16	15	16.7	Sungusungu	14	11	9	11.3
Sungusungu	18	15	14	15.7	VEO	20	15	15	16.7	Councilor	14	8	10	10.7
Vill. council	19	15	12	15.3	Village chair.	21	14	15	16.7	Village chair.	11	9	9	9.7
L.N.R. dept distr.	21	13	11	15.0	Vill. council	19	15	15	16.3	WEO	11	8	8	9.0
VEO	18	12	14	14.7	Sungusungu	23	13	10	15.3	VEO	11	7	7	8.3
Vill. REDD group	18	14	11	14.3	Subvill. chair	19	12	13	14.7	Vill. council	11	7	4	7.3
WEO	23	10	8	13.7	WEO	20	12	12	14.7	Elders' council	9	8	5	7.3
Councilor	19	10	10	13.0	Vill. env. commit	17	12	13	14.0	Subvill. chair	9	5	4	6.0
Elders' council	17	11	11	13.0	NGO	16	14	10	13.3	Subvill. chair	9	5	4	6.0
Vill. env. commit	16	11	11	12.7	L.N.R. dept distr.	18	9	9	12.0	Subvill. chair	9	4	4	5.7
REDD project	18	6	10	11.3	Councilor	16	10	8	11.3	School	11	0	0	3.7
Subvill. chair	16	8	9	11.0	REDD project	17	6	10	11.0	Ward agr. officer	3	3	2	2.7
Subvill. chair	17	8	8	11.0	Ward dev. officer	15	8	9	10.7	Vill. land council	7	0	0	2.3
Mgambo	16	1	14	10.3	Vill. association	12	8	9	9.7	TFS	3	2	2	2.3
NGO	19	5	7	10.3	Vill. association	12	9	8	9.7	Sungusungu, ward	2	2	2	2.0
School	21	0	0	7.0	Elders' council	13	8	8	9.7	REDD project	2	2	2	2.0
Religious inst.	10	4	7	7.0	Vill. association	10	8	8	8.7	Subvill. patrol team	2	2	2	2.0
Ten cell leader	11	5	3	6.3	School	16	0	0	5.3	Ward educ. officer	3	1	1	1.7
Police	8	5	6	6.3	Ward land trib.	12	0	1	4.3	Ward dev. officer	2	2	1	1.7
Primary court	14	0	3	5.7	Mgambo	10	2	0	4.0	Police	2	1	1	1.3
Env. dept, distr.	8	1	4	4.3	Traditional healer	6	0	2	2.7	District council	2	1	1	1.3
Livestock dept, distr.	5	4	3	4.0	Ward educ. officer	2	2	2	2.0	Member of parliament	1	1	1	1.0
Other depts, distr.	5	2	4	3.7	TFS	3	1	1	1.7	Sungu sungu, district	1	1	1	1.0
DED	6	2	1	3.0	Police	2	1	1	1.3	NGO	1	1	1	1.0
Vill. land council	7	2	0	3.0	Neighboring vill.	2	1	1	1.3	NR dept, region	1	1	1	1.0
Ward land trib.	6	0	2	2.7	DED	2	1	1	1.3	Env. CBOs	1	1	1	1.0
Elders' councl., ward	4	1	2	2.3	Env. CBOs	1	1	1	1.0	NAFRAC	1	1	1	1.0
TFS	3	2	2	2.3	NAFRAC	1	1	1	1.0	Distr. commissioner	1	0	1	0.7
Ward educ. officer	3	1	2	2.0	Primary court	2	0	0	0.7	Ward land trib.	2	0	0	0.7
Env. CBOs	3	0	2	1.7	Other depts, distr.	1	1	0	0.7	Town director	1	0	1	0.7
District council	2	1	1	1.3	Sungusungu, ward	1	0	0	0.3	Tradit. drum group	1	0	0	0.3
Educ. dept, distr.	3	0	0	1.0	Land council, region	1	0	0	0.3	Private dev. actor	1	0	0	0.3
Agroforestry project	1	1	1	1.0	Env. CBOs	1	0	0	0.3	Primary court	1	0	0	0.3
NR dept, region	1	1	1	1.0	Private business	1	0	0	0.3	Private business	1	0	0	0.3
Ward HIV commit.	1	1	1	1.0	Deg centralization	0.386	0.325	0.410	0.374	Neighoring vill.	1	0	0	0.3
District court	1	0	1	0.7	Density	0.313	0.248	0.286	0.282	Deg centralization	0.304	0.320	0.231	0.285
Distr. commissioner	2	0	0	0.7	Ave degree	10.629	7.200	7.714	8.514	Density	0.144	0.131	0.086	0.120
Development donor	1	0	1	0.7						Ave degree	4.944	3.655	2.824	3.808
Research institution	1	0	1	0.7										
Private dev. actor	1	0	1	0.7										
Private business	1	0	0	0.3										
NAFRAC	1	0	0	0.3										
Deg centralization	0.326	0.282	0.356	0.321										
Density	0.237	0.164	0.149	0.183										
Ave degree	9.953	5.667	5.800	7.140										