

A5. SOCIAL ENVIRONMENT

The peoples of the Study area are mostly from the ethnic group of Gorontalo, however, it is known that there are also small village settlements implanted by government sponsored migrations from Bali and Jawa islands (about 35,000 persons in 1999) and the Gorontalo Province becomes naturally composed of various peoples from the other areas of Indonesia. Indonesian language is widely spoken in Gorontalo Province like in North Sulawesi, but the Gorontalo people speaks also their distinct language.

In terms of political aspect, the first Governor of the Province was elected in September 2001 after its separation from North Sulawesi Province. In 2002, a new Kecamatan (Telaga Biru) has been established and it seems that there are also some other projects for new administrative boundaries; i.e. creation of new Kabupatens. The eventual changes are foreseen, like establishment of new Dinas at each administrative level.

A5.1 Present Social Conditions

The description in this section was prepared mainly on the basis of interviews with relevant government officials as well as the statistics compiled by BPS (Badan Pusat Statistik: National Statistics Office), "Kota Gorontalo Dalam Angka Tahun 2000" and "Kabupaten Gorontalo Dalam Angka 2000". In addition to these data, "Desa/Kelurahan profil (tahun 2000)" was collected for further investigation of the area.

(1) Demography and Population

The Study Area has one major urban center, Kota Gorontalo which is made up of three Kecamatan, namely Kota Barat, Kota Utara and Kota Selatan. On the basis of the demographic statistics of BPS of each of the Kecamatans, an aggregated demographic profile is prepared as below.

City (Kota)/ District (Kab.)	Area (km ²)	Population (year 2000)	Average Pop. density/ km ²
Whole Area	2,623 (100 %)	495,302 (100%)	188.8
Kota Gorontalo	64.4 (2.5%)	134,937 (27.2%)	2,094.6
Kabupaten Gorontalo	2,558 (97.5%)	360,365 (72.8%)	140.9

Eleven Kecamatan of the study area consist of 204 villages (Desa and Kelurahan) in total and their demographic data and those of all the villages of the area are presented in the Tables A5.1.1 by Kecamatan and Table A5.1.2 by village. The population density varies from village to village, 6.2 persons of Desa Lonuo (situated in a mountainous area of Kec. Kabila) to 6,370 of Desa Mongolato (Kec. Telaga) which is situated along the principal road beside Lake Limboto and some villages of Kota Selatan exceed even the order of 10,000. Only Kecamatan Limboto recorded a decrease of population between year 1990 and 2000.

Regarding the religion, Islam is the dominant religion in the area. Muslim is the majority (98.1% of the population) and among the minorities there are Christian (1.6%), and Hindu and Buddhist (0.4%).

(2) Education

Education is available up to high school level even in the rural area. Each Kecamatan has at least one senior high school and more than two junior high schools. Teachers' distribution is different from one Kecamatan to another, but the statistics show that the pupil/teacher ratio is maintained mostly between 12 and 16 pupils per teacher. There are normally more girls than boys in schools at all the educational level and both in Kabupaten and Kota.

(3) Health

Although detailed information is not available for the Kabupaten, a very high number of diarrhea cases was reported at the Kabupaten level (1999). In Kota Gorontalo, various digestive system disorder such as gastroenteritis, gastritis and appendicitis, were also commonly observed. In addition, respiratory and eye diseases and skin problem are also reported in Kota Gorontalo.

In terms of health related facilities, there exist various categories of facilities and their total number for Kota Gorontalo is 187 units and 1,011 for Kabupaten Gorontalo. As for the personnel in the sector, the statistics shows a low profile in the region. Only 100 doctors in total, either general or specialized doctors, are on service to treat more than 400,000 people in the area. Some specific information on each items is summarised in the following tables.

<i>Facilities</i>	Kab.	Kota
Public Hospital	1	1
Special Hospital	1	0
Public Health Centre	33	6
Sub Public Health Centre	176	32
Land mobile PHC	27	6
Sea mobile PHC	3	1
PHC with beds	12	1
Dispensaries	1	9
Integrated health service post	754	127
Main Pharmacy	n.d.	0
Drug stores	3	4
Total	1,011	187

<i>Medical Personnel</i>	Kab.	Kota
Specialist	2	9
General Practitioner	66	23
Dentist	12	8
Pharmacist	5	11
Health master	7	1
Nurse	454	98
Other Paramedics	178	105
Total	724	255

source: Sulawesi Utara Dalam Angka 1999

(4) Social Institutions

Table A5.1.3 summarises types of existing social institutions at the village level. These institutions are basically established by either government's initiatives or community's own initiatives or with religious background. According to the results of social survey conducted by the present study, although social institutions exist widely in the region, the residents seem to get a support from their own extended families in the case of flood disaster.

A5.2 Land Acquisition Procedures and Compensation

BPN (Badan Pertanahan Nasional: National Land Agency, formally called as Agralia by 1988) is the main agency to treat land related matters. The fundamental law concerned is "Undan Poko Agralia No.5/1960" established in 1960. The BPN is responsible for issuing land certificates in response to the application of land holders. The situation of the issue of land certificate in Kota Gorontalo is presented below.

The land certificates seen in the table are classified according to its utilization and owner as follows: HM (Hak Milik: Private land), HGB (Hak guna bangunan: for government building), P (Hak pakai: only its utilisation is permitted), PL (Hak pengelolaan: Public infrastructure such as Sea port) and HGU (Hak guna usaha: only agricultural use is

permitted).

Land Certificates Issued in Kota Gorontalo¹¹¹ (From 1961 to Sept. 1997)

No.	Kecamatan	HM	HGB	P	PL	HGU	Total
1	Kota Utara	6,664	818	141	-	-	7,623
2	Kota Barat	3,126	190	109	1	-	3,426
3	Kota Selatan	9,419	406	1349	-	3	10,250
TOTAL		19,209	1,414	672	1	3	21,299

[Note] 1) Before BPN (1960 - 1988) = 12,272 lots; Annual average = 438

2) After BPN (1989 - 1997) = 9,027; Annual average = 1,128

In terms of land utilization, each of the three Kecamatan of Kota Gorontalo has its own characteristics. For example, Kota Utara is rich in Sawah (rice paddy) and residential areas are concentrated in Kota Selatan. The BPN's map of land property shows most of the land along the principal rivers and outflow of the Lake Limboto is recognized as "Hak milik adat (traditional private property)".

But here, the meaning of "adat (custom, tradition)" seems different from that in Minahasa region, because there should not be "Tanah milik adat (tanah adat: traditional land)" in Gorontalo Province, which is seen only in Minahasa region. Although all the land in Minahasa is considered as "Tanah swapraja" (Tanah Negara: state owned land), people live and cultivate for a long time, often for more than one generation, and the people there come to consider that the land belonged to themselves. Since some of the residents in Gorontalo had lived in Minahasa before and called their land as "Tanah adat", they maybe adopted the same term to their using lands in Gorontalo.

(1) Land acquisition procedures

For the government to acquire the lands which are already occupied and used, there are two alternatives. First, government assists the people to move from the flood prone areas and gives in return compensation in form of money. By doing so, the people will be able to look for new land to build their houses. Second option is that government provides the people with land of safe area for their use. In this alternative, government is supposed to obtain land by itself and then give to the persons to be moved.

For land acquisition procedures, two sets of regulations below are concerned. In addition to these, Keppres Number 2 (Keppres No.21 / 1993) was issued to treat the land acquisition by private companies.

Keputusan Presiden (Presidential Decree)	Peraturan Pelaksanaanya (Implementation regulation)
1. Keppres No.55 / 1993	Peraturan Menteri Negara Agraria/ Kepala BPN No.1 / 1994
2. Keppres No.21 /1993	Peraturan Menteri Negara Agraria/ Kepala BPN No.3 / 1994

(2) Compensation

Compensation is usually provided in the form of land or money and is obligatory especially for formal land owners who already have appropriate land certificates. However, a certain kind of compensation is to be considered for the residents without land certificate who it seems are the majority in the flood prone area of the region according to our observation.

Compensation procedure for the latter case would be complex and need to be carefully elaborated. Formal procedure of land acquisition including compensation payment, which is supposed to be coordinated and administered by a Land Acquisition Committee, is summarised in Table A5.2.1. The BPN provincial office was established in 2002, which covers now the acquisition of the lands extending in both Kabupaten and Kotamadya and also in the case of residents' objection on the compensation.

A5.3 NGOs and Other Organizations Active in the Study Area

According to BPS's statistics, there exist numerous Youth Associations in the study area (Table A5.3.1). Different data show also the presence of relatively developed Scout activities and their involvement in community development.

In addition to the BPS's information, a list of NGOs active in the sector of water resource management was provided by PPTPA (Panitia Pelaksana Tata Pengaturan Air/River Basin Water Resources Development Implementation Board at Kabupaten level) of Kab.

Gorontalo. Other information on NGO in the region was incorporated with the list and tabulated in the Table A5.3.2.

As Youth Associations and NGOs are usually made up by local people and work with local populations, their involvement in activities of flood mitigation should be considered as important, especially for facilitating the communication between people and the government. The collaboration between such organizations and the government should be promoted. They could be involved in organizing the residents at the community level and transmitting a government's warning message to concerned communities, supplying necessities for flood victims, and monitoring the increase of river water level, for example.

A5.4 Social Survey

Table A.5.4.1 summarises past flood incidents in the study area since 1996. There are villages which suffer from flood attacks repeatedly. The Study Team conducted a social survey with questionnaire including some of those villages, in order to grasp flood damages and the present living situation of the residents in the region.

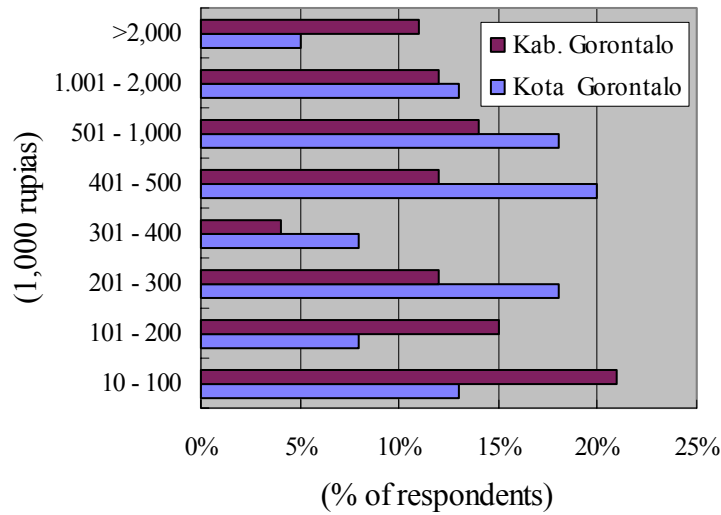
A total of 20 sites were chosen from among villages located in the flood prone areas and also those along the four principal rivers of the area, namely the Bone, Bolango, Biyonga and Alo-Pohu rivers, and their branches. Twenty households are chosen for the interview at each village from three different economic strata: rich, middle class and poor. The villages selected are presented in Tables A5.4.2, A5.4.3 and Figure A5.4.1. The survey in the villages was conducted during August - September 2001. A total of 400 respondents consist of 219 men (head of household) and 181 women (housewife: 92 % or woman as a head of household: 8 %), 80 Kota residents and 320 of Kabupaten.

Most of the interviewed residents have repeatedly experienced floods and the damage varies from 10,000 to 25,000,000 rupias according to the respondents' self-estimation. In terms of perception on floods, it can be said that people feel insecurity vis-a-vis floods in general, but it seems also that they somehow accept the incidence as something inevitable. The related results are shown in the below graphs.

In addition to these findings, it was revealed during the interview that many residents did not hold a proper land certificate. Although the survey results shows that more than 80 % of the respondents answered that lands were their own property, the matter of land

certificate could be another story. It is possible that their land occupation be judged as “informal” (not approved by the government) and such residents become disadvantageous to formal measures taken by the government, in the case of an eventual transmigration from the present premises.

DAMAGES ESTIMATION BY RESIDENTS



PEOPLE'S PERCEPTION ON FLOOD

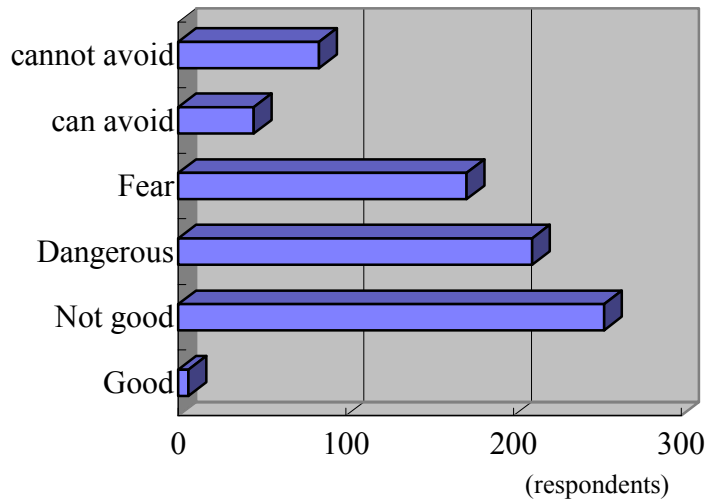


Table A5.1.1 POPULATION OF STUDY AREA BY KECAMATAN

Kecamatan (Sub-District)	Number of Villages	Area (Ha) 1993	Household 2000	Population 1990	Population 2000	Pop. density / km2 2000	Ave. number of family members
<i>Kabupaten Gorontalo</i>							
Kec. Tibawa	19 Desa	38,709.0	13,919	49,855	55,148	142.5	3.97
Kec. Batudaa	22 Desa	27,082.5	15,417	51,690	58,615	216.4	3.81
Kec. Suwawa	14 Desa	23,069.0	5,729	18,257	22,306	96.7	3.89
Kec. Kabila	20 Desa	35,550.0	9,392	31,826	36,963	104	3.94
Kec. Tapa	15 Desa	33,960.0	7,003	23,028	26,676	78.6	3.81
Kec. Telaga	28 Desa	13,567.0	14,865	49,769	57,674	425.1	3.88
Kec. Limboto	20 Desa	25,320.0	15,291	64,607	56,583	223.5	3.71
Kec. Kwandang	21 Desa	58,580.0	12,161	38,045	46,400	79.2	3.82
Total	159 Desa	255,837.5	93,777	327,077	360,365	140.9	3.85
<i>Kota Gorontalo</i>							
Kota Barat	11 Kelurahan	1,926.3	7,212	23,011	28,888	1,499.7	4.01
Kota Selatan	20 Kelurahan	2,844.1	16,408	61,596	64,317	2,261.4	3.92
Kota Utara	14 Kelurahan	1,671.7	10,999	36,607	41,732	2,496.4	3.80
Total	45 Kelurahan	6,442.1	34,619	121,214	134,937	2,094.6	3.90
Grand Total	204 villages	262,279.6	128,396	448,291	495,302	188.8	3.86

Table A5.1.2 POPULATION OF STUDY AREA BY VILLAGE (1/5)

Sub-District Village (desa or kelurahan)	Area (Ha) 1993 *	number of Household 2000	Population 1990	Population 2000	Population increase 1990-2000	Pop. density /km2 2000	Ave. # of family members
<i>Kabupaten Gorontalo</i>							
Tibawa	38,709.0	13,919	49,855	55,148	10.6%	142.5	4.0
Bakti	3,000.0	688	2,694	2,902	7.7%	96.7	4.2
Buhu	2,726.0	983	3,240	3,928	21.2%	144.1	4.0
Datahu	2,100.0	1533	5,182	5,852	12.9%	278.7	3.8
Dunggala	400.0	390	1,433	1,454	1.5%	363.5	3.7
Iloponu	2,162.0	637	2,349	2,529	7.7%	117.0	4.0
Isimu Selatan	900.0	1266	4,313	4,766	10.5%	529.6	3.8
Isimu Utara	1,750.0	967	3,367	3,676	9.2%	210.1	3.8
Labanu	6,288.0	983	3,150	3,922	24.5%	62.4	4.0
Molamahu	2,400.0	627	2,573	2,573	0.0%	107.2	4.1
Mololahu	2,688.0	878	3,012	3,568	18.5%	132.7	4.1
Molowahu	931.0	526	3,528	2,202	-37.6%	236.5	4.2
Mulyonegoro	3,800.0	477	1,390	1,982	42.6%	52.2	4.2
Pongongaila	1,815.0	996	3,495	4,134	18.3%	227.8	4.2
Pulubala	1,612.0	674	2,428	2,624	8.1%	162.8	3.9
Puncak	3,388.0	904	3,483	3,552	2.0%	104.8	3.9
Reksonegoro	426.0	239	1,226	1,095	-10.7%	257.0	4.6
Tolotio	379.0	589	2,030	2,149	5.9%	567.0	3.6
Tridarma	900.0	250	962	930	-3.3%	103.3	3.7
<i>Ilomata*</i>	1,044.0	312	-	1,310	-	125.5	4.2
Batudaa	27,082.5	15,417	51,690	58,615	13.4%	216.4	3.8
Batulayar	2,393.0	929	2,750	3,938	43.2%	164.6	4.2
Bongomeme	750.0	754	2,460	2,555	3.9%	340.7	3.4
Bua	697.0	716	2,240	2,547	13.7%	365.4	3.6
Dulamayo	1,743.0	910	3,406	3,253	-4.5%	186.6	3.6
Dungaliyo	1,993.0	786	4,254	3,086	-27.5%	154.8	3.9
Huntu	533.0	556	1,918	2,125	10.8%	398.7	3.8
Iluta	522.0	626	1,996	2,288	14.6%	438.3	3.7
Kaliyoso	298.5	506	1,455	1,929	32.6%	646.2	3.8
Limehe Barat	671.6	935	3,031	3,420	12.8%	509.2	3.7
Limehe Timur	496.0	972	4,607	3,551	-22.9%	715.9	3.7
Molopatodu	1,654.0	580	3,318	2,328	-29.8%	140.7	4.0
Pangadaa	298.0	391	1,387	1,552	11.9%	520.8	4.0
Payunga	2,290.0	1132	3,544	4,404	24.3%	192.3	3.9
Pilolalenga	2,094.0	913	3,291	3,455	5.0%	165.0	3.8
Tabongo Barat	1,796.0	779	2,834	3,050	7.6%	169.8	3.9
Tabongo Timur	1,318.0	859	2,565	2,795	9.0%	212.1	3.3
Tohupo	2,220.0	763	4,928	3,063	-37.8%	138.0	4.0
Upomela	1,394.5	500	1,706	1,917	12.4%	137.5	3.8
<i>Ambara</i>	497.5	442	-	1,798	-	361.4	4.1
<i>Ilomanga</i>	495.4	528	-	2,078	-	419.5	3.9
<i>Molanihu</i>	1,168.0	475	-	1,795	-	153.7	3.8
<i>Molas</i>	1,760.0	365	-	1,688	-	95.9	4.6

note: * villages whose name is written in italic letter are newly established after 1990

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Table A5.1.2 POPULATION OF STUDY AREA BY VILLAGE (2/5)

Sub-District Village (desa or kelurahan)	Area (Ha) 1993 *	number of Household 2000	Population 1990	Population 2000	Population increase 1990-2000	Pop. density /km2 2000	Ave. # of family members
Suwawa	23,069.0	5,729	18,257	22,306	22.2%	96.7	3.9
Boludawa	160.0	522	1,472	1,895	28.7%	1,184.4	3.6
Bonedaa	2,670.0	354	1,131	1,421	25.6%	53.2	4.0
Bube	300.0	803	2,679	3,015	12.5%	1,005.0	3.8
Bulontala	1,567.0	224	811	912	12.5%	58.2	4.1
Duano	850.0	549	1,874	2,159	15.2%	254.0	3.9
Dumbayabulan	4,450.0	570	1,575	2,244	42.5%	50.4	3.9
Huluduotamo	1,960.0	505	1,290	1,838	42.5%	93.8	3.6
Libungo	605.0	202	632	792	25.3%	130.9	3.9
Lombongo	352.0	223	654	866	32.4%	246.0	3.9
Lompotoo	1,800.0	422	1,312	1,638	24.8%	91.0	3.9
Molintogupo	3,700.0	181	653	712	9.0%	19.2	3.9
Pinogu	3,000.0	421	1,593	1,706	7.1%	56.9	4.1
Tingkohubu	140.0	360	1,256	1,510	20.2%	1,078.6	4.2
Tulabolo	1,515.0	393	1,325	1,598	20.6%	105.5	4.1
Kabila	35,550.0	9,392	31,826	36,963	16.1%	104.0	3.9
Bongoime	569.0	552	3,342	1,954	-41.5%	343.4	3.5
Buata	1,500.0	265	903	1,028	13.8%	68.5	3.9
Dotuhe	300.0	489	1,735	1,923	10.8%	641.0	3.9
Hungubotu	1,855.0	791	2,473	3,264	32.0%	176.0	4.1
Lonuo	23,345.0	399	518	1,436	177.2%	6.2	3.6
Luwohu	544.0	158	475	652	37.3%	119.9	4.1
Moutong	1,400.0	637	1,639	2,363	44.2%	168.8	3.7
Oluhuta	200.0	526	1,934	2,064	6.7%	1,032.0	3.9
Padengo	150.0	467	1,544	1,852	19.9%	1,234.7	4.0
Panggulo	775.0	257	830	1,000	20.5%	129.0	3.9
Pauwo	100.0	602	2,127	2,483	16.7%	2,483.0	4.1
Poowo	575.0	616	2,198	2,521	14.7%	438.4	4.1
Tamboo	372.0	476	2,178	1,889	-13.3%	507.8	4.0
Tangilingo	165.0	344	1,176	1,375	16.9%	833.3	4.0
Timbuolo	650.0	507	1,774	1,932	8.9%	297.2	3.8
Toto Selatan	274.0	525	1,784	2,097	17.5%	765.3	4.0
Toto Utara	326.0	585	2,098	2,339	11.5%	717.5	4.0
Tumbihe	100.0	484	1,882	1,959	4.1%	1,959.0	4.0
Tunggulo	1,950.0	557	1,216	2,236	83.9%	114.7	4.0
<i>Bongopini</i>	400.0	155	-	596	-	149.0	3.8
Tapa	33,960.0	7,003	23,028	26,676	15.8%	78.6	3.8
Ayula Selatan	216.0	662	2,223	2,498	12.4%	1,156.5	3.8
Ayula Utara	184.0	478	1,552	1,818	17.1%	988.0	3.8
Bandungan	2,850.0	387	1,230	1,503	22.2%	52.7	3.9
Boidu	1,400.0	409	1,291	1,585	22.8%	113.2	3.9
Bulotalangi	850.0	696	2,254	2,598	15.3%	305.6	3.7
Dunggala	410.0	289	927	1,079	16.4%	263.2	3.7
Dwata	7,000.0	179	700	757	8.1%	10.8	4.2

note: * villages whose name is written in italic letter are newly established after 1990

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Table A5.1.2 POPULATION OF STUDY AREA BY VILLAGE (3/5)

Sub-District Village (desa or kelurahan)	Area (Ha) 1993 *	number of Household 2000	Population 1990	Population 2000	Population increase 1990-2000	Pop. density /km2 2000	Ave. # of family members
Tapa (cont.)							
Huntu Selatan	300.0	421	1,371	1,577	15.0%	525.7	3.7
Huntu Utara	300.0	455	1,480	1,618	9.3%	539.3	3.6
Langge	5,800.0	311	981	1,185	20.8%	20.4	3.8
Longalo	3,000.0	265	873	994	13.9%	33.1	3.8
Mongilo	9,100.0	486	1,873	2,147	14.6%	23.6	4.4
Talulobutu	250.0	506	1,870	2,208	18.1%	883.2	4.4
Talumopatu	350.0	978	2,682	3,229	20.4%	922.6	3.3
Tupa	1,950.0	481	1,721	1,880	9.2%	96.4	3.9
Telaga	13,567.0	14,865	49,769	57,674	15.9%	425.1	3.9
Buhu	60.0	381	1,329	1,449	9.0%	2,415.0	3.8
Bulila	66.0	522	1,854	2,348	26.6%	3,557.6	4.5
Bulota	165.0	515	1,331	1,877	41.0%	1,137.6	3.6
Bunggalo	160.0	339	1,098	1,330	21.1%	831.3	3.9
Dulamayo Selatan	1,862.0	698	2,842	2,874	1.1%	154.4	4.1
Dulamayo Utara	1,760.0	347	1,671	1,556	-6.9%	88.4	4.5
Dulomo	50.0	166	561	638	13.7%	1,276.0	3.8
Dumati	730.0	330	1,057	1,175	11.2%	161.0	3.6
Hulawa	200.0	833	2,614	3,137	20.0%	1,568.5	3.8
Hutadaa	100.0	460	1,627	1,779	9.3%	1,779.0	3.9
Ilotidea	25.0	360	1,005	1,362	35.5%	5,448.0	3.8
Lauwonu	40.0	283	993	1,118	12.6%	2,795.0	4.0
Luhu	350.0	786	2,557	3,008	17.6%	859.4	3.8
Luwoo	70.0	627	2,025	2,357	16.4%	3,367.1	3.8
Mongolato	30.0	528	1,571	1,911	21.6%	6,370.0	3.6
Pantungo	129.0	442	2,947	1,676	-43.1%	1,299.2	3.8
Pentadio Barat	149.0	733	2,318	2,541	9.6%	1,705.4	3.5
Pentadio Timur	251.0	462	1,576	1,802	14.3%	717.9	3.9
Pilohayanga	499.0	1056	3,312	4,165	25.8%	834.7	3.9
Tabumela/Tambela	30.0	367	1,342	1,574	17.3%	5,246.7	4.3
Talumelito	638.0	290	882	1,044	18.4%	163.6	3.6
Tenggela	140.0	837	2,566	3,232	26.0%	2,308.6	3.9
Tilote	40.0	489	1,503	1,777	18.2%	4,442.5	3.6
Tualango	70.0	213	721	813	12.8%	1,161.4	3.8
Tuladenggi	310.0	928	3,281	3,394	3.4%	1,094.8	3.7
Ulapato A	828.0	1006	3,874	4,247	9.6%	512.9	4.2
Ulapato B	4,634.0	386	1,312	1,752	33.5%	37.8	4.5
<i>Lupoyo</i>	181.0	481	-	1,738	-	960.2	3.6
Limboto	25,320.0	15,291	64,607	56,583	-12.4%	223.5	3.7
Biyonga	3,220.0	782	2,545	2,897	13.8%	90.0	3.7
Bolithuangga	500.0	899	2,984	3,397	13.8%	679.4	3.8
Bongohulawa	375.0	349	1,175	1,349	14.8%	359.7	3.9
Bulota	1,800.0	533	1,850	2,003	8.3%	111.3	3.8
Daenaa	3,200.0	716	2,113	2,662	26.0%	83.2	3.7

note: * villages whose name is written in italic letter are newly established after 1990

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Table A5.1.2 POPULATION OF STUDY AREA BY VILLAGE (4/5)

Sub-District Village (desa or kelurahan)	Area (Ha) 1993 *	number of Household 2000	Population 1990	Population 2000	Population increase 1990-2000	Pop. density /km2 2000	Ave. # of family members
Limboto (cont.)							
Dutulanaa	400.0	542	1,420	2,011	41.6%	502.8	3.7
Hepuhulawa	400.0	844	2,773	3,244	17.0%	811.0	3.8
Huidu	700.0	825	2,447	2,729	11.5%	389.9	3.3
Hunggaluwa	450.0	1634	5,467	6,096	11.5%	1,354.7	3.7
Hutabohu	875.0	810	2,760	3,117	12.9%	356.2	3.8
Hutuo	600.0	980	3,437	3,926	14.2%	654.3	4.0
Kayu Bulan	450.0	1427	4,934	5,547	12.4%	1,232.7	3.9
Kayumera	3,700.0	955	2,955	3,469	17.4%	93.8	3.6
Malahu	3,000.0	220	709	844	19.0%	28.1	3.8
Ombulo	1,000.0	576	2,005	2,047	2.1%	204.7	3.6
Padengo	1,600.0	909	2,995	3,307	10.4%	206.7	3.6
Pone/pohe	1,200.0	614	1,887	2,068	9.6%	172.3	3.4
Tenilo	600.0	483	1,278	1,648	29.0%	274.7	3.4
Tunggulo	750.0	653	2,177	2,271	4.3%	302.8	3.5
Yosonegoro	500.0	540	16,696	1,951	-88.3%	390.2	3.6
Kwandang	58,580.0	12,161	38,045	46,400	22.0%	79.2	3.8
Bulalo	2,000.0	470	1,523	1,773	16.4%	88.7	3.8
Dambalo	4,200.0	983	3,058	3,732	22.0%	88.9	3.8
Ilangata	1,400.0	791	4,137	2,833	-31.5%	202.4	3.6
Leboto	2,000.0	593	2,013	2,264	12.5%	113.2	3.8
Malingkapoto	2,400.0	708	3,283	2,653	-19.2%	110.5	3.7
Molontadu	1,663.0	466	2,411	2,019	-16.3%	121.4	4.3
Moluo	1,040.0	1078	3,887	4,220	8.6%	405.8	3.9
Monano	5,900.0	653	2,551	2,489	-2.4%	42.2	3.8
Pomelo/Ponelo	1,040.0	817	2,659	3,291	23.8%	316.4	4.0
Pontolo	3,300.0	749	2,683	2,577	-4.0%	78.1	3.4
Poso	400.0	402	2,576	1,441	-44.1%	360.3	3.6
Titidu	1,400.0	632	2,079	2,460	18.3%	175.7	3.9
Tolongio	2,600.0	790	3,860	3,108	-19.5%	119.5	3.9
Tudi	8,400.0	506	1,325	1,888	42.5%	22.5	3.7
<i>Dunu</i>	5,700.0	194	-	734	-	12.9	3.8
<i>Tolango</i>	5,700.0	542	-	2,120	-	37.2	3.9
<i>Popalo</i>	2,600.0	508	-	1,994	-	76.7	3.9
<i>Mootilenelo</i>	1,200.0	264	-	1,046	-	87.2	4.0
<i>Bualemo</i>	1,600.0	412	-	1,453	-	90.8	3.5
<i>Tanjung karang</i>	1637	333	-	1,208	-	73.8	3.6
Dudepo	2,400.0	270	-	1,097	-	45.7	4.1
<i>Kota Gorontalo</i>							
Kota Barat	1,926.3	7,212	23,011	28,888	25.5%	1,499.7	4.0
Buliide	434.0	438	1,403	1,736	23.7%	400.0	4.0
Buladu	93.0	571	1,858	2,250	21.1%	2,419.4	3.9
Dembe I	77.0	800	3,037	4,444	46.3%	5,771.4	5.6

note: * villages whose name is written in italic letter are newly established after 1990

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Table A5.1.2 POPULATION OF STUDY AREA BY VILLAGE (5/5)

Sub-District Village (desa or kelurahan)	Area (Ha) 1993 *	number of Household 2000	Population 1990	Population 2000	Population increase 1990-2000	Pop. density /km2 2000	Ave. # of family members
Kota Barat (cont.)							
Huangobotu	123.4	930	2,591	3,634	40.3%	2,944.9	3.9
Klekobalo/Lekobalo	85.0	682	2,634	2,792	6.0%	3,284.7	4.1
Libuo	125.0	786	2,537	3,169	24.9%	2,535.2	4.0
Molosipat W	108.9	575	2,040	2,160	5.9%	1,983.5	3.8
Pilolodaa	286.0	405	1,478	1,538	4.1%	537.8	3.8
Tamulabutao	91.0	1216	3,164	4,017	27.0%	4,414.3	3.3
Tenilo	432.0	467	1,137	1,853	63.0%	428.9	4.0
Tuladenggi	71.0	342	1,132	1,295	14.4%	1,823.9	3.8
Kota Selatan	2,844.1	16,408	61,596	64,317	4.4%	2,261.4	3.9
Biawao	39.0	506	2,099	1,964	-6.4%	5,035.9	3.9
Biawu	24.0	748	2,776	2,891	4.1%	12,045.8	3.9
Botu	178.0	348	1,137	1,460	28.4%	820.2	4.2
Bugis	48.0	1071	3,830	4,217	10.1%	8,785.4	3.9
Donggala	550.0	523	1,501	2,134	42.2%	388.0	4.1
Hedulaa Selatan	101.0	725	2,944	2,714	-7.8%	2,687.1	3.7
Heledulaa (Utara)	76.0	859	3,500	3,446	-1.5%	4,534.2	4.0
Ipilo	59.0	1210	5,045	5,204	3.2%	8,820.3	4.3
Leato (Utara)	145.0	519	1,845	2,028	9.9%	1,398.6	3.9
Leato Selatan	206.0	594	1,758	2,213	25.9%	1,074.3	3.7
Limba B	112.0	1236	5,369	4,753	-11.5%	4,243.8	3.8
Limba U Dua	81.0	1178	4,388	4,517	2.9%	5,576.5	3.8
Limba U Satu	48.0	975	4,107	3,817	-7.1%	7,952.1	3.9
Moodu	199.1	755	2,275	2,856	25.5%	1,434.5	3.8
Padebuolo	60.0	883	2,880	3,237	12.4%	5,395.0	3.7
Pohe	463.0	770	2,632	3,120	18.5%	673.9	4.1
Siendeng	45.0	684	2,538	2,623	3.3%	5,828.9	3.8
Tamalate	82.0	566	2,217	2,188	-1.3%	2,668.3	3.9
Talumolo	289.0	1060	3,808	4,205	10.4%	1,455.0	4.0
Tenda	39.0	1198	4,947	4,730	-4.4%	12,128.2	3.9
Kota Utara	1,671.7	10,999	36,607	41,732	14.0%	2,496.4	3.8
Bulotadaa	104.0	776	2,621	2,980	13.7%	2,865.4	3.8
Bulotadaa Timur	109.0	554	1,879	2,162	15.1%	1,983.5	3.9
Dembe II	158.4	939	2,943	3,575	21.5%	2,256.9	3.8
Dulalowo	135.4	1289	3,498	4,842	38.4%	3,576.1	3.8
Dulomo	193.0	501	1,528	1,781	16.6%	922.8	3.6
Dulomo Selatan	220.0	729	2,642	2,836	7.3%	1,289.1	3.9
Liluwo	56.0	905	2,341	3,272	39.8%	5,842.9	3.6
Molosipat U	102.0	787	2,702	3,136	16.1%	3,074.5	4.0
Paguyaman	75.0	534	1,763	1,904	8.0%	2,538.7	3.6
Pulubala	74.0	1196	4,135	4,429	7.1%	5,985.1	3.7
Tapa	107.0	949	2,861	3,695	29.2%	3,453.3	3.9
Wongkaditi	146.6	708	3,808	2,733	-28.2%	1,864.3	3.9
Wongkaditi Barat	117.9	336	1,062	1,292	21.7%	1,095.8	3.8
Wumiola	73.4	796	2,824	3,095	9.6%	4,216.6	3.9

*note: * villages whose name is written in italic letter are newly established after 1990*

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* source: Luas Desa di Wilayah Studi per desa, BPS Sulut

**Table A5.1.3 NUMBER OF VILLAGES WHICH HAVE SOCIAL INSTITUTIONS
(BY TYPE OF INSTITUTION)**

Type of social institutions (<i>italic in Indonesian</i>)	with government initiatives			with community initiatives		religious institutions	
	Scout <i>Pramuka</i>	Village Youth Organisation <i>Karang Taruna</i>	Village Women Movement <i>PKK</i>	Regular Social Gathering for Money <i>Arisan</i>	Community Self help (traditional) <i>Gotong Royong</i>	Religious Service <i>Majelis Taklim, Pengajian/Ibadah</i>	Alms Collection <i>Pengumpul Zakat dst</i>
<u>in Kota</u>	41 (91%)	45 (100%)	44 (98%)	43 (96%)	43 (96%)	39 (87%)	45 (100%)
<u>in Kabupaten</u> (% of total 324 desa)	241 (74%)	200 (62%)	324 (100%)	281 (87%)	286 (88%)	243 (75%)	318 (98%)
<u>Total in Gorontalo</u> (% of total 369 villages)	282 (76%)	245 (66%)	370 (100%)	324 (88%)	329 (89%)	282 (76%)	363 (98%)

Source: Statistik Potensi Desa Propinsi Sulawesi Utara, 2000 (Tabel 26; halaman 117 - 120)

Table A5.2.1 PROCEDURE FOR LAND ACQUISITION

Steps	main parties concerned
1 Identification of the location	
< Request for identification of land	Governor
< Coordination Meeting for investigation (compared with RTRW)	Bupati/ Walikota
< Approval of acquisition of requested lands	BPN
< Request for land acquisition	Bappeda Agency
2 Land acquisition request	
< Preparatory work	Committee
< Information dissemination/sharing ("sosialisasi")	Agency
< Determination of area boundary	Land owners
< Inventory preparation	Local residents
< Publication of inventory results	
3 Consultation	
< Negotiation on the compensation	Committee
< Notification of results of the consultation	Land owners Agency
4 Objections to the Committee's decision	
< Submission of objections to the Governor	Committee
< Examination by "Provincial" Committee	Land owners
< Governor's decision	Agency
5 Payment of compensation (implement compensation measures)	
< Preparation of nominative list of beneficiaries	Committee
< Payment /others	Land owners Agency
6 Pronouncement of the release of land rights and transfer of the land	
< Pronouncement of release of land rights / transfer of use right	Committee
< Proceed cancellation of land rights	Land owners Agency
7 Cancellation of land rights	
< Formation of Estimating Committee by national level	Estimating Committee
< Cancellation of land rights	
< Request for a new land right	
8 Issue of land certificate	

notes

Committee: Land Acquisition Committee / Panitia Pengadaan Tanah
(members are from various agencies including Bappeda and Kimpraswil, and heads of local governmental bodies such as Kabupaten, Kota, Kelurahan/Desa and Kecamatan)
* Committee charges 4 % of total compensation amount (of which 1% as a consultation fee, 1% administration fee and 2 % operation fee)

BPN: Badan Pertanahan Nasional / National Land Agency
* Lands in Kabupaten are treated by Kabupaten BPN, those in Kota by Kotamadya and lands extending in two administrative territories are in charge of the provincial one.

Agency: Project executing government agency
* In case of a private investment, this can be read as a private company.

RTRW: Regional Spatial Plan

Table A5.3.1 NUMBER OF YOUTH ASSOCIATIONS BY CLASSIFICATION

Kecamatan/ Sub district	Classification			Total
	developing stage	developed stage	advanced atage	
<i>Kota Gorontalo</i>	<i>30</i>	<i>11</i>	<i>4</i>	<i>45</i>
Kota Barat	8	3	0	11
Kota Selatan	14	4	2	20
Kota Utara	8	4	2	14
<i>Kabupaten Gorontalo</i>	<i>48</i>	<i>45</i>	<i>24</i>	<i>117</i>
Kec. Batudaa	1	1	1	3
Kec. Tibawa	6	7	4	17
Kec. Limboto	8	4	5	17
Kec. Telaga	12	10	4	26
Kec. Kwandang	5	4	3	12
Kec. Tapa	5	6	1	12
Kec. Kabila	6	7	3	16
Kec. Suwawa	5	6	3	14
<i>Study Area Total</i>	<i>78</i>	<i>56</i>	<i>28</i>	<i>162</i>

source: Kota Gorontalo dalam Angka 2000 dan Kabupaten dalam Angka 2000

Table A5.3.2 LIST OF NGO ACTIVE IN STUDY AREA (1/3)

Nama LSM/ Name of NGO	Alamat/ Address	Telepon/ Tel. (0435)	Ketua/ Chairperson	PENDIRIAN Establishment	PENDAF'TARAN Registration
A. Direktori Singkat dari LSM yang ada Kota Gorontalo / Directory of NGO in Kota Gorontalo, 2001					
1 LSM Alam Lestari	Kelurahan Heledulaa	-	Ridwan Tohopi	16/02/2000	-
2 LSM Bina Taruna	Jln. K.H. Dewantoro	-	Ir. A. Rahman, BRE	09/07/1992	-
3 LSM Citra Kharisma Pemuda (Cakap)	Jln. K.H. Ahmad Dahlan No. 55	825-417	Mulhtar Arsyad	24/04/2000	17/04/2000
4 LSM Duluwo Limo Lopohalaa	Jln. K.H. Agus Salim Blk. Pemancar TVRI	829-408	Ir. I.Bouti Sek. S. Nento	10/11/2000	13/11/2000
5 LSM Gema Bahari	Jl. Yosudarso No. 2	826-354	J. Joesoef Akili	05/05/2001	13/09/2001
6 LSM Insan Madani	Jln. Panjaitan No. 22	-	Drs. S. Batalipu	18/05/1999	-
7 LSM Lembaga Pengkajian Pembangunan	Jln. Moh. Thamrin No. 80	-	Ir. Arusdan Bone	09/04/1999	09/02/2001
8 LSM Lestari Madani	Jln H. Thamrin Kel Ipilo	-	Drs. Haris Moha	06/12/2000	20/12/2000
9 LSM Nurul Amanah	Jln. Panjaitan No. 89	-	Drs. M. Mobilitu	16/01/2000	10/02/2001
10 LSM Peduli	Jln Nani Wartabone	-	Miftahudin Jasin	25/05/1999	16/08/2000
11 LSM Permai	Jln. Moh. Thamrin	-	Drs. S. Rahman	29/09/1999	09/02/2001
12 LSM Recaro Nebula Mandiri	Jln. Panjaitan No. 4	826-951	Fauzi Lamato	-	20/03/1999
13 LSM Respublika LTDPK	Jln. Jend. Sudirman	-	Wisnu Giu	08/07/1999	05/02/2001
14 LSM Suara Cinta Rakyat (SCR)	Jln. Sultan Hasanudin No. 9	831-380	Fariyanto Mayultu	13/09/2000	09/11/2000
15 LSM Walihua	Jln. Rajawali No. 27	824-186	Drs. Afandi Laiya	24/01/2001	13/06/2001
16 Yayasan Amal Milenium Madina (Alumni)	Jln. Moh. Husin Thamrin	829-827	Drs. Julianto Kadji	01/05/1999	21/07/1999
17 Yayasan Inkubasi Bisnis Usaha Kecil	Jl. Andalas Kompleks Term. 42	-	Ny. Irawati Usman	28/08/2001	03/09/2001
18 Yayasan Lembaga Swadaya Masyarakat	Jln. Merdeka No. 47 Ipilo	821-419	Leksi Waworantu	31/05/2000	17/12/2000
19 Yayasan Pembangunan Umat Amal Insani	Jln. Basuki Rahmat	-	A. Abdullah, Sag	27/04/2000	06/07/2001

source: Daftar LSM yang sudah terdaftar di Kantor Sosial Politik (Sospol) sampai dengan pada Kantor Kesatuan Bangsa (Kesbang) Kota Gorontalo, 2001

Table A5.3.2 LIST OF NGO ACTIVE IN STUDY AREA (2/3)

Nama LSM/ Name of NGO	Alamat/ Address	Telepon/ Tel. (0435)	Ketua/ Chairperson	PENDIRIAN Establishment	PENDAF'TARAN Registration
B. Direktori Singkat dari LSM yang ada Kabupaten Gorontalo / Directory of NGO in Kabupaten Gorontalo, 2001					
1	Federasi Kesejahteraan Penyandang Cacat Tubuh Indonesia (FKPCTI)	Desa Talumopatu, Kec. Tapa	Syafrli Gobel	11/01/1998	-
2	Forum Komunikasi Pemuda Antar Umat Beragama Kab. Gorontalo	Jl. Jend. D. I Panjaitan No. 229 Limboto 96211	Drs. Syamsudin Noho	01/04/2000	-
3	Himpunan Insan Pers Seluruh Indonesia (HIPSI) Kabupaten Gorontalo	Shopping Centre Lantai II No. 15 Limboto	Mohamad Van Gobel	20/06/1998	09/02/2001
4	Himpunan Ukhuwah Islamiyah (HUI) Ilomata Gorontalo	Jl. Raya Limboto Desa Ulupato A Kec. Telaga	Yamin Rajawali	07/02/2000	09/02/2001
5	Ikatan Mubaligh Muda (IMDA) Kab. Gorontalo	Desa Tenggela, Kec. Telaga	Ismail Onu, SAg	14/11/1986	-
6	Legium Veteran Republik Indonesia (LVRI)	Jl. Protokol Gorontalo-Limboto	Abdul Wahid Husain	10/05/1905	-
7	Lembaga Dakwah Islam Indonesia (LDII)	Jl. Rajawali No. 294 Limboto	Sutarjo S. Jusuf	03/01/1972	05/02/2001
8	Lembaga Pengembangan Ilmu dan Terapi Tenaga Dalam Kalimasada Cabang Gorontalo	Jl. Arif Rahman Hakim	Syarkani Arif	22/01/2001	13/06/2001
9	Lembaga Pengurus Seni Bela Diri PERISAI Kabupaten Gorontalo	Kabupaten Gorontalo	Kamsir S. Pauba	02/11/1998	10/02/2001
10	LSM Peduli Gorontalo	Jln. Nani Wartabone No. 54 Kec. Kabila	Drs. Miftahudin Yasin	25/05/1999	02/02/1999
11	LSM PERSADA *	-	Yenny Bobihu, SE	-	-
12	LSM Tamuu Olabu Gorontalo	Kel. Heledulaa Selatan Kec. Kota Selatan, Kota Gorontalo	Abdul Azis Djauhari	03/05/2001	25/04/2001
13	LSM Boliyohuto	Desa Sidodadi, Kec. Boliyohuto	Aswin H. Tolinggi	28/03/2001	-
14	LSM FK P C T I *	-	Mansur Pakaya Ismet Pakaya	-	-
15	LSM L P N U *	-	Ahmad P. Kuka Sag	-	-
16	LSM LP2G *	-	Ir. Arusdin Bone	-	-
17	LSM MERDEKA *	-	Amin Mootalu	-	-
18	LSM MITRA *	-	Fadilly Yanto Koem	-	-
19	LSM Peduli Rakyat Kabila	Jl. Popalo Nomor 107 Desa Bongoime Kec. Kabila	Dantje Utiorahman	01/04/2000	13/11/2000
20	LSM Perintas *	Jl. Raya Tolangohula No. 13 Kel. Bongohulawa, Kec. Limboto	Alex Djafri, SMAK	1999	Not listed yet

Table A5.3.2 LIST OF NGO ACTIVE IN STUDY AREA (3/3)

Nama LSM/ Name of NGO	Alamat/ Address	Telepon/ Tel. (0435)	Ketua/ Chairperson	PENDIRIAN Establishment	PENDAF'TARAN Registration
21 LSM Yayasan Merdeka (YAKA) *	Jl. Raya Limboto No. 39 Pentadio Timur, Kec. Telaga	-	Abdul Wahid Husain	-	Not listed yet
22 Muhammadiyah	Jl. Jend. A. Yani No. 24, Limboto	881-193	Hi. Saleh Oroluwa	18/11/1912	09/11/2000
23 Nasyiatul Aisyiyah Kab. Gorontalo	Jl. Jend. A. Yani No. 24, Limboto	881-193	Rahmawati Dianelo SAg	16/05/1951	20/12/2000
24 Pemuda Muhammadiyah	Jl. Jend. A. Yani No. 24, Limboto	881-193	Agussalim Potale SPd.	-	20/03/1999
25 Palang Merah Indonesia	Jl. Jenderal No. 81	881-036	Ny. R. I Noriman	17/09/1945	17/04/2000
26 Persatuan Isteri Veteran RI (Piveri)	Desa Pentadio Kec. Telaga	881-374	Ny. Aminah P. Husain	08/06/1987	17/12/2000
27 Pramuka Kwarcab Kabupaten Gorontalo	Jl. Jenderal Sudirman No. 79 Limboto 96211	-	Bapak Abdullah	1961	-
28 Syarikat Islam Kabupaten Gorontalo	Jl. Jend. Sudirman Kel. Dutulanaa Kec. Limboto	-	Drs. Sira Nggule	16/10/1905	16/08/2000
29 Yayasan Al Islamiyah Gorontalo	Jalan Irigasi No. 40 Desa Ayula Utara, Kec. Tapa	825-123, 824-542	Sudjono Adam	06/10/1992	27/10/1990
30 Yayasan Kemala Bhayangkari Polres Limboto	Jalan Jenderal Sudirman	881-633	Ny. Anang Pratanto	05/05/1980	-
31 Yayasan Mutiara Hijau Kec. Kabila Kabupaten Gorontalo	Jln. Ratuwange No. 221 Desa Poowo, Kec. Kabila	-	Mut Ismail	17/07/1999	-
32 Yayasan Payulimo *	Jl. Raya Limboto No. 07 Bulila Kec. Telaga	822-578	Helmin P. Hippy Safrin Saifi, SE	-	14/12/1999
33 Yayasan Persada Kabupaten Gorontalo	Jln Beringin 2 Limboto	881-155	Ir. Abd. Samad Hiola	14/07/2000	25/07/1999
34 Yayasan Pusat Pendidikan dan Pengembangan Sumber Daya Manusia	Shoping Centre Limboto Kab. Gorontalo Lantai II No. 39 A.	-	Noviwayy Damupoyo	20/10/2000	05/06/2000

Source: Data Orkesmas, Yayasan, LSM yang terdaftar di Kab. Gorontalo dari Kantor Badan Kesatuan Bangsa dan (Kesbang)

dan Perlindungan Masyarakat, September 2001

* data from Secretariat of PPTPA (Limboto)

Table A5.4.1 FLOOD INCIDENTS IN GORONTALO PROVINCE

DATA KEJADIAN BENCANA ALAM DI WILAYAH PROVINSI GORONTALO						
Related rivers	period	covered area (ha)	Location (Desa/Kelurahan)	Kecamatan	depth of water (m)	
1 Bone River	5 - 6 July 1996	250	Dumbaya Bulan	Suwawa	1.00	
2 Bone River	6 - 7 July 1996	295	Pauwo, Tumbihi and Oluhuta	Kabila	1.50	
3 Bone River	13 - 14 July 1996	325	Kel. Bugis, Ipilo and Kel. Padebuolo	Kota Selatan	1.30	
4 Bone River	9 Jan. - 4 Feb. 2000	45	Kel. Padebuolo, Tamalate and Ipilo	Kota Selatan	1.00	
5 Tamalate River	9 Jan. - 4 Feb. 2000	45	Kel. Padebuolo and Ipilo	Kota Selatan	1.00	
6 Tamalate River	14 - 16 July 1996	325	Kel. Dembe II, Moodu, Ipilo, Padebuolo and Kel. Bugis	Kota Utara and Kota Selatan	1.00	
7 Bolango River	6 - 8 July 1996	1,500	Kel. Lawonu, Ilotidea, Tilote, Tabumela, Dulomo, Bulila, Hulawa and Desa Boidu	Telaga and Tapa	1.25	
8 Bolango River	6 - 8 July 1996	325	Kel. Bulotadaa Barat	Kota Utara	1.20	
9 Bolango River	8 - 11 July 1996	6	Desa Tupa and Longalo	Tapa	1.00	
10 Bolango River	9 - 11 July 1996	480	Kel. Molosipat W, Donggala, Biawao, Biawu, Siendeng and Kel. Tenda	Kota Barat and Kota Selatan	1.20	
11 Bolongo River	8 - 11 July 1996	10	Desa Boidu	Tapa	1.30	
12 Bolango River	8 - 11 July 1996	1,500	Kel. Bulila, Tenggela, Lauwonu, Ilotidea and Tilote and Dulomo	Telaga	2.5 - 3.0	
13 Bolongo River	19 Jan. 2001 and 4 Feb. 2001	1,550	Kel. Pilohayanga	Telaga	1.50	
14 Bolango River	19 Jan. 2001 and 4 Feb. 2001	1,045	Kel. Siendeng, Tenda, Biawu and Kel. Biawao, Donggala, Limba B, Molosipat W, Tenilo, Libuo	Kota Selatan and Kota Barat	1.30	
15 Biyonga River Bulota River	8 - 10 May 2002	160	Kel. Bulota, Hunggalua, Daenaa, Hepuhulawa, Dutulanaa, Kayu Bulan	Kec. Limboto	0.30	
16 Bone River Tamalate River	11 - 12 May 2002	200	Kel. Bugis, Padabuolo, Moodu, Tamalate, Heledulaa Selatan, Ipilo, Mongodu	Kota Selatan	0.50 - 2.00	

source: Sub Dinas PSDA Provinsi Gorontalo (26 Feb. 2001) and Laporan Kejadian Banjir (8 s/d 10 Mei 2002, 11 dan 12 Mei 2002)

Table A5.4.2 SOCIAL SURVEY SITES BY KOTA/KECAMATAN

<i>Kota Gorontalo</i>		<i>Kabupaten Gorontalo</i>	
1	Kelurahan Talumolo Kota Selatan	11	Bulota Kec. Limboto
2	Kelurahan Siendeng	12	Biyonga
3	Kelurahan Molosipat W Kota Barat	13	Kayu merah
4	Kelurahan Dulomo Selatan Kota Utara	14	Hunggaluwa
<i>Kabupaten Gorontalo</i>		15	Tunggulo
5	Labanu Kec. Tibawa	16	Longalo Kec. Tapa
6	Datahu	17	Tupa
7	Isimu Selatan	18	Tilote Kec. Telaga
8	Tahupo Kec. Batudaa	19	Lombongo Kec. Suwawa
9	Payunga	20	Pinogu
10	Pilolalenga		

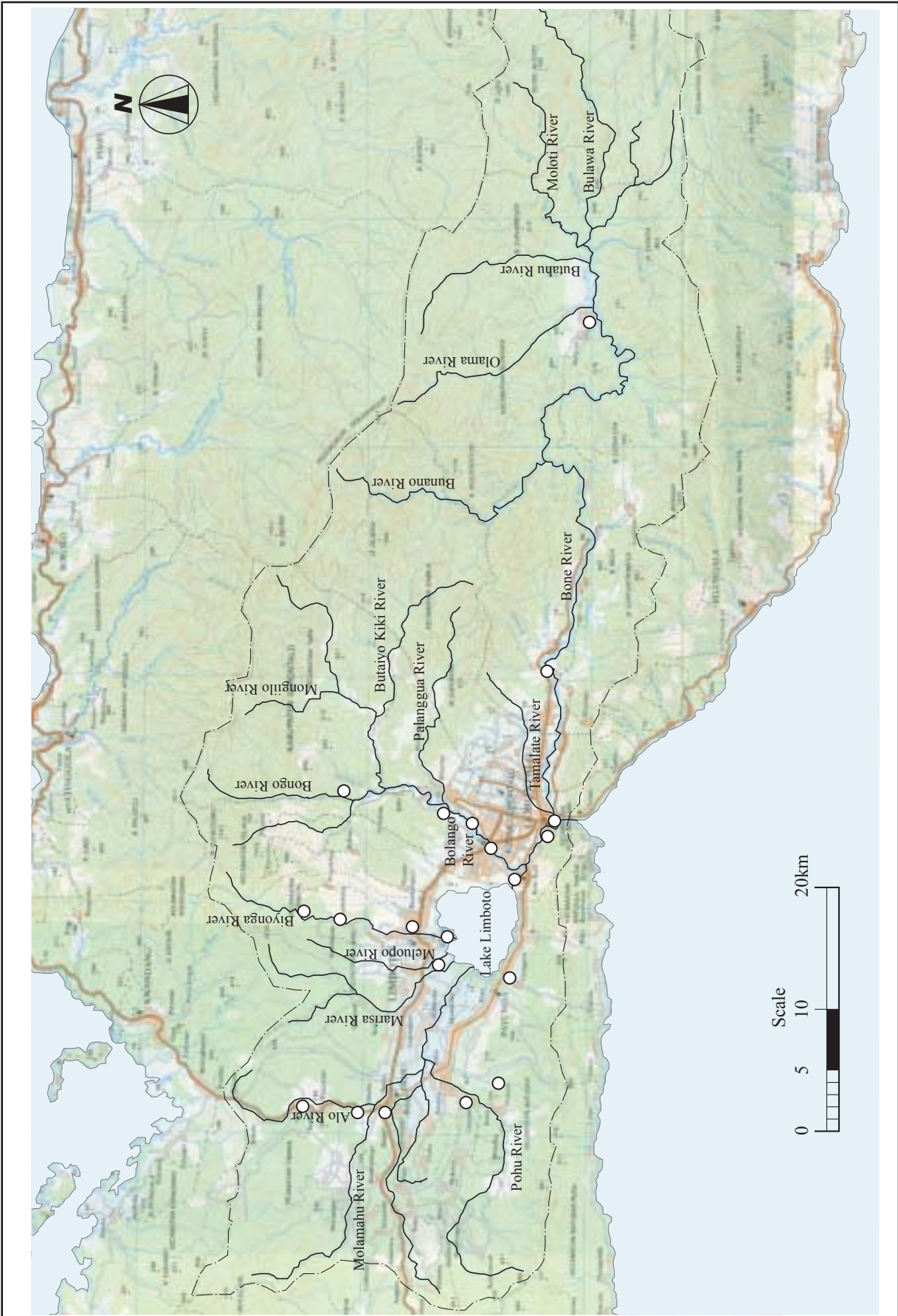
Table A5.4.3 LOCATION OF SOCIAL SURVEY SITES BY RIVERS/LAKE

Under an imporant influence of		location		
Lake Limboto	River	lower reach	midstream	upper stream
14. Hunggaluwa *				
15. Tunggulo *	-	-	-	-
9. Payunga				
18. Tilote *	(Tapodu)	-	-	-
-	Pohu	-	10. Pilolalenga	8. Tahupo
-	Alo	7. Isimu Selatan *	6. Datahu	5. Labanu
-	Biyonga	13. Kayumerah	12. Biyonga	11. Bulota
-	Bolango	2. Siendeng *	17. Tupa	16. Longalo
-		3. Molosipat W *		
-		4. Dulomo Stalan		
-	Bone	1. Talumolo	19. Lombongo	20. Pinogu*

* village in a flood prone area

SELECTION CRITERIA

- 1) Villages within the flood prone areas
- 2) Villages invited for the First Public Consultation Meeting (August 2001)
- 3) Villages situated along the principal rivers (upstream, midstream and lower reach)
- 4) Villages with a large population
- 5) Villages with high population density
- 6) Villages with similar characteristics/situation for comparison



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**Figure A5.4.1
LOCATION OF VILLAGES SELECTED
FOR SOCIAL SURVEY**