

DATA-F

INVESTIGATION OF FLOOD DAMAGES AND RESIDENTS

DATA BOOK F:
Investigation of Flood Damages and Residents

The data and information compiled here is a summary of the results of social survey conducted from August 16 to September 13, 2001.

Objective:

- (1) To collect information on living conditions of the residents of the study area
- (2) To investigate their perception on floods, including their past flood experiences

Methodology: *Questionnaire* (Annex F-1) was used in addition to the existing information/data of government and previous related study of the region were also utilized as a complementary information source. For this purpose, a local expert was subcontracted for assisting the Japanese Social Environmentalist. The expert was a university lecturer and has experience in working for other JICA studies in North Sulawesi as well as for CIDA in the LBB area. Four teams of two persons each, including the Counterparts of the study, were formed to carry out the survey. The questionnaire is composed of; (1) General Information on the resident's living conditions, (2) Past flood experiences, (3) Residents' perception on the flood, and (4) People's observation on natural environment (ref: Figure F-1).

Survey Location: Twenty (20) villages were selected and twenty (20) households were interviewed in each village (400 households in total). For details, see Table F-1, F-2 and Figure F-2.

Results: The data and information compiled here is summarized as follows:

- Executive summary of the findings of social survey
- General information of the sites (population, occupation, characteristics of the respondents, etc.)
- Results 1 : People's economic, social situations
- Results 2 : People's perception on floods and flood experience
- Results 3 : People's perception on water resources

Executive Summary of Socio-Economic Survey and Flood Perception

Study area for the survey covered 8 sub-districts (kecamatan) in Kabupaten Gorontalo and 3 sub-districts (kecamatan) in Kota Gorontalo. Total number of village samples is 20 villages, 16 rural villages (Desa: Labanu, Datahu, Isimu Selatan, Tahupo, Payunga, Pilolenga, Bulota, Biyonga, Kayu merah, Hunggaluwa, Tunggulo, Longalo, Tupa, Tilote, Lombongo and Pinogu) in Kabupaten and 4 urban villages (Kelurahan: Talumolo, Siendeng, Molosipat W, and Dulomo Selatan) in Kota. In each village (Kelurahan or Desa), 20 respondents were interviewed. Total 400 respondents consist of 219 men as a head of household and 181 women (housewife =92 % or woman as a head of household =8 %).

Profile of the respondents

The average age of respondents is about 45 years old, ranging from 19 up to 80 years old, however when classified by sex (man and woman), the men's average age is 48 years old and for women, 42 years old. For men the age ranges from 21 up to 80 years old, and for women, from 19 up to 75 years old.

The average number of household members (family size) of respondents are 5.6 which comprise of 2.81 men and 2.81 women. It means that an average household has 6 members, comprising of a married couple (father and mother or husband and wife), 2 sons and 2 daughters. The number of household members ranges from 1 to 15, and when classified by sex, the number of men ranges from 0 to 8 and that of women from 1 to 7. The most common size of household was 4-5 persons (55%).

The average number of household members with job is 2.32 which comprise of 1.50 men and 0.81 women. This shows that the number of men who have job is almost 2 times higher than women. Most of women are housewives.

This number ranges from 1 to 7 persons per household and when classified by sex, then it ranges from 1 to 5 men and from 0 to 2 women. Most frequently, the number of household members with job is between 1 and 2 persons per household (75%).

In terms of educational degree of respondents, most of them (69 %) have only a degree below elementary school (graduated or non graduated). Among the 20 surveyed desa (villages), those inhabitants who have never attended school were identified and when classified that by sex, it is shown that education level of women was left behind that of men. The number of women who have never attended school is higher than men. The number and percentage of inhabitants graduated from elementary school and holding only a lower degree at Kabupaten level (men 75% and women 72%) are higher than those at Kota level (men 67% and women 58%).

The occupation of respondents is different between men and women. It is found that occupation of man is dominantly in agricultural sector (54 %), and women are mostly housewives (55 %) and also occupied with trades (20 %) and home industry (10 %).

Economic situation and properties

At each of the 20 selected desa, 20 residents were selected to become respondent by the following three economic criteria: Successful or prosperous family class III plus (5 respondents at each desa), middle class or prosperous family class II (6 respondents) and unsuccessful (not

yet successful) or economically pre-prosperous family (9 respondents). The number of respondents of every criterion is valid as long as the situation is permitted. The total number of respondents selected from the study area accounted for 400. Every respondent interviewed represented for one (1) household without any consideration of their gender.

Source of income of respondents household dominantly from agriculture (in general terms) (52%) , private sector (21%) and a temporarily job (20%).

The lowest amount of **household Annual income**, was Rp. 70,000 of a corn field farmer and the highest was Rp. 450,950,000 of a head of household. The head of household is a trader, farmer (coconut and corn), and running a business and his wife is also running business of store.

The average annual income of respondent households mostly ranges from Rp. 1,000,000 up to Rp. 50 million (76%). When classified by prosperity level (rich, middle class and poor), it was found that the annual income of the poor household class ranges mainly from Rp. 500,000 to 10 million (81%), for the middle class, ranges mostly from 1,000,000 to 50 million (86%), and for the rich households, its majority is categorized in the range of Rp. 5,000,000 - 50 million (62%). Thirteen percent (13%) of this class are categorized even in Rp. 100 - 200 million range.

By introducing the **poverty line** of BPS, the number of households under the poverty line almost balances with the number of household over the poverty line. Comparing Kota to Kabupaten, the number and percentage of household under the poverty line in Kabupaten are slightly higher than those in Kota. The standard of living of the household in Kota can be better than in Kabupaten to some extent.

According to the 1998 standard (December 1998), the poverty line was set to the income level of 96,989 rupiahs per month and per capita for urban areas and 72,780 rupiahs for rural areas per month and per capita.

The respondent's house locates mostly along main roads (48%) and at riverside (34%). House located along main roads are concentrated in 2 kelurahan in Kota Gorontalo (Molosipat W and Dulomo Selatan) and in 10 desa in Kabupaten Gorontalo (Labanu, Datahu, Isimu Selatan, Biyonga, Kayu Merah, Tungulo, Longalo, Tupa, Lombongo and Pinogu).

And houses along riverside are mostly in 2 kelurahan in Kota Gorontalo (Talumolo and Siendeng) and 4 desa in Kabupaten Gorontalo (Tahupo, Pilolalenga, Bulota and Hunggaluwa). The Respondent's houses located along the lake side are identified in 2 desa of Kabupaten Gorontalo (Payunga and Tilote).

Conditions of the respondents' house are commonly permanent or made of concrete or bricks (56%) and temporary or bamboo construction (38%). Semi-permanent house or wood construction was 7% of the respondents.

Average area of agricultural land per household is 0.88 ha of which 0.58 ha (66%) is formally owned, 0.27 ha (31%) is illegal occupation (informally owned) and 0.04 ha is a rented land. The communities of the 20 surveyed villages tend to cultivate their own lands rather than the others' (rent or informally owned lands).

Average area of land for principal crops is 0.35 ha which comprises of 0.27 ha (75 %) owned, 0.07 ha (19 %) informally owned and 0.02 ha rented. As the lands for agricultural

production, the people tend to cultivate their own lands rather than the others'. The average area for main crops covers only 40 percents, in terms of space, of the average area for agricultural production.

Size of premises is generally situated around the range of 51 - 500 square meters (51%) and 501 - 1000 square meters (33%).

In terms of **the status of premises**, most are "private" lands (84%), but only 7% of this percentage are certified premises. There are 11 % of premises that are not owned by the respondent which are usually in the status of borrowed and/or state land.

In terms of **the duration of occupation of their actual house**, most of them occupy for 1-10 years (44 % : its higher percentages are "occupied for 6 years" or since 1995 (16 %), "for 5 years" since 1996 (13 %) and "occupied for 3 years" or since 1998 (11 %)). As a whole, 65 % of the respondents live in the actual house for less than 20 years and the rest 35 % live at the place for more than 20 years. 4 households occupy the premises for a very long period, more than 60 years.

Perception on floods and environment

Most of the households (respondents) answered that they have been suffering from flood disaster "often" (45%) and 1 - 3 times (34%).

The Years of flood occurrence that they experienced at their actual residence are in 2001 (58 %) and 2000 (48 %).

The perception about flood is not different by sex. The answers were "bad/not good" (men: 84 % and women: 85 %), "dangerous" (men: 69 % and women: 71 %) and "afraid" (men: 56 % and women: 56 %).

The two latest flood disasters occurred in 2000 (68%) and in 2001 (80%), according to the respondents.

One of the **financial losses** caused by the two latest floods was related to house damage. There were 15 houses totally destroyed (in Kelurahan Talumolo: 1 house; Desa Datahu: 1 house; Desa Payunga: 4 houses; in Desa Hunggaluwa: 2 houses and in Desa Tilote: 3 houses) and 75 houses were partly damaged, of which the most affected site was Desa Tilote (14 houses).

72 % of the respondents of 20 desa stated that **the water level of the two latest floods** was 0.1 – 0.5 m of height from the floor according to the respondents. The water level of more than 0.50 m is observed mostly by respondents in Kelurahan Siendeng, where water level was between 0.51-1.00 meter from the floor. In Desa Tilote, the water level was 1.00 – 1.50 meters of flood from the floor. Based on the survey team's observation, the elevation of house floor is about 0.10 – 1 meter from the earth. Therefore, the water level of inundation from the earth would be calculated by adding these figures.

Farms and plantation losses are 151 banana trees and animal loss of 2,057 poultry (chickens). These losses were recorded mostly in Desa Payunga and Desa Tilote.

In terms of **flood victims in the family of the respondents**, 3 persons were dead, of which 2 persons in Desa Bulota and 1 in Tilote. And the number of inhabitants who suffered injury were 8 persons, 5 persons of which in Desa Bulota, and 357 persons became sick. The villages with

higher incidence of sickness were Tilote (55 persons), Hunggaluwa (41) and Payunga (35). Types of diseases occurred were mostly a simple disease like fever, cough and diarrhea. The higher incidence of fever was observed in Desa Tilote (18 persons), Kelurahan Siendeng (15) and Desa Payunga (13).

Total financial losses amounts to Rp. 231,113,700 in total for 400 respondents, according to their self-estimation. There is a big difference from one desa/kelurahan to another. The most serious loss was in Desa Tilote (Rp. 36,770,000) and the smallest amount in Desa Lombongo Selatan (Rp. 1,100,000). In terms of the loss amount of a household, the smallest loss was Rp. 10,000 (chicks in Lombongo) and the highest loss was Rp. 25,000,000 (house completely destroyed in Bulota). The amount per one member of the respondent families ranges from the highest of Desa Tilote (Rp. 303,884) to the lowest for Desa Dulomo Selatan (Rp. 9,244).

Most of the respondents (59%) stated that **the most serious flood disaster** occurred in 2001, mainly in Kelurahan Siendeng, Kelurahan Molosipat W, Desa Payunga and Desa Tilote.

In most of the case, **inundation period** is 1–7 days (59%). The desa suffered from inundation for more than 1 week were Kelurahan Molosipat W and Desa Payunga (1-2 months) and Desa Tilote (2-7 months).

The height of flood water level was generally less than 0.5 meter from the floor (64%) even at the most disastrous flood in the past. The height of more than 0.5 meter was recorded in Kelurahan Molosipat W and Desa Payunga (0.5–1 meter) and Desa Tilote (1 –2 meters).

Asset damages/losses caused by flood disaster were claimed by 132 respondents (33%). They had damages mainly to farming lands (36%) and furniture (36%). The damages of farming land were claimed mostly in Desa Isimu Selatan, Tahupo and Bulota. On the other hand, furniture losses were claimed in Kelurahan Siendeng, Kelurahan Molosipat W, Desa Payunga and Desa Tilote where the most serious damage was done.

According to the respondents, men and women understand that **flood is caused by** deforestation, river overflow and continuous rain. But there is some difference in perception between men and women concerning flood causes. Man respondents stated that flood is caused by deforestation (26%), river overflow (26%) and rain (23%), meanwhile woman respondents stated that flood causes were mainly river overflow (36%) and then continuous rain (25%) and thirdly deforestation (16%). There are also different perceptions between Kota and Kabupaten. Kota respondents stated that flood was caused by rain (46%), broken dike (21%) and river overflow (17%), whereas kabupaten respondents answered that flood was caused by deforestation (28%), river overflow (27%) and rain (19%). For woman respondents in both Kabupaten and Kota, they have similar perception on flood causes, i.e. floods are caused mainly by river overflow (Kota=45%, Kabupaten=33%), continuous rain (Kota=24%, Kabupaten=25%) and deforestation (Kota=24%, Kabupaten=13%). Differences in perception of men and women (women ranked “deforestation as a cause of flood” lower than men) may imply a necessity for up-grading/increasing the **awareness of women on forest functions** (its water retention capacity, in particular), especially at the Kabupaten level. The people have to preserve forests in order to overcome/mitigate flood disaster. It is hoped that women’s better understanding on forest functions will be transmitted to the next generation (their children) so that forests are protected for a long time and therefore flood risks are reduced.

According to the respondents, **flood mitigation measures** are related to the river and lake dike/embankment, drainage and forest. There are different perceptions between man and

woman respondents concerning flood mitigation measures. There are three major flood mitigation measures, according to **man respondents**, which are reforestation (29%), construction/improvement/rehabilitation of drainage (25%) and construction/improvement of dike (22%). On the other hand, according to **woman respondents**, flood mitigation measures are firstly construction/improvement of dike (35%), and then construction/improvement/rehabilitation of drainage (25%) and river improvement/normalization/dredging (17%). A lot of man respondents stated that flood was caused by deforestation, and therefore, flood mitigation measures should be done by reforestation according to them.

Comparing between Kota and Kabupaten, the answers show deferent feature. **Kota respondents** stated that flood mitigation measures can be done by construction/improvement/rehabilitation of water drainage (30%), construction/ improvement of dike (26%) and reforestation or regreening (13%). Whereas the perception of **respondents of kabupaten** answered in the following order: firstly reforestation (32%), improvement of water drainage (24%), river dredging/ normalization (21%) and improvement/construction of dike (21%). The perception on flood mitigation measures of **woman respondents** both in Kota and Kabupaten has a similar tendency. They stated that flood mitigation measures were improvement/ construction of dike (women in Kota=56%, Kabupaten=28%), improvement/ construction of water drainage (Kota=26%, Kabupaten=25%), and river dredging/ improvement (Kota=18%, Kabupaten=17%). Woman respondents did not give priority to the issue of reforestation. This may be because they were not conscious yet about the important function of forest as a source of water whose water retaining capacity is closely relating to flood mitigation.

According to the respondents, **preventive actions** in order to avoid flood damage, are moving out (evacuation) to a higher and safer place, keeping their belongings/property safe, constructing/improving and rehabilitating water drainage, reforestation or regreening and construction of gabion. Perceptions on preventive action by man and woman respondents are similar: “evacuate to a higher and safer place” (men=45% and women=42%), “construct/improve and rehabilitate water drainage” (men=20%, women=18%) and reforestation or regreening (men=7%, women=9%). Yet, there was difference in “keep their belongings/property safe” (men=4% and women=13%).

Comparing Kabupaten to Kota, both of them seem to have a similar trend about preventive actions vis-à-vis flood damage: mainly two actions which are evacuation to a higher and safer place (Kota=56% and Kabupaten=43%) and construction/improvement and rehabilitation of water drainage (Kota=13 %, Kabupaten=21 %). And **woman respondents** both in Kota and Kabupaten have a similar perception: evacuate to a higher and safer place (Kota=50%, Kabupaten=38%), construct/improve and rehabilitate water drainage (Kota=15 %, Kabupaten=20 %) and keep their belongings safe (Kota=13 %, Kabupaten=11 %).

Most of the respondents (83%) stated that the latest flood disaster was in 2001. Total 93 **persons** (25%) **evacuated or took shelter** at that time and their destination was mainly the family’s house (parents’ house, place of parents in law, brother or brother in law, etc.)(74%), school building (10%) and neighbors’ house (7%). **The period of evacuation** was generally for less than 1 week (49%), but there are the respondents who had evacuated for more than 1 week like 0.5–1 month and 1–3 months.

Comparing Kabupaten to Kota, the number of people in Kota who experienced an evacuation (34 persons) was less than that of Kabupaten (159 person), however the figures in percentage of

Kota respondents (52%) is higher than those of Kabupaten (19%). The first choice for destination for evacuation was the family's house (Kota=71 % and Kabupaten=76 %). The second choice was school building which was observed especially in Kelurahan Talumolo, Desa Kayu merah and Tilote. The period of evacuation was generally less than 7 days in Kota (46%) and in Kabupaten (51%). But there were the residents of some desa/kelurahan who evacuated for more than 1 week. This was the case in Kelurahan Siendeng and Molosipat W in Kota where the evacuation lasted 0.5–1.0 month (7 of 13 evacuated respondents of Siendeng and 6 out of 9 of Molosipat W), and there were Desa where people evacuated for about 1–3 months in Kabupaten, which were Desa Payunga (4 out of 7 evacuated respondents) and Desa Tilote (10 persons out of 11 evacuated respondents).

The actions undertaken by the respondents at the latest flood disaster (answered by 70 % from total 198 respondents) in both Kota and Kabupaten. The respondents stated that they kept their belongings/property to a higher/safer place or prepared for evacuation. This action accounted for 88% in Kota (especially in Kelurahan Siendeng and Molosipat W) and 65% in Kabupaten (especially in Desa Tilote and Payunga).

The availability of **assistance by organization**. Only 19% from total 400 respondents stated that there were organizations which provided assistance at the time of flood disaster. The types of organization are divided into government organizations, private sector, community/social organizations, religious groups, family/neighbor/local community. Government organizations are such as local government (Camat - head of Kecamatan (Sub District), Kelurahan/Desa), Village – Health Centre (Puskesmas), Dinas Sosial, Posko Banjir (Flood Coordination Centre) and IKIP (Institute). Private sector consists of Bank (Bank Mandiri) and Naga Manis (sugar company). Social/community organizations comprise of NGO, Political Party, Indonesian Red Cross, GM TriDa, Prime Ministry of South Korea, Karang Taruna (Youth Organization), Wiraga Mulya.

Form of assistance. The inhabitants who suffered from flood disaster received assistance from government, family/neighbor/local community and others social organizations (mainly in Kelurahan Siendeng in Kota and in Desa Tilote in Kabupaten). The assistance were provided in the form of health services, assistance/help at the time of evacuation and subsidy.

In total 50 respondents answered that they got assistance at the time of flood disaster, mainly in the form of health services (56%), and then assistance/help at time of evacuation (30%) and subsidy (26%). The answer “health service” was mainly mentioned by the respondents of Kelurahan Siendeng and Desa Tilote.

The availability of **warning sign** was answered only by 46 respondents and 330 respondents (88%) stated that there was no warning sign. This indicates a lack of warning system at the inhabitant level. Warning was done primarily by Government 47%, Mosque (35%), PMII - Indonesian Red Cross (15%) according to 34 respondents answered. Warning signs were announced by loudspeaker and drum from Mosque.

The Desa/kelurahan which received warning of flood disaster were primarily Kelurahan Talumolo and Siendeng, and Desa Tilote. There are some desa or kelurahan which most of the respondents have not received any warning sign, but in fact they suffered a big loss by flood. This was the case of Kelurahan Siendeng and Desa Bulota and Longalo. Some respondents stated that they got warning by radio “Poliama”. This could be a good alternative for warning system because of its wide range of network, and it had better to involve Local Indonesian Public Radio (RRI).

Regarding the perception on **relocation with an appropriate compensation**, only 25% answered “agree”, and then “depend on situation” (24%), “do not know” (4%) and the majority answered “not agree” (55%) of total 323 respondents. The number of respondents who answered “agree” on relocation, in reality, could be lower, because 10% answered “agree” because of unsuitable or bad conditions of their present house. Therefore, it can be said that the percentage of respondents answered “agree” and “agree under conditions” is 39% (=25-10+24%). The conditions for relocation suggested were an appropriate amount of compensation (beneficial/profitable) and that new location should be in a strategic place, i.e. close to their work or business place (79%), which was mostly answered by the respondents of Kelurahan Siendeng and Desa Isimu Selatan, Bulota and Hunggaluwa.

Some reasons of disagreement were answered by 174 respondents and the majority answered “because they already know very well the environment of present location and close to their work or business place” (61%). This was stated mainly by the respondents of Kelurahan Talumolo (55%) and Desa Hunggaluwa (60%) and Tilote (75%).

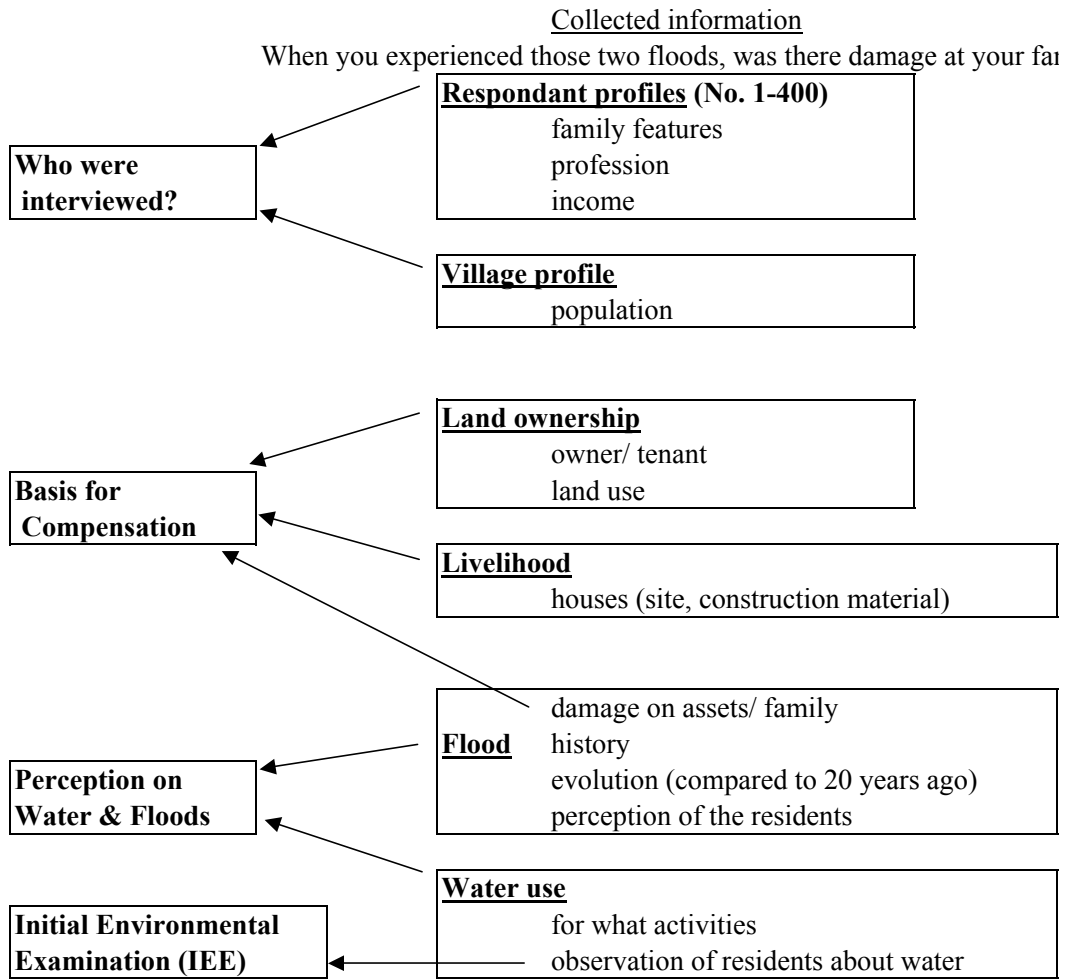
River and Lake Water Utilization. Of the total 353 respondent who answered this question, 40% stated that they used river as a source of water for laundry (62%), bath (62%) and privies (58%).

There are differences in utilization between Kabupaten and Kota. In Kota, the utilization of river water is mainly for privies (50%), and then bath (32%) and laundry (29%). Whereas in Kabupaten, firstly for laundry (69%), then bath (68%) and privies (59%). Higher percentage of river water utilization in Kota for privies may be due to the limited number of MCK (public bath, laundry and toilet facility) and turbidity of river water (bad color) may contribute to a trend of utilizing river for privies, and fewer people use river water for bath and laundry in Kota. But there are still some people in Kota who use river water for washing dishes, meanwhile other people use river for privies.

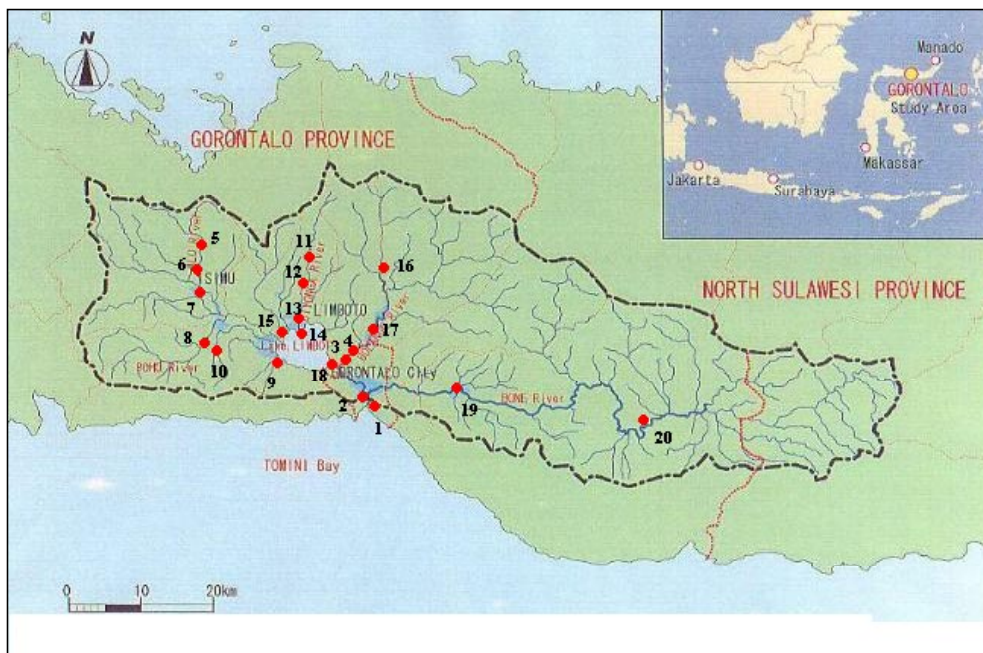
Conditions of River and Lake water. According to more than half (52%) of total 370 respondents who answered the question, by their observation, the quality of river water became degraded (contaminated), that is mainly identified by turbid color of water (84%) and putrefied situation (32%). The results show the same observation/perception of the respondents both in Kota and Kabupaten. Those who observed that the condition of water became more degraded were mainly the respondents of Kelurahan Siendeng and Desa Tilote, Payunga, Bulota and Biyonga.

Frequency of Flood. Based on 358 respondents who answered the questionnaire, half of them (50%) stated that recently flood occurs more frequently, and especially identified by condition of river shallower and increased volume of sediment deposition (71%). In comparison of Kota and Kabupaten, the results show the same perception that there is increase of flood occurrence, shallower rivers and sediment deposit. This observation was mostly stated by the respondents of Kelurahan Siendeng and Desa Tilote, Datahu, Payunga and Biyonga.

DATA COLLECTION BY SOCIAL SURVEY



LOCATION OF VILLAGES SELECTED FOR SOCIAL SURVEY



SUMMARY OF QUESTIONNAIRE (ENGLISH) (1/2)

QUESTIONNAIRE FOR THE LOCAL RESIDENTS OF THE STUDY AREAS ON

SITUATION AND I When you experienced those two floods, was there damage at your family and assets

Respondent	_____	Sample No.	_____
	(Name of Respondent)		
Provinsi	_____	<i>tanggal</i>	<i>bulan</i>
Kota/ City	_____	Survey date /	/
Kecamatan	_____		/ 2001
Kelurahan/ Desa	_____	Name of Interviewer	

This is a questionnaire for the Study on Flood Control and Water Management in Limboto-Bolango Bone Basin in the Republic of Indonesia. The objective of this questionnaire is to understand the residents' socio-economic situation and their perception on the on the flood in order to formulate an appropriate flood mitigation plan in the region.

Please answer the following questions as fully as possible. Your cooperation is greatly appreciated Terima kasih.

- Q1** Jenis kelamin/ Sex: **Q2** Umur/ Age:
- Q3-1** How many persons live together in your house? (dependents):
- Q3-2** How many persons work?:
- Q3-3** Household members in the same house including the respondent and those living together.

	Kelamin (Male/Female)	Nama Name	Tahun Umur	Pendidikan/ education (selasai/accomplished)	Kerja Occupation	Hadir present	Tidak hadir Absent	Relation
1								
2								

- Q4** Major income sources of the family (with order of importance:1,2,3...)
in _____ (tahun)

	Annual Income (Rupiah)
Selling agricultural products	
Selling fishery products	
Selling livestock products	
Salary & wage from permanent job	
Remittance from family member	
Private business	

- Q5** About the house where the respondent lives (circle the alphabete)
- 5-1 Place of the house (Multiple choice)
- 5-2 Structure of the house (Multiple choice)
- Q6** Ownership of the land where the house is built and economic activities are in practice
- a. Owned (Total area): agriculture, major crops, non-agriculture (ha & activity)
- b. Rented (Total area): same as above
- c. Illegal occupation: same as above
- d. Others (Specify): _____
- Q7** History and background of the dwelling in present place concerning floods
- 7-1 Since when do you live in the actual house?
- 7-2 Have you experienced flood here? how many times?, in which year?
- 7-3 How do you thing about floods? (Multiple choice/ good, bad, etc.)
- 7-4 When were the latest two floods?

SUMMARY OF QUESTIONNAIRE (ENGLISH) (2/2)

- Q7 (continued) History and background of the dwelling in present place concerning floods**
- 7-5 When you experienced those two floods, was there damage at your family and as such as house? (Yes/ No)
- If Yes,*
- a.&b. House totally/partially destroyed (how many times?)
 - c. Flooded above the floor level (how many times?, how high cm?)
 - d. Flooded below the floor level (how many times?)
 - e.&f. Crops / livestock totally/partially lost (Specify: _____)
 - g.&h. Family members died/injured (how many persons?)
 - i. Family members became sick (how many members?: _____ person
(what kind of diseases?: _____ diarrhea, cough, fever, vomiting, unknown))
 - j. Others (Specify _____)
 - k. How much (if possible, estimated damage in Rp.)? _____ (Rp.)
- 7-5 As for the floods that caused you the most serious damages in the past, when did it occur? and how serious was it?
- a.-c. When? How many days? How high was it? (cm)
- 7-6 Have there been any of your assets which were covered or damaged by the debris?
If Yes, Specify:
- (a-1) rice field (a-2) other agricultural lands (a-3) fishing boats
 - (a-4) fishing tools (net, hook and others) (a-5) furnitures
 - (a-6) business equipment/ machine (a-6) others
- 7-7 When did the latest debris flow occurred? (Year & Month)
- 7-8 As for the latest debris flow, how many days did you need to remove it out from

Q8 History and background of the dwelling in present place concerning floods

- 8-1 Do you know the causes of the floods you experienced?
 - 8-2 Do you know how to mitigate damage of floods?
 - 8-3 Do you know how to prevent/ avoid the floods?
 - 8-4 Did you evacuate when your house was inundated at the latest floods? (Yes/ No)
- If Yes,*
- a-1. Where ? (school, mosque, church, house of relative, other)
 - a-2. How long did you stay there?
- 8-5 What were the measures taken at your latest floods?
- 8-6 Is there any community based organization/ initiative which can help you at flood?
- If Yes,*
- a-1. What is the name of it ? _____
 - a-2. How did it help you? (food supply, help evacuation, health care, subsidy, other)
- 8-7 Have you heard the warning or public announcement of evacuation in advance or not?
- If Yes,*
- a-1. From whom? (_____)
- 8-8 If you are to move to new residence due to the land acquisition by reason of men being provided with proper compensation, do you agree to?
- a. Agree to move
 - b. Depends on condition(s)
What is the condition(s) required?
 - c. Disagree to move --> The reason?
 - d. Don't know

Q9 Relationship between local populations and the rivers in the region

- 9-1 For what do you use river or water? (Yes/No)
- If Yes,*
- a. For drinking
 - b. For washing clothes and dishes
 - c. For washing body
 - d. For fishing (to eat at home)
 - e. For religious purposes
 - f. others
- 9-2 Do you think that the quality of water you are using now becomes worse than before?
- If Yes,*
- a. See sometimes dead fish now
 - b. Water became turbid
 - c. Feel bad smell now
 - d. Cannot drink a lot
 - e. other changes you feel or find now
- 9-3 Do you think that floods occur now more frequently than before (20 years ago)?
- If Yes,*
- a. The rise of river water level and floods observed more often than before
 - b. River becomes muddy more often than before when it rains
 - c. River becomes shallow with more sediment than before
 - d. other remarks that you make

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 Kota Utara Selatan	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		

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 *	(Topadu)	-	-	-
-	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

Kependudukan/ Demographic Profile

Kecamatan/Kota	Area Wilayah (ha)	Laki-laki	Perempuan	Rasio Jenis Kelamin	Penduduk	Kepala Keluarga	Rata-rata Anggota Keluarga	Kepadatan Nilai (/ km ²)
Study Area	69,673.18	29,622	30,795	96	60,417	14,397	3.96	86.7
<i>Kota Gorontalo</i>	625.16	5,654	5,873	96	11,527	2,845	4.10	1843.8

I. Kota Selatan								
1 Kelurahan Talumolo	287.93	2,009	2,079	97	4,088	1,060	3.86	1419.8
2 Kel. Siendeng	45.00	1,221	1,342	91	2,563	620	4.13	5695.6
II. Kota Barat								
3 Kel. Molosipat W	108.88	1,046	1,123	93	2,169	601	3.61	1992.1
III. Kota Utara								
4 Kel. Dulomo Selatan	183.35	1,378	1,329	104	2,707	564	4.80	1476.4
<i>Kabupaten Gorontalo</i>	69,048.02	23,968	24,922	96	48,890	11,552	3.83	70.8

IV. Tibawa								
5 Labanu	6,268.00	1,867	2,248	83	4,115	847	4.86	65.7
6 Datahu	2,100.00	2,820	2,822	100	5,642	1,324	4.26	268.7
7 Isimu Selatan	900.00	2,253	2,118	106	4,371	1,045	4.18	485.7
V. Batudaa								
8 Tahupo	2,400.00	1,530	1,485	103	3,015	738	4.09	125.6
9 Payunga	2,600.00	2,032	2,483	82	4,515	932	4.84	173.7
10 Pilolalenga	2,558.00	1,667	1,723	97	3,390	832	4.07	132.5
VI. Limboto								
11 Bulota	942.02	1,053	969	109	2,022	502	4.03	214.6
12 Biyonga	5,000.00	1,610	1,438	112	3,048	733	4.16	61.0
13 Kayu merah	4,248.00	1,750	1,907	92	3,657	698	5.24	86.1
14 Hunggaluwa	250.00	2,857	3,113	92	5,970	1,529	3.90	2388.0
15 Tungulo	442.00	1,012	1,160	87	2,172	629	3.45	491.4
VII. Tapa								
16 Longalo	n.d.	519	417	124	936	n.d.	n.d.	n.d.
17 Tupa	1,900.00	918	963	95	1,881	483	3.89	99.0
VIII. Telaga								
18 Tilote	40.00	749	793	94	1,542	457	3.37	3855.0
IX. Suwawa								
19 Lombongo	800.00	462	403	115	865	216	4.00	108.1
20 Pinogu	38,600.00	869	880	99	1,749	587	2.98	4.5

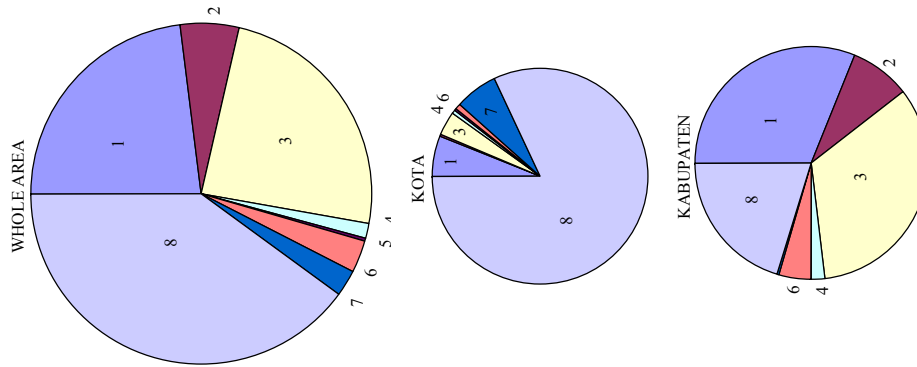
*note: Kategori kepadatan (halaman 12) Jiwa per Km² = 50 tidak padat
Padat : Kurang padat 51-250 , Cukup Padat 251-400; Sangat Padat > 401*

Sumber: Profil Desa/Kelurahan masing-masing desa, 1999 dan 2000 (Departemen Dalam Negeri Republik Indonesia) (Halaman 6-7)

Struktur Mata Pencarian / Population by Type of Occupation

Kecamatan/Kota	Sub sektor								Total
	1 PTP	2 Perkebunan/ Perladangan	3 Peternakan	4 Perikanan	5 Pertambangan/ Galian C.	6. Industri kecil/ Kerajinan/ Rumah Tangga	7 Industri besar/ Sedang	8 Sektor jasa/ Perdagangan	
Study Area	9,637	2,338	10,020	612	70	1,322	981	16,729	41,478
%	23.2	5.6	24.2	1.5	0.2	3.2	2.4	40.3	100
<i>Gorontalo City</i>	828	18	510	84	37	111	845	11,032	13,465
%	2.0	0.0	1.2	0.2	0.1	0.3	2.0	26.6	100
I. Kota Selatan	0	0	106	25	16	80	39	10,068	10,334
1 Kelurahan Talumolo	3	0	125	43	0	29	0	218	418
2 Kelurahan Siendeng									
II. Kota Barat	102	18	231	10	21	0	205	445	1,032
3 Kelurahan Molospat W									
III. Kota Utara	723	0	48	6	0	2	601	301	1,681
4 Kelurahan Dulomo									
<i>Gorontalo Regency</i>	8,809	2,320	9,510	528	33	1,211	136	5,697	28,244
%	21.2	5.6	22.9	1.3	0.1	2.9	0.3	13.7	100
IV. Tibawa	1,198	25	1,135	10	17	32	29	602	3,048
5 Labanu	1,090	586	1,182	2	0	126	26	338	3,350
6 Datau	529	33	597	20	0	214	0	209	1,602
7 Isimu Selatan									
V. Batudaa	414	400	713	0	0	26	0	160	1,713
8 Talupo	537	0	961	124	0	40	0	551	2,213
9 Payunga	710	354	379	0	0	263	0	319	2,025
10 Pilolalanga									
VI. Limboto	673	126	646	0	0	190	0	216	1,851
11 Bulota	428	275	452	25	0	98	0	264	1,542
12 Biyonga	593	0	803	8	0	2	14	819	2,239
13 Kayu merah	282	0	1,491	49	0	21	22	968	2,833
14 Hunggaluwa	805	0	0	0	0	0	40	446	1,291
15 Tunguto									
VII. Tapa	242	0	337	0	0	0	0	33	612
16 Longalo	257	188	0	0	12	52	4	79	592
17 Tupa									
VIII. Telaga	161	9	187	170	4	87	1	511	1,130
18 Tilote									
IX. Suwawa	15	124	137	8	0	10	0	111	405
19 Lombongo	875	200	490	112	0	50	0	71	1,798
20 Pinogu									

Sumber: Profil Desa/Kelurahan masing-masing desa, 1999 dan 2000 (Departemen Dalam Negeri Republik Indonesia) (Halaman 8 - 11)



Bahan bakar yang digunakan rumah penduduk/ Fuel Consumption

Kecamatan/ Kota	Rumahtangga menggunakan bahan bakar			Total # RT
	Minyak tanah	Kayu (wood)	Gas	
	# RT	# RT	# RT	
Study Area	4,662	7,247	18	11,927
%	39.1	60.8	0.15	100
<i>Gorontalo City</i>	1,338	562	17	1,917
%	69.8	29.3	0.89	100
I. Kota Selatan				
1 Kelurahan Talumolo	488	65	0	553
2 Kelurahan Siendeng	559	215	10	784
II. Kota Barat				
3 Kelurahan Molosipat W	124	68	7	199
III. Kota Utara				
4 Kelurahan Dulomo Selatan	167	214	0	381
<i>Gorontalo Regency</i>	3,324	6,685	1	10,010
%	33.2	66.8	0.01	100
IV Tibawa				
5 Labanu	410	437	0	847
6 Datahu	466	858	0	1,324
7 Isimu Selatan	200	870	0	1,070
V Batudaa				
8 Tahupo	25	561	0	586
9 Payunga	150	579		729
10 Pilolalenga	360	142	0	502
VI Limboto				
11 Bulota	92	340	0	432
12 Biyonga	0	733	0	733
13 Kayu merah	76	613	0	689
14 Hunggaluwa	1,128	241	0	1,369
15 Tungulo	55	18	0	73
VII Tapa				
16 Longalo	0	265	0	265
17 Tupa	0	227	0	227
VIII Telaga				
18 Tilote	237	123	0	360
IX Suwawa				
19 Lombongo	125	91	1	217
20 Pinogu	0	587	0	587

note: "Batu bara (coal)" is not used at all in these villages

Sumber: Profil Desa/Kelurahan masing-masing desa, 1999 dan 2000 (Departemen Dalam Negeri Republik Indonesia) (Halaman 36)

Nama Desa yang disurvei dan Jumlah responden menurut Kriteria Ekonomi dan Jenis Kelamin
Surveyed Villages, Number of respondents, by sex and economic status

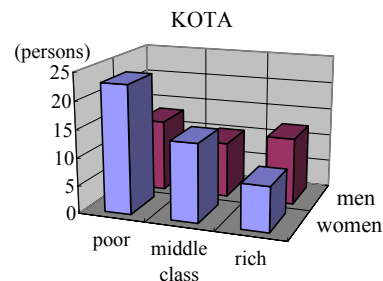
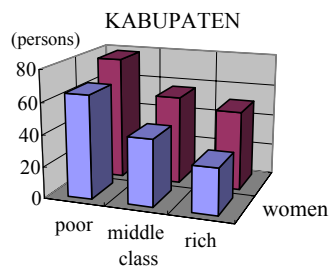
Kota/Kecamatan/Desa	Belum Berhasil (unsuccessful)			Menengah (middle class)			Berhasil (successful)			Jumlah (total)		
	P	W	P+W	P	W	P+W	P	W	P+W	P	W	P+W
Study Area	91	88	179	66	56	122	62	37	99	219	181	400
% of total number	23	22	45	17	14	31	16	9	25	55	45	100
<i>Kota Gorontalo</i>	13	23	36	10	14	24	12	8	20	35	45	80
% of total number	16	29	45	13	18	30	15	10	25	44	56	100
I. Kota Selatan												
1 Kelurahan Talumolo	4	5	9	2	4	6	4	1	5	10	10	20
2 Kel. Siendeng	2	7	9	2	4	6	0	5	5	4	16	20
II. Kota Barat												
3 Kel. Molosipat W	3	6	9	2	4	6	4	1	5	9	11	20
III. Kota Utara												
4 Kel. Dulomo Selatan	4	5	9	4	2	6	4	1	5	12	8	20
<i>Kabupaten Gorontalo</i>	78	65	143	56	42	98	50	29	79	184	136	320
% of total number	24	20	45	18	13	31	16	9	25	58	43	100
IV. Tibawa (kecamatan)												
5 Labanu (desa)	4	5	9	4	2	6	3	2	5	11	9	20
6 Datahu	4	5	9	3	3	6	2	3	5	9	11	20
7 Isimu Selatan	7	2	9	2	4	6	4	1	5	13	7	20
V. Batudaa												
8 Tohupo	7	2	9	4	2	6	1	4	5	12	8	20
9 Payunga	7	2	9	5	1	6	5	0	5	17	3	20
10 Pilolalenga	5	4	9	4	2	6	5	0	5	14	6	20
VI. Limboto												
11 Bulota	5	3	8	4	3	7	3	2	5	12	8	20
12 Biyonga	3	6	9	4	2	6	4	1	5	11	9	20
13 Kayu merah	1	8	9	2	4	6	2	3	5	5	15	20
14 Hunggaluwa	3	6	9	5	1	6	2	3	5	10	10	20
15 Tunggulo	3	6	9	4	2	6	3	2	5	10	10	20
VI Tapa												
16 Longalo	6	3	9	4	2	6	4	1	5	14	6	20
17 Tupa	7	2	9	4	2	6	3	2	5	14	6	20
VI Telaga												
18 Tilote	7	2	9	2	4	6	4	1	5	13	7	20
IX. Suwawa												
19 Lombongo	4	4	8	2	5	7	1	4	5	7	13	20
20 Pinogu	5	5	10	3	3	6	4	0	4	12	8	20

P: Pria (Men), W: Wanita (Women)

Berhasil: dengan melihat keadaan rumah yang permanen/ semen batu bata / permanent house (concrete material)

Menengah: dengan melihat keadaan rumah yang semi permanen/kayu / semi-permanent house or wood construction

Belum berhasil: dengan melihat keadaan rumah yang darurat atau terbuat dari bambu / temporary bamboo construction

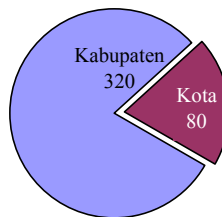
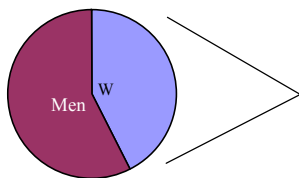


Jumlah dan Usia Rata-rata Responden menurut Jenis Kelamin
Number and Age Average of Responden by Sex

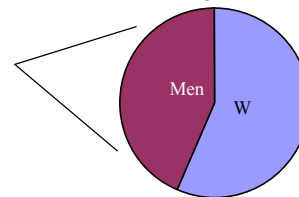
Kota/Kecamatan/Desa	Jumlah (umur rata-rata)		
	Pria	Wanita	Pria+Wanita
Study Area	219 (47)	181 (41)	400 (44)
%	54.8	45.3	100.0
Kota Gorontalo	35 (49)	45 (46)	80 (47)
%	43.8	56.3	100.0
I. Kota Selatan			
1 Kelurahan Talumolo	10 (47)	10 (43)	20 (45)
2 Kel. Siendeng	4 (44)	16 (46)	20 (45)
II. Kota Barat			
3 Kel. Molosipat W	9 (50)	11 (49)	20 (50)
III. Kota Utara			
4 Kel. Dulomo Selatan	12 (52)	8 (43)	20 (48)
Kabupaten Gorontalo	184 (47)	136 (39)	320 (43)
%	57.5	42.5	100.0
IV Tibawa (kecamatan)			
5 Labanu (desa)	11 (47)	9 (41)	20 (44)
6 Datahu	9 (47)	11 (44)	20 (46)
7 Isimu Selatan	13 (48)	7 (39)	20 (44)
V Batudaa			
8 Tahupo	12 (45)	8 (40)	20 (43)
9 Payunga	17 (47)	3 (29)	20 (38)
10 Pilolalenga	14 (46)	6 (40)	20 (43)
VI Limboto			
11 Bulota	12 (46)	8 (43)	20 (45)
12 Biyonga	11 (50)	9 (38)	20 (44)
13 Kayu merah	5 (48)	15 (38)	20 (43)
14 Hunggaluwa	10 (46)	10 (34)	20 (40)
15 Tunggulo	10 (51)	10 (39)	20 (45)
VII Tapa			
16 Longalo	14 (42)	6 (46)	20 (44)
17 Tupa	14 (45)	6 (49)	20 (47)
VIII Telaga			
18 Tilote	13 (53)	7 (34)	20 (44)
IX Suwawa			
19 Lombongo	7 (44)	13 (36)	20 (40)
20 Pinogu	12 (44)	8 (42)	20 (43)

RESPONDENTS (WHOLE AREA)

KABUPATEN

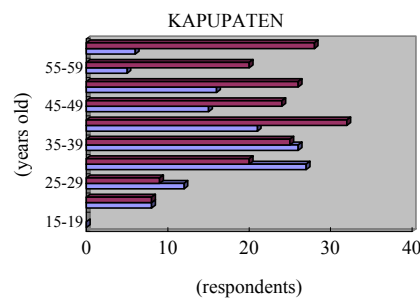
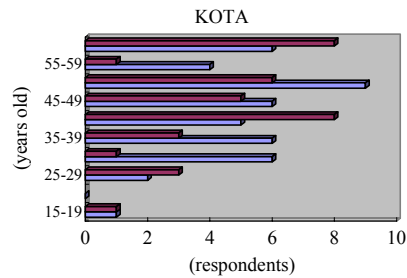
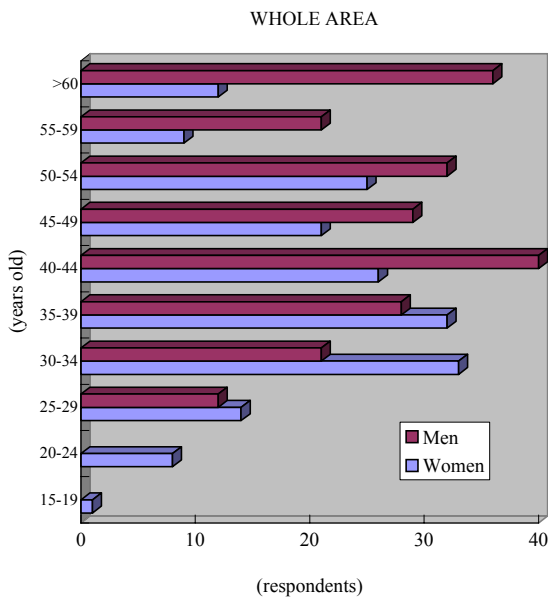


KOTA



Jumlah Responden menurut Jenis Kelamin dan Kelompok Umur/ Respondent by Age Group and Sex

Kota/Kecamatan/Desa		Pria / Wanita									Total	
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59		>60
Study Area	Pria	0	0	12	21	28	40	29	32	21	36	219
	Wanita	1	8	14	33	32	26	21	25	9	12	181
	%	0.3	2.0	6.5	13.5	15.0	16.5	12.5	14.3	7.5	12.0	100
Kota Gorontalo	Pria	0	0	3	1	3	8	5	6	1	8	35
	Wanita	1	0	2	6	6	5	6	9	4	6	45
	%	1.3	0.0	6.3	8.8	11.3	16.3	13.8	18.8	6.3	17.5	100
I. Kota Selatan	1 Kelurahan Talumolo	0/1	0/0	2/1	0/1	1/0	2/2	1/1	2/1	0/2	2/1	10
	2 Kel. Siendeng	0/0	0/0	0/0	0/2	2/3	1/1	0/5	0/3	1/0	0/2	4
	II. Kota Barat											
	3 Kel. Molosipat W	0/0	0/0	0/1	0/1	0/1	3/1	2/0	2/3	0/2	2/2	9
III. Kota Utara												
	4 Kel. Dulomo Selatan	0/0	0/0	1/0	1/2	0/2	2/1	2/0	2/2	0/0	4/1	12
Kob. Gorontalo	Pria	0	0	9	20	25	32	24	26	20	28	184
	Wanita	0	8	12	27	26	21	15	16	5	6	136
	%	0.0	2.5	6.6	14.7	15.9	16.6	12.2	13.1	7.8	10.6	100
IV. Tibawa												
	5 Labanu	0/0	0/0	1/0	2/3	0/1	1/2	1/1	2/2	2/0	2/0	11/9
	6 Datahu	0/0	0/0	1/2	0/1	2/2	0/1	1/2	2/0	2/1	1/2	9/11
V. Batudaa												
	7 Isimu Selatan	0/0	0/0	0/1	1/1	1/2	2/2	0/0	3/0	3/1	1/0	13/7
VI. Limboto												
	8 Tahupo	0/0	0/0	0/0	0/1	6/2	2/3	1/1	0/1	1/0	2/0	12/8
	9 Payunga	0/0	0/1	3/1	2/0	2/0	3/1	1/0	1/0	1/0	4/0	17/3
	10 Pilolalenga	0/0	0/0	1/0	1/1	1/1	3/0	3/2	3/1	0/0	2/0	14/6
VII. Tapa												
	11 Bulota	0/0	0/0	0/0	2/3	1/0	2/2	4/2	2/0	0/0	1/1	12/8
	12 Biyonga	0/0	0/2	0/1	0/0	0/2	6/0	0/1	2/3	1/0	2/0	11/9
	13 Kayu merah	0/0	0/1	0/3	0/2	2/2	0/2	1/1	1/3	0/1	1/0	5/15
	14 Hunggaluwa	0/0	0/0	0/2	3/4	0/3	2/0	1/0	1/1	0/0	3/0	10/10
VIII. Telaga												
	15 Tunggulo	0/0	0/1	0/0	0/2	1/2	1/2	2/1	2/1	2/1	2/0	10/10
IX. Suwawa												
	16 Longalo	0/0	0/1	0/0	5/0	3/1	1/1	2/1	1/1	1/0	1/1	14/6
X. Pinogu												
	17 Tupa	0/0	0/0	0/0	1/1	2/0	6/0	2/2	0/1	2/1	1/1	14/6
XII. Suwawa												
	18 Tilote	0/0	0/0	0/0	0/4	2/3	2/0	1/0	1/0	4/0	3/0	13/7
XIII. Pinogu												
	19 Lombongo	0/0	0/2	1/0	1/3	1/4	1/3	0/0	2/1	0/0	1/0	7/13
XIV. Pinogu												
	20 Pinogu	0/0	0/0	2/2	2/0	1/1	0/2	2/1	3/1	1/0	1/1	12/8



Jumlah Anggota Rumahtangga, Rata-rata Anggota Rumahtangga dan Rasio Jenis Kelamin
Number of Family Mmembers Average and Sex Ratio
(termasuk responden/ including respondent self)

Kota/Kecamatan/Desa	Jumlah anggota rumahtangga			Rata-rata Jumlah anggota RT	
	Pria (P)	Wanita (W)	Total	Rasio P/W	
Study area	1,111	1,092	2,203	102	5.51
<i>Kota Gorontalo</i>	231	235	466	98	5.83
I. Kota Selatan					
1 Kelurahan Talumolo	55	56	111	98	5.55
2 Kel. Siendeng	57	55	112	104	5.6
II. Kota Barat					
3 Kel. Molosipat W	53	71	124	75	6.2
III. Kota Utara					
4 Kel. Dulomo Selatan	66	53	119	125	5.95
<i>Kabupaten Gorontalo</i>	880	857	1,737	103	5.43
IV Tibawa					
5 Labanu	61	63	124	97	6.2
6 Datahu	46	52	98	88	4.9
7 Isimu Selatan	69	57	126	121	6.3
V Batudaa					
8 Tahupo	51	59	110	86	5.5
9 Payunga	50	45	95	111	4.75
10 Pilolalenga	52	51	103	102	5.15
VI Limboto					
11 Bulota	60	51	111	118	5.55
12 Biyonga	57	54	111	106	5.55
13 Kayu merah	44	37	81	119	4.05
14 Hunggaluwa	50	66	116	76	5.8
15 Tungulo	58	53	111	109	5.55
VII Tapa					
16 Longalo	57	49	106	116	5.3
17 Tupa	51	63	114	81	5.7
VIII Telaga					
18 Tilote	64	57	121	112	6.05
IX Suwawa					
19 Lombongo	65	56	121	116	6.05
20 Pinogu	45	44	89	102	4.45

Jumlah Anggota Rumahtangga menurut Kelompok Anggota (termasuk responden)
Number of Family Members by Size of Family (Including respondent)

Kota/Kecamatan/Desa number of members	Jumlah anggota rumahtangga (Pria + Wanita)					Total
	1-3	4-6	7-9	10-12	13-15	
Study area (jumlah rumahtangga)	71	220	83	20	6	400
%	18	55	21	5	2	100
<i>Kota Gorontalo</i>	12	42	19	5	2	80
%	15	52.5	24	6	2.5	100
I. Kota Selatan						
1 Kelurahan Talumolo	4	9	6	1	0	20
2 Kel. Siendeng	3	10	7	0	0	20
II. Kota Barat						
3 Kel. Molosipat W	1	12	4	2	1	20
III. Kota Utara						
4 Kel. Dulomo Selatan	4	11	2	2	1	20
<i>Kabupaten Gorontalo</i>	59	178	64	15	4	320
%	18	56	20	5	1	100
IV Tibawa						
5 Labanu	4	9	3	4	0	20
6 Datahu	4	14	2	0	0	20
7 Isimu Selatan	1	11	5	3	0	20
V Batudaa						
8 Tahupo	3	12	4	0	1	20
9 Payunga	4	12	4	0	0	20
10 Pilolalenga	5	9	4	2	0	20
VI Limboto						
11 Bulota	4	10	5	1	0	20
12 Biyonga	7	6	5	1	1	20
13 Kayu merah	7	12	1	0	0	20
14 Hunggaluwa	2	13	3	1	1	20
15 Tungulo	1	13	6	0	0	20
VII Tapa						
16 Longalo	3	13	3	1	0	20
17 Tupa	2	11	7	0	0	20
VIII Telaga						
18 Tilote	2	11	6	1	0	20
IX Suwawa						
19 Lombongo	2	13	3	1	1	20
20 Pinogu	8	9	3	0	0	20

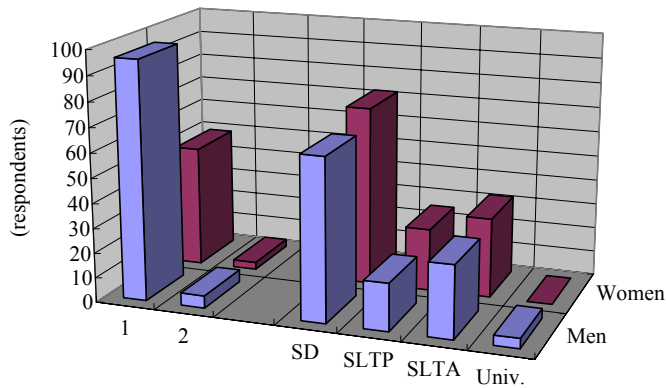
Jumlah dan Rata-rata Anggota Rumahtangga yang bekerja menurut Kelompok
Working Members in a Family/ Household (termasuk responden / including respondent self)
Number of Household per Number of Working Family Members (including respondent)

Kota/Kecamatan/Desa number of working members	Jumlah anggota rumahtangga yang bekerja/berpenghasilan					Jumlah tenaga kerja rumahtangga			Rata-rata tenaga kerja RT rumahtangga
	Pria dan Wanita					Pria (P)	Wanita (W)	Total	
	1-2	3-4	5-6	7-8	Total				
Study area	296	87	16	1	400	609	332	941	2.32
%	74.0	21.8	4.0	0.3	100.0	64.7	35.3	100	100
<i>Kota Gorontalo</i>	50	27	2	1	80	118	63	181	2.26
%	62.5	33.8	2.5	1.3	100.0	65.2	34.8	100.0	100
I. Kota Selatan									
1 Kelurahan Talumolo	16	4	0	0	20	25	10	35	1.75
2 Kel. Siendeng	9	11	0	0	20	32	16	48	2.4
II. Kota Barat									
3 Kel. Molosipat W	13	5	2	0	20	21	24	45	2.25
III. Kota Utara									
4 Kel. Dulomo Selatan	12	7	0	1	20	40	13	53	2.65
<i>Kabupaten Gorontalo</i>	246	60	14	0	320	491	269	760	2.38
%	76.9	18.8	4.4	0.0	100.0	64.6	35.4	100	100
IV Tibawa									
5 Labanu	15	4	1	0	20	30	12	42	2.1
6 Datahu	15	4	1	0	20	30	12	42	2.1
7 Isimu Selatan	13	4	3	0	20	34	16	50	2.5
V Batudaa									
8 Tahupo	14	5	1	0	20	29	15	44	2.2
9 Payunga	17	3	0	0	20	23	12	35	1.75
10 Pilolalenga	18	2	0	0	20	28	6	34	1.7
VI Limboto									
11 Bulota	15	4	1	0	20	39	32	71	3.55
12 Biyonga	17	2	1	0	20	35	30	65	3.25
13 Kayu merah	20	0	0	0	20	30	22	52	2.6
14 Hunggaluwa	13	5	2	0	20	43	31	74	3.7
15 Tungulo	15	5	0	0	20	36	27	63	3.15
VII Tapa									
16 Longalo	16	1	3	0	20	27	15	42	2.1
17 Tupa	17	2	1	0	20	25	14	39	1.95
VIII Telaga									
18 Tilote	18	2	0	0	20	26	9	35	1.75
IX Suwawa									
19 Lombongo	13	7	0	0	20	30	8	38	1.9
20 Pinogu	10	10	0	0	20	26	8	34	1.7

**Tingkat Pendidikan Responden Pria dan Wanita /
Education of Respondent**

Average, the lowest and the high Tingkat Pendidikan		Pria dan Wanita (Pria, Wanita)															
		TS	SD	TT	SD	SLTP	SLTA	AK	UNIV	Total							
Study Area	Pria	5	96		65	19	29	0	4	218							
	Wanita	3	49		72	25	32	0	0	181							
	%	<i>2.0</i>	<i>36.3</i>		<i>34.3</i>	<i>11.0</i>	<i>15.3</i>	<i>0.0</i>	<i>1.0</i>	<i>99.8</i>							
<i>Kota Gorontalo</i>	Pria	0	12		11	2	8	0	1	34							
	Wanita	1	7		18	9	10	0	0	45							
	%	<i>1.3</i>	<i>24.1</i>		<i>36.7</i>	<i>13.9</i>	<i>22.8</i>	<i>0.0</i>	<i>1.3</i>	<i>100.0</i>							
I. Kota Selatan		<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>						
1 Kelurahan Talumolo		0	0	2	3	4	3	1	2	2	2	0	0	1	0	10	10
2 Kel. Siendeng		0	1	2	3	0	4	1	4	1	4	0	0	0	0	4	16
II. Kota Barat																	
3 Kel. Molosipat W		0	0	3	0	3	5	0	2	3	4	0	0	0	0	9	11
III. Kota Utara																	
4 Kel. Dulomo Selatan		0	0	5	1	4	6	0	1	2	0	0	0	0	0	11	8
<i>Kabupaten Gorontalo</i>	Pria	5	84		54	17	21	0	3	184							
	Wanita	2	42		54	16	22	0	0	136							
	%	<i>2.2</i>	<i>39.4</i>		<i>33.8</i>	<i>10.3</i>	<i>13.4</i>	<i>0.0</i>	<i>0.9</i>	<i>100.0</i>							
IV Tibawa		<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>	<u>P</u>	<u>W</u>
5 Labanu		0	0	2	2	5	5	2	1	2	1	0	0	0	0	11	9
6 Datahu		0	1	2	2	5	6	0	1	1	1	0	0	1	0	9	11
7 Isimu Selatan		1	0	4	2	3	3	3	1	2	1	0	0	0	0	13	7
V Batudaa																	
8 Tahupo		1	1	3	4	5	0	1	1	2	2	0	0	0	0	12	8
9 Payunga		0	0	13	2	0	0	2	0	2	1	0	0	0	0	17	3
10 Pilolalenga		0	0	10	3	2	1	1	1	1	1	0	0	0	0	14	6
VI Limboto																	
11 Bulota		0	0	6	1	5	3	1	1	0	3	0	0	0	0	12	8
12 Biyonga		1	0	4	1	3	5	0	1	2	2	0	0	1	0	11	9
13 Kayu merah		0	0	3	7	2	5	0	1	0	2	0	0	0	0	5	15
14 Hunggaluwa		0	0	7	3	2	4	0	1	1	2	0	0	0	0	10	10
15 Tungulo		0	0	4	2	5	2	0	3	1	3	0	0	0	0	10	10
VII Tapa																	
16 Longalo		0	0	6	4	3	2	1	0	4	0	0	0	0	0	14	6
17 Tupa		1	0	5	2	4	3	3	1	1	0	0	0	0	0	14	6
VIII Telaga																	
18 Tilote		1	0	7	2	3	5	0	0	1	0	0	0	1	0	13	7
IX Suwawa																	
19 Lombongo		0	0	3	2	2	5	1	3	1	3	0	0	0	0	7	13
20 Pinogu		0	0	5	3	5	5	2	0	0	0	0	0	0	0	12	8

EDUCATION OF RESPONDENTS

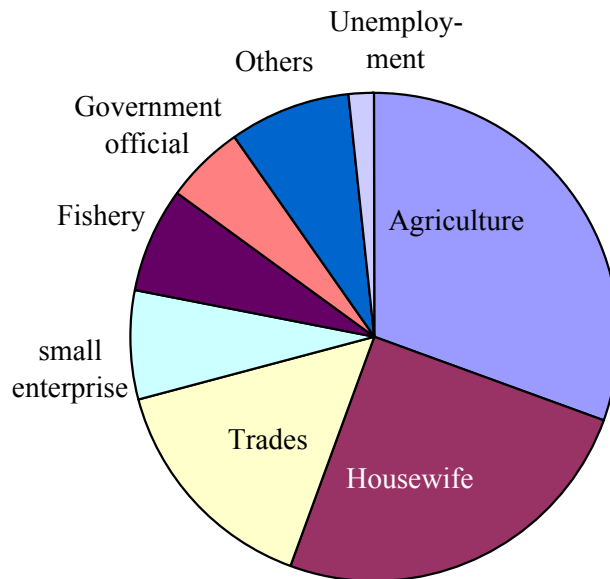


1: Tidak tamat sekolah dasar /
Did not finish elementary school
2: Tidak sekolah / Never went to school
SD: Elementary School
SLTP: Junior High School
SLTA: Senior High School
AK: Akademi/Dipl I, II, III / College
Univ.: University

Jenis Mata pencarian dari responden pria dan wanita
Average, the lowest and the highest (the range) of Household Income

Jenis Pekerjaan (English)	Pria		Wanita		Total	
	#	%	#	%	#	%
Pertanian <i>Agriculture</i>	118	54	4	2	122	31
Nelayan <i>Fishery</i>	28	13	0	0	28	7
Dagang <i>Trades</i>	25	11	36	20	61	15
Pensiunan <i>Retired</i>	8	4	2	1	10	3
PNS/ABRI <i>Civil Servant/Military</i>	6	3	5	3	11	3
Tukang <i>Carpenter</i>	5	2	2	1	7	2
Angkutan <i>Bisnist Transportation</i>	5	2	0	0	5	1
Wiraswasta <i>Enterpreuner</i>	3	1	0	0	3	1
Bengkel <i>Reparation</i>	2	1	0	0	2	1
Imam <i>Religion official</i>	2	1	0	0	2	1
Ibu Rumahtangga <i>Housewife</i>	0	0	100	55	100	25
Kerajinan <i>Handycraft</i>	0	0	15	8	15	4
Industri Rumahtangga <i>Home Industry</i>	0	0	2	1	2	1
Tidak bekerja <i>Unemployment</i>	5	2	2	1	7	2
Lainnya <i>Others</i>	12	5	13	7	25	6
Total	219	100	181	100	400	100

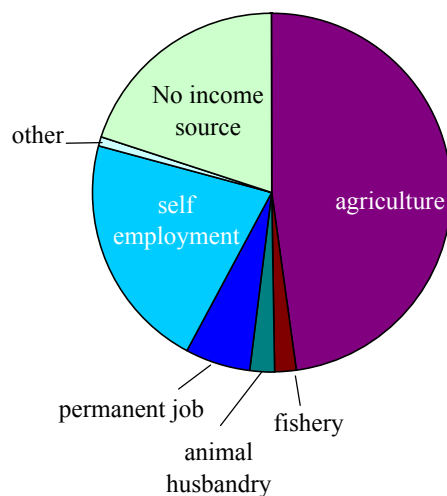
PROFESSION OF RESPONDENTS



Jumlah Rumahtangga menurut Sumber Pendapatan Utama
Number of Household by Main Source of Income

Kota/Kecamatan/Desa	a	b	c	d	e	f	g	h	Total
Area Studi	191	7	9	24	80	85	2	1	399
%	<i>47.9</i>	<i>1.8</i>	<i>2.3</i>	<i>6.0</i>	<i>20.1</i>	<i>21.3</i>	<i>0.5</i>	<i>0.3</i>	<i>100</i>
<i>Kota Gorontalo</i>	21	3	1	7	26	19	2	1	80
%	<i>26.3</i>	<i>3.8</i>	<i>1.3</i>	<i>8.8</i>	<i>32.5</i>	<i>23.8</i>	<i>2.5</i>	<i>1.3</i>	<i>100</i>
<hr style="border-top: 1px dashed black;"/>									
I. Kota Selatan									
1 Kelurahan Talumolo	2	3	0	4	6	2	2	1	20
2 Kel. Siendeng	2	0	1	1	7	9	0	0	20
II. Kota Barat									
3 Kel. Molosipat W	5	0	0	2	6	7	0	0	20
III. Kota Utara									
4 Kel. Dulomo Selatan	12	0	0	0	7	1	0	0	20
<i>Kabupaten Gorontalo</i>	170	4	8	17	54	66	0	0	319
%	<i>53</i>	<i>1</i>	<i>3</i>	<i>5</i>	<i>17</i>	<i>21</i>	<i>0</i>	<i>0</i>	<i>100</i>
<hr style="border-top: 1px dashed black;"/>									
IV Tibawa									
5 Labanu	10	0	0	2	5	3	0	0	20
6 Datahu	8	0	0	1	4	7	0	0	20
7 Isimu Selatan	14	0	0	1	1	4	0	0	20
V Batudaa									
8 Tahupo	13	0	1	2	3	1	0	0	20
9 Payunga	4	0	0	0	3	13	0	0	20
10 Pilolalenga	8	0	0	1	6	4	0	0	19
VI Limboto									
11 Bulota	13	0	0	3	4	0	0	0	20
12 Biyonga	16	0	0	1	3	0	0	0	20
13 Kayu merah	9	0	2	0	5	4	0	0	20
14 Hunggaluwa	4	4	1	0	6	5	0	0	20
15 Tungulo	10	0	2	1	5	2	0	0	20
VII Tapa									
16 Longalo	16	0	0	0	2	2	0	0	20
17 Tupa	13	0	0	2	4	1	0	0	20
VII Telaga									
18 Tilote	2	0	1	2	1	14	0	0	20
IX Suwawa									
19 Lombongo	12	0	1	1	1	5	0	0	20
20 Pinogu	18	0	0	0	1	1	0	0	20

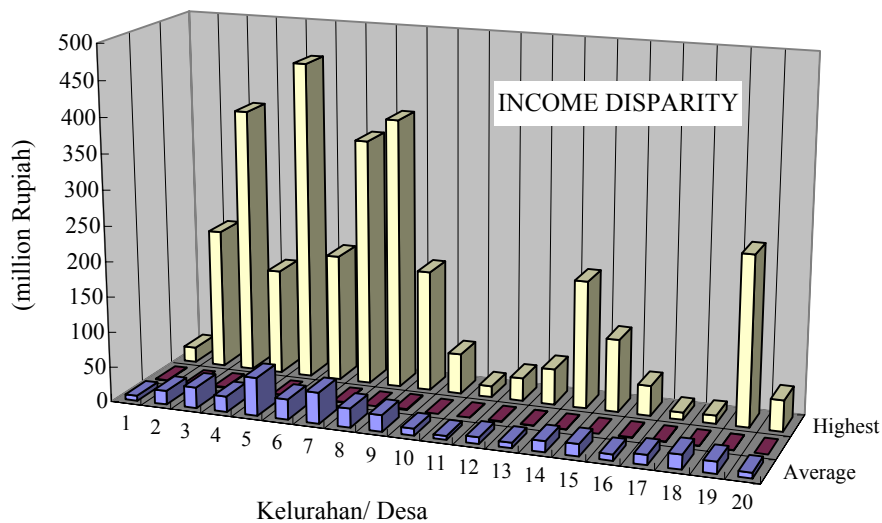
MAIN INCOME SOURCE OF RESPONDENTS



a= Pertanian/ Agriculture
b= Perikanan / Fishery
c= Peternakan / Animal husbandry
d= Pekerjaan tetap / Permanent job
e= Usaha pribadi/ Self employment
f= Kiriman
g = Lainnya / Other

**Pendapatan Keluarga/
Rumahtangga Rara-rata dan Pendapatan Terendah dan Tertinggi
Average, the lowest and the highest (the range) of Household Income**

Kota/Kecamatan/Desa	Jumlah RT Total Household	Jumlah Pendapatan / Total (Rupiah)		
		rata-rata average	terendah lowest	tertinggi highest
Wilayah Studi	398	19,683,834	70,000	450,950,000
<i>Kota Gorontalo</i>	78	20,026,821	240,000	376,920,000
I. Kota Selatan				
1 Kelurahan Talumolo	18	7,257,778	700,000	21,600,000
2 Kel. Siendeng	20	19,582,450	240,000	199,200,000
II. Kota Barat				
3 Kel. Molosipat W	20	29,704,850	1,076,000	376,920,000
III. Kota Utara				
4 Kel. Dulomo Selatan	20	22,285,300	416,000	149,700,000
<i>Kabupaten Gorontalo</i>	320	19,340,848	70,000	450,950,000
IV Tibawa				
5 Labanu	20	54,059,875	320,000	450,950,000
6 Datahu	20	29,053,900	900,000	180,000,000
7 Isimu Selatan	20	43,815,435	585,000	349,040,000
V Batudaa				
8 Tahupo	20	26,876,125	75,000	381,762,000
9 Payunga	20	23,395,850	1,622,000	170,880,000
10 Pilolalenga	20	9,874,705	86,400	56,880,000
VI Limboto				
11 Bulota	20	5,439,300	450,000	15,680,000
12 Biyonga	20	9,238,200	570,000	32,400,000
13 Kayu merah	20	7,440,425	263,500	50,460,000
14 Hunggaluwa	20	15,471,075	450,000	180,000,000
15 Tungulo	20	17,090,685	70,000	102,800,000
VII Tapa				
16 Longalo	20	8,875,500	655,000	42,600,000
17 Tupa	20	13,940,445	490,000	10,460,000
VIII Telaga				
18 Tilote	20	20,335,450	576,000	11,520,000
IX Suwawa				
19 Lombongo	20	16,649,100	255,000	240,000,000
20 Pinogu	20	7,897,500	100,000	43,900,000

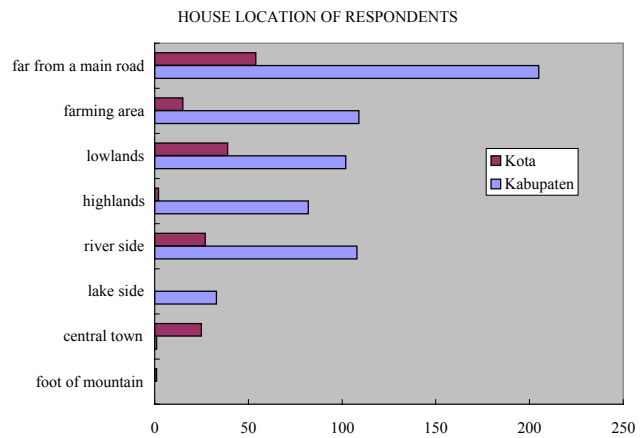
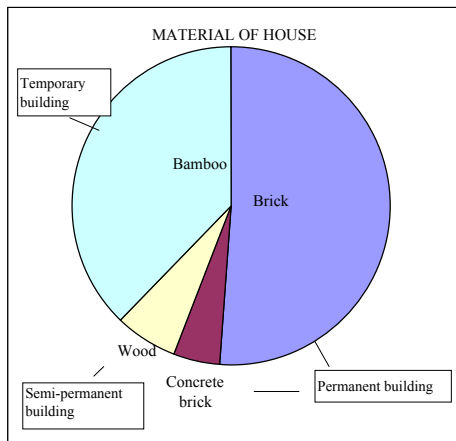


Jumlah rumahtangga menurut kelompok pendapatan
Number of Households by Annual Income Level

Kota/Kecamatan/Desa	Kelompok Pendapatan/ Income Level (million rupiah)										Total
	< 0.5	0.5 - 1	1.01- 5	5.01- 10	10.01- 50	50.01- 100	100.01- 200	200.01- 300	300.01- 400	400 <	
Wilayah Studi	31	33	130	79	92	13	14	3	2	1	398
%	7.8	8.3	32.7	19.8	23.1	3.3	3.5	0.8	0.5	0.3	100
<i>Kota Gorontalo</i>	3	6	25	15	23	2	3	1	0	0	78
%	3.8	7.7	32.1	19.2	29.5	2.6	3.8	1.3	0.0	0.0	100
I. Kota Selatan											
1 Kelurahan Talumolo	-	3	8	3	4	-	-	-	-	-	18
2 Kel. Siendeng	1	2	6	5	5	-	1	-	-	-	20
II. Kota Barat											
3 Kel. Molosipat W	-	-	5	5	7	2	-	1	-	-	20
III. Kota Utara											
4 Kel. Dulomo Selatan	2	1	6	2	7	-	2	-	-	-	20
<i>Kabupaten Gorontalo</i>	28	27	105	64	69	11	11	2	2	1	320
%	8.8	8.4	32.8	20.0	21.6	3.4	3.4	0.6	0.6	0.3	100
IV. Tibawa											
5 Labanu	2	1	5	2	7	-	1	1	-	1	20
6 Datahu	-	1	8	4	4	1	2	-	-	-	20
7 Isimu Selatan	-	3	6	4	3	1	2	-	1	-	20
V. Batudaa											
8 Tahupo	4	2	6	4	2	1	-	-	1	-	20
9 Payunga	-	-	5	7	5	1	2	-	-	-	20
10 Pilolalenga	3	2	8	1	5	1	-	-	-	-	20
VI. Limboto											
11 Bulota	2	3	7	3	5	-	-	-	-	-	20
12 Biyonga	2	1	7	4	6	-	-	-	-	-	20
13 Kayu merah	4	2	6	5	2	1	-	-	-	-	20
14 Hunggaluwa	1	2	7	5	4	-	1	-	-	-	20
15 Tungulo	2	-	6	4	6	1	1	-	-	-	20
VII. Tapa											
16 Longalo	-	4	5	5	5	1	-	-	-	-	20
17 Tupa	3	4	4	2	5	1	1	-	-	-	20
VIII. Telaga											
18 Tilote	-	1	8	5	3	2	1	-	-	-	20
IX. Suwawa											
19 Lombongo	3	1	10	1	4	-	-	1	-	-	20
20 Pinogu	2	-	7	8	3	-	-	-	-	-	20

Letak dan Kondisi Rumah / Location and Structure of the Respondents' House

Kota/Kecamatan/Desa	Letak rumah								Jumlah Responden	Kondisi Rumah				Total
	a	b	c	d	e	f	g	h		Darurat	Semi permanen	Permanen		
	di sisi sungai	di sisi danau	dekat jalan utama	di pusat kota	di daerah pertanian	di dataran rendah	di dataran tinggi	di kaki gunung		Bambu	Kayu	Tembok batako	Tembok batu bata	
Whole Area	135	33	259	26	124	141	84	1	400	150	26	19	203	398
<i>Kota Gorontalo</i>	<i>27</i>	<i>0</i>	<i>54</i>	<i>25</i>	<i>15</i>	<i>39</i>	<i>2</i>	<i>1</i>	<i>80</i>	<i>24</i>	<i>5</i>	<i>4</i>	<i>44</i>	<i>77</i>
I. Kota Selatan										<i>31</i>	<i>6</i>	<i>-</i>	<i>-</i>	<i>100</i>
1 Kelurahan Talumolo	9	-	12	9	-	10	2	1	20	6	0	1	10	17
2 Kel. Siendeng	11	-	8	8	-	10	-	-	20	7	0	2	11	20
II. Kota Barat														
3 Kel. Molosipat W	3	-	18	8	-	9	-	-	20	5	2	1	12	20
III. Kota Utara														
4 Kel. Dulomo Selatan	4	-	16	0	15	10	-	-	20	6	3	0	11	20
<i>Kabupaten Gorontalo</i>	<i>108</i>	<i>33</i>	<i>205</i>	<i>1</i>	<i>109</i>	<i>102</i>	<i>82</i>	<i>0</i>	<i>320</i>	<i>126</i>	<i>21</i>	<i>15</i>	<i>159</i>	<i>321</i>
IV. Tibawa										<i>39</i>	<i>7</i>	<i>-</i>	<i>-</i>	<i>100</i>
5 Labanu	9	-	17	-	6	2	9	-	20	5	3	2	10	20
6 Datahu	8	-	17	1	8	10	-	-	20	7	0	1	12	20
7 Isimu Selatan	2	1	11	-	10	9	-	-	20	9	1	0	10	20
V. Batudaa														
8 Tahupo	10	-	5	-	10	0	13	-	20	7	3	0	10	20
9 Payunga	5	12	5	-	5	9	-	-	20	8	1	0	11	20
10 Pilolalenga	11	-	9	-	7	9	2	-	20	8	1	0	11	20
VI. Limboto														
11 Bulota	15	-	9	-	6	1	14	-	20	9	0	2	9	20
12 Biyonga	7	-	15	-	5	6	6	-	20	9	0	0	11	20
13 Kayu merah	4	-	12	-	9	8	4	-	20	10	0	0	10	20
14 Hunggaluwa	14	6	8	-	7	11	-	-	20	9	0	1	10	20
15 Tungulo	0	-	18	-	6	6	-	-	20	9	0	2	9	20
VII. Tapa														
16 Longalo	2	-	16	-	5	1	11	-	20	5	3	2	10	20
17 Tupa	6	-	17	-	5	2	8	-	20	6	0	2	12	20
VIII. Telaga														
18 Tilote	8	14	13	-	5	13	-	-	20	6	2	1	11	20
IX. Suwawa														
19 Lombongo	7	-	18	-	5	5	5	-	20	10	0	2	8	20
20 Pinogu	-	-	15	-	10	10	10	-	20	9	7	0	5	21

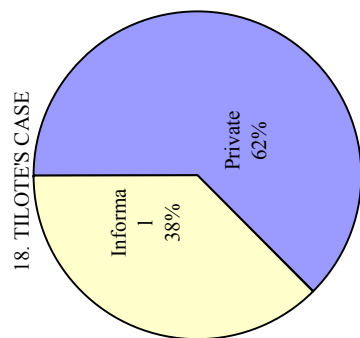
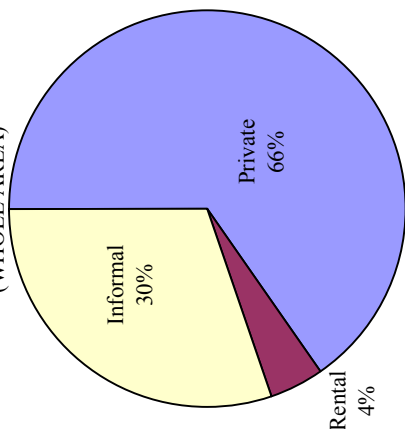


**Luas rata-rata penguasaan tanah untuk produksi pertanian /
Average Of Agricultural Production Land By Land Status**

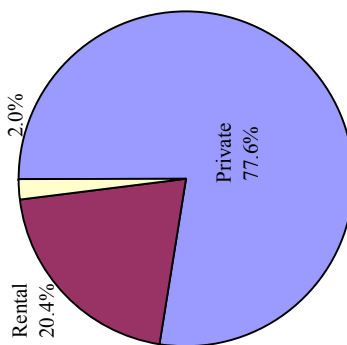
Kota/Kecamatan/Desa	Milik	Sewa	Penguasaan Informal	Total (ha)
Whole Survey Area	0.58	0.04	0.27	0.88
	65.9	4.5	30.7	100
<i>Kota Gorontalo</i>	0.23	0.02	0.08	0.33
	70	6	24	100
<i>Kabupaten Gorontalo</i>	0.93	0.05	0.46	1.44
	65	3	32	100
2 Kel. Siendeng	0.0	0.03	0.0	0.03
3 Kel. Dulomo Selatan	0.40	0.05	0.24	0.69
12 Biyonga	1.18	0.31	0.03	1.52
14 Hunggaluwa	0.04	0.06	6.00	6.10
18 Tilote	0.05	0.0	0.03	0.08

(Some extreme cases highlighted)

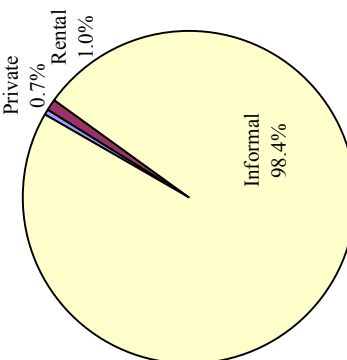
AVERAGE AREA OF USING LAND
(WHOLE AREA)



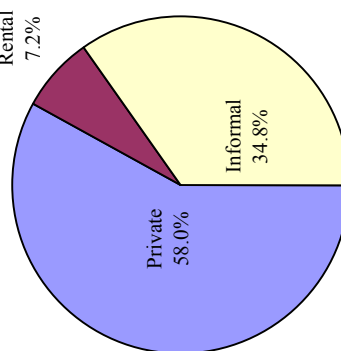
12. BIYONGA'S CASE



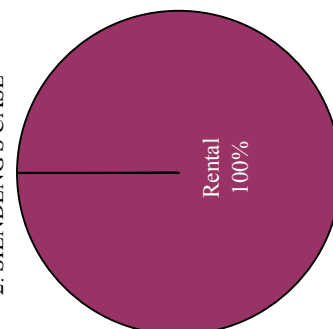
14. HUNGGALUWA'S CASE



4. KEL. DULOMO SELATAN



2. SIENDENG'S CASE



Pemilikan Lahan Pekarangan/ Size of Premises

Kota/Kecamatan/Desa	Luas (square meters)				Total
	< 50	51-500	501-1000	1000 <	
Wilayah penelitian	37	195	129	25	386
%	9.6	50.5	33.4	6.5	100
<i>Kota Gorontalo</i>	12	39	19	6	76
%	15.8	51.3	25.0	7.9	100
I. Kota Selatan					
1 Kelurahan Talumolo	6	11	1	0	18
2 Kel. Siendeng	2	13	4	1	20
II. Kota Barat					
3 Kel. Molosipat W	1	10	6	1	18
III. Kota Utara					
4 Kel. Dulomo Selatan	3	5	8	4	20
<i>Kabupaten Gorontalo</i>	25	156	110	19	310
%	8.1	50.3	35.5	6.1	100
IV Tibawa					
5 Labanu	2	9	8	0	19
6 Datahu	1	8	8	3	20
7 Isimu Selatan	2	6	9	3	20
V Batudaa					
8 Tahupo	0	5	10	3	18
9 Payunga	3	13	2	2	20
10 Pilolalenga	0	9	11	0	20
VI Limboto					
11 Bulota	2	8	8	1	19
12 Biyonga	2	11	6	0	19
13 Kayu merah	1	12	5	0	18
14 Hunggaluwa	1	14	5	0	20
15 Tungulo	5	4	8	1	18
VII Tapa					
16 Longalo	0	14	4	2	20
17 Tupa	2	13	5	0	20
VIII Telaga					
18 Tilote	1	17	1	1	20
IX Suwawa					
19 Lombongo	3	9	6	1	19
20 Pinogu	0	4	14	2	20

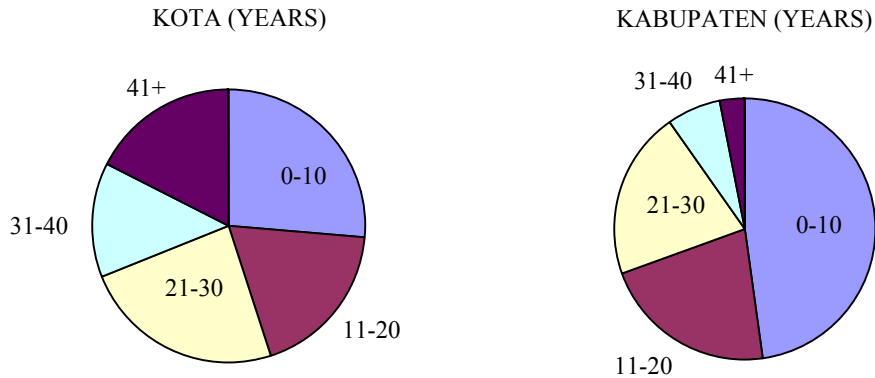
Status Lahan Pekarangan/ Status of Premises

Kota/Kecamatan/Desa	Milik			Bukan milik			Total
	Sendiri	Orangtua	Bersama	Tanah Negara	Pinjam	Numpang	
Studi Area	332	17	5	2	11	26	393
%	<i>84.5</i>	<i>4.3</i>	<i>1.3</i>	<i>0.5</i>	<i>2.8</i>	<i>6.6</i>	<i>100</i>
<i>Kota Gorontalo</i>	62	8	0	1	1	4	76
%	<i>81.6</i>	<i>10.5</i>	<i>0.0</i>	<i>1.3</i>	<i>1.3</i>	<i>5.3</i>	<i>100</i>
<hr/>							
I. Kota Selatan							
1 Kelurahan Talumolo	8	8	-	1	1	-	18
2 Kel. Siendeng	17	-	-	-	-	2	19
II. Kota Barat							
3 Kel. Molosipat W	19	-	-	-	-	1	20
III. Kota Utara							
4 Kel. Dulomo Selatan	18	-	-	-	-	1	19
<i>Kabupaten Gorontalo</i>	270	9	5	1	10	22	317
%	<i>85.2</i>	<i>2.8</i>	<i>1.6</i>	<i>0.3</i>	<i>3.2</i>	<i>6.9</i>	<i>100</i>
<hr/>							
IV Tibawa							
5 Labanu	17	1	-	-	1	1	20
6 Datahu	19	-	-	1	-	-	20
7 Isimu Selatan	18	-	-	-	1	1	20
V Batudaa							
8 Tahupo	16	1	1	-	2	-	20
9 Payunga	16	-	-	-	2	2	20
10 Pilolalenga	19	-	1	-	-	-	20
VI Limboto							
11 Bulota	17	-	-	-	-	3	20
12 Biyonga	18	-	-	-	-	2	20
13 Kayu merah	17	2	-	-	1	-	20
14 Hunggaluwa	17	1	-	-	-	2	20
15 Tungulo	12	3	1	-	1	1	18
VII Tapa							
16 Longalo	18	-	-	-	-	2	20
17 Tupa	12	1	2	-	2	3	20
VIII Telaga							
18 Tilote	19	-	-	-	-	-	19
IX Suwawa							
19 Lombongo	16	-	-	-	-	4	20
20 Pinogu	19	-	-	-	-	1	20

Lamanya tinggal di rumah responden/ How Long Live in the Actual House?

Kota/Kecamatan/Desa	Tahun							Total
	0-10	11-20	21-30	31-40	41-50	51-60	60+	
Wilayah Studi	174	84	86	32	8	12	4	400
%	<i>43.5</i>	<i>21.0</i>	<i>21.5</i>	<i>8</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>100</i>
<i>Kota Gorontalo</i>	21	15	19	11	6	5	3	80
%	<i>26.3</i>	<i>18.8</i>	<i>23.8</i>	<i>13.8</i>	<i>7.5</i>	<i>6.3</i>	<i>3.8</i>	<i>100</i>
<hr style="border-top: 1px dashed black;"/>								
I. Kota Selatan								
1 Kelurahan Talumolo	7	3	5	5	0	0	0	20
2 Kel. Siendeng	6	2	3	2	4	3	0	20
II. Kota Barat								
3 Kel. Molosipat W	5	2	10	0	0	2	1	20
III. Kota Utara								
4 Kel. Dulomo Selatan	3	8	1	4	2	0	2	20
<i>Kabupaten Gorontalo</i>	153	69	67	21	2	7	1	320
%	<i>47.8</i>	<i>21.6</i>	<i>20.9</i>	<i>6.6</i>	<i>0.6</i>	<i>2.2</i>	<i>0.3</i>	<i>100</i>
<hr style="border-top: 1px dashed black;"/>								
IV Tibawa								
5 Labanu	11	2	5	1	0	1	0	20
6 Datahu	9	4	2	5	0	0	0	20
7 Isimu Selatan	8	6	4	1	0	0	1	20
V Batudaa								
8 Tahupo	11	3	5	0	0	1	0	20
9 Payunga	12	4	2	1	1	0	0	20
10 Pilolalenga	10	6	4	0	0	0	0	20
VI Limboto								
11 Bulota	8	6	4	1	0	1	0	20
12 Biyonga	10	7	3	0	0	0	0	20
13 Kayu merah	12	1	5	0	0	2	0	20
14 Hunggaluwa	10	4	3	1	1	1	0	20
15 Tungulo	5	4	6	5	0	0	0	20
VII Tapa								
16 Longalo	10	4	4	2	0	0	0	20
17 Tupa	9	6	4	0	0	1	0	20
VIII Telaga								
18 Tilote	9	5	3	3	0	0	0	20
IX Suwawa								
19 Lombongo	9	6	4	1	0	0	0	20
20 Pinogu	10	1	9	0	0	0	0	20

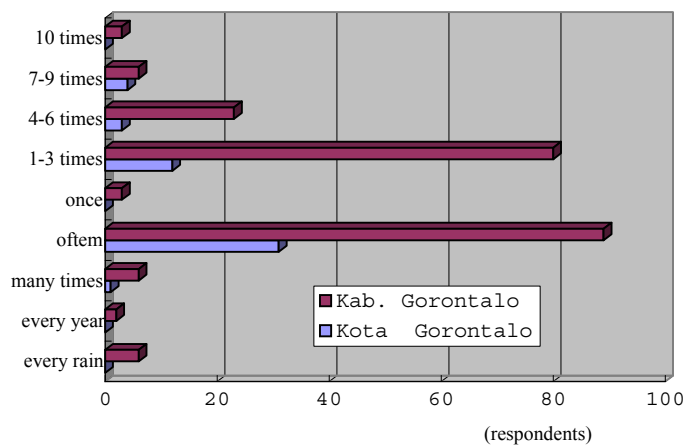
HOW LONG LIVING AT THE PRESENT RESIDENCE?



Jumlah banjir yang dialami/ Number of Floods the Respondents Experienced

Kota/Kecamatan/Desa	Jumlah banjir yang dialami									Total
	1-3 kali	4-6 kali	7-9 kali	10 kali	pernah	sering	banyak sekali	setiap tahun	setiap hujan	
Wilayah Studi	92	26	10	3	3	120	7	2	6	269
%	34.2	9.7	3.7	1.1	1.1	44.6	2.6	0.7	2.2	100
<i>Kota Gorontalo</i>	12	3	4	0	0	31	1	0	0	51
%	23.5	5.9	7.8	0.0	0.0	60.8	2.0	0.0	0.0	100
I. Kota Selatan										
1 Kelurahan Talumolo	9	0	2	0	0	0	0	0	0	11
2 Kel. Siendeng	0	2	2	0	0	15	1	0	0	20
II. Kota Barat										
3 Kel. Molosipat W	3	1	0	0	0	12	0	0	0	16
III. Kota Utara										
4 Kel. Dulomo Selatan	0	0	0	0	0	4	0	0	0	4
<i>Kabupaten Gorontalo</i>	80	23	6	3	3	89	6	2	6	218
%	36.7	10.6	2.8	1.4	1.4	40.8	2.8	0.9	2.8	100.0
IV. Tibawa										
5 Labanu	6	5	0	0	0	0	0	1	3	15
6 Datahu	8	5	0	1	0	4	0	0	0	18
7 Isimu Selatan	6	0	2	0	1	6	0	0	1	16
V. Batudaa										
8 Tahupo	5	3	1	1	1	2	1	0	2	16
9 Payunga	4	3	0	0	0	10	1	0	0	18
10 Pilolalenga	9	1	0	0	0	5	0	1	0	16
VI. Limboto										
11 Bulota	5	2	0	0	0	8	0	0	0	15
12 Biyonga	3	0	0	0	0	9	0	0	0	12
13 Kayu merah	6	0	0	0	0	5	0	0	0	11
14 Hunggaluwa	5	2	1	1	1	10	0	0	0	20
15 Tungulo	6	0	0	0	0	2	1	0	0	9
VII. Tapa										
16 Longalo	1	0	0	0	0	3	0	0	0	4
17 Tupa	3	1	1	0	0	4	0	0	0	9
VIII. Telaga										
18 Tilote	2	1	1	0	0	13	3	0	0	20
IX. Suwawa										
19 Lombongo	8	0	0	0	0	7	0	0	0	15
20 Pinogu	3	0	0	0	0	1	0	0	0	4

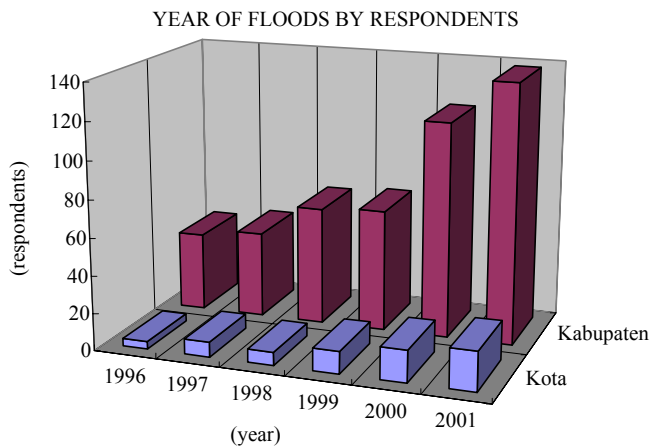
FLOOD FREQUENCY BY RESIDENTS



Tahun mengalami banjir selama menempati rumah saat ini
Year of Flood that Respondents experienced

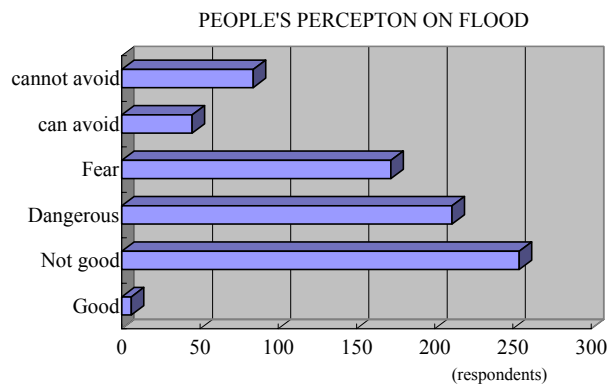
Kota/Kecamatan/Desa	Total Responden menjawab	T a h u n									st	sth
		1942 - 1979	1980 - 1995	1996	1997	1998	1999	2000	2001			
Wilayah studi	276	15	92	46	54	70	77	132	159	96	1	
<i>Kota Gorontalo</i>	58	4	18	4	8	7	12	17	21	28	0	
I. Kota Selatan												
1 Kelurahan Talumolo	18	2	11	1	5	1	6	8	6	2	0	
2 Kel. Siendeng	20	2	2	1	2	4	4	6	8	11	0	
II. Kota Barat												
3 Kel. Molosipat W	16	0	1	1	1	1	1	2	6	11	0	
III. Kota Utara												
4 Kel. Dulomo Selatan	4	0	4	1	0	1	1	1	1	4	0	
<i>Kabupaten Gorontalo</i>	218	11	74	42	46	63	65	115	138	68	1	
IV. Tibawa												
5 Labanu	18	1	0	4	4	5	8	15	16	0	0	
6 Datahu	20	4	13	5	6	8	7	14	18	1	0	
7 Isimu Selatan	15	2	7	1	1	1	2	8	12	1	0	
V. Batudaa												
8 Tahupo	15	0	6	6	6	10	8	6	12	0	0	
9 Payunga	18	0	1	2	4	5	5	9	11	7	0	
10 Pilolalenga	17	1	4	3	5	5	6	5	6	4	0	
VI. Limboto												
11 Bulota	14	0	10	2	3	5	6	9	9	4	0	
12 Biyonga	12	0	7	3	3	3	3	5	4	8	0	
13 Kayu merah	10	0	0	0	0	4	0	6	1	4	0	
14 Hunggaluwa	20	2	7	2	0	2	4	6	20	12	0	
15 Tungulo	8	0	8	1	0	0	0	1	3	1	0	
VII. Tapa												
16 Longalo	4	0	2	2	2	2	1	1	1	3	0	
17 Tupa	9	0	1	3	3	2	2	5	5	4	0	
VIII. Telaga												
18 Tilote	20	1	5	7	8	8	9	14	15	14	0	
IX. Suwawa												
19 Lombongo	14	0	0	0	0	2	3	10	4	4	1	
20 Pinogu	4	0	3	1	1	1	1	1	1	1	0	

note: st: every year, sth: every time when it rains



**Pendapat tentang banjir yang dialami /
Opinion about flood (multiple answers)**

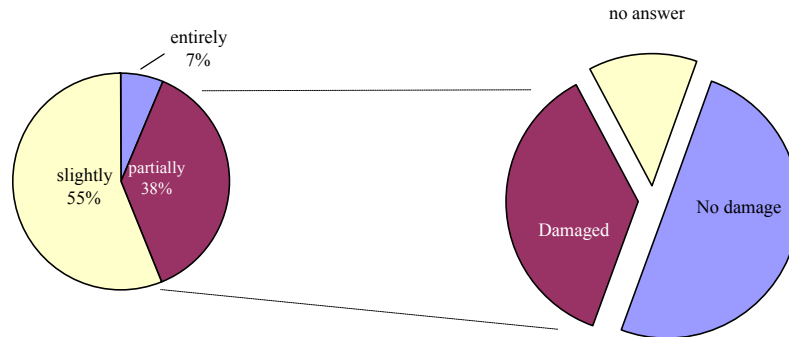
Kota/Kecamatan/Desa	Jumlah (Pria + Wanita)								Total responden yang menjawab
	a	b	c	d	e	f	g	h	
	baik	tidak baik	berbahaya	takut	dapat dihindari	tidak dapat dihindari	tidak ada pendapat	lainnya	
Wilayah studi	6	254	211	172	45	84	1	0	301
<i>Kota Gorontalo</i>	2	49	47	36	15	16	0	0	63
I. Kota Selatan									
1 Kelurahan Talumolo	1	13	15	15	7	7	0	0	19
2 Kel. Siendeng	1	14	18	15	5	5	0	0	20
II. Kota Barat									
3 Kel. Molosipat W	0	13	10	3	3	0	0	0	15
III. Kota Utara									
4 Kel. Dulomo Selatan	0	9	4	3	0	4	0	0	9
<i>Kabupaten Gorontalo</i>	4	205	164	136	30	68	1	0	238
IV. Tibawa									
5 Labanu	0	10	16	14	3	6	1	0	17
6 Datahu	1	15	14	11	0	10	0	0	18
7 Isimu Selatan	1	16	12	13	2	6	0	0	19
V. Batudaa									
8 Tahupo	0	15	12	9	1	6	0	0	17
9 Payunga	0	17	11	9	2	3	0	0	18
10 Pilolalenga	0	13	12	13	0	10	0	0	18
VI. Limboto									
11 Bulota	0	10	13	10	5	2	0	0	16
12 Biyonga	0	12	9	2	1	1	0	0	14
13 Kayu merah	0	11	8	5	0	2	0	0	13
14 Hunggaluwa	1	16	15	15	1	9	0	0	20
15 Tungulo	0	11	3	3	1	2	0	0	5
VII. Tapa									
16 Longalo	1	5	2	2	1	0	0	0	6
17 Tupa	0	10	5	4	0	1	0	0	12
VIII. Telaga									
18 Tilote	0	20	18	16	9	5	0	0	20
IX. Suwawa									
19 Lombongo	0	14	10	9	4	4	0	0	15
20 Pinogu	0	10	4	1	0	1	0	0	10



Kehilangan rumah pada 2 x banjir terakhir / House Loss in the latest 2 Floods

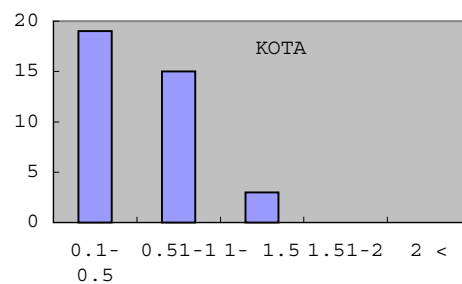
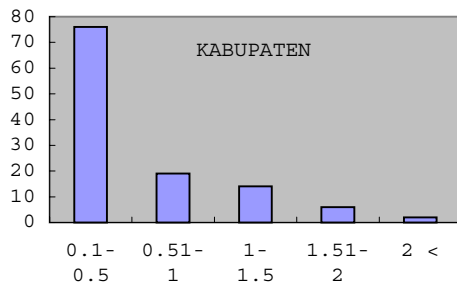
Kota/Kecamatan/Desa	Kerugian yang diderita 2 kali banjir terakhir										
	Rumah Hancur										RT terhadap total responden di "Ada"
	Ada	Tidak Ada	Total Responden menjawab	Seluruh (kali)		Total RT	Sebagian (kali)		Total RT	RT terhadap total responden di "Ada"	
			1	2		1	2				
Area studi	200	147	347	11	2	13	6.5%	51	24	75	37.5%
	%										
<i>Kota Gorontalo</i>	38	20	58	2	0	2	5.3%	13	9	22	57.9%
	%										
I. Kota Selatan											
1 Kelurahan Talumolo	10	9	19	1	0	1	10.0%	1	2	3	30.0%
2 Kel. Siendeng	8	2	10	1	0	1	12.5%	4	3	7	87.5%
II. Kota Barat											
3 Kel. Molosipat W	16	4	20	0	0	0	0%	8	4	12	75.0%
III. Kota Utara											
4 Kel. Dulomo Selatan	4	5	9	0	0	0	0%	0	0	0	0%
<i>Kabupaten Gorontalo</i>	162	127	289	9	2	11	6.8%	38	15	53	32.7%
	%										
IV. Tibawa											
5 Labanu	10	10	20	0	0	0	0%	2	2	4	40.0%
6 Datahu	11	9	20	1	0	1	9.1%	1	1	2	18.2%
7 Isimu Selatan	12	8	20	0	0	0	0%	1	0	1	8.3%
V. Batudaa											
8 Tahupo	10	6	16	0	0	0	0%	0	1	1	10.0%
9 Payunga	16	4	20	2	1	3	18.8%	7	0	7	43.8%
10 Pilolalenga	8	11	19	0	0	0	0%	0	3	3	37.5%
VI. Limboto											
11 Bulota	6	8	14	0	1	1	16.7%	1	1	2	33.3%
12 Biyonga	8	5	13	0	0	0	0%	4	0	4	50.0%
13 Kayu merah	8	6	14	0	0	0	0%	5	0	5	62.5%
14 Hunggaluwa	17	3	20	2	0	2	11.8%	3	6	9	52.9%
15 Tungulo	7	6	13	0	0	0	0%	0	0	0	0%
VII. Tapa											
16 Longalo	5	15	20	0	0	0	0%	1	0	1	20.0%
17 Tupa	11	9	20	1	0	1	9.1%	0	0	0	0%
VIII. Telaga											
18 Tilote	19	1	20	3	0	3	15.8%	13	1	14	73.7%
IX. Suwawa											
19 Lombongo	10	10	20	0	0	0	0%	0	0	0	0%
20 Pinogu	4	16	20	0	0	0	0%	0	0	0	0%

HOUSE DAMAGE (WHOLE AREA)



**Ketinggian air dari lantai rumah pada 2 x banjir terakhir/
Level of Flood in the latest 2 Floods**

Kota/Kecamatan/Desa	Banjir di atas ketinggian lantai rumah									Banjir di bawah ketinggian lantai rumah		
	lebih tinggi			tinggi dari lantai rumah (m)					lebih rendah			
	1 kali	2 kali	Total RT	0.1-0.5	0.51-1.00	1.00-1.50	1.51-2.00	2.01 <	Total RT	1 kali	2 kali	Total RT
Area studi	34	89	123	95	34	17	6	2	154	22	95	117
<i>Kota Gorontalo</i>	8	25	33	19	15	3	0	0	37	1	27	28
I. Kota Selatan												
1 Kelurahan Talumolo	0	3	3	4	2	0	0	0	6	1	3	4
2 Kel. Siendeng	1	14	15	5	7	2	0	0	14	0	10	10
II. Kota Barat												
3 Kel. Molosipat W	7	5	12	7	6	1	0	0	14	0	10	10
III. Kota Utara												
4 Kel. Dulomo Selatan	0	3	3	3	0	0	0	0	3	0	4	4
<i>Kabupaten Gorontalo</i>	26	64	90	76	19	14	6	2	117	21	68	89
IV Tibawa												
5 Labanu	2	2	4	4	2	0	0	0	6	1	1	2
6 Datahu	1	5	6	9	0	0	0	0	9	1	4	5
7 Isimu Selatan	0	5	5	5	0	0	0	0	5	0	3	3
V Batudaa												
8 Tahupo	1	4	5	4	1	0	0	0	5	1	1	2
9 Payunga	5	9	14	5	6	2	2	0	15	4	8	12
10 Pilolalenga	1	3	4	4	2	0	0	0	6	0	4	4
VI Limboto												
11 Bulota	2	1	3	3	0	0	0	0	3	4	4	8
12 Biyonga	0	3	3	6	1	0	0	0	7	0	4	4
13 Kayu merah	3	2	5	6	0	0	0	0	6	1	7	8
14 Hunggaluwa	3	8	11	15	1	0	1	0	17	1	5	6
15 Tungulo	0	2	2	1	1	0	0	0	2	1	4	5
VII Tapa												
16 Longalo	0	3	3	3	0	0	0	0	3	0	3	3
17 Tupa	1	1	2	4	1	0	0	1	6	0	0	0
VIII Telaga												
18 Tilote	6	11	17	0	4	12	3	1	20	1	15	16
IX Suwawa												
19 Lombongo	1	4	5	7	0	0	0	0	7	6	4	10
20 Tulubolo/Pinogu	0	1	1	0	0	0	0	0	0	0	1	1

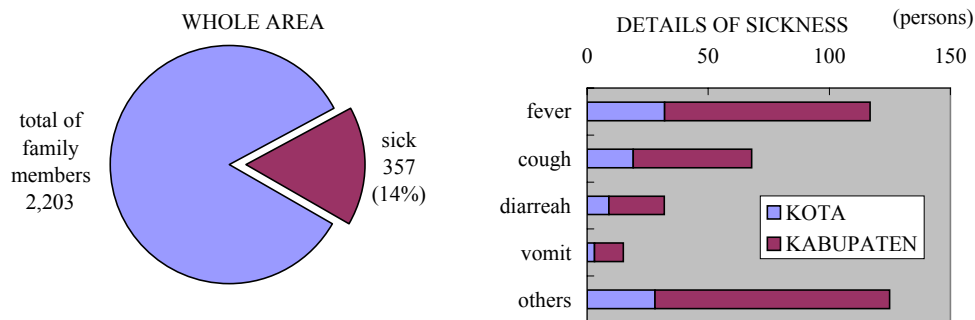


Kerugian tanaman dan hewan yang diderita 2 x banjir terakhir
Crop and Livestock Lost in the latest 2 Flood

Kota/Kecamatan/Desa	Tanaman/Ternak yang hilang								
	Jumlah RT menderita	Seluruh					Sebagian		
		Tanaman			Ternak		Jumlah RT	Ayam	Ternak lainnya
Pohon jati	Pohon pisang	Tanaman lainnya	Ayam	Ternak lainnya					
Area Studi	52	39	151	16	590	4	74	1,467	31
<i>Kota Gorontalo</i>	6	39	1	2	45	1	16	233	4
I. Kota Selatan									
1 Kelurahan Talumolo	-	-	-	-	-	-	1	15	4
2 Kel. Siendeng	4	39	-	-	45	-	5	93	-
II. Kota Barat									
3 Kel. Molosipat W	2	-	1	2	-	1	8	125	-
III. Kota Utara									
4 Kel. Dulomo Selatan	-	-	-	-	-	-	2	-	-
<i>Kabupaten Gorontalo</i>	46	0	150	14	545	3	58	1,234	27
IV. Tibawa									
5 Labanu	-	-	-	-	-	-	1	-	-
6 Datahu	4	-	-	2	17	-	3	17	-
7 Isimu Selatan	4	-	-	-	65	-	8	60	-
V. Batudaa									
8 Tahupo	4	-	-	1	52	1	4	70	-
9 Payunga	5	-	150	1	-	-	7	288	25
10 Pilolalenga	4	-	-	1	2	-	3	7	-
VI. Limboto									
11 Bulota	-	-	-	-	-	-	5	12	-
12 Biyonga	3	-	-	2	50	1	4	95	-
13 Kayu merah	2	-	-	1	17	-	1	22	-
14 Hunggaluwa	2	-	-	-	30	-	6	35	-
15 Tungulo	-	-	-	-	-	-	4	-	-
VII. Tapa									
16 Longalo	1	-	-	2	-	-	3	-	-
17 Tupa	4	-	-	2	24	-	4	319	1
VIII. Telaga									
18 Tilote	10	-	-	2	238	1	-	238	1
IX. Suwawa									
19 Lombongo	3	-	-	-	50	-	4	71	-
20 Pinogu	-	-	-	-	-	-	1	-	-

**Kerugian yang diderita anggota keluarga pada 2 x banjir terakhir/
Family members died, injured and became sick in the latest 2 floods**

Kota/Kecamatan/Desa	Jumlah anggota RT	Anggota Keluarga				Jenis penyakit utama				
		meninggal (orang)	terluka (orang)	sakit Jumlah RT	Jumlah orang sakit	a diare	b batuk	c demam	d muntah	e tidak diketahui
Area Studi	2,203	3	8	124	357	32	68	117	15	0
%	<i>100</i>				<i>16.2</i>					
<i>Kota Gorontalo</i>	466	0	0	31	91	9	19	32	3	0
%	<i>100</i>				<i>19.5</i>					
I. Kota Selatan										
1 Kelurahan Talumolo	111	0	0	5	10	1	2	7	0	0
2 Kel. Siendeng	112	0	0	15	52	5	10	15	2	0
II. Kota Barat										
3 Kel. Molosipat W	124	0	0	9	21	3	5	8	1	0
III. Kota Utara										
4 Kel. Dulomo Selatan	119	0	0	2	8	0	2	2	0	0
<i>Kabupaten Gorontalo</i>	1,737	3	8	93	266	23	49	85	12	0
%	<i>100</i>				<i>15.3</i>					
IV. Tibawa										
5 Labanu	124	0	0	3	12	3	2	5	0	0
6 Datahu	98	0	0	9	17	0	3	8	0	0
7 Isimu Selatan	126	0	2	5	22	0	4	4	0	0
V. Batudaa										
8 Tahupo	110	0	0	4	11	0	0	5	0	0
9 Payunga	95	0	1	13	35	4	5	13	3	0
10 Pilolalenga	103	0	0	5	7	0	3	4	0	0
VI. Limboto										
11 Bulota	111	2	5	6	20	1	5	6	0	0
12 Biyonga	111	0	0	7	15	1	1	5	0	0
13 Kayu merah	81	0	0	4	9	0	4	4	1	0
14 Hunggaluwa	116	0	0	12	41	5	4	8	0	0
15 Tungulo	111	0	0	1	4	1	1	1	0	0
VII. Tapa										
16 Longalo	106	0	0	1	6	1	1	1	0	0
17 Tupa	114	0	0	3	4	0	0	2	0	0
VIII. Telaga										
18 Tilote	121	1	0	17	55	6	14	18	8	0
IX. Suwawa										
19 Lombongo	121	0	0	2	6	0	1	1	0	0
20 Pinogu	89	0	0	1	2	1	1	0	0	0



Jumlah Kerugian bila diuangkan (Rp) yang di derita penduduk terkena banjir / Damaged in Rupiahs in the latest 2 floods

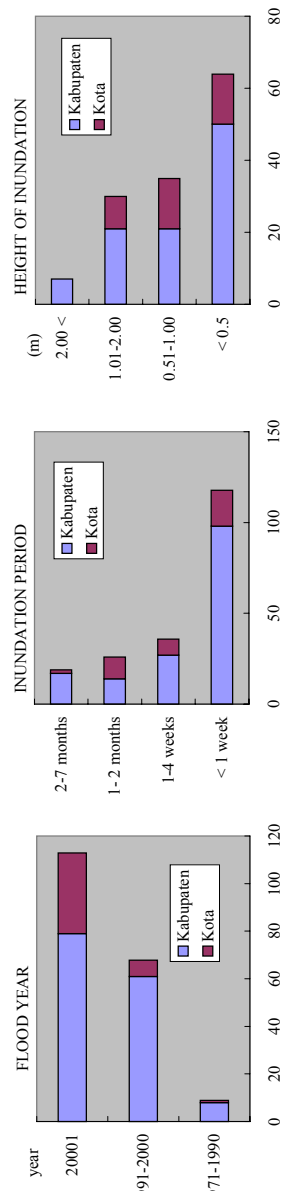
Kota/Kecamatan/Desa	Jumlah RT yang menderita (RT)		Kerugian yang diderita (Rp.)		kelompok kerugian (Rp.)										
	%(total RT)	rata-rata tertinggi per RT (20)	terendah (Rp)	(Rp)	0	10.000 - 50.000	50.000 - 100.000	101.000 - 200.000	201.000 - 300.000	301.000 - 400.000	401.000 - 500.000	501.000 - 1.000.000	1.001.000 - 2.000.000	>2.000.000	
Wilayah Penelitian	205	51.3%	10,000	25,000,000	195	20	19	28	27	9	27	30	25	20	
<i>Kota Gorontalo</i>	40	50%	25,000	25,000,000	40	1	4	3	7	3	8	7	5	2	
I. Kota Selatan															
1 Kelurahan Talumolo	6	30%	150,000	25,000,000	14	-	-	1	1	-	-	3	-	1	
2 Kel. Siendeng	16	80%	75,000	2,000,000	4	-	2	1	3	1	5	1	3	-	
II. Kota Barat															
3 Kel. Mołosipat W	16	80%	25,000	10,200,000	4	1	1	1	3	2	3	2	2	1	
III. Kota Utara															
4 Kel. Dulomo Selatan	2	10%	100,000	1,000,000	18	-	1	-	-	-	-	1	-	-	
<i>Kabupaten Gorontalo</i>	165	51.6%	10,000	25,000,000	155	19	15	25	20	6	19	23	20	18	
IV. Tibawa															
5 Labanu	9	45%	50,000	850,000	11	1	-	2	2	-	2	2	-	-	
6 Databu	12	60%	50,000	8,000,000	8	2	3	3	1	1	1	-	-	1	
7 Isimu Selatan	13	65%	18,000	2,500,000	7	2	1	3	-	-	2	3	1	1	
V. Batudaa															
8 Tahupo	12	60%	20,000	15,000,000	8	3	1	5	1	-	-	-	-	2	
9 Payunga	17	85%	50,000	6,500,000	3	1	1	-	2	2	4	2	4	1	
10 Pilolalenga	9	45%	20,000	3,410,000	11	2	1	1	2	-	1	-	1	1	
VI. Limboto															
11 Bulota	9	45%	75,000	25,000,000	11	-	3	-	1	1	-	1	1	2	
12 Biyonga	10	50%	50,000	1,687,500	10	1	-	-	2	-	2	2	3	-	
13 Kayu merah	8	40%	127,500	3,000,000	12	-	-	2	1	1	1	1	1	1	
14 Hunggaluwa	15	75%	20,000	1,000,000	5	3	2	1	4	-	2	3	-	-	
15 Tungulo	5	25%	150,000	3,000,000	15	-	-	1	-	-	2	-	1	1	
VII. Tapa															
16 Longalo	5	25%	100,000	10,000,000	15	-	1	1	-	-	-	1	1	1	
17 Tupa	10	50%	120,000	3,000,000	10	-	-	4	1	-	-	3	1	1	
VIII. Telaga															
18 Tilote	20	100%	50,000	10,000,000	0	1	1	1	3	-	2	3	5	4	
IX. Suwawa															
19 Lombongo	7	35%	10,000	1,000,000	13	3	1	1	-	1	-	1	-	-	
20 Pinogu	4	20%	1,000,000	5,850,000	16	-	-	-	-	-	-	1	1	2	

Kerugian bila diuangkan akibat banjir per desa dan per capita
/ Damage Estimation by residents per village and per capita, by the latest 2 floods

Kota/Kecamatan/Desa	Jumlah anggota rumahtangga	Jumlah kerugian per desa (Rp.) (20 RT)	Kerugian per anggota (Rp.)
Area Studi	2,203	231,113,700	104,909
<i>Kota Gorontalo</i>	466	35,225,000	75,590
<hr style="border-top: 1px dashed black;"/>			
I. Kota Selatan			
1 Kelurahan Talumolo	111	5,225,000	47,072
2 Kel. Siendeng	112	9,795,000	87,455
II. Kota Barat			
3 Kel. Molosipat W	124	19,105,000	154,073
III. Kota Utara			
4 Kel. Dulomo Selatan	119	1,100,000	9,244
<i>Kabupaten Gorontalo</i>	1,737	195,888,700	112,774
<hr style="border-top: 1px dashed black;"/>			
IV Tibawa			
5 Labanu	124	3,700,000	29,839
6 Datahu	98	10,000,000	102,041
7 Isimu Selatan	126	8,043,000	63,833
V Batudaa			
8 Tahupo	110	20,570,000	187,000
9 Payunga	95	17,405,000	183,211
10 Pilolalenga	103	6,701,000	65,058
VI Limboto			
11 Bulota	111	31,475,000	283,559
12 Biyonga	111	7,687,500	69,257
13 Kayu merah	81	6,697,200	82,681
14 Hunggaluwa	116	5,260,000	45,345
15 Tungulo	111	5,650,000	50,901
VI Tapa			
16 Longalo	106	12,550,000	118,396
17 Tupa	114	8,390,000	73,596
VI Telaga			
18 Tilote	121	36,770,000	303,884
IX Suwawa			
19 Lombongo	121	1,640,000	13,554
20 Pinogu	89	13,350,000	150,000

Kerusakan yang paling serius pada 2 kali banjir terakhir/ The most serious damage in the past

Kota/Kecamatan/Desa	Kapan				Total	Lamaanya				Tinggi dari atas lantai rumah dari lantai rumah				Total												
	1971-1990		1991-2000			20001		20001		<1 minggu		1-4 minggu			1-2 bulan		2-7 bulan		<0,5 m		0,51-1,00 m		1,01-2,00 m		2,00 m <	
	9	68	113	190		118	36	26	19	199	64	35	30		7	136	47,1	25,7	22,1	5,1	100	37,8	37,8	24,3	0	100
Area Studi	4,7	35,8	59,5	100	59,3	18,1	13,1	9,5	100	20	9	12	2	43	14	14	9	0	37	47,1	25,7	22,1	5,1	100		
Kota Gorontalo	1	7	34	42	20	9	12	2	43	46,5	20,9	27,9	4,7	100	37,8	37,8	24,3	0	100	37,8	37,8	24,3	0	100		
I. Kota Selatan	0	7	2	9	9	0	0	0	9	0	0	0	0	9	5	3	0	0	8	0	0	0	0	0		
1 Kelurahan Talumolo	0	7	2	9	9	0	0	0	9	0	0	0	0	9	5	3	0	0	8	0	0	0	0	0		
2 Kel. Siendeng	1	0	17	18	7	3	7	2	19	7	3	7	2	19	5	6	5	0	16	7	3	7	2	19		
III. Kota Barat	0	0	11	11	4	2	5	0	11	4	2	5	0	11	2	5	4	0	11	4	2	5	0	11		
3 Kel. Molosipat W	0	0	11	11	4	2	5	0	11	4	2	5	0	11	2	5	4	0	11	4	2	5	0	11		
III. Kota Utara	0	0	4	4	0	4	0	0	4	0	4	0	0	4	2	0	0	0	2	4	2	0	0	2		
4 Kel. Dulomo Selatan	0	0	4	4	0	4	0	0	4	0	4	0	0	4	2	0	0	0	2	4	2	0	0	2		
Kabupaten Gorontalo	8	61	79	148	98	27	14	17	156	62,8	17,3	9,0	10,9	100	50,5	21,2	21,2	7,1	99	50,5	21,2	21,2	7,1	100		
IV. Tihawa	1	1	3	5	7	0	0	0	7	7	0	0	0	7	2	3	0	0	5	7	2	3	0	5		
5 Labanu	1	1	3	5	7	0	0	0	7	7	0	0	0	7	2	3	0	0	5	7	2	3	0	5		
6 Datahu	2	2	7	11	8	2	1	0	11	8	2	1	0	11	10	1	0	1	12	11	10	1	0	12		
7 Isimu Selatan	2	4	7	13	8	5	0	0	13	8	5	0	0	13	4	1	0	0	5	13	4	1	0	5		
V. Battudaa	0	7	4	11	9	1	0	0	10	9	1	0	0	10	0	1	0	0	1	10	0	1	0	1		
8 Tahupo	0	7	4	11	9	1	0	0	10	9	1	0	0	10	0	1	0	0	1	10	0	1	0	1		
9 Payunga	0	0	13	13	3	2	7	4	16	3	2	7	4	16	1	7	3	0	11	3	2	7	3	0		
10 Piholalenga	0	5	4	9	9	0	0	0	9	9	0	0	0	9	2	1	2	0	5	9	2	1	2	0		
VI Limboto	1	5	3	9	9	0	0	0	9	9	0	0	0	9	5	0	0	0	5	9	5	0	0	5		
11 Bulota	1	5	3	9	9	0	0	0	9	9	0	0	0	9	5	0	0	0	5	9	5	0	0	5		
12 Biyonga	0	4	4	8	6	2	0	0	8	6	2	0	0	8	2	2	0	0	4	8	2	2	0	4		
13 Kayu merah	0	6	1	7	6	0	0	0	6	6	0	0	0	6	4	0	0	0	4	6	4	0	0	4		
14 Hunggaluwa	0	7	7	14	8	6	0	0	14	8	6	0	0	14	12	1	1	0	14	12	1	1	0	14		
15 Tunguto	1	4	1	6	4	1	2	0	7	4	1	2	0	7	1	0	0	0	1	7	1	0	0	1		
VII Tapa	0	0	3	3	2	1	0	0	3	2	1	0	0	3	1	0	0	1	2	3	1	0	0	2		
16 Longalo	0	0	3	3	2	1	0	0	3	2	1	0	0	3	1	0	0	1	2	3	1	0	0	2		
17 Tupa	1	3	5	9	5	5	0	0	10	5	5	0	0	10	3	1	2	2	8	10	3	1	2	8		
VIII Telaga	0	1	16	17	2	0	4	13	19	2	0	4	13	19	0	1	13	3	17	2	0	4	13	17		
18 Tilote	0	1	16	17	2	0	4	13	19	2	0	4	13	19	0	1	13	3	17	2	0	4	13	17		
IX Suwawa	0	9	0	9	10	0	0	0	10	10	0	0	0	10	3	1	0	0	4	10	3	1	0	4		
19 Lombongo	0	9	0	9	10	0	0	0	10	10	0	0	0	10	3	1	0	0	4	10	3	1	0	4		
20 Pinoggu	0	3	1	4	2	2	0	0	4	2	2	0	0	4	0	1	0	0	1	4	0	1	0	1		

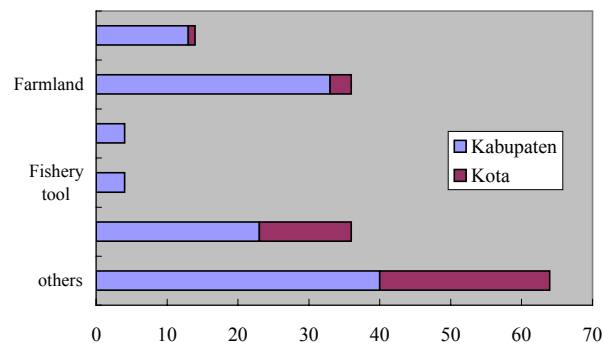


Aset/barang Tergenang / Asset Damage

Kota/Kecamatan/Desa	Ada	Tidak ada	Aset yang rusak akibat banjir						
			Sawah	Lahan Pertanian	Perahu	Alat Tangkap Ikan	Meubel	Mesin Alat Bibit	Lainnya
Area Studi	132	246	14	36	3	4	36	4	64
%	35	65	9	22	2	2	22	2	40
Kota Gorontalo	33	32	1	3	0	0	13	0	24
%	51	49	2	7	0	0	32	0	59

I. Kota Selatan									
1 Kelurahan Talumolo	5	11	0	0	0	0	1	0	4
2 Kel. Siendeng	16	3	0	1	0	0	6	0	15
II. Kota Barat									
3 Kel. Molosipat W	9	11	0	1	0	0	6	0	4
III. Kota Utara									
4 Kel. Dulomo Selatan	3	7	1	1	0	0	0	0	1
Kabupaten Gorontalo	99	214	13	33	3	4	23	4	40
%	32	68	11	28	3	3	19	3	33

IV. Tibawa									
5 Labanu	4	16	0	0	0	0	0	0	3
6 Datahu	8	14	1	0	0	0	1	0	4
7 Isimu Selatan	11	8	2	5	0	0	0	0	1
V. Batudaa									
8 Tahupo	8	9	0	5	0	0	1	1	0
9 Payunga	9	12	1	0	1	2	4	1	2
10 Pilolalenga	2	16	0	2	0	0	1	1	0
VI. Limboto									
11 Bulota	5	15	0	5	0	0	2	0	1
12 Biyonga	6	14	1	3	0	0	1	0	1
13 Kayu merah	2	18	0	0	0	0	0	0	2
14 Hunggaluwa	11	9	2	2	1	1	1	0	8
15 Tungulo	5	10	3	2	0	0	1	0	3
VII. Tapa									
16 Longalo	2	18	0	2	0	0	0	1	1
17 Tupa	5	15	0	2	0	0	0	0	4
VIII. Telaga									
18 Tilote	15	6	0	1	1	1	11	0	8
IX. Suwawa									
19 Lombongo	2	18	0	1	0	0	0	0	1
20 Pinogu	4	16	3	3	0	0	0	0	1

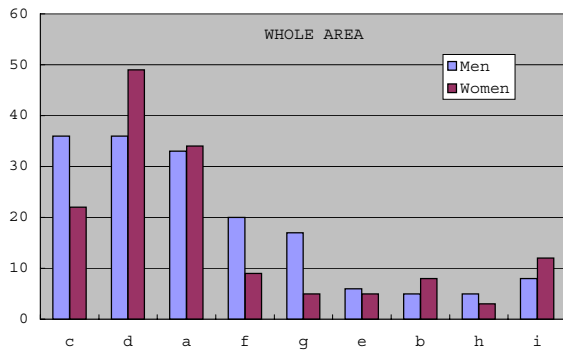


Arus Banjir Terakhir dan Lamanya waktu yang dibutuhkan untuk pindah
The latest debris flow and days to remove

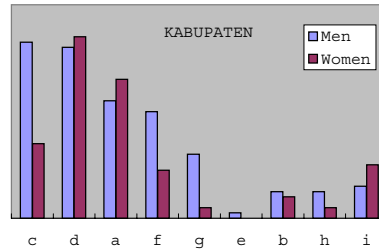
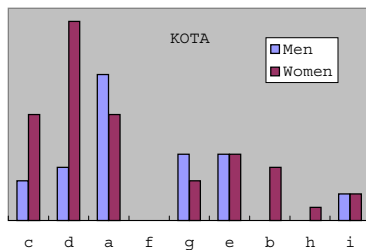
Kota/Kecamatan/Desa	Jumlah respondent menjawab	Tahun							Total yang Pindah	Jangka waktu untuk pindah (hari)			
		1992	1995	1997	1998	1999	2000	2001		1-14	15-30	31-60	61-90
Area Studi	239	2	7	2	2	2	28	196	57	26	13	16	2
<i>Kota Gorontalo</i>	52	-	2	-	-	-	5	45	20	10	6	4	-
I. Kota Selatan													
1 Kelurahan Talumolo	12	-	2	-	-	-	5	5	2	2	-	-	-
2 Kel. Siendeng	20	-	-	-	-	-	-	20	10	4	3	3	-
II. Kota Barat													
3 Kel. Molosipat W	16	-	-	-	-	-	-	16	8	4	3	1	-
III. Kota Utara													
4 Kel. Dulomo Selatan	4	-	-	-	-	-	-	4	-	-	-	-	-
<i>Kabupaten Gorontalo</i>	187	2	5	2	2	2	23	151	37	16	7	12	2
IV Tibawa													
5 Labanu	13	-	-	-	-	-	2	11	1	1	-	-	-
6 Datahu	13	2	-	-	-	-	-	11	4	3	1	-	-
7 Isimu Selatan	13	-	-	-	-	-	-	13	3	3	-	-	-
V Batudaa													
8 Tahupo	12	-	-	-	-	2	-	10	-	-	-	-	-
9 Payunga	16	-	-	-	-	-	2	14	8	-	4	4	-
10 Pilolalenga	13	-	-	2	1	-	1	9	1	1	-	-	-
VI Limboto													
11 Bulota	12	-	-	-	-	-	-	12	1	1	-	-	-
12 Biyonga	11	-	-	-	-	-	-	11	-	-	-	-	-
13 Kayu merah	11	-	-	-	-	-	5	6	2	2	-	-	-
14 Hunggaluwa	16	-	-	-	-	-	1	15	2	2	-	-	-
15 Tungulo	6	-	2	-	1	-	-	3	-	-	-	-	-
VII Tapa													
16 Longalo	2	-	-	-	-	-	-	2	-	-	-	-	-
17 Tupa	12	-	-	-	-	-	1	11	2	2	-	-	-
VIII Telaga													
18 Tilote	19	-	-	-	-	-	-	19	13	1	2	8	2
IX Suwawa													
19 Lombongo	14	-	-	-	-	-	11	3	-	-	-	-	-
20 Pinogu	4	-	3	-	-	-	-	1	-	-	-	-	-

Pendapat tentang penyebab banjir (multiple answers) /Opinion of Respondents About Flood Causes

Kota/Kecamatan/Desa	a		b		c		d		e		f		g		h		i		Total responden yang menjawab
	hujan terus menerus	erosi dari gunung	perusakan hutan	luapan air sungai	tanggul bobol	luapan air danau	saluran/sungai tersumbat	adanya galian C	tidak tahu										
Area Studi	Pria 33 Wanita 34	5 8	36 22	36 49	6 5	20 9	17 5	5 3	8 12									141 137	
Kota Gorontalo	Pria 11 Wanita 8	0 4	3 8	4 15	5 5	0 0	5 3	0 1	2 2									24 33	
I. Kota Selatan	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
1 Kelurahan Talumolo	7 4	- 2	- 3	- 1	- -	- -	1 -	- -	1 2	10 8									
2 Kel. Siendeng	2 3	- 2	2 5	1 7	- -	- -	2 2	- 1	1 -	4 14									
II. Kota Barat	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
3 Kel. Molosipat W	- 1	- -	- -	2 7	5 5	- -	- -	- -	- -	6 10									
III. Kota Utara	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
4 Kel. Dulomo Selatan	2 -	- -	1 -	1 -	- -	- -	- -	2 1	- -	4 1									
Kabupaten Gorontalo	22	5	33	32	1	20	12	5	6									117	
IV Tibawa	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
5 Labanu	- 1	- 1	7 5	- -	- -	- -	- -	- -	- -	8 6									
6 Datahu	1 2	- -	5 2	2 3	- -	- -	1 1	- -	1 2	8 9									
7 Isimu Selatan	5 3	- -	2 -	2 1	- -	- -	1 -	- -	2	11 16									
V Batudaa	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
8 Tahupo	3 3	3 1	2 1	- -	- -	- -	1 -	- -	- -	8 5									
9 Payunga	3 1	- -	1 -	6 -	- -	8 2	2 -	- -	- -	15 2									
10 Pilolalenga	- 3	- -	4 1	2 1	- -	- -	- 2	- 3	- -	11 5									
VI Limboto	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
11 Bulota	3 -	1 -	6 1	1 3	- -	- -	1 -	3 1	- -	8 5									
12 Biyonga	- -	- 2	1 2	4 -	- -	- -	1 -	- -	- -	5 5									
13 Kayu merah	- 1	1 1	- 1	1 4	- -	- -	- -	- -	2 9	2 9									
14 Hunggaluwa	- 5	- -	1 -	1 1	- -	3 2	4 1	- -	- -	10 10									
15 Tungulo	1 -	- -	- -	3 2	1 -	- -	1 -	- -	2 4	6 4									
VII Tapa	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
16 Longalo	- -	- -	2 -	- -	- -	- -	- -	- -	- -	0 2									
17 Tupa	1 3	- -	1 -	5 2	- -	- -	- -	- -	- -	7 5									
VII Telaga	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
18 Tilote	3 1	- -	1 -	5 3	- -	9 5	- -	- -	1 1	13 7									
IX Suwawa	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
19 Lombongo	1 2	- 1	1 -	1 8	- -	- -	- -	1 -	- -	2 11									
20 Pinogu	1 1	- -	- -	1 2	- -	- -	- -	- -	1 1	3 3									



a= too much rain
 b= erosion from mountain
 c= deforestation
 d= overflow of river water
 e= bobol ? dike
 f= overflow of lake water
 g= channel/ river clogged
 h= extreme groundwater
 i= don't know

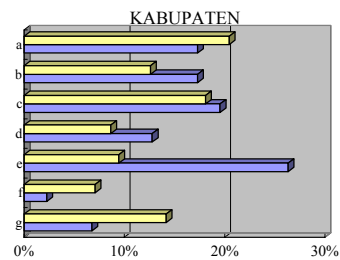
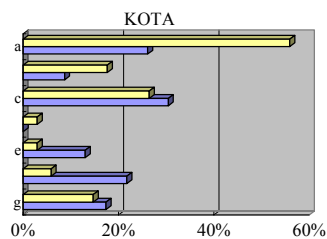
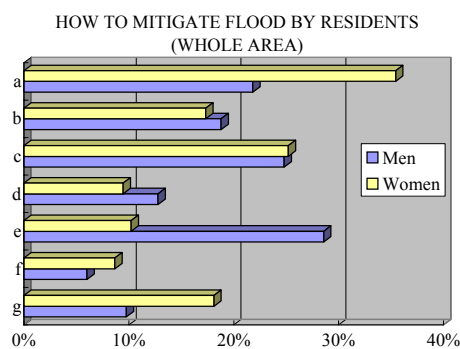


**Pendapat tentang Cara Mengurangi banjir (multiple answers)/
Respondents' Opinion about How to Mitigate Flood Damage**

Kota/Kecamatan/Desa	Jumlah Responden yang menjawab	a	b	c	d	e	f	g	
		Pembuatan dan Perbaikan Tanggul	Perbaikan, Normalisasi dan Pengerukan sungai	Pembuatan, Perbaikan dan Pembersihan Saluran Air	Perbaikan dan Pengerukan Danau	Penghijauan Reboisasi dan Penanaman kembali	Lainnya	Tidak Tahu	
Area Studi	Pria	133	29	25	33	17	38	8	13
	Wanita	127	45	22	32	12	13	11	23
	Jumlah	260	74	47	65	29	51	19	36
Kota Gorontalo	Pria	23	6	2	7	0	3	5	4
	Wanita	34	19	6	9	1	1	2	5
	Jumlah	57	25	8	16	1	4	7	9

I. Kota Selatan (Pria/Wanita)									
1 Kelurahan Talumolo		9/9	4/2	-/-	1/3	-/-	1/-	2/-	2/4
2 Kel. Siendeng		4/14	0/7	-/-	2/5	-/1	1/1	1/2	1/-
II. Kota Barat									
3 Kel. Molosipat W		6/10	2/10	2/6	1/-	-/-	-/-	2/-	1/-
III. Kota Utara									
4 Kel. Dulomo Selatan		4/1	-/-	-/-	3/1	-/-	1/-	-/-	-/1
Kabupaten Gorontalo	Pria	110	23	23	26	17	35	3	9
	Wanita	93	26	16	23	11	12	9	18
	Jumlah	203	49	39	49	28	47	12	27

IV. Tibawa (Pria/Wanita)									
5 Labanu		5/6	-/-	-/-	-/-	-/-	5/3	-/3	-/1
6 Datahu		8/9	-/-	-/1	2/4	-/-	6/-	-/-	1/3
7 Isimu Selatan		9/6	-/-	3/1	7/2	1/-	1/-	-/-	-/3
V. Batudaa									
8 Tahupo		8/5	-/1	-/-	4/1	-/-	5/-	-/-	-/3
9 Payunga		15/2	1/1	1/-	3/-	9/2	3/-	3/-	-/-
10 Pilolalenga		11/5	5/2	4/1	-/-	-/-	3/3	-/-	3/1
VI. Limboto									
11 Bulota		7/4	3/4	1/-	1/-	-/-	3/-	-/-	-/-
12 Biyonga		5/5	2/3	1/1	2/-	-/-	-/-	-/1	-/-
13 Kayu merah		2/9	-/4	1/1	1/2	-/-	-/1	-/1	-/1
14 Hunggaluwa		10/10	4/2	6/3	-/3	1/5	-/-	-/-	-/1
15 Tungulo		6/5	2/1	1/-	3/2	-/-	1/-	-/-	1/2
VII. Tapa									
16 Longalo		-/2	-/-	-/-	-/2	-/-	-/2	-/-	-/-
17 Tupa		7/5	2/3	1/5	-/-	-/-	4/-	-/-	1/-
VII. Telaga									
18 Tilote		13/7	2/1	3/3	2/-	6/4	2/1	-/1	2/1
IX. Suwawa									
19 Lombongo		2/11	1/3	1/-	-/5	-/-	2/2	-/3	-/1
20 Pinogu		2/2	1/1	-/-	1/2	-/-	-/-	-/-	1/1



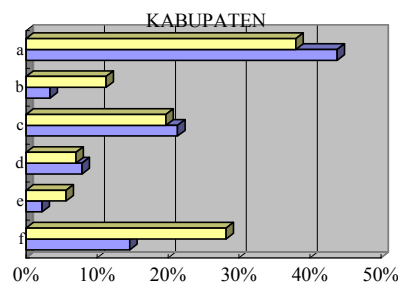
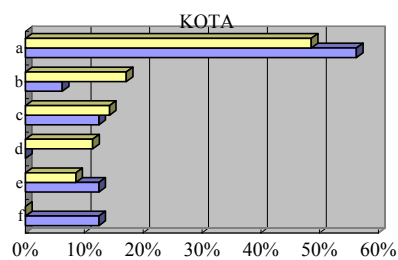
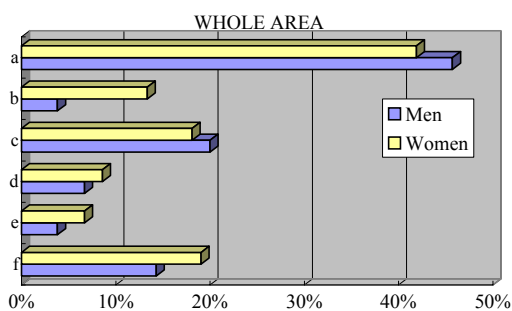
a= construct and improve dikes
 b= improve, normalize and dredge river
 c= construct, improve and clean up water channel
 d= improve and dredge the lake
 e= tree planting, reforestation and rotation cropping
 f= other
 g= do not know

Pendapat cara menghindari banjir (multiple answers)
Respondents' Opinion about How to Prevent/Avoid Floods

Kota/Kecamatan/Desa	Total responden yang menjawab	a	b	c	d	e	f
		mengungsi ketempat yang aman dan tinggi	mengamankan barang-barang	membuat, memperbaiki dan membersihkan saluran air	penghijauan reboisasi	pembuatan bronjong	lainnya
Area Studi	Pria 105 Wanita 105 Jumlah 211	48	4	21	7	4	15
Kota Gorontalo	Pria 16 Wanita 34 Jumlah 50	9	1	2	0	2	2

I. Kota Selatan (Pria/Wanita)	1 Kelurahan Talumolo 7/9 2 Kel. Siendeng 3/15	4/2 2/9	-/1 -/1	2/4 -/1	-/1 -/3	1/3 1/-	-/ -/
II. Kota Barat	3 Kel. Molosipat W 5/10	3/6	1/4	-/	-/	-/	1/-
III. Kota Utara	4 Kel. Dulomo Selatan 1/-	-/	-/	-/	-/	-/	1/-
Kabupaten Gorontalo	Pria 89 Wanita 71 Jumlah 160	39	3	19	7	2	13

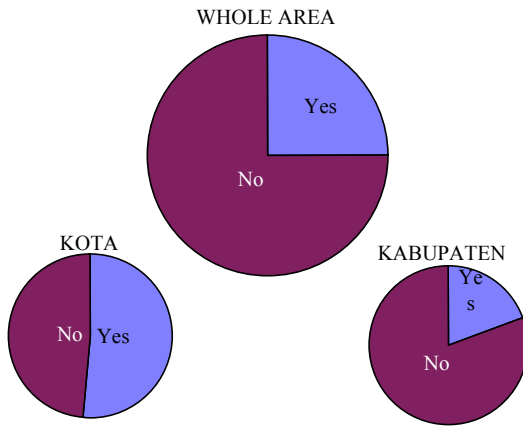
IV. Tibawa (Pria/Wanita)	5 Labanu 6/4 6 Datahu 6/6 7 Isimu Selatan 11/3	2/1 2/1 4/2	-/1 -/2 -/	1/1 1/- 6/-	2/1 1/- -/	-/ 1/- -/	-/1 2/1 1/4
V. Batudaa	8 Tahupo 6/3 9 Payunga 12/1 10 Pilolalenga 8/4	2/1 7/1 3/-	-/ -/ -/	1/1 1/- 1/1	1/- -/ 2/1	-/ -/ -/	1/1 1/3 2/-
VI. Limboto	11 Bulota 5/3 12 Biyonga 4/6 13 Kayu merah 2/7 14 Hunggaluwa 7/9 15 Tungulo 2/1	-/1 1/1 -/3 1/- -/	1/- -/2 1/1 1/1 -/	2/- 3/1 1/1 -/3 1/1	-/ -/ -/ -/ -/	1/1 -/ -/ -/ -/2	1/- -/1 -/1 4/5 -/1
VII. Tapa	16 Longalo -/3 17 Tupa 3/4	-/1 2/4	-/ -/	-/2 -/	-/ 1/-	-/ -/	-/ -/
VIII. Telaga	18 Tilote 11/7	11/6	-/1	-/	-/	-/	-/
IX. Suwawa	19 Lombongo 4/8 20 Pinogu 2/2	3/3 1/2	-/ -/	1/2 -/	-/1 -/	-/ -/	-/2 1/-



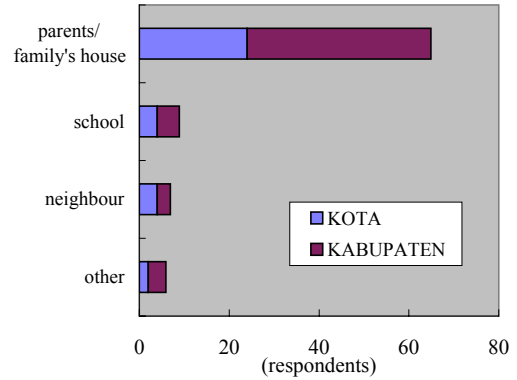
a= move to high and safe place
 b= keep belongings in a safe place
 c= construct, improve and clean up water channel
 d= tree planting, reforestation
 e= construct bronjong
 f= other

**Pengalaman mngungsi pada saat banjir terakhir/
Evacuation experience at the latest floods**

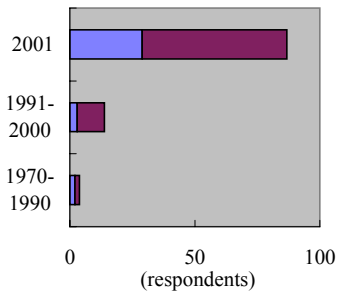
EVACUATION EXPERIENCE?



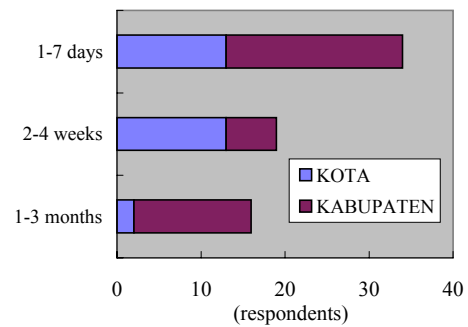
EVACUATED WHERE?



YEAR OF LATEST FLOOD

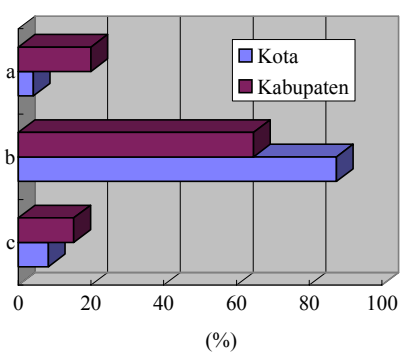


HOW LONG EVACUATED?



Tindakan-tindakan saat banjir terakhir / The measures taken at the latest floods

MEASURES TAKEN AT FLOOD



a= no measures, because don't know what to do and sacred / Tidak ada karena tidak tahu dan takut

b= put thing in a safer place, high place, or prepare for a move / Mengamankan baran ke tempat tinggi atau bersiap mengungsi

c= drain, clean up the house, yard and water duct / Menguras, membersihkan rumah, halaman dan saluran air

**Organisasi yang menolong saat banjir terakhir /
Community based organisations helped respondent at flood disaster**

Kota/Kecamatan/Desa	jumlah responden yg menjawab	Type of support							
		a	b	c	d				
					d-1	d-2	d-3	d-4	d-5
Area Studi	50	15	28	13	2	6	2	9	5
%	100	30	56	26	4	12	4	18	10
<i>Kota Gorontalo</i>	9	3	6	4	0	2	0	0	0
%	100	33	67	44	0	22	0	0	0
I. Kota Selatan 2 Kel. Siendeng	2	0	0	0	0	2	0	0	0
II. Kota Barat 3 Kel. Molosipat W	7	3	6	4	0	0	0	0	0
<i>Kabupaten Gorontalo</i>	41	12	22	9	2	4	2	9	5
%	100	29	54	22	5	10	5	22	12
IV Tibawa 5 Labanu 6 Datahu 7 Isimu Selatan	3 3 2	1 1 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	3 2 2	0 0 0
V Batudaa 9 Payunga 10 Pilolalenga	7 1	4 0	4 0	4 0	0 0	1 0	2 0	0 1	5 0
VI Limboto 12 Biyonga 14 Hunggaluwa 15 Tungulo	2 1 2	0 0 0	1 0 0	0 0 0	0 0 0	0 1 2	0 0 0	1 0 0	0 0 0
VII Tapa 16 Longalo 17 Tupa	2 1	2 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0
VII Telaga 18 Tilote	17	3	17	5	2	0	0	0	0

note: there were no support for 7 villages not presented in the above table

a= help each othe for move	d= other	d-3= house equipment
b= support for health	d-1= money	d-4= energy, power
c= subsidies	d-2= food	d-5= clothes, sarong, blanket

Organisasi yang menolong

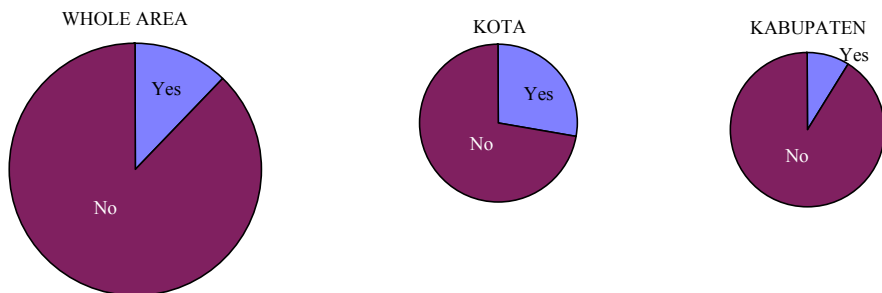
Kota/Kecamatan/Desa	Adakah organisasi yang menolong		jumlah responden yg menjawab	Nama Organisasi				
	Ya	Tidak		a	b	c	d	e
Area Studi	77	299	64	36	2	15	1	20
%			100	56	3	23	2	31
<i>Kota Gorontalo</i>	22	46	19	18	2	2	0	1
%			100	95	11	11	0	5
<i>Kabupaten Gorontalo</i>	55	253	45	18	0	13	1	19
%			100	40	0	29	2	42

a= Pemerintah, Puskesmas, Dinas Sosial, Posko Banjir, IKIP
b= Swasta, Bank Mandiri, Naga Manis, Karang Taruna
c= Organisasi Masyarakat, LSM, Parpol, PMII, GM TriDa, PM Korea, Wiraga Muly
d= Gereja Tetangga Masyarakat
e= Keluarga

Pernakah ada peringatan untuk mengungsi
Warning or public announcement of evacuation in advance or during the flood

Kota/Kecamatan/Desa	Adakah Peringatan			Jumlah Responden yang Menjawab	Peringatan dari				Bagaimana		
	Ya	Tidak	Total		a	b	c	d	Jumlah Responden yang Menjawab	a	b
					Pemerintah	Mesjid	Radio	PMII		melalui pengeras suara	melalui beduk yang dibunyikan
Area Studi	46	330	376	34	16	12	1	5	6	3	3
%	12	88	100	100	47	35	3	15	100	50	50
<i>Kota Gorontalo</i>	18	47	65	12	4	8	0	0	1	0	1
%	28	72	100	100	33	67	0	0	100	0	100
I. Kota Selatan											
1 Kelurahan Talumolo	7	9	16	2	1	1	0	0	0	0	0
2 Kel. Siendeng	8	12	20	7	0	7	0	0	1	0	1
II. Kota Barat											
3 Kel. Molosipat W	3	17	20	3	3	0	0	0	0	0	0
III. Kota Utara											
4 Kel. Dulomo Selatan	0	9	9	0	0	0	0	0	0	0	0
<i>Kabupaten Gorontalo</i>	28	283	311	22	12	4	1	5	5	3	2
%	9	91	100	100	55	18	5	23	100	60	40
IV. Tibawa											
5 Labanu	0	20	20	0	0	0	0	0	0	0	0
6 Datahu	3	17	20	1	1	0	0	0	0	0	0
7 Isimu Selatan	2	18	20	1	1	0	0	0	0	0	0
V. Batudaa											
8 Tahupo	0	17	17	0	0	0	0	0	0	0	0
9 Payunga	5	15	20	4	3	0	1	0	0	0	0
10 Pilolalenga	0	19	19	0	0	0	0	0	0	0	0
VI. Limboto											
11 Bulota	0	20	20	0	0	0	0	0	0	0	0
12 Biyonga	0	20	20	0	0	0	0	0	0	0	0
13 Kayu merah	2	18	20	1	0	1	0	0	0	0	0
14 Hunggaluwa	0	20	20	1	0	1	0	0	1	1	0
15 Tungulo	0	15	15	0	0	0	0	0	0	0	0
VII. Tapa											
16 Longalo	1	19	20	0	0	0	0	0	0	0	0
17 Tupa	0	20	20	0	0	0	0	0	0	0	0
VIII. Telaga											
18 Tilote	14	6	20	14	7	2	0	5	4	2	2
IX. Suwawa											
19 Lombongo	1	19	20	0	0	0	0	0	0	0	0
20 Pinogu	0	20	20	0	0	0	0	0	0	0	0

ADAKAH PERINGATAN ?



Pendapat bila harus dipindahkan dengan kompensasi yang layak/tepat / Opinion if they must move with right compensation

	Setuju	Alasan					Tergantung Situasi	Situasi yang diperlukan			Tidak Setuju	Alasan				Tidak Tahu			
		Alasan		Alasan		Alasan		Alasan		Alasan									
		1	2	3	4	5		1	2	3		1	2	3	4				
Kota/Kecamatan/Desa																			
Area Studi	81	22	15	40	11	2	77	64	11	50	3	64	174	97	25	12	27	161	4
%									<i>17</i>	<i>79</i>	<i>5</i>	<i>102</i>	<i>174</i>	<i>60,2</i>	<i>15,3</i>	<i>7,5</i>	<i>16,8</i>	<i>100</i>	
Kota Gorontalo	16	3	5	9	0	0	17	18	4	13	1	18	29	15	2	3	4	24	1
%		<i>18</i>	<i>29</i>	<i>53</i>	<i>0</i>	<i>0</i>	<i>100</i>	<i>161</i>	<i>22</i>	<i>72</i>	<i>6</i>	<i>100</i>	<i>161</i>	<i>63</i>	<i>8</i>	<i>13</i>	<i>17</i>	<i>100</i>	
I. Kota Selatan	4	1	0	4	0	0	5	4	3	1	0	4	11	9	0	1	0	10	0
1 Kelurahan Talumolo																			
2 Kel. Siendeng	6	1	2	3	0	0	6	6	1	5	0	6	7	5	0	1	1	7	1
III. Kota Barat	5	1	2	2	0	0	5	5	0	4	1	5	6	1	1	1	3	6	0
3 Kel. Molospit W																			
III. Kota Utara	1	0	1	0	0	0	1	3	0	3	0	3	5	0	1	0	0	1	0
4 Kel. Dulomo Selatan																			
Kabupaten Gorontalo	65	19	10	31	11	2	60	46	7	37	2	46	145	82	23	9	23	137	3
%		<i>32</i>	<i>17</i>	<i>52</i>	<i>18</i>	<i>3</i>	<i>122</i>	<i>102</i>	<i>16</i>	<i>82</i>	<i>4</i>	<i>102</i>	<i>145</i>	<i>60</i>	<i>17</i>	<i>7</i>	<i>17</i>	<i>100</i>	
IV. Tibawa	8	0	3	9	1	0	7	4	0	3	0	3	9	7	0	2	0	9	0
5 Labanu																			
6 Datuhu	7	4	1	3	1	0	4	4	1	3	0	4	8	7	1	0	0	8	1
7 Isimu Selatan	8	3	1	2	2	1	7	5	0	5	0	5	7	6	1	0	0	7	0
V. Baudaa	3	1	1	0	0	0	3	4	3	1	0	4	9	5	1	2	0	8	0
8 Tahupo																			
9 Payunga	10	1	0	9	0	0	10	3	0	3	1	3	5	3	2	0	0	5	0
10 Pitolalenga	4	2	0	2	2	0	4	6	1	5	0	6	10	3	3	2	1	9	0
VI. Limboto	3	0	0	2	0	0	3	7	1	5	1	7	6	3	1	1	1	6	0
11 Bulota																			
12 Biyonga	4	2	0	1	1	0	4	1	0	1	0	1	6	3	1	1	2	7	0
13 Kayu merah	3	2	1	0	0	0	3	2	1	1	0	2	9	5	3	0	1	8	0
14 Hunggaluwa	3	0	0	1	2	0	3	5	0	5	0	5	12	10	1	1	0	12	0
15 Tungulo	2	1	0	0	0	1	2	1	0	1	0	1	10	5	2	0	1	8	1
VII. Tapa	0	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	7	10	0
16 Longalo																			
17 Tupa	5	1	2	2	0	0	5	0	0	0	0	0	7	3	0	0	4	7	1
VIII. Telaga	3	1	0	0	2	0	3	1	0	1	0	1	15	11	2	0	2	15	0
18 Tilote																			
IX. Suwawa	2	1	1	0	0	0	2	3	0	3	0	3	11	5	2	0	4	11	0
19 Lombongo																			
20 Pinogu	0	0	0	0	0	0	0	0	0	0	0	0	11	3	3	0	0	6	0

Penggunaan air sungai (multiple answers) / Utilization of River or Lake water

Kota/Kecamatan/Desa	Menggunakan air sungai		Jumlah responden yang menjawab	Ya, Untuk										Lainnya
	Ya	Tidak		a	b	c	d	e	f	g	h	i		
				minum	cuci piring	cuci baju	mandi	jamban	tangkap ikan demakan sendiri	tangkap ikan dijual	air sembahyang	buang sampah		
Area Studi	173	187	163	16	31	108	107	100	14	7	9	27	5	
<i>Kota Gorontalo</i>	28	41	26	3	7	8	9	14	5	3	4	10	2	
I. Kota Selatan														
1 Kelurahan Talumolo	12	8	12	3	7	8	9	8	4	3	4	7	1	
2 Kel. Siendeng	8	12	7	0	0	0	0	0	0	0	0	0	0	
II. Kota Barat														
3 Kel. Molosipat W	4	16	3	0	0	0	0	2	1	0	0	1	1	
III. Kota Utara														
4 Kel. Dulomo Selatan	4	5	4	0	0	0	0	4	0	0	0	2	0	
<i>Kabupaten Gorontalo</i>	145	146	137	13	24	100	98	86	9	4	5	17	3	
IV Tibawa														
5 Labanu	8	12	8	0	1	2	1	6	0	1	1	2	1	
6 Datahu	11	8	10	1	2	8	8	8	2	0	0	2	0	
7 Isimu Selatan	4	16	1											
V Batudaa														
8 Tahupo	13	6	13	1	6	13	13	7	2	0	0	0	0	
9 Payunga	0	5	0	0	0	0	0	0	0	0	0	0	0	
10 Pilolalenga	7	13	5	0	0	3	4	3	0	0	0	0	0	
VI Limboto														
11 Bulota	17	3	17	0	1	13	12	9	0	0	0	5	0	
12 Biyonga	12	8	12	3	4	12	12	7	0	0	0	0	0	
13 Kayu merah	11	9	11	4	4	10	11	8	1	0	2	3	0	
14 Hunggaluwa	11	9	9											
15 Tungulo	2	12	2	1	1	2	2	0	0	0	1	0	0	
VII Tapa														
16 Longalo	11	8	11	0	1	10	11	9	0	0	0	1	1	
17 Tupa	13	7	13	1	1	8	12	13	1	0	1	1	0	
VIII Telaga														
18 Tilote	12	3	12	0	0	8	7	9	3	3	0	2	1	
IX Suwawa														
19 Lombongo	7	13	7	2	2	6	5	7	0	0	0	0	0	
20 Pinogu	6	14	6	0	1	5	0	0	0	0	0	1	0	

Frekuensi banjir (multiple answers) / Change in Frequency of Flood

Kota/Kecamatan/Desa	Lebih Sering		Jumlah Respondent Yang Menjawab	Ya, Karena			
	Ya	Tidak		a. Tinggi air dan Banjir lebih sering	b. Lebih Keruh Saat Hujan	c. Lebih Dangkal dan Lebih Banyak Endapan	d. Lain nya
Area studi	192	180	177	40	68	126	21
<i>Kota Gorontalo</i>	39	28	38	14	16	21	5

I. Kota Selatan							
1 Kelurahan Talumolo	10	8	10	6	4	3	0
2 Kelurahan Siendeng	16	4	13	1	6	12	0
II. Kota Barat							
3 Kelurahan Molosipat W	10	10	11	7	3	2	5
III. Kota Utara							
4 Kelurahan Dulomo	3	6	4	0	3	4	0
<i>Kabupaten Gorontalo</i>	153	152	139	26	52	105	16

IV. Tibawa							
5 Labanu	14	4	5	2	4	4	0
6 Datahu	13	5	12	0	3	12	0
7 Isimu Selatan	8	12	6	0	2	5	0
V. Batudaa							
8 Tahupo	8	8	6	0	1	6	0
9 Payunga	16	4	16	4	6	12	7
10 Pilolalenga	9	10	10	3	4	9	0
VI. Limboto							
11 Bulota	15	5	15	6	8	9	0
12 Biyonga	12	8	12	1	6	11	1
13 Kayu merah	11	9	9	2	3	3	3
14 Hunggaluwa	10	10	9	1	2	8	0
15 Tungulo	3	12	5	2	0	3	0
VII. Tapa							
16 Longalo	2	17	3	0	2	2	0
17 Tupa	7	13	7	0	5	7	0
VIII. Telaga							
18 Tilote	19	1	18	5	5	13	0
IX. Suwawa							
19 Lombongo	5	15	6	0	1	1	5
20 Pinogu	1	19	0	0	0	0	0

Kedadaan Air Sungai Lebih Buruk (multiple answers)/ Condition of River or Lake

Kota/Kecamatan/Desa	Lebih Buruk		Jumlah Respondent Yang Menjawab	<i>Ya, Karena</i>				
	Ya	Tidak		a. Saat ini kadang2 ada Ikan Mati	b. Air bertambah keruh	c. Terasa berbau busuk sekarang	d. Tidak dapat diminum lagi	e. Ada Perubahan Lain
Area studi	181	195	188	14	157	60	46	46
<i>Kota Gorontalo</i>	29	38	32	0	28	11	9	6
I. Kota Selatan								
1 Kelurahan Talumolo	6	12	8	0	7	3	1	1
2 Kelurahan Siendeng	14	6	15	0	14	6	4	2
II. Kota Barat								
3 Kelurahan Molosipat W	6	14	6	0	4	1	2	3
III. Kota Utara								
4 Kelurahan Dulomo	3	6	3	0	3	1	2	0
<i>Kabupaten Gorontalo</i>	152	157	156	14	129	49	37	40
IV Tibawa								
5 Labanu	7	12	9	0	5	6	3	4
6 Datahu	12	7	11	0	7	3	4	3
7 Isimu Selatan	5	15	6	0	4	0	0	4
V Batudaa								
8 Tahupo	10	8	12	2	10	2	3	1
9 Payunga	14	6	14	4	14	5	2	5
10 Pilolalenga	9	11	10	1	7	4	1	2
VI Limboto								
11 Bulota	18	2	18	0	14	5	2	7
12 Biyonga	15	5	15	0	13	3	2	5
13 Kayu merah	10	10	10	0	9	5	3	2
14 Hunggaluwa	12	8	11	0	10	2	2	0
15 Tungulo	1	13	1	0	1	0	1	0
VII Tapa								
16 Longalo	4	15	5	0	3	2	1	1
17 Tupa	9	11	9	0	9	1	1	1
VII Telaga								
18 Tilote	19	1	19	7	17	11	12	3
IX Suwawa								
19 Lombongo	7	13	6	0	6	0	0	2
f 20 Pinogu	0	20	0	0	0	0	0	0