

D3. TECHNOLOGY TRANSFER

Technology transfer to the Indonesian counterparts was carried out through learn-by-doing procedures, technology transfer seminar and technical guidance program for small scale project as described below.

D3.1 Learn-by-Doing

Main theme of technology transfer program through Learn-by-Doing was to learn the process of master plan study and feasibility study and to understand the contents of flood mitigation master plan for the Limboto-Bolango-Bone basin and its priority projects.

The Study Area is located in Gorontalo Province, while most of the data and information necessary for planning flood mitigation master plan are located in Manado City. The Study Team established offices both in Gorontalo and Manado cities. During the period of the Master Plan Study (Work Div. B) the Study Team mainly stayed in the Manado Office, while the Gorontalo Office was used as a principal office during the period of the Feasibility Study (Work Div. C). The Manado and Gorontalo offices were open to the counterparts for free communications while the Study Team stayed there.

In order to conduct the Study works in collaborative manner, technical meetings were held biweekly and when occasion arose with counterpart staff to discuss current technical topics and administrative problems encountered. During the Master Plan Study period, counterpart staff of Gorontalo were invited alternately to Manado to participate in the Study works, and during the Feasibility Study period, counterpart staff of North Sulawesi to Gorontalo.

Joint meetings were held in Manado and Gorontalo among Gorontalo Province, North Sulawesi Province and the Study Team, to make important decisions in the course of the Study, inviting competent officials in water resources sectors of Gorontalo and North Sulawesi provinces.

D3.2 Technology Transfer Seminar

In order to promote the understanding on the flood mitigation activities, Technology

Transfer Seminars were held at the end of September 2001, separately in Gorontalo and Manado cities, under the following program (Table D3.1.1):

- 1) Period: One (1) day each in Gorontalo and Manado cities.
- 2) Session themes:
 - Progress of the Study
 - Five (5) topics on flood and sediment problems
- 3) Lectures/Presenter:
 - Three (3) experts of the Study Team
 - Two (2) experts of Indonesia
- 4) Attendants:
 - Gorontalo: 30 persons from relevant Dinas of Gorontalo Province, Kota Gorontalo and Kabupaten Gorontalo
 - Manado: 20 persons from Dinas Sumber Daya Air (SDA) of North Sulawesi Province.

D3.3 Technical Guidance for Urgent Small Scale Project

Technical Guidance: Technical guidance was given to the counterpart staff of Gorontalo province on the urgent small scale project which would be implemented with provincial budget by themselves. Meetings for the technical guidance were held bi-weekly on Wednesday during the Feasibility Study period. Staff of Kabupaten and Kota Gorontalo were also invited to the technical guidance meetings.

Considering the current situations of the basin and the province, following two projects were selected for technical guidance:

- (1) Establishment of Hydrological Observation Network
- (2) Reinforcement of Existing Flood Mitigation Facilities

D3.3.1 Establishment of Hydrological Observation Network

(1) Background

Hydrological observation network in Gorontalo, which has been a part of the network of North Sulawesi Province, should be managed and operated by Gorontalo Province. An organization for gauge operation and data process should be established in

Gorontalo Province, and capacity building of its staff should be started as soon as possible.

The routine works for gauge operation and data process so far done by North Sulawesi should be transferred to Gorontalo step-by-step considering the progress of capacity building of the related staff in Gorontalo Province, so as not to cause suspension of observation. Capacity building of the Gorontalo staff is desirable to be assisted by North Sulawesi in the course of transferring the routine works, according to a program agreed by both provinces. The past hydrological records and GIS data related to Gorontalo and kept in North Sulawesi Province should be transferred to Gorontalo immediately for the current use in Gorontalo.

(2) Technical Guidance

Technical guidance on this topic aims to initiate transfer of hydrological observation network which has been maintained by North Sulawesi Province. For this purpose, counterpart of Gorontalo Province conducted following works with the technical guidance of the Hydrology Staff from Dinas SDA of North Sulawesi Province as well as the JICA Study Team:

- (1) Meeting to receive explanation on existing hydrological observation network of Gorontalo Province and North Sulawesi as well;
- (2) Preparation of programs for transference of hydrological observation network and capacity building of staff related to hydrological observation, with cooperation of North Sulawesi Province;
- (3) Preparation of inventory for the existing observation network; and
- (4) Transference of past hydrological records and GIS data related to Gorontalo and kept in North Sulawesi Province.

D3.3.2 Reinforcement of Existing Flood Mitigation Facilities

(1) Background

River improvement works were recently implemented in and around Gorontalo City for the Bone, Tamalate, Siendeng and Bolango rivers, mainly by the funds from central government. The works are mostly for floodwall made of concrete with drainage sluices/culverts and bank protection by gabions.

In spite of these efforts, Gorontalo City suffered from severe flooding in May 2002. Due to the flooding, some of the flood mitigation facilities were damaged as well as the private and public properties in the city. It is meaningful to inspect these existing facilities for their functional performance and damages during the recent flood. Monitoring and maintenance of existing flood mitigation facilities are required. If some facilities are identified not to function so well or damaged, they should be improved or repaired soon before the next attack of flood. These reinforcement works would be in general easier and require less cost, as is said “a stitch in time saves nine”.

(2) Technical Guidance

Technical guidance on this topic aims to provide a good knowledge and understanding on flood mitigation facilities as a basic tool for construction supervision of river improvement works. For this purpose, counterpart staff of Gorontalo Province conducted the following works with the technical guidance of an official of North Sulawesi Province as well as the JICA Study Team:

- (1) Discussions on basic structures and functions of flood mitigation facilities such as dike, bank protection and drainage sluice/culvert works;
- (2) Inspection and inventory of existing flood mitigation facilities;
- (3) Exchange of view and capacity building mainly through discussions on problems of the existing facilities.

D3.4 Training Program in Japan

During the period of the Study, two officials from the counterpart agencies were sent for training in Japan, i.e., one official each from Gorontalo Province and North Sulawesi Province. They were dispatched to Japan for about three (3) weeks from 19 Jan. 2002 to 9 Feb. 2002 and visited various flood mitigation facilities as shown in Table D3.4.1.

D3.5 Problems Encountered

As described in the previous sections, the Study Team conducted the technology transfer enthusiastically, keeping in mind the importance of technology transfer especially in newly established Gorontalo Province. Although new province has more needs for capacity building, the new province also has more difficulties for it. Some

problems encountered are mentioned below, for more effective technology transfer in future.

Target of Technology Transfer: Since the Project Area is located in Gorontalo Province, the target of the technology transfer should be focused on the counterpart staff of Gorontalo Province. During the period of master plan study, the Study Team stationed in Manado because of the availability of required data and information. In the discussion on the Inception Report, it was disclosed that the Gorontalo Province had no budget to send counterpart staff to Manado to participate the Study. The technology transfer program was therefore adjusted to have technical meetings in Gorontalo occasionally when expert of the Study Team visited Gorontalo, and to invite the Gorontalo counterpart alternately to Manado. However, the period and number of staff participated in the Study were limited.

Personnel Changes in Dinas: During 19 months of the Study period, Governor of Gorontalo changed from the appointed one to the elected one, and the head of Dinas PU/Kimpraswil also changed. In addition to these changes, the head of Sub-Dinas PSDA (Water Resources Development) changed twice. Because of disorder of staff control due to the changes of high officials of Dinas, counterpart staff of Gorontalo Province could not join the major part of the Study during the period of feasibility study. During the period, technology transfer was made for the Dinas staff of Kabupaten/Kota Gorontalo only.

Routine Works of Counterpart Staff: Besides the problems mentioned above, counterpart staffs were busy at their own routine works, because number of staff were limited in the new province. It is generally difficult to join the Study on a full time basis. Fortunately a counterpart from North Sulawesi Province participated the Study almost full time. He fully understood the process of the flood mitigation study and guided other counterpart staff from Gorontalo Province and staff of Kabupaten/Kota Gorontalo. Even though the routine works are busy, at least one counterpart from Gorontalo Province should have been assigned to the Study on a full time basis.

Local Experts: In the course of the Study, local experts and engineers were employed. They were from university staffs in Manado and Gorontalo and Indonesian consultants. They were enthusiastic and effective to perform the Study. It would be a good opportunity for them to join such an integrated study works. Although they had capability beforehand to a certain level, they could improve their capability through

collaborative works with the Study Team. This would enhance the technology level of the country and could be regarded as a type of technology transfer.

Public Consultation: Public consultation meetings (PCM) were held three times in the Study period, and the counterpart staff of Gorontalo Province worked as working group members for the PCM in collaboration with counterpart staff of North Sulawesi and some staff from Kabupaten/Kota Gorontalo. Through the works for the PCM, counterpart staff of Gorontalo Province have familiarized themselves with the PCM procedure and they seemed to gain confidence to promote the project. This would be real result of learn-by-doing.

Table D3.1.1 PROGRAM FOR TECHNOLOGY TRANSFER SEMINAR

	Sep.24 (Mon), 2001 in Gorontalo City Sep.26 (Wed), 2001 in Manado City
1. Registration	08:30 – 09:00
2. Morning Sessions:	
Opening Address	09:00 – 09:15
Session-1 . . .	09:15 – 09:45 Progress of the Study By Mr. N. Jitsuhiro, JICA Study Team << Break 09:45 – 10.00 >>
Session-2 . . .	10:00 – 11:00 Watershed Management By Mr. J. Widagdo, Dinas SDA Sulawesi Utara
Session-3 . . .	11:00 – 12:00 Hydrological Survey and Study By Mr. Shiraishi, JICA Study Team
3. Lunch Break	12:00 – 13:00
4. Afternoon Session:	
Session-4 . . .	13:00 – 14:00 Flood Flow Simulation Model By Mr. H. Araki, JICA Study Team
Session-5 . . .	14:00 – 15:00 Flood Mitigation through Basin Eco-system Approach By Mr. J. Baskoro, Dinas PKP, Gorontalo << Break 15:00 – 15:15 >>
Session-6 . . .	15:15 – 16:15 Sediment Movement in Alluvial Rivers By Mr. Jitsuhiro, JICA Study Team
Closing Address	16:15 – 16:30

Table D3.4.1 SCHEDULE OF TRAINING IN JAPAN

Date	Contents	Organization	Place
20-Jan-02	Arrival in Japan	TIC	Tokyo
21-Jan-02	Briefing Session, and Programme Orientation	TIC	Tokyo
22-Jan-02	Courtesy Call on the Ministry of Land, Infrastructure and Transport (MLIT)	Ministry of Land, Infrastructure and Transport (MLIT)	Tokyo
23-Jan-02	Lec.: River Planing	Nikken Consultants, Inc.	Tsuchiura
24-Jan-02	Lec.: River Planing	Nippon Koei Co., LTD	Tokyo
25-Jan-02	Lec. & Obs.: Development Facilities on Arakawa River and Sumida River	Nikken Consultants, Inc.	Tokyo
26-Jan-02	Holiday		
27-Jan-02	Transfer (Tokyo→Niigata)		Niigata
28-Jan-02	Lec. & Obs.: Measures for Antiflood Afforestation and Flood Disaster Prevention in the Jurisdiction of Hokuriku Regional Development Bureau, MLIT	Hokuriku Regional Development Bureau, MLIT	Nagano
29-Jan-02	Lec. & Obs.: Development Facilities for River and Dam on Mibu River of Chubu Regional Development Bureau, MLIT	Chubu Regional Development Bureau, MLIT	Nagano
30-Jan-02	Lec. & Obs.: Development Facilities at Lake Suwa and the Rivers	Nagano Prefectural Govt.	Nagano
31-Jan-02	Transfer (Nagano→Nagoya)		Nagoya
01-Feb-02	Lec. & Obs. : Kiso River	Chubu Regional Development Bureau, MLIT	Nagoya
02-Feb-02	Holiday		Nagoya
03-Feb-02	Holiday		
04-Feb-02	Transfer (Nagoya→Tokyo) Lec. & Obs.: Flood Disaster Prevention Facilities and Water Management of Small and Medium Size Rivers	Aichi Prefectural Govt.	Tokyo
05-Feb-02	Lec. & Obs.: River Management Facilities in the Surrounding Area of the Metropolis	Nikken Consultants, Inc.	Tokyo
06-Feb-02	Preparation of Training Report	TIC	Tokyo
07-Feb-02	Evaluation Meeting	TIC	Tokyo
08-Feb-02	Departure from Japan		

D4. PUBLIC CONSULTATION MEETING

D4.1 Program for Public Consultation Meeting

(1) Background

In order to make the flood mitigation activities sustainable, the plan must meet the actual needs of the community people and acceptable to them. Therefore, involvement of community people is necessary from the project plan stage.

The Law No.22/1999 concerning the Regional Government Administration clearly mentions that the regional autonomy is applied to support the involvement of the community people in the social development program of the country. For this purpose, the Government of Indonesia adapts the public consultation procedures as one of the method to get understanding and acceptance of the people on the implementation of the development programs.

(2) Procedures of PCM

In North Sulawesi, the PCM has been implemented with an assistant of Canadian International Development Agency (CIDA). The procedures used in North Sulawesi was applied in principle to the PCM for the Study (LBB-PCM). The LBB-PCM was implemented mainly in three steps, namely, (1) preparatory works, (2) public consultation meeting (PCM), and (3) following up as described below.

Preparatory Works: The preparatory works for the PCM start from organizing Working Group as follows:

- 1) Organization of Working Group for the PCM.
- 2) Preparation of overall PCM program and informal approval of relevant agencies.
- 3) Selection of participants of the PCM.
- 4) Preparation of agenda and invitation documents for the PCM.
- 5) Delivery of the invitation to respective participants and confirmation of attendance.
- 6) Preparation of staffing plan for the PCM and request to the persons concerned, such as moderator, facilitators, presentators, main guests, and other meeting

staff.

- 7) Preparation of presentation materials.
- 8) Preparation of meeting place and arrangement of equipment and materials.
- 9) Budgeting and logistics.

Public Consultation Meeting (PCM): The PCMs were held for one day each, in principle, according to the following agenda:

- 1) Opening remarks:
- 2) Presentations: Presentation by Dinas on the main topics of the PCM so as to provide the participants with objectives and basis of discussion.
- 3) Questions and answers: Questions and answers chaired by a PCM Moderator.
- 4) Lunch break: Opportunities for interaction and informal discussions
- 5) Group discussions:
 - Participants are divided into four groups.
 - Each group selects their own spokesperson.
 - A facilitator is provided to each group to guide the discussion in orderly manners.
 - Discussions on the topics given to each group.
- 6) Presentation of group findings: Presentation of group findings in plenary session by spokesperson chaired by the PCM Moderator.
- 7) Closing remarks.

The PCMs were held three times at the important occasions of the Study with different topics as outlined below.

- 1) First Public Consultation Meeting
 - Timing: In the inceptive period of the Study.
 - Objectives: To disseminate program of flood mitigation study, and to collect information on actual flood problems in the areas subject to the Master plan study.
 - Presentations: Objectives, project area, work items and schedule of the Study
 - Group Discussions: Encountering problems of flood and sediment disasters, and conceivable interventions to solve the problems on the master plan level.

2) Second Public Consultation Meeting

- Timing: Upon formulation of the Flood Mitigation Master Plan (FM-MP).
- Objectives: To get consent on the FM-MP formulated and to collect information on actual flood problems in the areas subject to the Feasibility Study.
- Presentation: Progress of the Study since the 1st PCM, outline of FM-MP and selection of the priority project(s) for Feasibility Study.
- Group Discussions: In-depth discussions on encountering problems of the flood mitigation, and conceivable interventions to solve the problems focusing on the priority project(s).

3) Third Public Consultation Meeting:

- Timing: Upon completion of the Draft Final Report.
- Objectives: To get consent on the result of Feasibility Study and to collect information on the expected problems in work period and at operation and maintenance stage.
- Presentation: Progress of the Study since the 2nd PCM, and results of Feasibility Study.
- Group Discussions: Discussions on the problems of construction works and operation and maintenance activities.

Following-up: After the PCM, the PCM Working Group carried out the following works before its break-up.

- 1) Reviewing meeting on the PCM held
- 2) Preparation of proceedings of the PCM

(3) Roles of Study Team

The PCMs were held under the responsibility of counterpart agency. The Study Team assisted in preparation of the PCM program, arrangement of discussion data and advices for the technical presentation as follows:

- 1) Preparation of PCM-program and coordination

- 2) Preparation of study digest to be attached to the invitation documents (in Indonesian)
- 3) Preparation of presentation materials for the PCM (in Indonesian)
- 4) Preparation of Proceedings of the PCM.
- 5) Printing of all the documents and materials for the PCM.
- 6) Financial support for the PCM
- 7) Giving timely advice and following up the progress of the works related to the PCM, functioning as secretariat for the PCM Working Group.

D4.2 Proceedings of LBB-PCM

(1) First Public Consultation Meeting

The 1st PCM was held on 23 August 2001 in Gorontalo. The PCM was prepared and held according to the PCM Program proposed by the Study Team, in principle, by the PCM Working Group organized by the counterpart staff of North Sulawesi and Gorontalo provinces. In the 1st PCM, North Sulawesi counterparts who ever had experience played an important role in guiding and instructing Gorontalo counterparts.

The Agenda for the PCM is shown in Table D4.2.1. A total number of 81 participants were invited from relevant agencies, organizations and communities as follows (Table D4.2.2):

- | | |
|--------------------------------------|-----------|
| 1) Propinsi Gorontalo | : 8 per. |
| 2) Kabupaten Gorontalo | : 13 per. |
| 3) Kota Gorontalo | : 11 per. |
| 4) LSM (NGO)/Other organization | : 8 per. |
| 5) Kecamatan | : 10 per. |
| 6) Desa/Kelurahan | : 30 per. |
| 7) Tokoh Masyarakat (Public figures) | : 2 per. |

Group discussions were made on six (6) topics (Table D4.2.3) commonly provided by the PC working Group. Results of discussions on these topics were summarized in Table D4.2.4.

Proceedings of the First Public Consultation Meeting were prepared in Indonesian language compiling records of activities and discussions.

(2) Second Public Consultation Meeting

The 2nd PCM was held on 19 February 2002 in Gorontalo. The PCM was prepared and held in the similar manners as the 1st PCM, by the PCM Working Group organized by both counterparts of Gorontalo and North Sulawesi provinces, under the initiative of Gorontalo Province.

The Agenda for the PCM is shown in Table D4.2.5. Number of participants was increased to invite more local representatives and lady participants. Finally, a total number of 100 participants was invited from relevant agencies, organizations and communities as follows (Table D4.2.6):

- | | |
|--------------------------------------|-----------|
| 1) Propinsi Gorontalo | : 10 per. |
| 2) Kabupaten Gorontalo | : 14 per. |
| 3) Kota Gorontalo | : 12 per. |
| 4) Kecamatan | : 9 per. |
| 5) Desa/Kelurahan | : 41 per. |
| 6) LSM (NGO) | : 10 per. |
| 7) Tokoh Masyarakat (Public figures) | : 4 per. |

Group discussions were made on three (3) topics (Table D4.2.7) commonly provided by the PCM working Group. Results of discussions on these topics were summarized in Table D4.2.8.

Proceedings of the Second Public Consultation Meeting were prepared in Indonesian language compiling records of activities and discussions.

(3) Third Public Consultation Meeting

The 3rd PCM was held on 17 October 2002 in Gorontalo. The PCM was prepared and held, by the PCM Working Group organized by the counterparts staff of Gorontalo provinces with an assistance of those of North Sulawesi Province.

The Agenda for the PCM is shown in Table D4.2.9. A total number of 113 participants was invited from relevant agencies, organizations and communities as follows (Table D4.2.10):

- | | |
|--------------------------------------|-----------|
| 1) Propinsi Gorontalo | : 12 per. |
| 2) Kabupaten Gorontalo | : 13 per. |
| 3) Kota Gorontalo | : 13 per. |
| 4) LSM (NGO)/Other organization | : 13 per. |
| 5) Kecamatan | : 12 per. |
| 6) Desa/Kelurahan | : 42 per. |
| 7) Tokoh Masyarakat (Public figures) | : 8 per. |

Group discussions were made on four (4) topics (Table D4.2.11) commonly provided by the PCM working Group. Results of discussions on these topics were summarized in Table D4.2.12.

Proceedings of the 3rd PCM were prepared in Indonesian language compiling records of activities and discussions.

An official from South Sumatra Province attended the 3rd PCM as an observer to see and discuss on the actual movements for the preparation, the PCM and the following-up. These experiences would be made use of the PCM to be held in South Sumatra Province.

D4.3 Remarks on LBB-PCM

The PCM procedure is one of the recent attempts to involve community people in the development program. Some remarks on the LBB-PCM are presented below, so that the experience obtained through the LBB-PCM would serve for the PCM to be held for other projects in future.

(1) Outcome of LBB-PCM

As a result of the implementation of the PCM for the Study, the following outcome was acknowledged:

- 1) The government agencies and communities recognized that the Study Team of JICA was conducting flood mitigation study in collaboration with Indonesian Government agencies concerned.

- 2) It was confirmed that the communities have great concerns on the flooding problems and they are willing to take coping actions.
- 3) Judging from the discussions and questions in the PCM, understanding of attendants on the flood mitigation activities was improved more and more including structural and non-structural measures.
- 4) Discussions in the PCM were very active so that the moderator had to limit the number of speakers. However, the meeting preceded orderly almost on the program as arranged with good management of the Moderator.
- 5) Various comments and opinions were expressed and most of them were constructive ones though some of them were those having no concern with the PCM topics. The proposed Flood Mitigation Master Plan and the result of Feasibility Study were supported by the PCM in general.
- 6) Counterparts of Gorontalo Province have familiarized themselves with the PCM through the experience of three PCMs. A sense of solidarity has been brought up between the counterparts of Gorontalo and North Sulawesi provinces, through the collaborative works for the PCM. For far more importance, staff of Gorontalo Province seems to gain confidence to promote the project to implementation.

(2) Issues of PCM

The PCM would be an effective procedure for the communication between the government agency as implementing body and the related local communities, to make the project fruitful as a whole. However the procedure has a limitation in its application. Some issues of the PCM are discussed here based on the experience of the LBB-PCM.

Objective of PCM: Since the PCM is a procedure for communication, the PCM should have definite objective for the communication. The attendants should be selected in line with the objective and the PCM moderator should manage the meeting toward the objective. In other words, various types of PCM could be held depending on the objectives. In the case of LBB-PCM, objective was set at the following points:

- 1) To know actual situation and real needs: Through the PCM, the implementing

agency can get information on actual situation of disasters in the suffering areas and real needs of the communities peoples concerned, which could be reflected to the coping measures to be proposed. On the other side, the attendants can get common awareness of the disasters taking place in the region.

- 2) To explain study results in progress: In the PCM, the implementing agency can explain the study results of the flood mitigation plan stage by stage. The attendants can get correct information on the plan in progress and have opportunity to express their comments and opinions to make the plan better for them.
- 3) To improve understanding on flood mitigation: Flood mitigation is attained with collaborative activities of various government agencies and local communities. However, the relevant peoples are not always familiar with the flood mitigation measures. The PCM is a good place to improve their understanding and mobilize them to the flood mitigation activities.
- 4) To get general consent on the plan: It would be the goal of the PCM to get general consent of the attendants on the plan proposed reflecting the results of discussion in the PCM.

Selection of Attendants: Selection of the attendants is one of the most difficult issues for the successful PCM. There is no standard to decide the number of attendants, and their spatial and social distributions for the PCM. Various composition of the participant groups would be possible depending on the objective of the PCM. In the case of LBB-PCM, invited were the leaders and representatives of the interested Desa/Kelurahan, Kecamatan, Kabupaten and Kota; NGOs and public figures; and relevant provincial government agencies other than the implementing agency; following the practice of the PCMs for Water Management Master Plan held under the assistance of CIDA. As for the number of the participants, the total number of 81 attendants was invited for the 1st PCM and it was increased so as to invite more attendants from local communities (Desa and Kelurahan).

There may be a comment to invite individuals from the communities to be affected by the proposed project such as those subject to land acquisition and compensation. For the LBB-PCM, community leaders were invited from the affected communities, since the affected individuals were not yet specified definitely. At this planning stage, the PCM should be the place to confirm whether the proposed plan is acceptable or

beneficial to the relevant communities and the areas. It should not be the place to debate private interests.

Attendance of public figures (Tokoh Masyarakat) are also important matters to be considered. The public figure has a leading opinion in the local community.

Nomination of PCM-Moderator: Discussion should be made freely under the chair of PCM moderator. The nomination of the PCM moderator is an important issue, and the moderator should be selected impartially considering the attendants. For the LBB-PCM, the president of the university in Gorontalo was selected as the moderator and he managed the meeting excellently.

Table D4.2.1 AGENDA FOR 1st PCM

Agenda / Susunan Acara
PERTEMUAN KONSULTASI MASYARAKAT
THE STUDY ON FLOOD CONTROL AND WATER MANAGEMENT
IN LIMBOTO-BOLANGO-BONE BASIN, THE REPUBLIC OF INDONESIA
 Gorontalo, Tanggal 23 Agustus 2001

No.	Waktu	Kegiatan / Activities	Penanggungjawab / Responsible	Moderator	Keterangan / Information
1	08.00 - 08.30	Pendaftaran Peserta / Registration	Secretariat		
2	08.30 - 08.45	Presentatioin of modality and programme of the day	Secretariat		Hand-outs
3	08.45 - 09.15	Pembukaan / Opening remarks			
		1. Sambutan / Speech - Guberbur Gorontalo			
		2. Sambutan / Speech - Dinas SDA / Provinsi Sulawesi Utara			
4	09.15 - 09.35	Istirahat / Coffee Break	Secretariat		
5	09.35 - 10.20	Penjelasan Urumum / General Explanation and Presentation of the Present Study	Ir. A. R Kemur, MSc Ditjen. SDA	Prof.Dr.Nani Tuloli	Hand-outs
6	10.20 - 10.50	Question and Answers on the Study	Moderator		
7	10.50 - 11.30	Penjelasan Urumum / General Explanation and Presentation of the PC Meeting (Objectives, Methodology, Schedule, etc.)	Ir.H.F.Sampouw, Dipl.HE Dinas SDA Prop. Sulut	Prof.Dr.Nani Tuloli	Hand-outs
8	11.30 - 12.00	Question and Answers on the PC Meeting	Moderator		
9	12.00 - 13.00	Makanan siang / Lunch	Secretariat		
10	13.00 - 15.00	Pembagian / Diskusi Kelompok / Group Discussion (objective, theme, method)	Dinas Kimprawil / Pr. Gorontalo	Dinas PU/ Mdc	
11	15.00 - 15.20	Istirahat / Coffee break	Secretariat		
12	15.20 - 16.10	Penyajian Hasil Diskusi untuk Kelompok/ Presentation and Sharig of Group Findings	Dinas PU/Kimprawil Propinsi Gorontalo		
		1. Presentation of Each Group			
		II. Exchange in the plenary			
13	16.10 - 16.30	Penutupan / Closing			

Table D4.2.2 LIST OF PARTICIPANTS INVITED : 1st PCM (1/2)

DAFTAR PESERTA
PERTEMUAN KONSULTASI DENGAN MASYARAKAT KE - I
TENTANG " THE STUDY ON CONTROL AND WATER MANAGEMENT
IN LIMBOTO - BOLANGO - BONE BASIN, IN THE REPUBLIC OF INDONESIA "
 Gorontalo, Tanggal 23 Agustus 2001

NO.	INSTANSI / AGENCIES	ALAMAT / ADDRESS
	KABUPATEN GORONTALO	
1	Bupati Kepala Daerah	Limboto
2	Kepala Dinas Kehutanan	Limboto
3	Kepala Dinas Perikanan	Limboto
4	Kepala Dinas Kesehatan	Limboto
5	Kepala BRLKT	Limboto
6	Kepala PDAM	Limboto
7	Kepala PLN	Limboto
8	Kepala BPN	Limboto
9	Ketua Bappeda	Limboto
10	Dinas Pekerjaan Umum/ Kimpraswil	Limboto
11	Kepala Dinas Pertanian Tanaman Pangan	Limboto
	KOTA GORONTALO	
12	Walikota Kepala Daerah	Gorontalo
13	Kepala Dinas Perikanan	Gorontalo
14	Kepala Dinas Pertanian Tanaman Pangan	Gorontalo
15	Kepala Dinas Kesehatan	Gorontalo
16	Kepala PDAM	Gorontalo
17	Kepala BPN	Gorontalo
18	Ketua Bappeda	Gorontalo
19	Dinas Pekerjaan Umum/ Kimpraswil	Gorontalo
	PROVINSI GORONTALO	
20	Gubernur / Sekwilda	Gorontalo
21	Kepala Dinas Pertanian, Kehutanan dan Perkebunan	Gorontalo
22	Kepala Dinas Kelautan, Perikanan	Gorontalo
23	Kepala Dinas Kesehatan dan Kesejahteraan Social	Gorontalo
24	Kepala Dinas Pertambangan dan Energi	Gorontalo
25	Ketua Bappeda	Gorontalo
	P3A / LSM	
26	Water Users Association (P3A) Bostar	Bogomeme/ Batudaa
27	Water Users Association (P3A) Barutan	Kota Gorontalo
28	Water Users Association (P3A) Huyula	Isimu Selatan/ Tibawa
29	Water Users Association (P3A) Sabes	Tumbihe/ Kabilia
30	PPTPA Wilayah Sungai Gorontalo	Limboto
31	LSM Yayasan Merdeka	Kec. Telaga
32	LSM Poyulimo	Kota Gorontalo
33	LSM Perintis	Kec. Limboto
	DPRD KABUPATEN	
34	Ketua DPR Kab. Gorontalo	Limboto
35	Ketua Komisi D. Kabupaten	Limboto
	DPRD KOTA	
36	Ketua DPR Kota Gorontalo	Gorontalo
37	Ketua Komisi D. Kota Gorontalo	Gorontalo
	DPRD PROVINSI	
38	Ketua DPR Provinsi Gorontalo	Gorontalo
39	Ketua Komisi D. Provinsi Gorontalo	Gorontalo
	KECAMATAN	
40	Camat Kota Utara	Gorontalo

Table D4.2.2 LIST OF PARTICIPANTS INVITED : 1st PCM (2/2)

NO.	INSTANSI / AGENCIES	ALAMAT / ADDRESS
41	Camat Kota Barat	Gorontalo
42	Camat Kota Selatan	Gorontalo
43	Camat Telaga	Kec. Telaga
44	Camat Tapa	Kec. Tapa
45	Camat Batudaa	Kec. Batudaa
46	Camat Kabila	Kec. Kabila
47	Camat Tibawa	Kec. Tibawa
48	Camat Limboto	Kec. Limboto
49	Camat Suwawa	Kec. Suwawa
	<i>DESA / KELURAHAN</i>	
50	Kepala Desa Tupa	Kec. Tapa
51	Ketua BPD Tupa	
52	Kepala Desa Longalo	Kec. Tapa
53	Ketua BPD Longalo	
54	Kepala Desa Owata	Kec. Tapa
55	Ketua BPD Owata	
56	Kepala Kelurahan Biyonga	Kec. Limboto
57	Ketua LKMD Biyonga	
58	Kepala Desa Bulota	Kec. Limboto
59	Ketua BPD Bulota	
60	Kepala Desa Tulabolo	Kec. Suwawa
61	Ketua BPD Tulabolo	
62	Kepala Kelurahan Molosipat W	Kota Barat
63	Ketua LKMD Molosipat W	
64	Kepala Kelurahan Tenilo	Kota Barat
65	Ketua LKMD Tenilo	
66	Kepala Kelurahan Siendeng	Kota Selatan
67	Ketua LKMD Siendeng	
68	Kepala Kelurahan Biawu	Kota Selatan
69	Ketua LKMD Biawu	
70	Kepala Kelurahan Bulotadaa	Kota Utara
71	Ketua LKMD Bulotadaa	
72	Kepala Kelurahan Hunggaluwa	Kec. Limboto
73	Ketua LKMD Hunggaluwa	
74	Kepala Desa Tilote	Kec. Telaga
75	Ketua BPD Tilote	
76	Kepala Desa Hutadaa	Kec. Telaga
77	Ketua BPD Hutadaa	
78	Kepala Desa Isimu Selatan	Kec. Tibawa
79	Ketua BPD Isimu Selatan	
	<i>TOKOH MASYARAKAT</i>	
80	Kota Gorontalo	Gorontalo
81	Kabupaten Gorontalo	Limboto
82	Provinsi Gorontalo	Gorontalo

Tabel D4.2.3 TOPICS FOR GROUP DISCUSSION : 1st PCM

GROUP DISCUSSION TOPICS	
1st PCM	<p>What kinds of flood and sediment disaster are you suffering from? (bank erosion, inundation, sedimentation, etc) and what do you think are the causes? and what were damage?</p>
	<p>2 How do you think, you / your community / agency can contribute to mitigate the disaster? (contribution of organizations)</p>
	<p>In general two types of flood control measures are conceivable i.e. structural and non-structural measures (Structural: Dike/ embankment, normalization, etc. and Non-structural: to formulate Regional Regulation of Lake and River Buffer zone, to change wrong cultivation behavior / activity, etc.). What is your opinion?</p>
	<p>4 What kinds of measure do you think are effective to cope with the disaster you are suffering (possible measure)?</p>
	<p>Are you willing to participate to the activities to cope with flood and sedimentation disaster prevention in your community? If you say yes, in what kind (of participation)?</p>
	<p>Do you think flood control measure that have been applying recently are conform with the situation / requirement? If you say yes, what is the reason, and if no, what is your opinion (What is your suggestion).</p>

Table D4.2.4 SUMMARY OF GROUP DISCUSSION : 1st PCM

No.	DISCUSSION TOPICS	BONE	BIYONGA	GROUP DISCUSSION	BOLANGO	ALOPOHOU
1.	What kinds of flood and sediment disaster are you suffering from? (bank erosion, inundation, sedimentation, etc) and what do you think are the causes? and what were damage?	- Bank erosion - Inundation (Residence) - Sedimentation	- Flush flood Inundation(Residence) Bank erosion	- Bank erosion Inundation(Residence) Sedimentation	- Bank erosion Inundation(Residence) Sedimentation	- Riverbank erosion Inundation(Residence) Sedimentation
	Causes by :	- High rainfall - Mining-sand and coral (Galian C) - Shifting cultivation - Illegal mining (PETI) - Unsuccessful reforestation - HH-P:Private Company who have rights for forest exertion / exploitation.	- Deforestation Shifting cultivation Mining-sand and coral (Galian C) Lake water overflow High rainfall Unsuccessful reforestation Broken dike Illegal wood and rattan exploitation River and lake sedimentation	- Deforestation Mining-sand and coral (Galian C) River flow become narrow Construction of drainage canal never adjust to technical procedure (improcedural construction)	- Deforestation Mining-sand and coral (Galian C) River flow become narrow Construction of drainage canal never adjust to technical procedure (improcedural construction)	- Mining sand and coral (Galian C) Deforestation Mislanduse at some slope / shifting cultivation Bad behavior (always put garbage anywhere)
	Damaged :	- Settlement, plantation, agricultural area, husbandry and fishery - Water resources structure, transportation (structure-infrastructure),etc.	- Land degradation Irrigation channel Settlement and agricultural area Water inundation Epidemic disease Degradation of land, fertilizing Change of community behavior and social-economic manner	- Agricultural area Structure and infrastructure of transportation, education, health, economic, etc. Residence	- Reforestation / regreening of mountainous area, river and lake riparian To control shifting cultivation To manage mining activity (sand and coral) in mountain & river	- Rice field and road/bridge Rice field become smaller Infertile land/soil Fail / mis-harvesting
2.	How do you think you / your community/ agency can contribute to mitigate the disaster? (contribution of organizations)	*GOVERNMENT - Socialization of regulation - To control illegal mining (PETI) - Law enforcement for destroyer (environm.) *NGO - To motivate the community to be environ aware. *COMMUNITY - To obey the regulation and to protect environmental conservation	*GOVERNMENT - Strictly law enforcement for deforestation, shifting cultivation integrated & continuous - Regreening/reforestation and development of public forest Dike construction and normalization Preparing temporary camp Establishment of First Aid Center Sectoral cooperation between related agency *NGO - To motivate the community to be environmental aware Cooperation between government and related instances' agency *COMMUNITY - To obey the regulation as a guidance for flood mitigation measure	*NON-STRUCTURAL - Extension, train the community To formulate regional regulation about forest, river and lake buffer zone licensing for any construction Changing community behavior *STRUCTURAL - Dike construction River normalization Reforestation	*STRUCTURAL - Dike construction and normalization *NON-STRUCTURAL - To socialize the regional regulation of river buffer zone To change/control shifting cultivation behavior of the community	- Extension + reforestation Training To form a group of environmental conservation To propose program / project
3.	In general two types of flood control measures are conceivable i.e. structural and non-structural measures (Structural: Dike/ embankment, normalization, etc. and Non-structural: to formulate Regional Regulation of Lake and River Buffer zone, to change wrong cultivation behavior/ activity, etc.). What is your opinion?	*STRUCTURAL - To conduct sustainable structural measure *NON-STRUCTURAL - Formulation of regional regulation of river To involve and increase community participation and consciousness for flood mitigation measure (all components).	*NON-STRUCTURAL - Employing comprehensive flood mitigation measure structural and non-structural from upstream to downstream Changing community's way of thinking Reforestation *STRUCTURAL - Dike construction River normalization Reforestation	*STRUCTURAL - Construction of reservoir Construction and improvement of dike Construction and improvement of drainage canal *NON-STRUCTURAL - To relocate the community / shifting cultivation farmer (local transmigration) Law enforcement	*STRUCTURAL - Construction of regional regulation Regreening/reforestation with productive plant *NON-STRUCTURAL - To formulate the regional regulation of river buffer zone + to change wrong cultivation behavior/ activity (Extension + reforestation)	- *STRUCTURAL Dike construction and normalization (Bamboo planted)
4.	What kinds of measure do you think are effective to cope with the disaster you are suffering (possible measure)?	YES - KINDS OF PARTICIPATION : - To give / share opinion-idea, experience and suggestion	YES - KINDS OF PARTICIPATION : - To give / share opinion-idea, assistance, medicine, food, dress, etc.	YES - KINDS OF PARTICIPATION : - To support every efficaction of flood mitigation measure and allow the place for project location To approach community around the project location	YES - KINDS OF PARTICIPATION : - To protect riverbank with vegetative approach Regreening riverbank with bamboo plant Do not allow public construction along river basin / riparian To change bad behavior (put garbage anywhere)	- *AGENCY Extension Proposed program Selection of construction licensing (IMB) - To formulate lake, river and coastal buffer zone * NGO - To supervise/control every development activity based on each function Proposed program - To motivate * ACADEMIC Investigation / research Proposed program
5.	Are you willing to participate to the activities to cope with flood and sedimentation disaster prevention in your community? If you say yes, in what kind (of participation)?	YES - KINDS OF PARTICIPATION : - To give / share opinion-idea, experience and suggestion				NO - BECAUSE : - Lack or less of coordination between related instances PROPOSED PROGRAM : - To improve drainage system - To dredging lake and river Limboto estuary Construction of Dumbayaya Bulan reservoir - Reforestation Normalization
6.	Do you think flood control measure that have been applying recently are conform with the situation / requirement? If you say yes, what is the reason, and if no, what is your opinion (What is your suggestion).	NO - BECAUSE : - Until now the community still always suffering by flood disaster in every rainy season PROPOSED PROGRAM : - To improve drainage system - To dredging lake and river Limboto estuary Construction of Dumbayaya Bulan reservoir - Reforestation Normalization	NO - BECAUSE : - No regional regulation yet - Unfinished flood mitigation measure and sustainable Poor sense of belonging to the environment CONCLUSION : - Hope that there is a follow-up action of this meeting - Need same perception about flood mitigation measure	NO - BECAUSE : - Unsuitable planning, low participation of community - Restricted budget allocation PROPOSED PROGRAM : - Dredging at river estuary Normalizaton of lake Limboto, Bolang, Bone and Limboto rivers Regreening More community participation Riverbank revetment To manage the structure along the drainage canal	NO - BECAUSE : - Restricted budget allocation Lack/loss of human resources Lack/low of community participation Unawareness of the implemented group to follow the direction / rules Unfinished formulation of law / regulation of river buffer zone Sectoral egoism	

Tabel D4.2.5 AGENDA FOR 2nd PCM

Susunan Acara / Agenda

PERTEMUAN KONSULTASI DENGAN MASYARAKAT KE - II
TENTANG "THE STUDY ON FLOOD CONTROL AND WATER MANAGEMENT
IN LIMBOTO-BOLANGO-BONE BASIN, IN THE REPUBLIC OF INDONESIA"
Gorontalo, Tanggal 19 Februari 2002

No.	Waktu / Time	Kegiatan / Activities	Penanggung jawab / Responsible	Moderator	Keterangan / Information
1	08.00 - 08.30	Pendaftaran Peserta / Registration	Sekertariat / Secretariat		
2	08.30 - 08.45	Penjelasan Susunan Acara	Fatmawati Dangkuwa (MC)		Hands-outs
3	08.45 - 09.15	Pembukaan / Opening Remarks	Kepala Dinas PU /Kimprawil Prov. Gorontalo		
		1. Sambutan / Speech	Gubernur Gorontalo		
4	09.15 - 09.35	Istirahat / Coffie Break	Sekertariat / Secretariat		
5	09.35 - 10.20	Presentasi Master Plan /Presentation of the Master Plan	Ir. Raymond Kemur, MSc (Dep. Kimprawil, Ditjen. SDA)	Prof. DR. Jassin H. Tuloli	Hands-outs
6	10.20 - 11.20	Tanya Jawab / Question and Answer		sda	
7	11.20 - 12.05	Presentasi Tentang Proyek-proyek Prioritas /Presentation of the Priority Project	Ir. Sugiantoro,Dip.IHE (Subdin PSDA Gorontalo)	Prof. DR. Jassin H. Tuloli	Hands-outs
8	12.05 - 13.00	Tanya Jawab / Question and Answer		sda	
9	13.00 - 14.00	Makan siang / Lunch			
10	14.00 - 15.00	Diskusi Kelompok Tentang Proyek-Proyek Prioritas / Group Discussion for the Priority Project	Sekertariat / Secretariat Counterpart	Ass. Moderator	
11	15.00 - 15.15	Istirahat / Coffie Break	Sekertariat / Secretariat		
12	15.15 - 16.10	Penyajian Hasil Diskusi Kelompok /Presentation and sharing of group findings I. Presentasi dari masing-masing kelompok / Presentation of each group II. Diskusi Umum / Exchange in the plenary	Counterpart	Prof. DR. Jassin H. Tuloli	
13	16.10 - 16.30	Penutupan / Closing	Kepala Dinas PU /Kimprawil Prov. Gorontalo		

D4.2.6 LIST OF PARTICIPANTS INVITED : 2nd PCM (1/3)

DAFTAR PESERTA
 PERTEMUAN KONSULTASI DENGAN MASYARAKAT KE - II
 TENTANG " THE STUDY ON CONTROL AND WATER MANAGEMENT
 IN LIMBOTO - BOLANGO - BONE BASIN, IN THE REPUBLIC OF INDONESIA "
 Gorontalo, Tanggal 19 February 2002

NO.	INSTANSI / AGENCIES	ALAMAT / ADDRESS
<i>PROVINSI GORONTALO</i>		
1	ASSISTEN II	GORONTALO
2	BAPPEDA	GORONTALO
3	DINAS PERTANIAN TANAMAN PANGAN	GORONTALO
4	DINAS KEHUTANAN, PERKEBUNAN	GORONTALO
5	DINAS KELAUTAN, PERIKANAN	GORONTALO
6	DINAS KESEHATAN DAN KESEJAHTERAAN SOSIAL	GORONTALO
7	DINAS PERTAMBANGAN DAN ENERGI	GORONTALO
8	BADAN KESATUAN BANGSA DAN PERLIND. MASYARAKAT	GORONTALO
<i>KOTA GORONTALO</i>		
9	WALI KOTA	GORONTALO
10	BAGIAN PEMBANGUNAN	GORONTALO
11	BAPPEDA	GORONTALO
12	DINAS PERIKANAN	GORONTALO
13	DINAS PERTANIAN TANAMAN PANGAN	GORONTALO
14	DINAS KESEHATAN	GORONTALO
15	DINAS LINGKUNGAN HIDUP	GORONTALO
16	P. D. A. M.	GORONTALO
17	P. L. N.	GORONTALO
18	B. P. N.	GORONTALO
19	DINAS PU / KIMPRASWIL	GORONTALO
<i>KABUPATEN GORONTALO</i>		
20	BUPATI	LIMBOTO
21	BAGIAN PEMBANGUNAN	LIMBOTO
22	BAPPEDA	LIMBOTO
23	DINAS PERTANIAN PERKEBUNAN DAN KETAHANAN PANGAN	LIMBOTO
24	DINAS KEHUTANAN	LIMBOTO
25	DINAS PERIKANAN	LIMBOTO
26	DINAS KESEHATAN	LIMBOTO
27	B R L K T	LIMBOTO
28	P D A M	LIMBOTO
29	B. P. N.	LIMBOTO
30	DINAS PU / PRASWIL	LIMBOTO
<i>P3A / LSM</i>		
31	P3A BOSTAR	BONGOMEME
32	P3A BARUTAN	KOTA
33	P3A SABES	KABILA
34	PPTPA WILAYAH SUNGAI GORONTALO	LIMBOTO
35	YAYASAN MERDEKA	TELAGA BIRU
36	LSM PAYULIMO	TELAGA
37	LSM PERINTIS	LIMBOTO
38	YAYASAN KELOLA	KOTA
39	LSM PERSADA	LIMBOTO
40	LSM YAYASAN AL MUFAKKIRIN	LIMBOTO
<i>D.P.R.D PROVINSI</i>		
41	KETUA D.P.R.D	GORONTALO
42	KETUA KOMISI D	GORONTALO
<i>D.P.R.D. KOTA</i>		
43	KETUA D.P.R.D	GORONTALO
44	KETUA KOMISI D	GORONTALO

D4.2.6 LIST OF PARTICIPANTS INVITED : 2nd PCM (2/3)

NO.	INSTANSI / AGENCIES	ALAMAT / ADDRESS
	D.P.R.D KABUPATEN	
45	KETUA D.P.R.D	LIMBOTO
46	KETUA KOMISI D	LIMBOTO
	TOKOH MASYARAKAT	
47	TOKOH MASYARAKAT PROVINSI (Prof. DR. Hi. H.A. Nusi)	GORONTALO
	REKTOR / KETUA UNIVERSITAS	
48	UNIVERSITAS GORONTALO	LIMBOTO
49	IKIP GORONTALO	GORONTALO
	KECAMATAN KOTA GORONTALO	
50	CAMAT KOTA BARAT	GORONTALO
51	CAMAT KOTA SELATAN	GORONTALO
52	CAMAT KOTA UTARA	GORONTALO
	KECAMATAN KABUPATEN GORONTALO	
53	CAMAT TELAGA	TELAGA
54	CAMAT TAPA	TAPA
55	CAMAT SUAWA	SUAWA
56	CAMAT KABILA	KABILA
57	CAMAT BATUDAA	BATUDAA
58	CAMAT LIMBOTO	LIMBOTO
59	CAMAT TIBAWA	TIBAWA
	KELURAHAN KOTA GORONTALO	
	KECAMATAN KOTA BARAT	
60	KELURAHAN LEKOBALO	KOTA BARAT
61	KELURAHAN TENILO	KOTA BARAT
62	KELURAHAN MOLOSIPAT ^w	KOTA BARAT
	KECAMATAN KOTA SELATAN	
63	KELURAHAN BUGIS	KOTA SELATAN
64	KELURAHAN TENDA	KOTA SELATAN
65	KELURAHAN SIENDENG	KOTA SELATAN
66	KELURAHAN BIAWU	KOTA SELATAN
67	KELURAHAN BIAWAO	KOTA SELATAN
68	KELURAHAN IPILO	KOTA SELATAN
69	KELURAHAN PADEBUOLO	KOTA SELATAN
70	KELURAHAN LIMBA ^b	KOTA SELATAN
71	KELURAHAN TAMALATE	KOTA SELATAN
	KECAMATAN KOTA UTARA	
72	KELURAHAN BULOTADAA	KOTA UTARA
	DESA / KELURAHAN KABUPATEN GORONTALO	
	KECAMATAN TIBAWA	
73	KELURAHAN DUNGGALA	TIBAWA
74	KELURAHAN ISIMU SELATAN	TIBAWA
	KECAMATAN BONGOMEME	
75	DESA BONGOMEME	BONGOMEME
	KECAMATAN BATUDAA	
76	DESA PAYUNGA	BATUDAA
77	DESA ILOMANGGA	BATUDAA
78	DESA ILUTA	BATUDAA
	KECAMATAN SUAWA	
79	DESA TULABOLO	SUAWA
80	DESA DUMBAYA BULAN	SUAWA

D4.2.6 LIST OF PARTICIPANTS INVITED : 2nd PCM (3/3)

NO.	INSTANSI / AGENCIES	ALAMAT / ADDRESS
<i>KECAMATAN KABILA</i>		
81	KELURAHAN PAUWO	KABILA
82	KELURAHAN TUMBIHE	KABILA
<i>KECAMATAN TAPA</i>		
83	DESA TUPA	TAPA
84	DESA LONGALO	TAPA
85	DESA OWATA	TAPA
86	DESA MONGILO	TAPA
87	DESA BOIDU	TAPA
<i>KECAMATAN TELAGA</i>		
88	DESA TUALANGO	TELAGA
89	DESA DULOMO	TELAGA
90	DESA TILOTE	TELAGA
91	DESA LAWONU	TELAGA
92	DESA BULOTA	TELAGA
93	DESA PILOHAYANGA	TELAGA
94	DESA LUPOYO	TELAGA
95	DESA PANTUNGO	TELAGA
<i>KECAMATAN LIMBOTO</i>		
96	KELURAHAN HUTABOHU	LIMBOTO
97	KELURAHAN HUNGGALUWA	LIMBOTO
98	KELURAHAN KAYUBULAN	LIMBOTO
99	KELURAHAN BIYONGA	LIMBOTO
100	KELURAHAN BULOTA	LIMBOTO

Tabel D4.2.7 TOPICS FOR GROUP DISCUSSION : 2nd PCM

GROUP DISCUSSION TOPICS	
2nd PCM	1 What kinds of structure (from the presentation) will be suitable for this region (mention by priority)
	2 What is the output and benefit from the construction of the structure?
	3 What is the problem that arises before, during and after the construction?

Table D4.2.8 SUMMARY OF GROUP DISCUSSION : 2nd PCM

No.	DISCUSSION TOPICS	GROUP I		GROUP II		GROUP DISCUSSION		GROUP III		GROUP IV	
1.	What kinds of structure (from the presentation) will be suitable for this region (mention by priority)	<p><i>Types of Structure :</i></p> <ol style="list-style-type: none"> Bank construction (paving revetment) Dredging of material (sand and pebbles) Construction of dike <p><i>Order of Activity (by Priority) :</i></p> <ol style="list-style-type: none"> Bank construction (paving/revetment) of about ± 6.000 m. Dike construction of about ± 10.000 m Material dredging of about ± 500 m Taken away (removing) of material such as sand/pebbles in delta (river mouth) 	<p><i>Types of Structure Suitable :</i></p> <ol style="list-style-type: none"> Canal River Gate Measure undertaken : <ol style="list-style-type: none"> Land/canal excavate Vegetation of the area around canal as an infiltration area Rehabilitation of upper stream Installation of an automatic water gate at Tamalate river mouth (if Bone river base higher than Tamalate river) 	<p><i>Types of Structure :</i></p> <ol style="list-style-type: none"> Topadu River Control Gate Valve gate Dike (concrete/riprap) Bank revetment (gabion) 	<p><i>Types of Structure :</i></p> <ol style="list-style-type: none"> Removing of Alophohu river channel Widening of river body Construction of sediment trap Parapet dam Controlling dam Gully plat Cut off (normalization) for Alophohu and Biyonga rivers Installation of gabion / riprap Lake widening 						
2.	What is the output and benefit from the construction of the structure?	<p><i>Aims and Benefit :</i></p> <ol style="list-style-type: none"> Bank paving/revetment aims for river normalization to protect riverbank from erosion The benefit of this structure are : <ol style="list-style-type: none"> For smoothen river water flow To prevent watershed widening To protect human settlement from flood threaten/ damage Bank construction aims to protect water runoff and benefit for the prevention of flood and bank erosion. Dredging/taken away material in delta aims to smoothing water flow and benefit for the increasing of water volume and capacity 	<p><i>Aims and Benefit :</i></p> <p>The aim and purpose of the development of this structure is for flood controlling and water inundation, and its benefits are :</p> <ul style="list-style-type: none"> - To create clean and healthy environment - Stable catchment area - To create peaceful/safety (feeling), free from flood threaten 	<p><i>Aims and Benefit :</i></p> <ol style="list-style-type: none"> To regulate/control in and outflow discharge of Bolango river To regulate/control in and outflow at the time of flood Raising up/to higher land surface To prevent water overflow As inspection road To prevent bank erosion/landslide 	<p><i>Aims and Benefit :</i></p> <p>Non Civil Structure :</p> <ol style="list-style-type: none"> Restoration of critical land / watershed area Terracing for upper stream Community empowerment and awareness Political will / commitment by the government 						
3.	What is the problem that arises before, during and after the construction?	<p><i>Problem/Constrain That May Be Arise :</i></p> <ol style="list-style-type: none"> Before Construction : <ul style="list-style-type: none"> - Socialization to the community - Supply of equipment - Hampers/constraint water flow - Land compensation - Location for disposal material/waste - Technique of dredging/ implementation After Construction : <ul style="list-style-type: none"> - Settlement - Maintenance - Owner 	<p><i>Problem :</i></p> <ol style="list-style-type: none"> Before / Pre-Construction : <ul style="list-style-type: none"> - Flood threaten - Land compensation / socialization - Coordination between - Along Construction : - Follow up socialization to the people/ community around canal - Preparation of budget for land compensation After/Post – Construction : <ul style="list-style-type: none"> - Preparation of budget for maintenance - Communities role to protect/maintain the structure developed - Formulation regional regulation on river 	<p><i>Problems :</i></p> <ol style="list-style-type: none"> Rise up Lake Limboto water level/surface at the time of flood Water inundation locally Water inundation Illegal settlement The difficulties of project Land authorizing complain 	<p><i>Problem Raised :</i></p> <ol style="list-style-type: none"> Before/Pre-Construction <ul style="list-style-type: none"> - The objection of landowner - Land/plant compensation - Relocation / resettlements - Community preparedness for receiving the project - Budget Along the construction <ul style="list-style-type: none"> - An efficient relocation - Quality of construction - Quality control After /Post-Construction <ul style="list-style-type: none"> - Maintenance - Objection by the community - Regulation of "Galian C" mining - Spatial plan construction 						

Remarks :

1. Group I : Improvement of Bone River Downstream
2. Group II : Tamalate Floodway and Control Gate
3. Group III : Improvement of Topadu and Bolango River with Topadu Channel and Sediment Trap
4. Group IV : Realignment of Biyonga and Alophohu River Channel and Sediment Trap

Table D4.2.9 AGENDA FOR 3rd PCM

SUSUNAN ACARA
 PERTEMUAN KONSULTASI MASYARAKAT (PKM) III
 STUDI PENGENDALIAN BANJIR DAN PENGELOLAAN AIR
 DI WILAYAH SUNGAI LIMBOTO-BOLANGO-BONE
 Gorontalo, 17 Oktober 2002

NO	WAKTU	KEGIATAN / ACARA	PENANGGUNG JAWAB	MODERATOR	KET.
1	08.00 - 08.30	Pendaftaran Peserta	Sekretariat		
2	08.30 - 09.30	Pembukaan			
	08.30 - 08.45	1. Doa			
	08.45 - 09.30	2. Sambutan dan Arahan	Wakil Gubernur Gorontalo		
3	09.30 - 10.00	<i>Rehat Snack (Coffee Break)</i>		<i>Sekretariat</i>	
4	10.00 - 10.30	Presentasi mengenai Kemajuan Studi dan Pendekatan Non-Struktural	Ir. Raymond Kemur, MSc	Dr. Ir. Nelson Pomalingo, M.Pd	
5	10.30 - 11.45	Presentasi mengenai Rencana Pengembangan		Ir. Dwi Puryanto	Dr. Ir. Nelson Pomalingo, M.Pd
6	11.45 - 13.00	Tanya jawab	Ir. Raymond Kemur, MSc		Dr. Ir. Nelson Pomalingo, M.Pd
7	13.00 - 14.00	<i>Rehat Makan Siang</i>		<i>Sekretariat</i>	
8	14.00 - 15.00	Diskusi Kelompok Tentang Proyek-Proyek Prioritas		Counterpart	
9	15.00 - 15.15	<i>Rehat Snack (Coffee Break)</i>		<i>Sekretariat</i>	
10	15.15 - 16.10	Penyajian Hasil Diskusi Kelompok			
		I. Presentasi dari masing-masing kelompok			
		II. Diskusi Umum	Counterpart		
11	16.10 - 16.30	Penutup			
12	16.30 - 16.45	Doa	Gubernur Gorontalo		

Table D4.2.10 LIST OF PARTICIPANTS INVITED: 3rd PCM (1/3)

DAFTAR PESERTA
PERTEMUAN KONSULTASI DENGAN MASYARAKAT III
DALAM RANGKA THE STUDY ON CONTROL AND WATER MANAGEMENT
IN LIMBOTO - BOLANGO - BONE BASIN GORONTALO PROVINCE
Gorontalo, 17 Oktober 2002

NO.	INSTANSI/AGENCIES	ALAMAT/ADDRESS
PROVINSI GORONTALO		
1	Asisten II Setwilda Prov. Gorontalo	Provinsi
2	BAPPEDA	Provinsi
3	Dinas Pertanian Tanaman Pangan	Provinsi
4	Dinas Kehutanan, Perkebunan	Provinsi
5	Dinas Kelautan Perikanan	Provinsi
6	Dinas Kesehatan dan Kesejahteraan Sosial	Provinsi
7	Dinas Pertambangan dan Energy	Provinsi
8	Badan Kesbang. Dan Perlindungan Masyarakat	Provinsi
9	BPN	Provinsi
10	Biro Ekonomi Pemerintah Prov. Gorontalo	Provinsi
KOTA GORONTALO		
11	Walikota	Kota Gorontalo
12	Kepala Bagian Pembangunan Pemerintah Kota	Kota Gorontalo
13	BAPPEDA	Kota Gorontalo
14	Dinas Perikanan	Kota Gorontalo
15	Dinas Pertanian Tanaman Pangan	Kota Gorontalo
16	Dinas Kesehatan	Kota Gorontalo
17	Dinas Lingkungan Hidup	Kota Gorontalo
18	P. D. A. M.	Kota Gorontalo
19	P. L. N.	Kota Gorontalo
20	B. P. N.	Kota Gorontalo
21	Dinas PU / KIMPRASWIL	Kota Gorontalo
KABUPATEN GORONTALO		
22	Bupati	Kabupaten Gorontalo
23	Kepala Bagian Pembangunan Sekdakab. Gorontalo	Kabupaten Gorontalo
24	BAPPEDA	Kabupaten Gorontalo
25	Dinas Pertanian Perkebunan dan Ketahanan Pangan	Kabupaten Gorontalo
26	Dinas Kehutanan	Kabupaten Gorontalo
27	Dinas Perikanan	Kabupaten Gorontalo
28	Dinas Kesehatan	Kabupaten Gorontalo
29	BPDAS (EX. BRLKT)	Kabupaten Gorontalo
30	P D A M	Kabupaten Gorontalo
31	B. P. N.	Kabupaten Gorontalo
32	Dinas PU / PRASWIL	Kabupaten Gorontalo
P3A / LSM		
33	P3A Bostar	Kabupaten Gorontalo
34	P3A Barutan	Kota Gorontalo
35	P3A Sabes	Kabupaten Gorontalo
36	Yayasan Merdeka	Kabupaten Gorontalo
37	LSM Payulimo	Kabupaten Gorontalo
38	LSM Perintis	Kota Gorontalo
39	Yayasan Kelola	Kabupaten Gorontalo
40	LSM Persada	Kabupaten Gorontalo
41	LSM Walihua	Kota Gorontalo
42	LSM LP2G	Kabupaten Gorontalo
D.P.R.D PROVINSI		
43	Ketua D.P.R.D	Provinsi
44	Ketua Komisi D (Pembangunan)	Provinsi
D.P.R.D. KOTA		
45	Ketua D.P.R.D	Kota Gorontalo
46	Ketua Komisi D (Pembangunan)	Kota Gorontalo
D.P.R.D KABUPATEN		
47	Ketua D.P.R.D	Kabupaten Gorontalo
48	Ketua Komisi D (Pembangunan)	Kabupaten Gorontalo

Table D4.2.10 LIST OF PARTICIPANTS INVITED: 3rd PCM (2/3)

NO.	INSTANSI/AGENCIES	ALAMAT/ADDRESS
	TOKOH MASYARAKAT	
49	Tokoh Masyarakat Provinsi	
50	Tokoh Masyarakat Tilote	
51	Tokoh Masyarakat Tabumela	
52	Tokoh Masyarakat Tualango	
53	Tokoh Masyarakat Pilolodaa	
54	Tokoh Masyarakat Poowo	
55	Tokoh Masyarakat Olooluta	
56	Tokoh Masyarakat Kabupaten	
	REKTOR / KETUA UNIVERSITAS	
57	Universitas Gorontalo	Gorontalo
58	IKIP Gorontalo	Gorontalo
59	PSL IKIP Gorontalo	Gorontalo
	KECAMATAN KOTA GORONTALO	
60	Camat Kota Barat	Kota Gorontalo
61	Camat Kota Selatan	Kota Gorontalo
62	Camat Kota Utara	Kota Gorontalo
	KECAMATAN KABUPATEN GORONTALO	
63	Camat Telaga	Kabupaten Gorontalo
64	Camat Tapa	Kabupaten Gorontalo
65	Camat Suwawa	Kabupaten Gorontalo
66	Camat Kabilo	Kabupaten Gorontalo
67	Camat Batudaa	Kabupaten Gorontalo
68	Camat Limboto	Kabupaten Gorontalo
69	Camat Tibawa	Kabupaten Gorontalo
70	Camat Telaga Biru	Kabupaten Gorontalo
71	Camat Bongomeme	Kabupaten Gorontalo
	KELURAHAN KOTA GORONTALO	
	KECAMATAN KOTA BARAT	
72	Kelurahan Lokobalo	Kota Gorontalo
73	Kelurahan Tenilo	Kota Gorontalo
74	Kelurahan Molosipat ^w	Kota Gorontalo
75	Kelurahan Pilolodaa	Kota Gorontalo
76	Kelurahan Buladu	Kota Gorontalo
77	Kelurahan Dembe I	Kota Gorontalo
78	Kelurahan Bulide	Kota Gorontalo
79	Kelurahan Tuladengi	Kota Gorontalo
	KECAMATAN KOTA SELATAN	
80	Kelurahan Bugis	Kota Gorontalo
81	Kelurahan Tenda	Kota Gorontalo
82	Kelurahan Siendeng	Kota Gorontalo
83	Kelurahan Biawu	Kota Gorontalo
84	Kelurahan Biawao	Kota Gorontalo
85	Kelurahan Ipilo	Kota Gorontalo
86	Kelurahan Padebuolo	Kota Gorontalo
87	Kelurahan Limba B	Kota Gorontalo
88	Kelurahan Tamalate	Kota Gorontalo
89	Kelurahan Talumolo	Kota Gorontalo
90	Kelurahan Donggala	Kota Gorontalo
	KECAMATAN KOTA UTARA	
91	Kelurahan Bulotadaa	Kota Gorontalo
	DESA / KELURAHAN KABUPATEN GORONTALO	
	KECAMATAN TIBAWA	
92	Kelurahan Duggala	Kabupaten Gorontalo
93	Kelurahan Isimu Selatan	Kabupaten Gorontalo
	KECAMATAN BONGOMEME	
94	Desa Bongomeme	Kabupaten Gorontalo
	KECAMATAN BATUDAA	
95	Desa Payunga	Kabupaten Gorontalo
96	Desa Ilomanga	Kabupaten Gorontalo
97	Desa Iluta	Kabupaten Gorontalo
	KECAMATAN KABILA	
98	Kelurahan Poowo	Kabupaten Gorontalo
99	Kelurahan Olooluta	Kabupaten Gorontalo

Table D4.2.10 LIST OF PARTICIPANTS INVITED: 3rd PCM (3/3)

NO.	INSTANSI/AGENCIES	ALAMAT/ADDRESS
KECAMATAN TELAGA		
100	Desa Tualango	Kabupaten Gorontalo
101	Desa Dulomo	Kabupaten Gorontalo
102	Desa Tilote	Kabupaten Gorontalo
103	Desa Lawonu	Kabupaten Gorontalo
104	Desa Bulota	Kabupaten Gorontalo
105	Desa Tabumela	Kabupaten Gorontalo
106	Desa Lupoyo	Kabupaten Gorontalo
107	Desa Bulila	Kabupaten Gorontalo
KECAMATAN LIMBOTO		
108	Kelurahan Hutabohu	Kabupaten Gorontalo
109	Kelurahan Hunggaluwa	Kabupaten Gorontalo
110	Kelurahan Kayubulan	Kabupaten Gorontalo
111	Kelurahan Bulota	Kabupaten Gorontalo
112	Kelurahan Tenilo	Kabupaten Gorontalo
113	Kelurahan Tunggulo	Kabupaten Gorontalo

Tabel D4.2.11 TOPICS FOR GROUP DISCUSSION : 3rd PCM

GROUP DISCUSSION TOPICS	
3rd PCM	Structural Measure (Group A, B, C)
	1 What is the benefit that you can earn during and after the implementation of the priority projects?
	2 What kind of problem will occur before, during and after the implementation of the project?
	3 What kind of participation you can contribute during and after the implementation of the project?
	4 By your opinion, will this project be beneficial to Kabupaten and Kota Gorontalo?
	Non-Structural Measure (Group D)
	1 What is the benefit of watershed and flood plain management?
	2 What kind of problem will occur during the implementation of watershed and flood plain management?
	3 What kind of participation you can contribute for the implementation of watershed and flood plain management?
	4 By your opinion, will this measure of watershed and flood plain management be beneficial to Kabupaten and Kota Gorontalo?

Table D4.12 SUMMARY OF GROUP DISCUSSION : 3rd PCM

No.	DISCUSSION TOPICS	GROUP A Bone-Bolango River Improvement	GROUP B Tapodu River Improvement	GROUP DISCUSSION	GROUP C Tamilate Floodway	GROUP D Watershed/Flood Plain Management
1.	(Group A,B,C) What is the benefit that you can earn during and after the implementation of the priority projects? (Group D) What is the benefit of watershed and flood plain management?	PRE-CONSTRUCTION - Application of local labor - Technical and non-technical - Increase local people's income - Support regional government with fund assisting for development POST/AFTER-CONSTRUCTION - Minimized Flood - Decrease phycological impact to the community for flood occurrences	DURING CONSTRUCTION - Create new employment - Benefit to the mining of sand and gravel (Galian C) for the using of local project material - Create communities' attention / custom in relation with Tapodu River Improvement - Motivate people's of Kabupaten and Kota to mitigate flood POST/AFTER-CONSTRUCTION - Increase people's welfare - Mitigate flood threaten - To control erosion flow/rate - Prevent sedimentation process - Neutralized water discharge	DURING CONSTRUCTION - Application of local labor (Technical and non-technical) - Increase income of local people, by using local material for project POST/AFTER-CONSTRUCTION - Enough water supply for the surrounding rice field in dry season - Gorontalo city free from flood - Construction and re-construction of 5 bridges will become village transportation - Aesthetics - Decrease social fund aid for the flood victims - Advantage to Desa Poowo and Oluhuta - Smoothing water flow into the sea	DURING CONSTRUCTION - Create new employment for local people - Increase income of local people, by using local material for project POST/AFTER-CONSTRUCTION - To Control Flood - Increase water infiltration - Steady ground water supply - Prevent conflict of interest between agricultural farmers and forestry farmers - Increase animal food stock - Decrease erosion rate - Decrease sedimentation rate - Maintain soil fertile - Decrease flood risk - Conserve living environment - Increase river channel capacity - Tourism object - Smoothing water flow into the sea - Access road for the local people	DURING CONSTRUCTION - Create new employment for local people - Increase income of local people, by using local material for project POST/AFTER-CONSTRUCTION - To Control Flood - Increase water infiltration - Steady ground water supply - Prevent conflict of interest between agricultural farmers and forestry farmers - Increase animal food stock - Decrease erosion rate - Decrease sedimentation rate - Maintain soil fertile - Decrease flood risk - Conserve living environment - Increase river channel capacity - Tourism object - Smoothing water flow into the sea - Access road for the local people
2.	(Group A,B,C) What kind of problem will occur before, during and after the implementation of the project? (Group D) What kind of problem will occur during the implementation of watershed and flood plain management?	BEFORE/PRE-CONSTRUCTION - Definite fund available - Socialization of project DURING CONSTRUCTION - Land and building acquisition - People's relocation - People's health by the operation of projects equipment, (noisy and air pollution)	BEFORE/PRE-CONSTRUCTION - The adjustment of spatial plan - Land acquisition - Delayed socialization DURING CONSTRUCTION - Weather - Uncertain water discharge fluctuation - Environmental impact (pollution)	BEFORE/PRE-CONSTRUCTION - Rejection by the agricultural land cultivator and land owners - Incomplete socialization AFTER/POST CONSTRUCTION - Mobilization of project material residue at the location surrounding	BEFORE/PRE-CONSTRUCTION - Rejection by the agricultural land cultivator and land owners - Incomplete socialization AFTER/POST CONSTRUCTION - Mobilization of project material residue at the location surrounding	BEFORE/PRE-CONSTRUCTION - Land acquisition - Constraint to the activities of some people - Preparation of alternative relocation - Preparation of Alternative Employment for the influenced people (if there any relocation)
3.	(Group A,B,C) What kind of participation you can contribute during and after the implementation of the project? (Group D) What kind of participation you can contribute for the implementation of watershed and flood plain management?	DURING CONSTRUCTION - Support by all stakeholders AFTER/POST CONSTRUCTION - Keep and maintain as well as conserve the project	DURING CONSTRUCTION - Support socialization of the project - Supports material, moral and politic AFTER/POST CONSTRUCTION - Maintain and conserve river environment - Monitoring continuously	DURING CONSTRUCTION - Socialization to the local people - Supports and agree with the implementation of this project AFTER/POST CONSTRUCTION - Keep and maintain the structure shifting cultivation at the upper watershed	DURING CONSTRUCTION - Socialization to the local people - Supports and agree with the implementation of this project AFTER/POST CONSTRUCTION - Keep and maintain the structure shifting cultivation at the upper watershed	DURING CONSTRUCTION - Agree and will support program of watershed and flood plain management - Societalized the importance of management of watershed and flood plain AFTER/POST CONSTRUCTION - Establish community' monitoring group that will be function to maintain and monitor the watershed and flood plain - Search information and coordinate with related agency voluntarily
4.	(Group A,B,C) By your opinion, will this project be beneficial to Kabupaten and Kota Gorontalo? (Group D) By your opinion, will this measure of watershed and flood plain management be beneficial to Kabupaten and Kota Gorontalo?	YES, BECAUSE: - Mitigate of 20 years flood - Create conducive environment for Kota and Kabupaten community - Decrease number of people suffering flood disease in Kota and Kabupaten - Income sharing between Kabupaten and Kota	YES, BECAUSE: - To regulate / control water flow - To conserve and maintain Tapodu River - Transportation for the transaction of fish production - Stabilizing lake water surface and discharge - Can be developed as tourism object (recreational) - Stabilizing lake water surface and discharge - Can be developed as tourism object	YES, BECAUSE: - Kabupaten and Kota free from flood - Create new employment for local people - Support local people' economic by smoothing good and services flow	YES, BECAUSE: - Decrease flood risk - Create safe feeling to local people especially at rainy season - Benefit for water resources - Increase local people's economic - Maintain and conserve Lake Limboto - Increase regional income - Decrease siltation/aggradations at Gorontalo Port - Support agropolitan and fishery program	YES, BECAUSE: - Create new employment for local people - Increase income of local people, by using local material for project POST/AFTER-CONSTRUCTION - To Control Flood - Increase water infiltration - Steady ground water supply - Prevent conflict of interest between agricultural farmers and forestry farmers - Increase animal food stock - Decrease erosion rate - Decrease sedimentation rate - Maintain soil fertile - Decrease flood risk - Conserve living environment - Increase river channel capacity - Tourism object - Smoothing water flow into the sea - Access road for the local people