

資料 3

防災意識調査
仕様書、配布先リスト、質問表
及び 調査結果

CONTRACT FOR
QUESTIONNAIRE SURVEY ON DISASTER AWARENESS
BETWEEN
JOINT VENTURE OF NIPPON KOEI CO., LTD.
AND OYO CORPORATION
AND
PKII ENGINEERS

THIS CONTRACT, made this 29th day of September 2004 between Joint Venture of Nippon Koei Co., Ltd. and OYO International Co., with principal office located at 5, Kojimachi 2-chome, Chiyoda-ku, Tokyo 120-0083, Japan (hereinafter called as the "JICA Study Team") and PKII Engineers, a company duly organized and existing with principal office located at 4th floor Pacific Star Building Makati Ave. cor. Sen Gil Puyat Ave., Makati City, Philippines (hereinafter called as the "Contractor").

WITNESSETH THAT

WHEREAS, the JICA Study Team is awarded by the Japan International Cooperation Agency to undertake THE STUDY ON PROGRAM FORMULATION IN DISASTER MITIGATION SECTOR IN THE PHILIPPINES.

AND, the JICA Study Team needs a local engineering company to provide services to assist in the execution of the survey:

AND, the Contractor represents itself to be able to undertake and offered to provide the services to the JICA Study Team:

AND, the JICA Study Team has accepted this offer:

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties hereby agree as follows:

ARTICLE 1 - DEFINITION

Unless the context otherwise requires, the following terms shall have the following meanings in this Contract:

- (1) "JICA" shall mean the Japan International Cooperation Agency;
- (2) "JICA Study Team" or "Study Team" means the JICA Study Team for the Study on Program Formulation in Disaster Mitigation Sector in the Philippines;
- (3) "Work" or "Services" means the work or services to be performed by the Contractor as set forth in Article 2 herein, or any part of each work and Services as the context may require;
- (4) "Study" means "the Study on Program Formulation in Disaster Mitigation Sector in the Philippines":

ARTICLE 2 - THE SERVICES

The services to be performed by the Contractor are to carry out a questionnaire survey for the Study of Program Formulation in Disaster Mitigation Sector in the Philippines on the basis of the Technical Specifications attached hereto and based on the JICA Study Team's instruction to be given from time to time.

ARTICLE 3 – ASSIGNMENT AND SUB-LETTING OF THE CONTRACT

The Contractor shall not assign the Contract or sub-let any portion of the services without prior written consent of the JICA Study Team. If the Contractor sub-lets any portion to any parties after obtaining consent of the JICA Study Team, the Contractor shall still be responsible for the acts and omissions of his sub-contractor and of its persons and shall not be relieved or released from any obligations and responsibilities of the Contractor.

ARTICLE 4 - OBLIGATIONS OF THE CONTRACTOR

In conducting the Services the Contractor shall cooperate fully with the JICA Study Team, and shall always work in the best interests of the JICA Study Team.

ARTICLE 5 - COST OF THE SERVICES

The estimated total cost of the services is eight thousand and sixty three dollars (US\$8,063) only, or equivalent to four hundred fifty five thousand one hundred fifty six and 35/100 Pesos only (P 455,156.35), or which is eight hundred ninety five thousand eight hundred and eighty nine yen (¥ 895,889), as shown in Annex A attached hereto and made a part of this Contract.

ARTICLE 6 - PAYMENTS FOR THE SERVICES

The JICA Study Team shall pay the Contractor for the services in Lump Sum in the breakdown of cost as shown in Annex A attached hereto.

ARTICLE 7 - METHOD OF PAYMENTS

The JICA Study Team shall pay the Contractor for the services in accordance with the payment as follows:

- (1) 40 % upon signing of this Contract against invoice to be submitted by PKII Engineers
- (2) 60 % upon satisfactory completion of the survey and submission of the required reports

ARTICLE 8 - FORCE MAJEURE

8.01 The Contractor shall promptly notify the JICA Study Team and the JICA Study Team shall promptly notify the Contractor in writing of the occurrence of any event of Force Majeure. As used herein, the term "Force Majeure" shall mean attributable to the causes specified hereunder:

- (1) Natural causes, such as earthquakes, epidemics and other similar causes affecting the project to the extent that would make it impossible or impracticable for the Contractor to carry out, in whole or in part, its obligations under this Contract :
- (2) Human causes, such as war, armed invasion, revolution, insurrection, blockages, riots, civil disturbances, strikes or other analogous or similar causes, including the occurrence of a natural banking moratorium, to such extent that would make it impossible or impracticable for the Contractor to carry out, in whole or in part, its obligations under this Contract;

The Contractor, as of the day of giving such notice, shall be relieved from liability for the failure to carry out its obligations due to the occurrence of such events of Force Majeure.

- 8.02 In such event, either party may terminate this Contract by giving written notice to the other ten (10) days prior to the said termination; upon the giving or receipt of such notice of termination, the Contractor shall take immediate steps to bring the work to be closed in a prompt and orderly manner.
- 8.03 Upon termination of this Contract pursuant to the foregoing provisions of Clause, the JICA Study Team shall not be liable to make any payment to the Contractor except for work or services performed prior to the date of such termination and for those incidental to the orderly liquidation of its work and the settlement of its obligations incurred by the Contractor as a result of Force Majeure, which costs and expenses may not have been incurred but for such Force Majeure.

ARTICLE 9 – INDEMNITIES

Unless otherwise specified hereunder, the Contractor shall indemnify and hold the JICA Study Team and its engineers, supervisors, officers, agents and employees free and harmless from any and all liability for compensations, claims, suits costs or charges related to any losses as well as any personal or property injury or damages that may arise out of the performance of the services or in connection therewith.

ARTICLE 10 - INSURANCE

The Contractor shall at its own expense, carry and maintain necessary insurance in accordance with the terms and conditions necessary for the performance of the Services and in accordance with provisions of the laws and/or regulations of the Government and with prevailing practice in the Philippines, with insurance companies acceptable to the JICA Study Team for the whole period of the performance of the work, including but not limited to the following:

- (1) Workmen's compensation insurance for the Contractor's employees engaged in the Services :
- (2) Comprehensive liability insurance covering owned, non-owned and hired survey equipment used by the Contractor for damages against itself and injury, death or property damage caused against any third party. In spite of the aforesaid insurance, the Contractor shall still be fully responsible for performance of all its obligations as specified herein and the Contractor shall assume all risks.

ARTICLE 11 - REPRESENTATIVES

- 11.01 Upon conclusion of the Contract, the Contractor shall assign a representative satisfactorily to the JICA Study Team. The representative shall be responsible for handling all the matters on behalf of the Contractor.
- 11.02 The JICA Study Team's supervisor assigned for the Services by the JICA Study Team, whose name shall be notified to the Contractor, has powers to control and supervise the Services.

ARTICLE 12 - TERMINATION OF THE CONTRACTOR'S SERVICES

- 12.01 The JICA Study Team may terminate the Services of the Contractor under this Agreement for good and sufficient causes by giving written notice to the

- Contractor ten (10) days prior to the termination. Upon termination of this Agreement, the Contractor shall be entitled to receive remuneration for services performed under this Contract up to the termination.
- 12.02 Should not the Contractor fail to comply with its obligations under Article 4 herein, or with any other requirement under this Contract, and such failure results in the suspension or withdrawal of the fund by JICA Study Team, this contract shall be terminated.
- 12.03 Should the work be stopped under order of any court or other Public Authority through no fault of act of the Contractor, or if the JICA Study Team shall fail to comply with the provisions of Article 6 herein, then the Contractor may, on giving notice of such occurrence, and unless further Contract is reached, stop work or terminate this Contract and recover payment from the JICA Study Team for all fees earned to date of termination, all costs incurred by the Contractor for services performed, all items procured for the work, and for any or all losses sustained by reason of the work stoppage and termination.

ARTICLE 13 - TIME SCHEDULE

The works is scheduled to be completed by 25th October, 2004.

ARTICLE 14 - PROGRESS OF THE WORK

The Contractor shall execute the work in a professional manner and complete the work strictly in compliance with the provisions and descriptions of the Contract. During the performance of the Services, the Contractor shall submit the bi-weekly progress reports (1 copy) to the JICA Study Team concerning progress of the Services.

ARTICLE 15 - LANGUAGE

The English language shall be used in all written communication between the JICA Study Team and the Contractor with respect to this Contract.

ARTICLE 16 - OBTAINING OF GOVERNMENTAL PERMISSION AND APPROVAL

The Contractor shall obtain, for itself by proper assistance from the JICA Study Team, all the necessary permissions and approvals of the Government and other competent authorities concerned required for the work, and shall acquire all the rights and privileges for access to and use of the work site necessary for the purpose of executing the work.

ARTICLE 17 - APPLICABLE LAW

This Contract shall be deemed to be a contract made under, and shall be governed solely and construed in accordance with the laws of the Philippines.

ARTICLE 18 - PRESERVATION OF PEACE

The Contractor shall take all reasonable precautions for preventing any unlawful, riotous or disorderly conduct which may be caused by the Contractor's employees or may occur among them, and for the preservation of peace and the protection of persons and property in the work site and in the area adjacent thereto.

ARTICLE 19 - INCOME TAX AND OTHER DUTIES

Under all phases of this Contract, the Contractor shall be liable for its corporation tax, income tax, duties, contributions and other taxes or charges which may be levied both on the Contractor and its local staff according to the laws and regulations of the Philippines.

ARTICLE 20 - ALTERATION OF THE SERVICES

At any time during execution of the work, the JICA Study Team shall have the right to make any change in the work by the issue of written change order to the Contractor. In the event of such a change, the date of completion of the work may be adjusted by prior written approval by the JICA Study Team. In any event the unit prices are not subject to any changes.

ARTICLE 21 - DISPUTES

In the event of any disputes arising between the parties hereto with respect to the Agreement and/or the performance of the services, the parties hereto shall endeavor to take prompt steps amicably to settle the same.

Agreed in Manila, Philippines, on the 29th day of September, 2004 by both Parties through their authorized representatives.

PKII ENGINEERS



Mariano M. Santos
President
PKII Engineers

JOINT VENTURE OF
NIPPON KOEI CO., LTD. AND
OYO INTERNATIONAL CO.,



Yoshihiro MOTOKI
Team Leader
JICA Study Team

The Study on Program Formulation on Disaster Management Sector in the Philippines

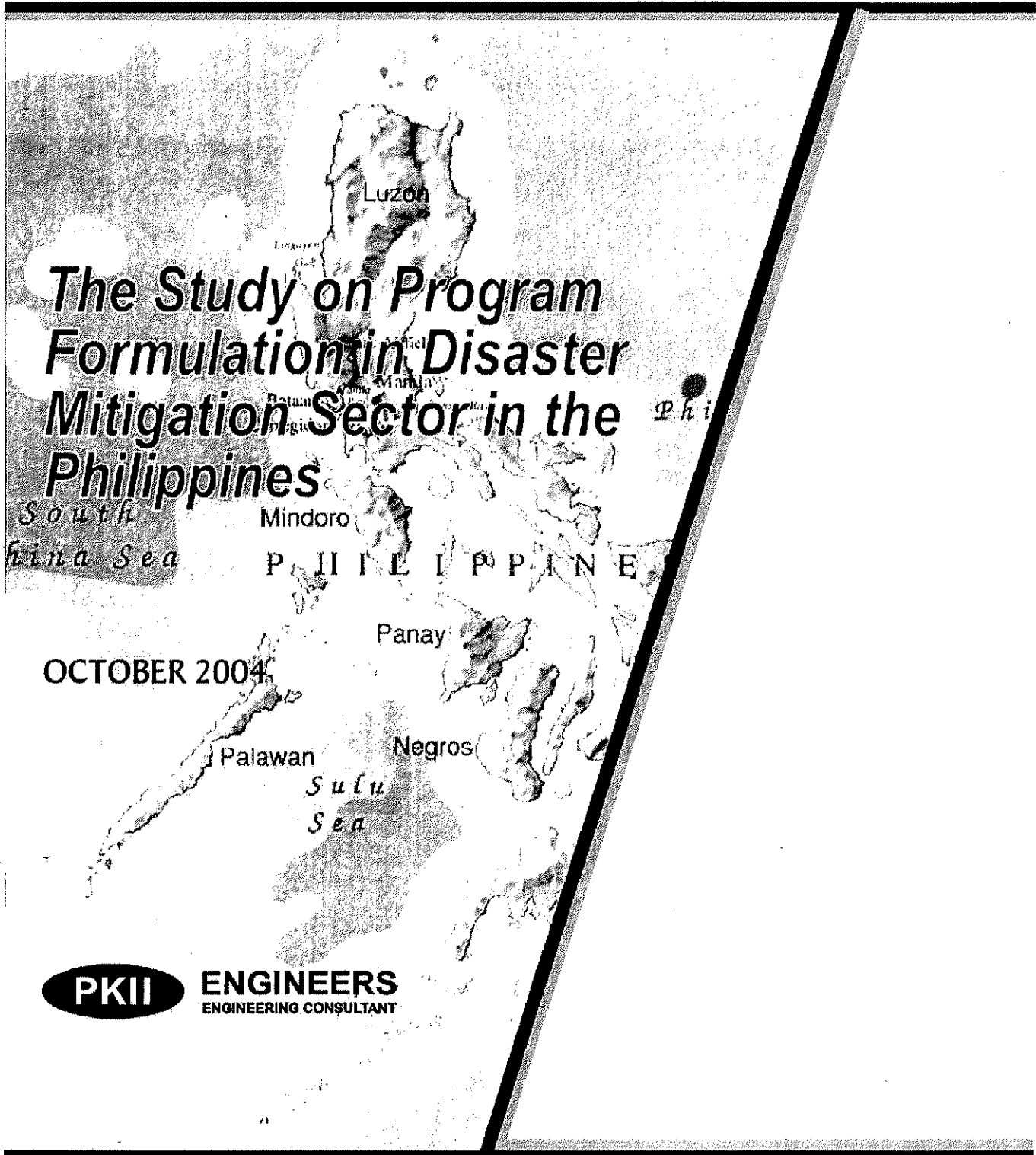
Flood Disaster Mitigation Sector

Final List of Respondents

1	DPWH - Planning Service		
2	DPWH - FC PMO Cluster I		
3	DPWH - MFC PMO Cluster II		
4	DPWH - FC and Sabo Engineering Center		
R	DPWH - National Capital Region		
5	DPWH - Region III San Fernando, Pampanga		
6	DPWH - Mt. Pinatubo Region, PMO		
7	MMDA		
8	PAGASA - Flood Forecast Bureau		
9	PAGASA - Natural Disaster Mitigation Bureau		
10	PAGASA - Pamp River Flood Forecasting Ctr		
11	PHIVOLCS		
12	NEDA - Infrastructure Staff		
13	NEDA - Region III		
14	DSWD - Program Mgt Bureau		
15	DSWD - Social Welfare Institutional Devt Bureau		
16	DILG-Local Government Academy		
P	DND - Plans and Programs Division		
17	NDCC Secretariat		
18	OCD - Reg'l Disaster Operation Center		
19	OCD - Comm'n and Warning Division		
20	OCD - Region III		
21	Metro Manila Disaster Coordinating Council		
D	National Disaster Management Center		
	Non-Government Organization (NGO)		
S	International Institute for Rural Reconstruction		
A	IANDR Inter-Agency Network for Disaster		
22	CARE Philippines		
23	Citizen's Disaster Response Center		
N	Council for Peoples Development		
24	Philippine National Red Cross		
S	Phil. Rural Reconstruction Mov't		
25	Social Action Center (Pampanga)		
A	Luzon Secretariat for Social Action		
26	Philippine Business for Social Progress		
	Academe		
R	UP National Hydraulic Research		
27	Mapua Institute of Technology		
28	De La Salle University		
	Regional Disaster Coordinating Council		
D	National Capital Region		
29	Region III		
	Provincial Disaster Coordinating Council		
30	Pampanga		
			Municipal Disaster Coordinating Council (9)
31	Sasmuan		
32	Minalin		
33	Masantol		
34	Macabebe		
35	Guagua		
36	Lubao		
37	San Fernando		
38	Candaba		
39	Santo Tomas		
			Brgy Disaster Coordinating Council (10)
40	Brgy. Sto. Tomas, Sasmuan		
41	Brgy. Sto. Rosario Pau, Sto. Tomas		
42	Brgy. Sn. Nicolas Poblacion, Minalin		
43	Brgy. Sto. Cristo, Guagua		
44	Brgy. Sta Lucia, San Fernando		
45	Brgy. San Agustin, Candaba		
46	Brgy. San Isidro, Lubao		
47	Brgy. Cadwang Tete, Macabebe		
48	Brgy. San Agustin, Masantol		
49	Brgy. San Pedro, Sasmuan		
			Selected Households (21)
50	Brgy. Sto. Rosario Pau, Sto. Tomas		
51	Brgy. San Vicente, Sto. Tomas		
52	Brgy. Sn. Nicolas Poblacion, Minalin		
53	Brgy. San Francisco 1, Minalin		
54	Brgy. San Francisco 2, Minalin		
55	Brgy. Sto. Cristo, Guagua		
56	Brgy. Sto Tomas, Samuan		
57	Brgy. Sta Lucia, San Fernando		
58	Brgy. Maimpis, San Fernando		
59	Brgy. San Agustin, Candaba		
60	Brgy. San Agustin, Candaba		
61	Brgy. San Agustin, Candaba		
62	Brgy. Prado Siongco, Lubao		
63	Brgy. Prado Siongco, Lubao		
64	Brgy. Prado Siongco, Lubao		
65	Brgy. San Nicolas 1, Lubao		
66	Brgy. San Nicolas, Masantol		
67	Brgy. Cadwang Tete, Macabebe		
68	Brgy. Santo Tomas, Sasmuan		
69	Brgy. Sua, Masantol		
70	Brgy. San Agustin, Masantol		

R	Refused Interview
P	Process for interview to be conducted is too long
D	Duplicate with another office
S	Submission date is not yet sure
A	Abolished office

Items in red were replaced with household interviews per agreement with Mr. Motoki.



The Study on Program Formulation in Disaster Mitigation Sector in the Philippines

OCTOBER 2004

PKII ENGINEERS
ENGINEERING CONSULTANT





Part A

Flood Disaster Sector Survey

Part A – Flood Disaster Sector Survey

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The Study on Program Formulation in Disaster Mitigation Sector in the Philippines

A. Introduction

Disasters are a common occurrence in a country like the Philippines due to its geographic location. Every year, thousands of families are displaced from their homes due to typhoons and other natural phenomena. Flooding has become a familiar sight in most low-lying provinces in the Philippines.

The government of the Republic of the Philippines, realizing that natural disasters cannot be prevented has taken steps since Commonwealth times to minimize the effects of these disasters upon life and property of Filipinos.

The Civilian Emergency Administration (CEA) administered by the National Emergency Commission (NEC) was formed by then President Manuel L. Quezon through executive orders for the purpose of formulating and executing policies and plans for the protection and welfare of the civilian population under extraordinary and emergency conditions. This also paved the way for the establishment of local emergency committees up to the municipal level.

In the 1950s and as a result of the war, the government formed the National Civil Defense Administration (NCDA) tasked primarily to provide protection and welfare to the civilian population during war or other national emergencies of equally grave character. Local counterparts were also established as the National Civil Defense Councils at the provincial and municipal levels.

Thirty-four years ago, a super typhoon hit the Philippines that left Manila flooded for three months and hit the Bicol region the hardest. This prompted the creation of a Disaster and Calamities Plan prepared by an Inter-Departmental Planning Group on Disasters and Calamities in 1970. It created a National Disaster Control Center (NDCDC) composed of cabinet secretaries. Three years later the Office of Civil Defense was created by virtue of Letters of Instruction No. 19 series of 1972.

The formal establishment of the National Disaster Coordinating Council and the regional, provincial, municipal and barangays level organizations were formally organized in 1978 when then President Ferdinand Marcos issued Presidential Decree 1566.

Among the salient features of PD 1566 are the following:

- State policy on self-reliance among local officials and their constituents in responding to disasters or emergencies;
- Organization of disaster coordinating councils from the national down to the municipal level;
- Statement of duties and responsibilities of the National Disaster Coordinating Council (NDCC), Regional Disaster Coordinating Councils (RDCC) and Local Disaster Coordinating Council (LDCC);

- Preparation of the National Calamities and Disaster Preparedness Plan (NCDPP) by OCD and implementing plans by NDCC member-agencies;
- Conduct of periodic drills and exercises; and
- Authority for government units to program their funds for disaster preparedness activities in addition to the 2% calamity fund as provided for in PD 474 (amended by RA 8185).

The original composition of the NDCC was as follows:

Chair - Minister of National Defense

Members

- Minister of Public Works and Highways
- Minister of Transportation and Communications
- Minister of Social Services and Development
- Minister of Agriculture
- Minister of Education, Culture and Sports
- Minister of Finance
- Minister of Labor and Employment
- Minister of Trade and Industry
- Minister of Local Government and Development
- Minister of Health
- Minister of Natural Resources
- Minister of Public Information
- Minister of Budget
- Minister of Justice
- Presidential Executive Assistant
- Chief of Staff, Armed Forces of the Philippines
- Secretary-General, Philippine National Red Cross
- Member and Executive Officer (Administrator, Office of Civil Defense

The modern day NDCC is also the agency identified by the United Nations in the 1990s (International Decade for Natural Disaster Reduction) as the primary agency tasked to reduce the loss of life, property damage, social and economic disruption caused by natural disasters.

B. Objective

The Japan International Cooperation Agency (JICA) has commissioned a study to reveal the disaster preparedness at the administrative level such as national, regional, provincial and barangays level.

C. Methodology of the Study

The study was conducted using a survey questionnaire prepared by the JICA Study Team. Two sets of questionnaires were prepared. One set is for use in interviews for organizations and another set of questionnaires for residents.

Selected organizations formed part of the survey respondents as identified by the JICA Study Team. Table 1 in the succeeding page shows the final list of respondents that were interviewed at the organization and household level.

The results of the survey interview was encoded using MS Excel and analyzed.

D. Study Timeframe

The study had a timeframe of almost one month. It was commenced with the finalization of the draft questionnaire last Oct. 5, 2004. The survey interviews were concluded Oct. 18 due to several respondents that submitted the accomplished questionnaires after the projected date. Encoding was concluded Oct. 20 and writing of the report immediately began.

E. Limitations/Constraints in the Study

Although every effort was made to comply with the original list of respondents, the survey interview encountered several problems in the conduct of the study. One of these is the lack of advance information to the respondent organizations. Most of the respondents asked the team to leave the questionnaire for retrieval at a later date.

F. Survey Team

The survey team is composed of the following:

1. Mr. Jesus V. de Luna – Project Coordinator/Social Survey Expert. In charge of the day-to-day conduct of the survey including liaison with concerned respondent agencies. Supervised the encoding of the results and the write-up of the findings of the report.
2. Mr. Abelardo L. Cruz – Social Development Expert. In charge of the analysis and write-up of the report.
3. Engr. F. Aener T. Dagaas – Survey Team (Manila). Interviewed the respondents in Manila.
4. Engr. Michael Buno – Survey Team (Manila). Interviewed the respondents in Manila.
5. Mr. Arthur L. Turqueza (Pampanga) - Interviewed the respondents in Pampanga.

Table 1 Final List of Respondents

1	DPWH - Planning Service	35	Guagua
2	DPWH - PMO MFCP Cluster I	36	Lubao
3	DPWH - PMO MFCP Cluster II	37	San Fernando
4	DPWH - FCSEC	38	Candaba
5	DPWH - Region III San Fernando, Pampanga	39	Santo Tomas
6	DPWH - Mt. Pinatubo Region, PMO		Brgy Disaster Coordinating Council (10)
7	MMDA	40	Brgy. Sto. Tomas, Sasmuan

8	PAGASA - Flood Forecast Bureau	41	Brgy. Sto. Rosario Pau, Sto. Tomas
9	PAGASA - Natural Disaster Mitigation Bureau	42	Brgy. Sn. Nicolas Poblacion, Minalin
10	PAGASA - Pamp River Flood Forecasting Ctr	43	Brgy. Sto. Cristo, Guagua
11	PHIVOLCS	44	Brgy. Sta Lucia, San Fernando
12	NEDA - Infrastructure Staff	45	Brgy. San Agustin, Candaba
13	NEDA - Region III	46	Brgy. San Isidro, Lubao
14	DSWD - Program Mgt Bureau	47	Brgy. Caduang Tete, Macabebe
15	DSWD - Social Welfare Insti. Devt Bureau	48	Brgy. San Agustin, Masantol
16	DILG-Local Government Academy	49	Brgy. San Pedro, Sasmuan
17	NDCC Secretariat		Selected Households (21)
18	OCD - Reg'l Disaster Operation Center	50	Brgy. Sto. Rosario Pau, Sto. Tomas
19	OCD - Commc'n and Warning Division	51	Brgy. San Vicente, Sto. Tomas
20	OCD - Region III	52	Brgy. Sn. Nicolas Poblacion, Minalin
21	Metro Manila Disaster Coordinating Council	53	Brgy. San Francisco 1, Minalin
	Non-Government Organization (NGO)	54	Brgy. San Francisco 2, Minalin
22	CARE Philippines	55	Brgy. Sto. Cristo, Guagua
23	Citizen's Disaster Response Center	56	Brgy. Sto Tomas, Sasmuan
24	Philippine National Red Cross	57	Brgy. Sta Lucia, San Fernando
25	Social Action Center (Pampanga)	58	Brgy. Maimpis, San Fernando
26	Philippine Business for Social Progress	59	Brgy. San Agustin, Candaba
	Academe	60	Brgy. San Agustin, Candaba
27	Mapua Institute of Technology	61	Brgy. San Agustin, Candaba
28	De La Salle University	62	Brgy. Prado Siongco, Lubao
	Regional Disaster Coordinating Council	63	Brgy. Prado Siongco, Lubao
29	Region III	64	Brgy. Prado Siongco, Lubao
	Provincial Disaster Coordinating Council	65	Brgy. San Nicolas 1, Lubao
30	Pampanga	66	Brgy. San Nicolas, Masantol
	Municipal Disaster Coordinating Council (9)	67	Brgy. Cadwang Tete, Macabebe
31	Sasmuan	68	Brgy. Santo Tomas, Sasmuan
32	Minalin	69	Brgy. Sua, Masantol
33	Masantol	70	Brgy. San Agustin, Masantol
34	Macabebe		

Some of the original respondents declined the interview for varied reasons. Some indicated that there is lack of time of office personnel respondents. Another office (DND) required a very long process before the interview can be conducted which included a background check of the interviewer.

F. Presentation of Findings for Organizations

1. General Information

The average age of respondents for organizations is 42 years old. There were 36 male respondents (73.46%) and 13 female respondents (26.53%). The average household number of dependents is three.

Some 53.27% of the dependents of respondents are male while 42.21% are female. The rest did not answer the question. The average age of dependents is 30 years old. The rest of the respondents (4.52%) did not specify the ages of dependents.

Regarding educational attainment of the dependents, 32.66% (65) are college graduates, 20.10% (40) are university graduates, 13.56% (27) are high school seniors, 5.02% (10) are high school juniors, 4.02% (8) have no formal education and 9.04% (18) did not reply.

Majority of the dependents 88.44% (176) are not engaged in farming activities. Only 2.51% (5) are farming. The rest 9.04% (18) did not reply.

Main occupation of the majority of the dependents are students 27.63% (55). Some 19.59% (39) are salary workers and 18.09% (36) have no jobs. Some 9.04% (18) are public officials, 4.52% (9) wage workers, 4.02% (8) own private business, 3.51% (7) are children below school age, pension receiver 1.5% (3), 0.5% (1) farmer while the rest 11.05 (22) did not indicate main occupation of their dependents.

Majority of the dependents live in the house throughout the year with 81.4% (162) indicating such. On the other hand, some 5.02% (10) are living out of the house for more than three months in a year.

Income from agricultural activities consist selling of rice as cited by four respondents. The average annual income for this activity is P75,000.00.

Salary and wages come from employment in their respective organizations. Around 42.85% (21) are employed by government. The average annual income is P203,524.13. The average annual income from non-government employment is P313,208.40 as indicated by 30.61% (15). The rest 26.54% (13) did not respond. The degree of importance is rank 1 as indicated by 32.66% (16) of the respondents. Some 8.16% (4) indicated that degree of importance of salaries and wages is only rank 2.

Annual remittance from family members as indicated by 12.24% (6) of the respondents average P98,300.00. The rest have no income from remittances.

Annual income from private business as indicated by 6.12% (3) of the respondents is P176,666.37. The rest have no private businesses.

Annual income from other sources (pension, sidelines, consultancy, etc.) is P110,500.00.

The average total annual income from farm and non-farm sources P276,232.00.

26.53% (13) of the respondents indicated that the house is located near the main road. Another 20% (10) is located in the town center, 12.24% (6) is located near the river, 6.12% (3) is located in the lowland area, 6.12% (3) is located in the farmland area and 6.12% (3) is located in an elevated area. The rest did not indicate house location.

2. Organization, Activities. Budget

Table 2 summarizes the staffing of each organization.

Table 2 Number of Staff

	Office	Number of Staff
1	DPWH Planning	220
2	DPWH MFC PMO Cluster 1	no reply
3	DPWH MFC PMO Cluster 2	30
4	DPWH FCSEC	17
5	DPWH Region III	no reply
6	DPWH Mt. Pinatubo Urgent Hazard PMO	80
7	Metro Manila Development Authority	>1000
8	PAGASA Flood Forecast Bureau	>80
9	PAGASA Natural Disaster Mgt. Bureau	40
10	PAGASA Pamp. River Flood Forecasting Center	no reply
11	PHIVOLCS	200
12	NEDA Infrastructure Staff	13
13	NEDA Region III	44
14	DSWD Program Management Bureau	125
15	DSWD Social Welfare Bureau	16
16	DILG Local Government Academy	No reply
17	NDCC Secretariat	306
18	OCD – Regional Disaster Operation Center	10
19	OCD – Communication and Warning Division	>300
20	OCD – Region III	15
21	Metro Manila Disaster Coordinating Council	25
22	CARE Philippines	55
23	Citizen's Disaster Response Center	13
24	Philippine National Red Cross	No reply
25	Social Action Center (Pampanga)	No reply
26	Philippine Business for Social Progress	159
27	Mapua Institute of Technology	1020
28	De La Salle University	68
29	Regional Disaster Coordinating Council - NCR	6
30	Provincial Disaster Coordinating Council	No reply
31	MDCC Sasmuan	No reply
32	MDCC Minalin	No reply
33	MDCC Masantol	No reply
34	MDCC Macabebe	No reply
35	MDCC Guagua	18
36	MDCC Lubao	N
37	MDCC San Fernando	5
38	MDCC Candaba	150
39	MDCC Santo Tomas	6
40	BDCC Santo Tomas, Sasmuan	31
41	BDCC Sto. Rosario Pau, Sto. Tomas	10
42	BDCC San Nicolas Poblacion, Minalin	24
43	BDCC Sto. Cristo, Guagua	11
44	BDCC Sta. Lucia, San Fernando City	45
45	BDCC San Agustin, Candaba	28
46	BDCC San Isidro, Lubao	17
47	BDCC Caduang Tete	10
48	BDCC San Agustin, Masantol	25
49	BDCC San Pedro, Sasmuan	12

3. Disaster Preparedness

The main activities in disaster mitigation sector for organizations are composed of the following activities as presented in Table 3.

Table 3 Main Activities in Disaster Mitigation Sector

Normal Condition	Before Disaster	After/During Disaster
Regular Meetings	Structural work/flood prevention	Rescue and relief operations
Evacuation Drills	Disaster Mgt. Training/Fire drill	Site inspection
Weather/River Monitoring	Regular contingency meeting	Restoration/Rehabilitation works
Info Dissemination	Hazard forecasting/ mapping	Disaster advisories
Hazard Mapping	Inspection of buildings	Documentation of impacts
Disaster Mgt. Training	River monitoring/cleaning	Damages and needs assessment
Organization of volunteers		
Cleaning waterways		

The fund sources for the activities enumerated above is in Table 4 below.

Table 4 Amount, Sources, Ratio of Funds/Budget

	Amount (P)	Source of Funds	Ratio	Calamity Fund
1	39,257 B	Local and Foreign Fund Sources	NR	Yes
2	NR	NR	NR	NR
3	NR	NR	NR	NR
4	NR	MDCC/BDCC	NR	NR
5	NR	NR	1:10	NR
6	23 M	General Appropriations	NR	No
7	200M	General Appropriations	NR	No
8	NR	NR	NR	NR
9	2M	General Appropriations	1:2	NR
10	811,303	General Appropriations	1:6	NR
11	30M	General Appropriations	1:1	No
12	NR	NR	NR	NR
13	12M	General Appropriations	NR	NR
14	100M	Calamity/Disaster Fund	1:9	Yes
15	NR	NR	NR	NR
16	30M	General Appropriations	NR	No
17	72M	General Appropriations	1:3	No
18	NR	NR	NR	Yes
19	NR	NR	NR	NR
20	NR	General Appropriations	NR	NR
21	20M	General Appropriations	0.05	Yes
22	15M	General Appropriations /DENR Funding	NR	NR
23	7M	Local and Foreign Donors	70%	No
24	NR	Contributions/Donations/Grants	NR	Yes
25	NR	Contributions/Donations/Grants	NR	No
26	50,000	Membership Contribution	NR	Yes
27	700M	Tuition Fees	.0005	No
28	NR	NR	NR	NR
29	NR	General Appropriations	NR	No
30	NR	NR	5%	NR
31	NR	NR	NR	NR
32	200,000	General Appropriations/Local Taxes	NR	Yes
33	80,000	General Appropriations/Local Taxes	NR	NR
34	2M	General Appropriations/Local Taxes	NR	NR
35	2.7M	IRA 5% Calamity Fund	4:10	Yes
36	Did not specify	IRA 5% Calamity Fund	NR	NR
37	Did not specify	IRA 5% Calamity Fund	NR	NR
38	56M	IRA, Local Taxes	NR	Yes

	Amount (P)	Source of Funds	Ratio	Calamity Fund
39	800,000	NR	NR	NR
40	40,000	IRA	5%	Yes
41	0	IRA	5%	Yes
42	800,000	IRA	5%	Yes
43	1.2M	IRA	5%	Yes
44	84,000	IRA	5%	Yes
45	Did not specify	IRA	5%	Yes
46	Did not specify	IRA 5% Calamity Fund	5%	Yes
47	NR	IRA 5% Calamity Fund	5%	Yes
48	NR	IRA 5% Calamity Fund	5%	Yes
49	30,000	IRA	5%	Yes

Calamity fund in their organization is in place according to 38.77% (19) of the respondents. On the other hand some 18.36% (9) of the respondents indicated that the office has no calamity fund set up. The rest 42.85% (21) did not reply to the question.

Awareness promotion and disaster drills and training form part of the activities of the organizations as indicated by 79.59% (39) of the respondents. Only 18.36% (9) did not have such activity. The rest did not reply to the question or is not aware of this activity.

A disaster preparedness plan is in place as indicated by 79.59% (39) of the respondents. Also, 18.36% (9) of the organizations did not have a disaster preparedness plan. The rest did not reply (1 respondent). The disaster preparedness plan time of formulation is presented below Table 5.

Table 5 Year of Formulation of Disaster Preparedness Plan

Year of Formulation	Frequency	Percentage
2000s	11	22.44%
1990s	9	18.36%
1970s	6	12.24%
1980s	2	4.08%
No Idea	21	42.85%

Status of the disaster preparedness plan is presented in Table 6.

Table 6 Status of Disaster Preparedness Plan

	Updated Plan	Number of Updates	Revision Frequency	Items Considered in Revision	Items for Inclusion in Revision	Public Information/ Dissemination	Method of Public Information
1	NR	NR	NR	NR	NR	NR	NR
2	NR	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR	NR
4	NR	0	None	Actual Disaster plan	NR	Yes thru disaster awareness	NR
5	Yes	not sure	Yearly	Members of Disaster Committee, Num of constituents and severity/frequency of disaster	NR	NR	NR
6	No	0	N/A	NR	NR	Yes	Thru LGU
7	NR	NR	NR	NR	NR	NR	NR
8	NR	NR	Yearly	NR	NR	NR	NR
9	Yes	2	Every three years	The interest of the gov't	Budget	Yes	Thru IEC
10	NR	NR	NR	NR	NR	NR	NR
11	Yes	2	Every 5 years	Resources, Surrounding conditions	New Knowledge	Yes	lectures
12	NR	NR	NR	NR	NR	NR	NR
13	NR	NR	NR	NR	NR	NR	NR
14	Yes	3	NR	Social and Dev't change	Guidelines	Yes	Advocacy and Info Dissemination
15	NR	NR	NR	NR	NR	NR	NR
16	NR	NR	NR	NR	NR	NR	NR
17	1998	3	As the need arises	NR	Transfers of agencies	Yes	Radio
18	NR	NR	NR	NR	NR	Yes	Training; provide LGUs with Nat'l Preparedness Plan.
19	NR	NR	NR	NR	NR	Yes	Through advocacy and training
20	Yes (Oct 5, 2004)	4	Annually or every 3 y/s	NR	Change of membership and reporting systems	Yes	Orientation/ briefing/ training
21	Yes	0	N/A	N/A	N/A	Yes	Through training and drills conducted by DILG
22	No	NR	n	NR	NR	NR	
23	1998 (office level)	2	Every 1.5 years	Type of disaster, no of staff and participants, resources (peso)	Organizational capacity, Resources, Available network and volunteer teams, Local partners	Yes	Laddered training

	Updated Plan	Number of Updates	Revision Frequency	Items Considered in Revision	Items for Inclusion in Revision	Public Information/ Dissemination	Method of Public Information
24	Yes	almost yearly	Yearly	relevance and effectiveness	NR	Yes	Through meetings
25	Yes	No	NR	NR	NR	NR	NR
26	NR	NR	NR	NR	NR	NR	NR
27	NR	NR	NR	NR	NR	NR	NR
28	Yes	2	Far in between (seldom)	NR	NR	Yes	Through memorandums
29	Yes	no idea	Yearly/ As needed	Situation on the ground/ Resources/ Capabilities	Fund requirement	not much	Through info drive by local units
30	NR	NR	NR		NR	NR	
31	NR	NR	NR		NR	NR	
32	Yes	NR	Every year	Disaster situation	Concept of preparedness plan be from the people	NR	Public Meeting
33	NR	NR	NR	Member composition	NR	NR	Public Meeting
34	Yes	NR	NR	Disaster situation	NR	NR	
35	Yes	7	Yearly	Hazard map, Logistics and the personnel involved	Threat	Yes	Bigy Info Network Cache - info unit of MDCC
36	NR	NR	NR	NR	NR	NR	Public meetings w/ barangays
37	NR	NR	NR	NR	NR	NR	
38	NR	NR	NR	NR	NR	NR	
39	NR	NR	NR	NR	NR	NR	
40	Yes	NR	Yearly	Changes of some officers	Inappropriate Policy on the present situation.	Yes	Pulong Barangay
41	No	0	Never been revised	Never been revised	Road repair	Yes	Pulong Barangay
42	NR	NR	NR	Suggestions from people	NR	Yes	Public Meeting
43	Yes	Every disaster	Every disaster	How we can improve	NR	No	
44	Yes	NR	Yearly	Change of personnel and officers	None	Yes	Barangay Meeting
45	Yes	2	one or more, depends upon the situation	After a calamity that worsen our situation	Funds	Yes	Pulong Barangay house to house
46	Yes	2	Yearly	Organizational structure	NR	Yes	Meetings
47	NR	NR	NR	NR	NR		
48	NR	NR	NR	NR	Depends upon the situation on calamity and disaster	NR	
49	Yes	6	Yearly	Changing organizational structures	Provisions of rebuilding of damaged structures	Yes	public meetings

A Disaster Operation Manual is being used by majority as indicated by 48.97% (24) of the organization respondents while 40.81% (20) did not have a manual. Table 7 below summarizes the details on the Disaster Operation Manual.

Table 7 Status of Disaster Operation Manual

	Updated Manual	Number of Updates	Revision Frequency	Items Considered in Revision	Items for Inclusion in Revision	Public Information/ Dissemination	Method of Public Information
1	NR	NR	NR	NR	NR	NR	NR
2	NR	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR	NR
6	No	NR	NR	NR	NR	NR	NR
7	NR	NR	NR	NR	NR	NR	NR
8	NR	NR	Yearly	NR	NR	NR	NR
9	Yes	Many times	Every 3 years	the interest of the gov't changes in issuance of bulletins	budget	Yes	Thru IEC
10	Yes	1	NR	not much	not much	No	
11	NR	NR	NR	NR	NR	NR	NR
12	NR	NR	NR	NR	NR	NR	NR
13	NR	NR	NR	NR	NR	NR	NR
14	Yes	2	NR	enhance strategies	New schemes	Yes	advocacy ad info dissemination
15	NR	NR	NR				
16	NR	NR	NR				
17	Yes	After a major disaster	Yearly	impact of the last disaster	Lessons learned and improve the system	Yes	Tri-media
18	NR	NR	NR	NR	NR	NR	NR
19	NR	NR	NR	NR	NR	NR	NR
20	Yes	4	Yearly or every 3 years	Change of station	Change of CPR, duties and functions	Yes	RDCC meetings
21	Yes	0	N/A	N/A	N/A	Yes	Meetings of homeowners, Brgy. Security Development Officers/ Volunteer Security Group
22	No	NR	NR	NR	NR	NR	NR
23	Yes	twice	every 1 and 1/2 years	Type of disaster, no of staff and participants, resources (peso)	Organizational capacity, resources, available network and volunteer	N	N/A

	Updated Manual	Number of Updates	Revision Frequency	Items Considered in Revision	Items for Inclusion in Revision	Public Information/ Dissemination	Method of Public Information
24	Yes	twice	1st 1994, 2nd 2003	applicability and relevance	teams, local partners policies and DM's strategies	N	N/A
25	No	N/A	N/A	N/A	N/A	N/A	N/A
26	NR	NR	NR	NR	NR	NR	NR
27	NR	NR	NR	NR	NR	NR	NR
28	Yes	twice	Far in between (seldom)	Effect on people and env't; human activities that increase impact	NR	Yes	through memorandums
29	Yes	no idea	no idea	no idea			
30	NR	NR	NR	NR	NR	NR	NR
31	NR	NR	NR	NR	NR	NR	NR
32	Yes	NR	every year	always the disaster situation	Concept of preparedness plan be from the people	NR	public meeting
33			every year	disaster situation			
34	NR	NR	NR	NR	NR	NR	NR
35	NR	NR	NR	NR	NR	NR	NR
36	NR	NR	NR	NR	NR	NR	NR
37	NR	NR	NR	NR	NR	NR	NR
38	NR	NR	NR	NR	NR	NR	NR
39	NR	NR	NR	NR	NR	NR	NR
40	NR	NR	NR	NR	NR	NR	NR
41	NR	NR	NR	NR	NR	NR	NR
42	NR	NR	NR	NR	NR	NR	NR
43	NR	NR	NR	NR	NR	NR	NR
44	NR	NR	NR	NR	NR	NR	NR
45	NR	NR	NR	NR	NR	NR	NR
46	Yes	twice	Yearly	calamities and disaster	different settings during emergency situations	y	meetings
47	NR	NR	NR	NR	NR	NR	NR
48	NR	NR	NR	NR	NR	NR	NR
49	Yes	6	Yearly	changing disaster situations	different settings during emergency situations	Yes	meetings

According to 44.89% (22) of the respondents, not everybody knows about the Disaster Preparedness and Operation Plan while another 44.89% (22) indicated otherwise. The rest did not reply or don't know the awareness level on the disaster preparedness plan.

Majority of the organizations have partner NGOs that cooperate with disaster management as indicated by 77.55% (38) of the respondents. Another 18.36% (9) said there are none. The rest 4.08% (2) did not reply.

4. Disaster Experiences and Lessons

Table 8 below presents the disasters experienced by the respondents for the last five years.

Table 8 Disasters Experienced in the last five years

Type of Disaster	Times Mentioned	Frequency of Disaster					Total
		2000	2001	2002	2003	2004	
Floods	22	14	36	16	35	37	138
Typhoon	21	2	36	31	29	40	138
Earthquake	5	1	0	2	2	3	8
Landslides	4	8	2	5	3	0	18
Volcanic Eruption	2	1	1	0	0	0	2
Drought	1	0	1	0	0	0	1
Others(armed conflict)	1	0	1	1	1	1	4
Fire	1	0	1	0	1	1	3
No Reply	24	24	24	24	24	24	24

Flood top the list of disasters experienced in the last five years as indicated by 44.89% (22) of the respondents. This was followed by typhoon 42% (21), landslide 8.16% (4), drought 2.04% (1), earthquake 10.20% (5), volcanic eruption 4.08% (2) and armed conflict 2.04% (1).

The amount of damages brought about by these disasters are presented in Table 9 below. Damages to property and/or crops top the list and this is brought about by typhoons with total damages worth P5.87 billion.

Table 9 Amount of Damages by Disaster

Type of Disaster	Amount of Damage (PhP)
Floods	1.2 Billion
Typhoon	5.87 billion
Earthquake	No figures
Landslides	No figures
Volcanic Eruption	No figures
Drought	1.6B
Others(armed conflict)	No figures
Fire	No figures

The casualties and damage caused by these disasters are presented in Table 10.

Table 10 Casualties and Damages of Disasters Experienced

Casualties		Damage to Property/Houses			Year
Dead/Missing	Injured	Totally Destroyed	Partially Destroyed	Damaged	
1,663	1574	51,295	373,730	No figures	2000
1,340	1286	19,434	83,071	No Figures	2001
880	1947	10,014	23,223	4	2002
68	154	74,451	229,970	9	2003
534	1271	22,803	79,823	2246	2004
3,617	6232	177,997	789,817	2,259	

Majority have identified the hazard prone areas in their respective areas of jurisdiction as indicated by 85.71% (42) of the respondents. Some 8.16% (4) on the other hand have not identified the hazard areas. The rest 6.12% (3) did not respond.

Consequently, majority have informed the public of the identified hazard prone areas above as mentioned by 83.67% (41) of the respondents. The rest 16.32% (8) did not reply.

Those that have informed the public of the identified hazard prone areas utilized the following methods of public information as presented in Table 11 below.

Table 11 Method of Public Information on Hazard Areas

Method	Frequency
Public Meetings/ Consultations/ Fora/ Seminars	23
Media/Press Releases/ Info Campaign	6
Training/ Maps or GIS Distribution	3

Evacuation areas are already in place as mentioned by 46.93% (23) of the respondents. On the other hand, some 30.61% (15) of the respondents indicated that there is no evacuation area/route in place which is due to several reasons including limited budget/funds, not in charge of this item and not their mandate among others.

Of those that indicated an evacuation place, identified places are schools and churches 60.86% (14), elevated areas 8.69% (2), barangays hall/basketball court 17.39% (4) and commercial building 4.34% (1). The rest did not specify the location 8.69% (2).

As regards a map of the identified evacuation area, all of the respondents did not specify if a map is available for the purpose. However, public information of the evacuation area was carried out by some 82% (19) of the respondents.

The organizations identified several items that are prepared for a disaster. Table 12 below enumerates these items as mentioned by the respondents.

Table 12 Items in Preparation for a Disaster

Item	Number of times mentioned	Percent*
Radio with batteries	29	59.18
Candles/Flashlights	28	57.14
Spare batteries	27	55.10
First-Aid Kit	26	53.06
Emergency Food and Water	17	34.69
Vehicles/Boats	4	8.16
Communication gadgets	1	2.04
Money/Standby Funds	1	2.04
Cooking Utensils	1	2.04
Shelter Facilities	1	2.04
Clothing	1	2.04

*multiple answers possible

5. Disaster Management

To mitigate natural disasters, the respondents identified the following in Table 13 below.

Table 13 Items Needed for Disaster Mitigation

Item	Number of times mentioned*
Disaster management plan Proper public information Coordination among agencies	16
Conduct of drills/training on disaster mgt.	7
Structural Interventions Engineering intervention (construction of consolidating dams, spur dikes, etc)	6
Political will to implement laws Removal of squatters in danger areas Proper land-use Environmental law enforcement	6
Non-structural measures Installation of non-structural measures (warning systems, water level gauging station, etc)	3
Solid waste management	2
Logistical Support	2

*multiple answers possible and lumped according to similarity

The respondents were asked to comment on the "Concept of Self-Prevention of Disaster" and/or "Community-Based Disaster Management". Responses are as follows in Table 14 below. More than half of the respondents

Table 14 Responses on the “Concept of Self-Prevention of Disaster and “Community-based Disaster Management

	Item
1	Self-prevention of disaster is getting to know what to do during the calamity while community-based disaster management is organizing a small group of people and make them aware of an immediate measure to address the adverse effects of disasters.
2	It will provide responsive, effective and efficient systems to alleviate/mitigate the impact of floods.
3	Each member of the community should cooperate and give their share to the program possible.
4	Community-based disaster management is needed to effectively plan and instruct the people against disaster.
5	Every barangay must have its own disaster preparedness program which will not solely rely on the national government support. Local residents & officials must use their common sense to determine hazard & risk signs to know where to evacuate.
6	No Reply
7	To minimize the casualties/damages brought about by disaster community-based disaster management is the best approach and shall be adopted
8	Great
9	It is a good idea to implement
10	Very important particularly on a community level, a non-structural measure to support structural means
11	Good concept. Recommended.
12	Will certainly reduce casualties during natural calamities and save thousands of lives
13	Some disasters can be prevented especially those that directly are caused by lack of information (or ignorance) or simply lack of environmental consciousness
14	Effective
15	Use in moral and physical sense, should be based on "low cost & free maintenance"
16	Community-based disaster management is a more holistic approach and could easily be internalized by the community due to "bayanihan spirit" culture of Filipinos
17	These are basic principles and practices for effective governance and platform for poverty alleviation
18	One of the basic principles or doctrines of the PD 1566 "Philippine Disaster Law" is "self-reliance shall be developed by promoting and encouraging The spirit of self-help and mutual assistance among the local officials and their constituents". With this, the OCD continuously advocates for the importance of knowing what to do before, during and after an emergency through the distribution of IEC materials.
19	It is everybody's responsibility but of course, its effectiveness lies between the government and private sector and the population in disaster risk area
20	Self-prevention of disaster, literally means preparing yourself to any emergency situation by preparing your own basic requirements before any event of emergency. That is all your needs are already in place, So that when disaster occurs, you can survive and manage the situation without asking assistance from the government.
21	PD 1566 shall be amended to include specific provinces on self prevention of disaster and CDBM for this is very vital for the safety of every one.
22	We advocate it.
23	Through community based disaster management, communities are made to participate, link with less vulnerable sector and addresses root causes of vulnerability will help in the "Self-Prevention of Disaster".
24	Starts where the people are made capitalized in local resources and capacities. Communities should be directly involved and deploy sense of ownership.
25	There must be a plan on the community level and how to respond when calamity strikes.
26	This is as it should be promoted and financially supported at the start-up phase.
27	It is timely and necessary since we are inside Intramuros, a very historic landmark.
28	I agree, because it provides a framework for analyzing the categories and factors in for the vulnerabilities and capacities

	Item
29	This is more responsive particularly as people's awareness are easier to measure. The only problem is fund support since the Local Government Unit have very small income based on internal revenue allotment.
30	We encourage MDCC and BDCC to develop the concept.
31	It will help our BDCC and local people
32	Cultivate more information from barangay on disaster preparedness, initiative from the people, it can initiate livelihood program.
33	NR
34	NR
35	NR
36	NR
37	NR
38	NR
39	NR
40	Yes, it makes our community more aware on disaster management.
41	I agree with the concept. It will help the community.
42	This will make the BDCC more understand to stand by itself.
43	meeting disaster is usually team effort
44	Yes, participation of individuals will make our disaster management a success for the barangay
45	Essentially we are doing this concept. It is like the Filipino culture on Bayanihan.
46	Ok.
47	Community-based disaster management is incorporated with the duties and function of the Barangay Disaster Coordinating Council (BDCC)
48	Self-prevention of disaster-through training and group the concept, readiness and acquisition through expert training to campaign concept. Need communication, tools, and other materials.
49	Ok. Such activities will enhance and encourage Barangay residents to work together.

As regards the identification of who will be responsible for establishing the community-based disaster prevention structure the respondents identified the following as presented in Table 15 below.

Table 15 Identified Agencies/Entities Responsible for Establishing Community-based Disaster Prevention Structure.

Agency/Entity	Frequency	Percentage
Local Government Units	34	69.38
National and Local together	10	20.41
National Government Agencies	1	2.04
No reply	4	8.16

Table 16 presents the opinions of the respondents on the establishment of a calamity fund by setting aside a special budget for disaster prevention. Majority 91.84% (45) are amenable to the concept of setting-up this fund. Two respondents (4.08%) indicated that it is not yet time to implement this and it needs further study. Another two did not comment.

Table 16 Opinions on the Establishment of a Calamity Fund

	Responses
1	The Office of the President is providing budget thru NDCC and the DPWH is getting 20% of the total budget.
2	The fund should be shared equitably by the national government and the respective LGUs.
3	Good Idea
4	Important to set aside a Local Calamity Fund.
5	Setting aside a special budget for disaster prevention is very necessary to prevent loss of life and property. The amount invested for prevention far outweigh the benefits compared to the financial loss caused by damages.
6	Agreeable.
7	Calamity fund is very important to restore the effect of damages brought about by disaster. I agree that a special budget should be set aside.
8	Calamity and Disaster prevention are out of phase (names). We can call it Disaster Prevention Fund.
9	Calamity fund is a force.
10	This would be helpful especially after post-disaster situations.
11	10% of the local budget should be set aside for this.
12	I think it is only proper. But this should come largely from the government. The community can put up equity.
13	There is an existing disaster fund (Calamity fund)
14	Calamity fund can be used when there is a disaster
15	Local Government has a calamity fund. It is a good idea if Organizations would have their own Calamity Fund.
16	This is good particularly part of the calamity fund can be used for pre-disaster activities.
17	The NDCC through the General Appropriations Act is in charge of recommending to the President the utilization of the National Calamity Fund. However, the Local Government Units can also use this local calamity fund which is 10% of their IRA. Thus, the Philippines has already its system on this concept.
18	There is really a need to establish a Calamity Fund because not all our constituents affected can manage to respond to normal social function, besides most people affected by disaster are those who are less fortunate and living in disaster areas.
19	Amend R.A. 8185 and specify budget for mitigation measures so that it will not be hard for the local government to utilize the fund allocated.
20	<i>Needs more study.</i>
21	This should be a regular budget allocation from the government.
22	Activities to address disaster are primarily those done even prior to any disaster. Activities for a more positive approach rather than negative.
23	Yes, that could help. The LGU should set aside fund for calamity.
24	This is good for quick response to disaster situations.
25	This should come from the government.
26	I agree to that idea because by having a specific budget or calamity fund, this would be a big help to all affected people.
27	It must be. We are to protect the source of our power in forms of economic, social and political. The people is the strength of every nation.
28	Ok
29	Yes, we want to make plans on this idea.
30	<i>Not yet as of now - disseminate information, awareness level to prevent more expenses from the disaster.</i>
31	Ok
32	There is an existing budget for calamity
33	The MDCC Guagua by virtue of a local ordinance has created or established its so called Lahar Control Measure Fund (LCMF) which is aimed at raising revenue for mitigation projects.
34	Ok. Some are willing to pledge donations.

Responses	
35	Ok. This will help our financial difficulties.
36	Ok
37	Ok
38	It may help to increase our calamity fund.
39	Ok. At least it will be additional funding for emergency situations.
40	Rely only on IRA 5%.
41	We are doing it.
42	We are doing fund-raising every fiesta, like selling tickets, to add to our calamity fund.
43	Yes, I agree with the idea. But how about the people who are less fortunate.
44	Ok.
45	Flood disaster always results to big damages on crops and property. LGU and barangay calamity fund are insufficient.
46	Disaster prevention is a non-profit activity of the barangay. I suggest the President of the Philippines set aside a budget through municipal mayors.
47	Ok

With regard to the idea of collecting money from the residents to establish the local Calamity Fund the responses are presented in Table 17 below.

Table 17 Responses on Collecting Money from Residents to Establish Calamity Fund

Response	Frequency	Percent
Yes	14	28.57
No	30	61.22
No Reply	5	10.20

Of those that replied yes, the response on the amounts to be collected are as follows:

Table 18 Amounts to be Collected

Amount (PhP)	Frequency	Percent
1.00	1	7.14
50.00	2	14.29
100.00	2	14.29
500.00	1	7.14
2,000.00	1	7.14
10,000.00	1	7.14
Did not specify	2	14.29
Depends on willingness	4	28.57

Of those that are not amenable to the collection of money from residents, the reasons given are presented in Table 19 below.

Table 19 Reasons for Not Collecting Money to Set-Up Calamity Fund

Reasons	Frequency	Percent
It could be prone to corruption.	4	13.33
This may trigger political issues later on and may be the source of corruption.		
There will be a lot of disagreements and may cause extortion activities on the part of those leaders with vested interest.		
The lack of mechanism to ensure that those contributions are kept in good hands.		
Cause this is an additional burden to the residents	12	40
Very difficult to raise funds coming from the residents considering that they are already paying their taxes which is one possible alibi I foresee.		
This will make the poor poorer.		
Residents in disaster prone areas basically are not financially well-off. That is why they opted to build a house in places of illegal habitation. They can't even sustain a high standard of life. They are the less fortunate in the community.		
Residents cannot afford		
Consider their situation as victims of disaster		
People cannot afford		
The community are already the victims		
People are already victims of disaster.		
In the Philippines it's hard to collect from residents for such fund.		
Residents of the area are regular victims of disaster.		
It should be voluntary with seed money provided by an Organization/NGO/Private Sector.	10	33.34
This would be against the grain of the government rendering adequate services to its constituents		
Just charge it to Internal Revenue Allotment of LGUs		
I think it is not necessary considering it is the responsibility of the LGUs. Maybe the community can be good partners of the LGU.		
This should be the future responsibility of the national/ local government.		
The delivery of services such as calamity assistance must be free.		
The fund should come from the national treasury.		
People already know about the calamity fund		
The people know about the IRA. There's no need to collect fund from the residents.		
No, because it is already in the IRA and that serves the people.		
It should come from the national budget.	4	13.33
Did Not Specify Reason		

Comments on the idea to integrate disaster prevention plan into the LGU Development Plan with a view to materialize the project to ensure budget appropriation elicited the following responses as presented in Table 20 below.

Table 20 Responses on Idea on Integration of Disaster Management Plan into LGU Development Plan to Ensure Budget Allocation

Responses
Integration of disaster prevention plan into the LGUs Development Plan would ensure the proper use of funds, prioritize projects, efficient and smooth implementation and improved monitoring and maintenance of the same.
This would lead to a more effective community-based disaster management plan, with effective operational capabilities.
It is also a good idea because it will always involve the LGUs for the development of the project.
Good idea.
I agree that the LGU's Development Plan must be integrated with the disaster prevention plan which must conform with the national development plan to have a unified and continuous development.
This has been applied when this office disseminated our finalized community disaster management plan in Dec 2001.
Everything must be integrated as far as prevention plan or projects are concerned so that solid approach to address the problem can be attained.
Great. Just do not make this tied up with the tenure of elected officials.
Very good.
This is necessary especially if the community is prone to many types of disasters.
It should be incorporated to make sure it is being implemented.
Every calamity-prone LGU should be doing this already. However, large projects may not be financed from the LGUs appropriations alone. There should be an inter-LGU (e.g. inter-barangay or inter-municipality) collaboration always to make it easier for everybody.
It should be pen and paper.
<i>I don't agree to integrate the disaster prevention plan into LGUs dev't plan. There will be problem on budget.</i>
That's a good idea.
This is very idea.
The LGUs must appropriate funds for the purpose. However, the idea is good since LGUs merely depend on Local Calamity Fund which can be utilized for relief or rehab. When there is a declaration of the area under the state of calamity.
I go for the integration of disaster plan with the LGU's Development Plan for it will ensure the continuing functions and responsibility of the local DCCs.
This is the best thing to do, to be able to conduct preparedness and mitigation activities prior to disaster, considering that the local CF by law can only be utilized for response activities during disaster.
It must be best so that disaster prevention will be given priorities and preference
It's imperative.
This is the most ideal and practical way to ensure budget appropriation.
This can be possible and institutionalizing thus can be a good start. Disaster management should be part of overall development planning. To integrate it into the LGU's plan is very relevant.
That's the best way because the LGU will have a fund to ensure that the plan will be implemented.
I agree. LGUs should have budget appropriation for disaster prevention.
It is highly necessary.
Yes, I agree with that idea.
The LGUs should provide sufficient amount/ fund for calamities. The problem is the Local Chief Executives are not using the calamity funds for its real purpose.
We are willing to support and develop the idea.
It will work out to make our plans on disaster mitigation successful.
<i>This is what the MDCC and LGU is doing.</i>
Yes, we coordinate our plans and program on disaster prevention.
<i>This is already in place here. But as always, municipal funds are not always enough.</i>

Responses	
	<i>MDCC Guagua has already integrated disaster management in the comprehensive Land Use Plan of its municipality. It has a "Gawad Galing Award" for its program (Risk Management in Community Development)</i>
	Ok
	We support the idea
	Ok
	MDCC agree and support the idea.
	It will make our unity more stronger.
	Ok
	Barangay integrate its plan to LGU development plan. Support of volunteers.
	It will definitely help as disaster prevention needs lot of fund.
	LGUs always help us on disaster mitigation matters.
	We always coordinate our plans with LGUs.
	Ok
	I am very optimistic that projects involving disaster prevention will be better addressed by the LGUs. However the funding is always the big question mark on where will it come from. Lower class municipalities like Macabebe cannot allocate for big projects simply because we have small budget.
	To integrate the disaster plan into LGU development plan. Budget will improve and materialize the plan and make it effective.
	Ok. Given that the people in the barangay and municipal level will coordinate properly.
	No Reply

As for the community-based disaster management, there is an idea that it should be based on the principle of "low cost and free maintenance". Respondent opinions are presented in Table 21 below.

Table 21 Responses on the principle of "Low Cost and Free Maintenance" Community-based Disaster Management

Responses	
1	This is very much timely if we could adopt this kind of project considering the fiscal crisis that we are currently into.
2	It would be most welcomed if this can be achieved. That is why the communities must be directly involved and hold ownership over the program
3	Low cost is a very good idea but there is no such thing as free maintenance
4	Community-based Disaster Management should be a contribution from everybody. Participation is encouraged to make the system work.
5	"Low Cost and Free Maintenance" is based on the principle of preventive maintenance.
6	Agreeable
7	No Reply
8	Community based disaster management should be owned by the community.
9	You don't need costing and involvement of funds in community based disaster management.
10	Low cost is ok but free maintenance can hardly be achieved
11	Not familiar with the idea
12	No Reply
13	Maybe because calamities often happens irregularly (far intervals). However, calamity-prone areas should not take this lightly. Mitigation can be successful only if the community is prepared financially.
14	What aspect is low cost and free maintenance on disaster management
15	I agree that the Community-based Disaster Management should be based on the principle "low cost and free maintenance".
16	I agree to that opinion.
17	Co-ownership in whatever projects at the community level is tantamount to sustainability and productivity.

Responses	
18	Community-based Disaster Management will only succeed with the barangays or LGUs supporting them. It is true that organizing the CBDM would entail only low cost, the sustenance to keep a functional organization must be supported either by the LGU or the community itself.
19	No Reply
20	The Community-based Disaster Management was designed as the Disaster Management program to organize people in the community through volunteerism and private individuals committed to serve their constituents without expecting anything in return. But this depends on the availability of people who will sacrifice to serve without compensation.
21	Low cost is amenable if it is possible however free-maintenance will be impossible.
22	Yes, but this principle should not take as absolute.
23	Communities have their own existing capacities to cope with the effect of disaster and this should be strengthened to achieve the principle of low cost and free maintenance.
24	It depends. Most requirements for Community-based Disaster Management need financial allocation.
25	No comment
26	What do you mean by low cost and free maintenance
27	No Reply
28	The Community-based Disaster Management deserves to be within the principle of low cost and free maintenance because they do not have much budget.
29	If that will be possible, the better.
30	Initiative and volunteerism are part of principles we want to inculcate and develop in our constituents.
31	Ok
32	As long as it can work within themselves without the support of the government.
33	Ok
34	This is a noble idea. We are not yet aware of this.
35	It should not only be "low cost and free maintenance", it must likewise be indigenous and creative in approach.
36	Ok
37	We always implement low cost and free maintenance.
38	Ok
39	Ok
40	Many of our people will know the importance of being a volunteer.
41	Ok
42	Volunteerism is our priority.
43	We are working in that concept.
44	Yes, this will help the barangays on Disaster Management.
45	Volunteerism. Sama-samang paggawa.
46	Ok
47	Today let us be realistic. Nothing is free.
48	Very effective for community but need the help of provincial, additional funding.
49	Ok

G. Presentation of Findings for Residents

1. General Information

There were twenty one (21) respondents to the questionnaire for the residents. The barangays were selected from the list of flood affected barangays of Pampanga culled from the Provincial Disaster Coordinating Council Report (PDCC) of the province of Pampanga on the latest flooding in August 2004. The households came from the municipalities of Candaba, Guagua, Minalin, Lubao, Macabebe,

Masantol, San Fernando, Sasmuan and Sto. Tomas. The households were randomly selected.

Of the total respondents, 75% are male head of households and 25% are females. For the age range of respondents, there was 1 aged 27; 8 from ages 31-40; 7 from ages 41-50; 4 from ages 50-60 and 1 for ages above 60.

The average number of dependents for each household is 4.65. There are 116 total members of households from the 20 household respondents. Some 28% of the dependents are female members of households and 72% are males.

For the age of member of household, some 9% are children school age 4 years old and below; 15.5% are of ages 5 years old to 12 years old; 14.6% are of ages 13-20 years old; 54 % are in the productive ages from 20 to 60 years old, and; some 4% are beyond 60 years old.

Regarding educational attainment of the dependents, 11% (13) are college graduates, 3%(4) are university graduates, some 43% (50) have finished high school, 26% (23) have finished elementary education and 5%(6) did not reply.

Majority of the dependents 88% (102) are not engaged in farming activities. Only 4.3% (5) are farming. The rest 7.7%% (9) did not reply.

Main occupation of the majority of the dependents are students 23.3% (27). Some 3.4% (4) are salary workers and 30%% (35) have no jobs. Some 5% (6) are public officials, 19.8% (23) are wage workers, 2.5%% (3) own private business, 6%% (7) are children below school age, pension receiver 0.8% (1), while the rest 5%(6) did not indicate main occupation of their dependents.

Majority of the dependents live in the house throughout the year with 97.4% (113) indicating such. Only 0.5% did not live in his house through out the year, while some 1.7% (2) did not respond.

For Income sources, majority of the household (75%) indicate one main source of income while some 25% have more than one income source.

Majority of the of the respondents 85% (17) earn income from salary and wage from permanent jobs, of which 17.6% are pedicab drivers earning 54,000-74,000 per year; 29% are laborers which income of 18,000- 54,000 per year; 15% are drivers with 43,000-45,000 per year and a bakery worker earning 36,000 per year. The rest are secondary jobs as barangay officials with honoraria 3,600- 8,4000 for barangay guards and 30,000-45,000 for barangay officials.

Some 3% (6) of the respondents earn from selling agricultural products mainly rice and fish with an average annual income of 8,500 to 15,000 pesos. Some 1% (2) of the respondent operate private business or store with 10,000 annual income and 144,000 respectively and 0.5% (1) get remittances from abroad of some 12,000 per year. Some 1% earn income from pensions, another 1% earn income from vending.

The income range of the respondents vary according to source of income, number of income sources and range of income earned. A large group (35%) earn income ranging from P50,000.00 - P60,000.00 annually with another 15% earning from P70,000.00 - P80,000.00 annually. Some 10% earn below P20,000; another 10% earning below 35,000 but not less than 20,000; and another 10% earn from 35,000-50,000. A small group of 5% is earning more than P100,000.00 but less than P200,000.00 per year and another 5% earn more than P200,000.00. In sum, there are 30% earning below 50,000 and 10% earning more than 100,000.

2. Disaster Experiences and Lessons

2.1 Location of Residence

50% (10) of the respondents indicated that the house is located near the river. Another 30% (6) is located near the main road, some 5% is in the town center, 10% (2) is located in the lowland area, and 5% in the lowland area.

2.2 Kind of disasters were experienced

All the respondents (100%) experienced a typhoon-flood type of disasters which is aggravated by other impact like debris flow (25%); debris flow with eruption (15%); typhoon-flood-earthquake (10%) and eruption and earthquake (5%).

2.3 Which Disaster Affected Them Most

In rating the degree of impact of disasters, 70% of respondents ranked floods as number 1. Some 20% ranked volcano eruptions first while 10% ranks debris flow as foremost.

Second ranked is typhoons (75%); debris flow (15%) and floods (10%). Third ranked is debris flow (25%), floods (20%) the rest have no responses and fourth ranked is earthquake (15%) and typhoon (15%) with more non-response.

2.4 Number of times Disaster was Experienced the Past 15 Years

There are varied responses to the number of times the residents were affected by the disasters, depending primarily on the location of their residences and the area coverage of the disaster.

Their responses were tabulated as follows:

Table 22 Frequency of Disasters Experienced in the past 15 years

Type of Disaster	Total number of times (all respondents)	Average (Total/total respondents)
Typhoon	444	21
Floods	281	13.3
Debris Flow	8	0.38
Landslides	0	-
Volcano eruption	2	0.09
Drought	0	-
Earthquake	7	0.33
Others	1	0.045

2.5 Circumstances of the floods that caused the most damage

The flooding period and peak depth also vary per the experience of the respondent. The average flood period for all respondents is 21.3 days while flood depth is 120.45 cm.

2.6 Lands/Estate still covered by debris

There were no responses from the 20 respondents, but 1 instance in Macabebe, Pampanga was noted lands still under lahar.

2.7 Calamities/Casualties in the family due to disaster

The calamities and casualties experienced are tabulated below. Most of the losses refer to the total and partial destruction of abode and the loss to livestock and crops, most of which were not valued.

Table 23 Casualties and Damages of Disasters Experienced

Type of Casualties and Damages	Number
House totally destroyed	17
House partially destroyed	16
Flooded above floor level (cm.)	59
Flooded below floor level (cm.)	16
Crops/livestock lost	91.44
Family members died	7
Family members injured	6

2.8 What they should have done at the time of disaster

Asked if there is something that they should have done at the time of disaster, most of the respondents (81%) responded that they should be prepared and get their families to safety; while 19% said they should have ensured food as part of safety precautions.

2.9 If the same damages will happen again in case of disaster

Some 71.4% of the respondents said they don't think the same damages will happen again in case of disaster, because they would be better prepared. Some 28% think it would happen again, citing damages to crops (14%) and to their houses (14%)

2.10 Changes in their daily life as a result of disaster

Some 71.4% (15) of respondents said there were changes in their lives due to disaster because they are more prepared to ensure their safety in the face of disasters. Some 23% said there were no changes in the daily lives because they have been used to the flooding.

2.11 Preparations for disaster

All (100%) responded that their families have talked about their preparations in case of disaster. Again 71.4% said they will make sure that the family members and their belongings are placed in a safe location (upstairs); some 14% said they would evacuate to safer grounds while 4% said they would stock up on food and needed supplies.

2.12 Lessons from past disaster

On the question of what are the lessons from previous disasters, 71.4% said they should be in a state of preparedness; some 23% said they should ensure the safety of their lives and properties while 4.7% said they should not panic during the time of disasters.

2.13 Does the neighborhood discuss preparations against disaster

All respondents said there were discussions with neighbors about disaster preparedness with 90% saying they talk about the need for preparedness by the community; Some 9.5% said they should come up with a cooperative effort and 14% said they should stock up on food as part of community preparations.

2.14 Knowledge of Alert Signals and Warning Information

Responses on the knowledge of alert signals and warning information varied among the respondents. The following tabulated responses indicate such variations.

Table 24 Knowledge on Alert Signals and Warning Information

Knowledge of Signals	Freq.	Percent	Understanding of PAGASA signals	Freq.	Percent
Yes, completely	17	81%	Yes, completely	16	76
Yes, partially	2	9.5	Yes, partially	4	19
Yes, don't care so much	2	9.5	Yes, don't care so much	1	4.5
Others			Others		
No			No		

2.15 Assistance received in the past disasters

Historically, the disasters which required assistance was for the volcanic eruption in 1991 and succeeding typhoons with floods in the 1991, 1995, 1998, 2000, 2001, 2003 and 2004.

In terms of the period of assistance, for the volcanic eruption, housing assistance lasted for several years. For typhoons and floods, assistance is short-term with the longest at 45 days.

Assisting agencies are also varied. At the local government level, relief operations are through the municipality, the DSWD, civic organizations and the

Pampanga Disaster Response Network. Outside assistance is also provided by various foundations and foreign agencies.

The general services, various assistance, assisting agencies and issues relating to the services are tabulated below.

Table 25 Assistance Received in Past Disasters

Kind of Disaster	Assisted Period	Assistance Provided	Assisting Institutions	Problems/Constraints
Volcanic eruption 1991	Years	Evacuation centers	Government	Congestion
Flood 2000-2001 2003-2004	Varied: 1 day to 45 days	Medicines Medical check-up Referral to hospitals Water-testing Relief Operations-canned goods and rice	ABS-CBN Foundation GMA Foundation PDRN Local Government Rotarians Kiwanis Cabalen	Some medicines expired Some were not aware of the services Relief goods were not enough for many families

The varied responses are also tabulated below:

Table 26 Other Varied forms of Assistance Received

Assistance Provided	Freq.	Percent
Potable water	1	4.7%
Shelter/Housing materials	6	28.5%
Cash assistance	0	-
Income generation	0	-
Medical supplies	8	38.1%
Others	6	28.5%

2.16 Assistance appreciated the most

Asked which of the assistance was appreciated the most, 100% of the respondents identified other assistance as the one most appreciated. In terms of specific assistance Medical services and supplies, education and other assistance are most appreciated (71.4%), followed by shelter and housing materials (24%) while water testing and potable water was the least appreciated (4.5%).

2.17 Difficulties/problems by those who stayed in the shelters provided

Most of the respondents did not stay in the government provided shelters. Several said they moved to relatives rather than to the shelters provided. For those who moved into the shelters (14.28%), only 4.5% said they encountered problems because they were not used to the shelters, while 9.5% did not encounter any difficulty.

Of the 19% who moved out to their relatives and to the shelters, all said it was good that they moved into these shelters because these are their relatives and because their house was destroyed.

2.18 Functionality of the BDCC

Some 52% of the respondents said that their BDCC is functional while 47.6% said that their BDCC is not functional.

Some 66.6% know the name of the Barangay Captain. Some 19% do not know their Barangay Captain while the rest did not reply.

Asked if they know what the BDCC does, 81% said they assist in relief and rescue operations and some 24% said the BDCC organize and prepare for disasters and conduct disaster-related warning information. The 14% do not know the roles and functions of the BDCC.

In terms of the main activities of the BDCC, majority or 52.3% of the respondents said the BDCC provide assistance and conduct rescue operations.

Table 27 Perceived Activities of the BDCC by Respondents

Activities of the BDCC	Frequency	Percent
Assistance and rescue operations	11	52.3
Information dissemination	5	23.8
Meetings, seminars, drills	4	19
Do not know	1	4.7

Asked if the BDCC has an Operations Manual, the 71.4% said they do not have; while 28.5% said they have.

Asked if the BDCC in their barangay is functioning well, some 90.47% said it is functioning well, 4.7% said it is not while another 4.7% said they are not aware.

2.19 Knowledge of NGO activities in Disaster Management

Some 52.38% of the respondents said they are aware of NGO with disaster-related services while 47.6% said they are not aware.

Of the NGOs, the Pampanga Disaster Response Network is the most cited (31%). The following NGO's and their activities were cited by those who were aware.

Table 28 Knowledge of NGO Activities in Disaster Management in the area

Name of NGO	Activities
Rotary International	Medical mission
Pampanga Disaster Response Network	Relief operations, other similar assistance, training on disaster mitigation
Cabalén	Lectures and medical operations
SACOP	Relief operations
GMA and ABS-CBN Foundations	Relief operations

2.20 Active role of the Barangay Officials on disasters and emergencies

Asked if they think their barangay captain is active in disasters and emergencies, majority (95.2%) said their barangay captain is active, while 4.7% did not answer.

Asked what they expect from barangay officials for disaster mitigation, there were several combined responses culled as shown in the table below.

Table 29 Expectations from Barangay Officials during Disasters

CODE	Response	Combined Responses	Frequency	Percent
A	Early warning information on impending disaster	ABCD	8	38.1
B	Proper instruction for disaster preparedness	ABC	3	14.2
C	Mobilization of staff in charge of disaster operations	AB	6	28.5
D	Supporting services for evacuation	AD	2	9.5
E	Others : rescue operations	ABD	3	14.2

Asked to prioritize the above roles, the respondents ranked (a) early warning on disaster information as the highest priority (95%) followed by (b) proper instruction (86%). The ranking is tabulated below.

Table 30 Ranking on the Roles of Barangay Officials

CODE	RESPONSE	Ranking Percentile
A	Early warning information on impending disaster	Ranked 1 st
B	Proper instruction for disaster preparedness	Ranked 2 nd
C	Mobilization of staff in charge of disaster operations	Ranked 4 th
D	Supporting services for evacuation	Ranked 3 rd
E	Others : rescue operations	Least

2.21 Warning/Advice on impending disaster occurrences

Asked if they have received warning of impending disaster occurrences from their barangay officials, 100% of the respondents said they did.

All (100%) of respondents also said they follow the advices of their barangay officials such as warnings and other safety measures. The advices they receive ranged from safety precautions and preparedness (71.4%), the need to stock up on food, medicines and needed supplies (14.2%) and their evacuation and acquisition of relief goods (14.2%).

Some 85.7% of the respondents have knowledge of the flood-prone areas in their barangay and official evacuation areas, while the rest do not. The most cited flood-prone areas are those near rivers and creeks, fishponds and other low-lying areas.

2.22 Participation in BDCC activities

Majority of the respondents (71.4%) do not participate in BDCC activities for awareness promotion campaign and disaster preparedness trainings. Only 9.7% are participating, while the rest did not answer.

Of those who participate in BDCC activities, awareness raising activities are held three times a year or yearly. They cited they are satisfied with the training menu which is focused on safety and preparedness.

3. Disaster Preparedness

3.1 How do they learn of the occurrence of disaster

For disasters relating to volcanic eruption, watching TV (52%) is the most prominent way to learn of the impending disaster followed by warning from barangay officials as cited by 38% of the respondents. The second most prominent communication medium is through the radio.

The same holds true for typhoons where the most prominent is watching TV (71.4%) with again listening to radio ranked second communication preference (52%) followed by warning from barangay officers.

For flooding and debris, the most prominent information channel is warning from barangay officers (47%) while the other information sources are equally ranked. TV, radio and news from neighbors are almost equally ranked as the second source of information.

3.2 Availability and Reliability of Information Systems

Among the respondents, the most available information medium is the television set with 90% owning a set. The available information medium are tabulated below.

Table 31 Available Sources of Information for Disaster Information

Information medium	Frequency	Percent
Television set	19	90
Battery Operated Radio	17	81
Electric Powered Radio	4	19
Telephone	7	33
Wireless Radio	1	4.5
Mobile Phone	1	4.5

Asked if the alert and warning information is easy to understand or not, 100% of respondents said it was easy to understand.

There were multiple responses when the respondents were asked to rate the existing information system with 14% of respondents with no reply. The following tabulated the percentile of responses for the 18 people who replied.

Table 32 Rating on Ease of Understanding of Information System

Existing Information System	a	b	c	d	e	f	g
TV	100	55	61				
Radio	50	33	38	38	38	22	
BDCC Information	77	94	83			5.5	

Code system :

- a - Easy to understand
- b - Detailed enough to take subsequent action
- c - Very helpful to prepare against the disaster
- d - Not so helpful to prepare against the disaster
- e - Difficult to understand
- f - Too rough to take proper action
- g - Others (comments)

3.3 Knowledge of Critical Areas, Evacuation routes

Multiple responses was also elicited when respondents were asked how they know the critical areas of their barangay, with 85% saying it was primarily from their barangay officials and another 28% saying they learned it from experience.

On the question of having identified safe places for evacuation, 100% of respondents said they have. Asked how they know, 90% said the information came from their barangay officials.

All of the respondents said they know the official evacuation route and that they got the information from their barangay officers primarily, and secondarily from other sources (municipality and neighbors).

All respondents said they are going to follow the evacuation instructions from their barangay office for their own safety. There was also a 100% response on the question if they have confirmed the evacuation route to the safe place.

3.4 Safe Places Identified and Accessibility to Safe Places

In terms of safe places identified, the responses vary according to the designation areas by their barangays, the most prominent response is the school (80.9%), the church (33%) and the others are commercial buildings and the town plaza.

In terms of distance of the evacuation center from their residence, the following shows the tabulated responses.

Table 33 Distance of Evacuation from Residence

Estimated Distance from Residence	Frequency	Percent
Very near our house (around 500 m)	4	19
Less than 1 km. Away	3	14.2
1 km. away	10	47.6
2 km. away	3	14.2
4 km. away	1	4.7

In terms of vehicle to be used in getting to the evacuation center, multiple responses were given depending on the availability of the transport vehicle and the conditions of the areas. The following were tabulated.

Table 34 Type of Vehicle to be used for Evacuation

Type of vehicle	No.responses	Percentage
Tricycle	3	14.2
Tricycle/bike	2	9.5
Car, jeep, truck, tricycle	5	23.8
Truck	3	14.2
Boat	3	14.2
Car/jeep	3	14.2
On-foot	1	4.7

3.5 Participation in Disaster-related Training/Seminars/Drills

When asked if they have participated in seminars and drills on disasters, some 90% of the respondents had no reply. One respondent participated in the activities once in five years, while another participated once per year.

3.6 Things needed in case of disasters

Asked what are the things their organization need to prepare in cases of disaster, majority (85.7%) said they need to have radio with batteries, candles, flashlights, first aid kits, spare batteries. The responses are tabulated below.

Table 35 Items to be Prepared for a Disaster

Things to Prepare	Frequency	Percent
Radio w/ batteries, candles, flashlights, first aid kits, spare batteries	18	85.7
Stock of food for at least 2 days	5	23.8
Stock of food for at least 3 days	5	23.8
Stock of food for 4 days	4	19
Stock of food for 7 days	4	19
No response	3	14.2

4. Disaster Management

4.1 What are needed to mitigate disasters

Asked on what do they think are needed to mitigate the natural disaster, some 47.6% said there is need for trainings and regular meetings on disaster preparedness; another 23.8% said there is need for provisions for food, medicine and shelter. The following tabulate their responses.

Table 36 Things needed to Mitigate Disasters

Things Needed	Frequency	Percent
Trainings/regular meetings/seminars on disaster preparedness	10	47.6
Provision for food, medicines, shelter	5	23.8
Equipment, supplies and materials for evacuation	3	14.2
Effective preventive methods from government	2	9.5
Organized barangay officials	1	4.7
No response	1	4.7

4.2 Opinion on Concept of Self-Prevention of Disaster

Asked on their opinion about the concept of "Self-prevention of Disaster" and/or "Community-Based Disaster Management, there were varied responses as tabulated below.

Table 37 Responses on the "Concept of Self-Prevention of Disaster and "Community-based Disaster Management

Response	Frequency	Percentage
As an idea to enhance community cooperation and unity	6	28.5%
For ready and available help in times of disaster	5	23.8%
Learning to rely on one's capabilities	2	9.5
As preparation in the prevention of large damages	4	19.0
Not properly disseminated	2	9.5
No response	1	4.7

4.3 Who should be responsible for community disaster prevention structure

Asked who should be responsible for establishing the community disaster prevention structure, all respondents cited the barangay and municipal governments as the ones responsible, with stress on the BDCC (76%).

4.4 Opinion on Special Budget for Disaster Prevention

Asked on the idea of setting aside a special budget for disaster prevention, 100% of the respondents are open to the idea. Further, it was cited that there is a calamity fund set aside in the Internal Revenue Allotment of the barangay and the municipality. There are also organizations with their own calamity fund/savings which they use during calamities. However, it was also pointed out that the calamity fund is not enough.

Asked if they agree to collect money from the residents to establish a special community calamity fund, only 14.2% agree, the rest mentioned that they do not earn enough, that they are disaster victims and that many will oppose it (85%). Others said it is the government responsibility (9.8%).

4.5 Opinion on the idea to integrate Disaster Prevention Plan into Local Development Plan

Asked to comment on an idea to integrate the disaster prevention plan (or projects) into the LGU Development Plan with a view to materialize the projects to ensure the budget appropriation, 100% of respondents said that it is a good idea. Cooperation with the LGU will give more help on disaster solutions on preparedness and safety. Further, that they already have a disaster preparedness plan and just need additional funding for proper implementation.

4.6 Opinion on Community-based Disaster Management

The respondents opinion was solicited for the community-based disaster management, there is an idea that it should be based on the principle of "low cost and free maintenance". All (100%) of respondents agreed to the idea. Additional comments are tabulated as follows.

Table 38 Responses on Community-based Disaster Management

Responses
Volunteerism should be the anchor of such idea.
This is already being done by them during times of calamity
This will help us to save funds
This require unity and cooperation to help everyone
We have been implementing disaster programs that are solely based on our own initiatives - very low cost on the part of the residents but is quite a problem for local officials responsible (we had to raise funds for the whole barangay)
I think we should focus first on lessening the vulnerability of the families, provide them with livelihood opportunities.
Our plan is already low cost and almost free maintenance. All we need is additional sources of livelihood.

H. Analysis of Findings

1. General Information

The flood prone areas of the Pampanga River Basins are primarily located in the barangays near the Pampanga River and its tributaries and those in the low-lying area of the Candaba Swamp. These areas are generally farming areas and fishponds which are prone to flooding for long periods.

The survey showed that majority of the respondents are not in agriculture and the main source of income are from salaries from permanent jobs (mostly private sector and local government). The income range may also be understated given that it showed income ranges below P100,000.00 and way below the basic income range. Nevertheless, it showed that many of those affected by disasters are of the low income households and who may be more vulnerable.

Approximate household conditions should be verified from secondary sources, specifically on the household sources of income and income range.

2. Disaster Experiences and Lessons

After the Mt. Pinatubo eruption in 1991 and consequent lahar flows for 1991-1996, the most common disaster occurrence in the Pampanga area is flooding caused by typhoons and tropical storms. These are almost an annual occurrence, especially when river rise and accumulated rainwater ponding cause flooding at the low-lying areas of the Pampanga River. The survey confirms that typhoons and consequent floods are the most common disasters in the area.

Since majority of the respondents have residences near rivers and creeks and low-lying areas, flooding from accumulated rainwater and river flows are experienced. For the middle Pampanga River, flooding last from five days to two weeks and flood depths vary from 0.5 meters to 2 meters.

After the lahar flows, destruction of residences due to flood have been minimal. The major losses are loss of income because they cannot go to work or crops and livestock losses due to floodings. Relatively, there has been minimal loss of life and injury from flooding as there were very few responses.

The people admitted being more prepared for disasters and that during such cases the main concern is getting members of their family and their belongings to safety and procuring food during the event. The major change in their lives is such preparedness. For others they have become conditioned to flooding as a fact of life having experienced it yearly. Such experience has made them more open to discussing what to do during disasters among the members of their family and their community. They have become knowledgeable of warning information, especially from PAGASA.

In terms of assistance received, the volcanic eruption has been given more and longer period of assistance, primarily through evacuation centers. Flooding and typhoons are of short duration and have lesser assistance periods, primarily the services are relief goods, potable water and medical supplies and services. Of the range of assistance, medical supplies, education and other services are ranked foremost, while services for water testing and potable water are ranked least.

The people in the flood-prone areas have become familiar with disaster-related organizations and institutions. Local government has become visible as it has a calamity fund for relief operations. Local NGO's under the Pampanga Disaster Relief Network is quite active along with local civic groups like the Rotary, Cabalen, Kiwanis, SACOP. Media-related NGO's like the ABS-CBN Foundation and the GMA Foundation were notable agencies involved.

3. Disaster Preparedness

The Barangay was also seen as an active participant in disaster operations, particularly in early warning information, assistance in relief distribution and disaster-related planning and training. Next to local TV, the BDCC have been cited as a main source of information. The long experience of flooding has also made people aware of the evacuation areas and routes. However, available transport is what is common in the area. Evacuation areas are accessible for most people, although there were

instances of it being more than 2 km away. For most people, there is limited participation in BDCC activities and in disaster-related training and meetings.

The people's preparation for disaster has been limited. Their felt needs were limited to emergency supplies like radio, spare batteries, candles, first-aid kits. Food supply during typhoon and flooding period are second ranked. This may speak of the income status, that is, the poor have no food stock for longer periods.

4. Disaster Management

The people interviewed see the importance of training, disaster plan and other activities for disaster mitigation. However, it is noted that there was limited participation in these affairs. The common notion is safety is a foremost family concern and for the community disaster structure, it is the barangay who should assume such responsibility.

While the people agree to community-based disaster management, they are not amenable to their shouldering funds for its operation. Government is looked up to as the one with the responsibility, with its calamity fund. The people they cannot afford to contribute to the fund because they have no money. Nonetheless, volunteerism is seen as a key element for a community based-disaster program and such program should address how to ensure people's participation given the limited involvement shown by the study.

Annex - A

Questionnaires

**Questionnaire Survey Sheet
(Flood Disaster Mitigation Sector)**

THE STUDY ON THE PROGRAM FORMULATION IN DISASTER MITIGATION SECTOR
IN THE PHILLIPINES

**QUESTIONNAIRE SURVEY for ORGANIZATION
ON
THE DISASTER AWARENESS**

Sample No. _____

Respondent : _____ Date : _____ / _____ / _____
(Name of Respondent) Month Day Year

Name of Interviewer _____

Barangay : _____

City/Municipality : _____

Province : _____

SECTION I: GENERAL INFORMATION <personnel>

Q1 Sex: a. Male b. Female

Q2 Age:

Q3 Number of household members (dependents):

3-1 Household members in the same house including the respondent and those living together.

1 <u>Sex</u> (M/F)	2 <u>Age</u>	3 <u>Education</u> (Accomplished)	4 <u>Farming*</u> (Yes/No)	5 <u>Main</u> <u>Occupation</u>	6 <u>Present/ Absent**</u> (P/A)	7 <u>Relation***</u>
1.	_____	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____	_____

7. _____
8. _____
9. _____
10. _____

Notes: * Asking whether or not he/she engages in farming.
 ** "P" means he/she lives in the house throughout the year.
 "A" means he/she lives in other places more than three months in a year.
 *** Relation to the Respondent (wife, son/daughter, mother/father, etc.)

Code for education (3):

Code for occupation (5):

NE - No formal education

FA - Farmer

PS - Primary school

PO - Public official (specify) : _____

JH - Junior high school

SW - Salary worker (specify) : _____

SH - Senior high school

WW - Wage worker (specify) : _____

CO - College

PB - Private business (specify) : _____

UN - University

ST - Student

CH - Child (below school age)

PR - Pension receiver

NJ - No job (including house keeping)

Q4 Major income sources of the family

(Please indicate the annual income for each source, and then give us your order of importance: 1,2,3...with 1 being the highest)

Income Source	Annual Income (Peso) (A)	Importance (B)
1 Selling agricultural products (Specify: _____)		
2 Salary & wage from permanent job (Specify: _____)		
3 Remittance from family member		
4 Private business (Specify: _____)		
5 Others (Specify: _____)		

4-1 Total annual family income (in 2004)

a. Agricultural income (1) Peso / year

b. Off-farm income (2+3+4+5) Peso / year

If your answer is “Yes”, please answer the following questions.

- 10-1 When was it formulated?
- 102 Has it been updated?
- 10-3 How many times has it been revised?
- 10-4 How frequent is it revised?
- 10-5 What are the things considered when it was revised?
- 10-6 What are the things should be incorporated and/or changed?
- 10-7 Has it been informed to the public?
- 10-8 How is it informed to the public?

Q11 Did your organization prepare a Disaster Operation Manual?

- a. Yes
- b. No

If your answer is “Yes”, please answer the following questions.

- 11-1 When was it formulated?
- 11-2 Has it been updated?
- 11-3 How many times has it been revised?
- 11-4 How frequent is it revised?
- 11-5 What are the things considered when it was revised?
- 11-6 What are the things should be incorporated and/or changed?
- 11-7 Has it been informed to the public?
- 11-8 How is it informed to the public?

Q12 Do you think that everybody knows about the Disaster Preparedness Plan and Disaster Operation Manual?

- a. Yes
- b. No

Q13 Are there any active NGOs cooperating with your DCC in the field of disaster management?

- a. Yes
- b. No

SECTION II :DISASTER EXPERIENCES AND LESSONS <Organization>

Q14 What kind of disasters did your organization experience in the last 5 years, ...how many times it was for each disaster, ...and which one most affected (for most affected, please put circle in the appropriate box below)?

	Typhoon	Floods	Landslides	Drought	Volcano Eruption	Earthquake	Others ()	None
2004								
2003								
2002								
2001								
2000								
Most Affected								

Q15 How much is the total annual amount of damages by kind of disaster for the most recent year available?

	Typhoon	Floods	Landslides	Drought	Volcano Eruption	Earthquake	Others ()
Amount of Damage (1,000 peso)							

Q16 How many persons have been died/missing or injured, and how many houses have been destroyed or partially destroyed in the last 5 years?

	Number of Casualties		Number of Houses Destroyed/Damaged		
	Died/ Missing	Injured	Totally Destroyed	Partially Destroyed	Damaged
2004					
2003					
2002					
2001					
2000					

SECTION III: DISASTER PREPAREDNESS <Organization>

Q17 Did your organization identify the hazard-prone areas?

a. Yes b. No (Reasons): _____

If your answer is "Yes", please answer the following questions.

17-1 Did your organization inform the public of the hazard-prone areas?

17-2 How does your organization inform the public of the hazard-prone areas?

Q18 Did your organization establish official evacuation areas and routes?

- a. Yes b. No (Reasons): _____

If your answer is “Yes”, please answer the following questions.

18-1 Where are the official evacuation areas?

18-2 Please supply us a copy of a list and/or map of evacuation areas

18-3 Did your organization inform the public of the official evacuation areas and routes?

Q19 Which of the following does your organization prepare for disaster?

- a. Radio with batteries
- b. Candles and flashlights
- c. Spare batteries
- d. First-aid kit
- e. Stock of emergency food (for how many days: _____)
- f. Stock of emergency water (for how many days: _____)
- g. Others (Specify): (g-1) _____
(g-2) _____
- h. None

SECTION IV: DISASTER MANAGEMENT

Q20 What do you think would be needed to mitigate the natural disaster?

Q21 What do you think about the concepts of “Self-Prevention of Disaster” and/or “Community-based Disaster Management”?

Q22 Who do you think would be responsible for establishing the community disaster prevention structure?

Q23 The disaster prevention itself does not make any profit. What is your opinion about an idea to establish a “calamity fund” by setting aside a special budget for disaster prevention?

23-1 Do you agree to collect money from the residents to establish a such special community calamity fund?

- a. Yes (How much the maximum amount per gear): Peso _____
- b. No (Why?): _____

Q24 What do you comment on an idea to integrate the disaster prevention plan (or projects) into the LGU’s Development Plan with a view to materialize the projects or ensure the budget appropriation?

Q25 As for the community-based disaster management, there is an idea that it should be based on the principle of “low cost and free maintenance”. What is your opinion about this idea?

Thank you very much after your kind cooperation.

**Attachment-2 Questionnaire Survey Sheet
(Flood Disaster Mitigation Sector)**

THE STUDY ON THE PROGRAM FORMULATION IN DISASTER MITIGATION SECTOR
IN THE PHILLIPINES

**QUESTIONNAIRE SURVEY for RESIDENTS
ON
THE DISASTER AWARENESS**

Sample No. _____

Respondent : _____ Date : _____ / _____ / _____
(Name of Respondent) Month Day Year

Name of Interviewer _____

Barangay : _____

City/Municipality : _____

Province : _____

SECTION I: GENERAL INFORMATION <personnel>

Q1 Sex: a. Male b. Female

Q2 Age:

Q3 Number of household members (dependents):

3-1 Household members in the same house including the respondent and those living together.

1 Sex (M/F)	2 Age	3 Education (Accomplished)	4 Farming* (Yes/No)	5 Main Occupation	6 Present/ Absent** (P/A)	7 Relation***
1.	_____	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____	_____

7. _____
8. _____
9. _____
10. _____

Notes: * Asking whether or not he/she engages in farming.
 ** "P" means he/she lives in the house throughout the year.
 "A" means he/she lives in other places more than three months in a year.
 *** Relation to the Respondent (wife, son/daughter, mother/father, etc.)

Code for education (3):

Code for occupation (5):

NE - No formal education

FA - Farmer

PS - Primary school

PO - Public official (specify) : _____

JH - Junior high school

SW - Salary worker (specify) : _____

SH - Senior high school

WW - Wage worker (specify) : _____

CO - College

PB - Private business (specify) : _____

UN - University

ST - Student

CH - Child (below school age)

PR - Pension receiver

N J - No job (including house keeping)

Q4 Major income sources of the family

(Please indicate the annual income for each source, and then give us your order of importance: 1,2,3...)

Income Source	Annual Income (Peso) (A)	Importance (B)
1 Selling agricultural products (Specify: <u>Rice and Corn</u>)		
2 Salary & wage from permanent job (Specify: _____)		
3 Remittance from family member		
4 Private business (Specify: _____)		
5 Others (Specify: _____)		

4-1 Total annual family income (in 19)

- a. Agricultural income (1) Peso _____ / year
- b. Off-farm income (2+3+4+5) Peso _____ / year
- c. Total Income [a. + b.] Peso _____ / year

Q5 Location of your house where the family is living

- a. At the river side or creek
- b. Near the main road
- c. In the town center
- d. In the farm land area
- e. n the elevated area
- f. In the lowland area

SECTION II :DISASTER EXPERIENCES AND LESSONS <Personnel>

Q6 What kind of disasters did you ever experience in the last 15 years (1990~2004)?

- a. Typhoon
- b. Floods
- c. Debris flow (Lahar)
- d. Landslides
- e. Volcano Eruption
- f. Drought
- g. Gale
- h. Earthquake
- i. Others (Specify): _____

6-1 Among the disasters mentioned above, which one affected you the most? (Please mention in the order of disastrous degree in the box below).

1	2	3	4	5	6	7	8

Q7 Number of the times of disaster experiences of the family in the last 15 years (1990~2004)

- a. Typhoon: _____ times
- b. Floods: _____ times
- c. Debris flow: _____ times
- d. Landslides: _____ times
- e. Eruption of volcano: _____ times
- f. Drought: _____ times
- g. Gale: _____ times
- h. Earthquake: _____ times
- i. Others (Specify): _____ times

7-1 As for the floods that caused you the most serious damages in the past, please mention its circumstances.

- a. Flooding period: _____ days
- b. Peak depth from the floor level of your house: _____ cm

7-2 Are there any lands and/or estates which are still covered by the debris flow or pyroclastic flow (lahar)?

- a. Specify its item: _____
- b. Occurrence (Year & Month): _____ (Year) _____ (Month)

Q8 Calamities and casualties of your family in the last 15 years (1990~2004)

- a. House totally destroyed (Times: _____)
- b. Hose partially destroyed (Times: _____)
- c. Flooded above the floor level (Times: _____)
(Specify its highest height: _____ cm)
- d. Flooded below the floor level (Times: _____)
- e. Crops and livestock totally lost (Specify: _____)
- f. Crops and livestock partially lost (Specify: _____)
- g. Family members died: (Number: _____)
- h. Family members injured: (Number: _____)
- i. Others (specify): _____

Q9 Do you have something in your mind that you should have done at the time of the disaster?

a. Yes (What?): _____

b. No (Why?): _____

9-1 Having experienced the last disaster, do you think you will have the same damages if it happens again?

a. Yes (What?): _____

b. No (Why?): _____

9-2 Are there any changes in your daily life which made your move prepared for disaster?

a. Yes (What?): _____

b. No (Why?): _____

9-3 Did you talk with your family members about preparation for future disaster?

a. Yes b. No

9-4 If "Yes", how does your family prepare for future disaster?

9-5 What are the lessons from the last disaster?

9-6 Do you talk with neighbors about preparation for future disaster?

a. Yes (What?): _____

b. No (Why?): _____

Q10 Knowledge of the alert signals and warning information

10-1 Do you know about the alert signals

a. Yes, completely

b. Yes, but partially

c. Yes, but I don't care so much

d. Others (Specify): _____

e. No

10-2 Typhoon warning signals given by PAGASA

a. Yes, completely

b. Yes, but partially

c. Yes, but I don't care so much

d. Others (Specify): _____

e. No

Q11 Assistance received in the past disasters (1990~2004), especially during evacuation period (*most serious only*)

11-1 Flood/potable water

a. Kind of disaster (year): _____ (199__)

b. Assisted period (No. of days): _____ - _____ days
(Month/Year) (Monty/Year)

c. Assisting institutions: _____

d. Contents: _____

e. Problems/Constraints: _____

11-2 Shelter/housing materials

- a. Kind of disaster (year): _____ (199__)
- b. Assisted period (No. of days): _____ - _____ days
(Month/Year) (Monty/Year)
- c. Assisting institutions: _____
- d. Contents: _____
- e. Problems/Constraints: _____

11-3 Assistance in cash

- a. Kind of disaster (year): _____ (199__)
- b. Assisted period (No. of days): _____ - _____ days
(Month/Year) (Monty/Year)
- c. Assisting institutions: _____
- d. Contents: _____
- e. Problems/Constraints: _____

11-4 Income generation/job creation

11-5 Medical services/education/other assistance

- a. Kind of disaster (year): _____ (199__)
- b. Assisted period (No. of days): _____ - _____ days
(Month/Year) (Monty/Year)
- c. Assisting institutions: _____
- d. Contents: _____
- e. Problems/Constraints: _____

11-6 Others (Specify): _____

a. Kind of disaster (year): _____ (199__)

b. Assisted period (No. of days): _____ - _____ days
(Month/Year) (Monty/Year)

c. Assisting institutions: _____

d. Contents: _____

e. Problems/Constraints: _____

Q12 Which of the above assistance do you appreciate the most? (Please put in the order of importance)

1	2	3	4	5	6

(19-1~19-6)

Q13 Questions to those who resettled in the shelters provided by the LGUs

13-1 Did you meet any difficulties or problems during the stay in the shelter?

a. Yes (What?): _____

b. No (Why?): _____

13-2 Do you think it was good for you that you have moved to that shelter?

a. Yes (What?): _____

b. No (Why?): _____

Q14 Does a barangay disaster coordinating council (BDCC) is organized in your barangay?

a. Yes b. No

If your answer is "Yes", please answer the following questions.

14-1 Do you know the chairman of BDCC in your barangay and who it is?

- a. Yes (Name): _____
- b. No

14-2 Do you know the roles of BDCC in your barangay?

- a. Yes (Roles): _____
- b. No (Reasons): _____

14-3 Do you know the main activities of BDCC in your barangay?

- a. Yes (Activities): _____
- b. No (Reasons): _____

14-4 Do you know that BDCC has an "Operation Manual" of the Barangay Disaster Preparedness Plan for your barangay?

- a. Yes
- b. No (Reasons): _____

14-5 Do you think that BDCC in your barangay is functioning well?

- a. Yes
- b. No (Reasons): _____

Q15 Do you know any NGO's activities in the field of disaster management in your barangay?

- a. Yes b. No

15-1 If your answer is "Yes", please mention the names and activities.

- a. Name: _____
- a-1 Activities: _____
- b. Name: _____
- b-1 Activities: _____

Q16 Do you think that your barangay captain is always active or on duty during disaster and emergencies?

- a. Yes
- b. No (Reasons): _____

Q17 What do you expect your barangay officials for disaster mitigation?

- a. Early warning (timely and accurate information) to impending disaster and emergency case
- b. Proper instruction for disaster preparedness
- c. Mobilization of the staff in charge of disaster mitigation
- d. Supporting services for evacuation (ex. transportation means)
- e. Others (Specify): (e-1) _____
(e-2) _____
(e-3) _____

17-1 Please prioritize in the order of importance.

1	2	3	4	5	6	7

Q18 Did you ever receive warning on impending occurrences such as eruption/explosion of the volcano, typhoon and floods from your barangay officers?

- a. Yes (Times in last 5 years): _____ times
- b. No (Reasons): _____

Q19 Do you follow the advices of the barangay officers such as warnings and other safety measures?

- a. Yes (Contents of advices): _____
- b. No (Reasons): _____

Q20 Did you know the flood-prone areas and official evacuation areas in your barangay?

- a. Yes (Specify the area): _____
- b. No (Reasons): _____

Q21 Did you participate in any awareness promotion campaign and disaster preparedness training organized by BDCC in the last 5 years (1999~2004)?

- a. Yes b. No

21-1 If your answer is "Yes", how often it was organized?

- a. Once
- b. Twice
- c. More than three times
- d. None
- e. Others (Specify): _____

Q22 Did you satisfy with that campaign and training menu?

- a. Yes b. No

22-1 For the both answers, please give us its menu.

- a. _____
- b. _____
- c. _____

SECTION III: DISASTER PREPAREDNESS <Personnel>

Q23 How do you usually learn of an occurrence of disasters?

23-1 Eruption of the volcano

- a. Watching the TV
- b. Listening to the radio
- c. Hearing from neighbors
- d. Hearing from the Barangay office
- e. Others (Specify): _____

Please put in the order of reliability

1	2	3	4	5	6	7

23-2 Typhoon

- a. Watching the TV
- b. Listening to the radio
- c. Hearing from neighbors
- d. Hearing from the Barangay office
- e. Others (Specify): _____

Please put in the order of reliability

1	2	3	4	5	6	7

23-3 Flood and debris flow

- a. Watching the TV
- b. Listening to the radio
- c. Hearing from neighbors
- d. Hearing from the Barangay office
- e. Others (Specify): _____

Please put in the order of reliability

1	2	3	4	5	6	7

Q24 Do you have any of the following in your house?

- a. TV
- b. Battery operated radio
- c. Electric-powered radio
- d. Telephone
- e. Walky-talky (wireless telephone)
- f. Others (Specify): _____
- g. None

Q25 Is the alert and warning information is easier to understand for you?

- a. Yes
- b. No (Reasons): _____

25-1 How do you rate the existing information system?

	①TV	②Radio	③BDCC Information
a. Easy to understand	_____	_____	_____
b. Detailed enough to take the subsequent action	_____	_____	_____
c. Very helpful to prepare against the disaster	_____	_____	_____
d. Not so helpful to prepare against the disaster	_____	_____	_____
e. Difficult to understand	_____	_____	_____
f. Too rough to take proper action	_____	_____	_____
g. Others (Comments):	_____	_____	_____

Note: Put a mark ○ in the correspondent column.

25-2 How do you know the critical areas or dangerous places in your barangay?
(You may choose more than one)

- a. Information from the barangay office
- b. Watching the geographical features of the place
- c. Judging from the own past experiences
- d. Hearing from neighbors
- e. Don't know any dangerous places
- d. Others (Specify): _____

Q26 Have you identified safe places for evacuation in your neighborhood at the time of disaster?

- a. Yes
- b. No

26-1 If you know, how did you get that information?

- a. Information from the barangay office
- b. Watching the geographical features of the place
- c. Judging from the own past experiences
- d. Hearing from neighbors
- e. Others (Specify): _____

26-2 Do you know the official evacuation place and evacuation route designated by the barangay office?

- a. Yes
- b. No

26-3 Through whom do you know about it?

- a. Barangay officers
- b. Neighbors
- c. City/Municipality and Provincial Officers
- d. Own past experiences of disasters
- e. Line government officers
- f. NGOs
- g. Others (Specify): _____

26-4 Do you intend to follow the instructions/suggestions of the barangay office?

a. Yes (Reasons): _____

b. No (Reasons): _____

Q27 Have you confirmed yourself the evacuation route to the safe place?

a. Yes b. No (Reasons): _____

27-1 If your answer is "Yes", please give us the designated place.

a. School b. Church c. Barangay Hall
d. Others (Specify): _____

27-2 How far is the evacuation area from your house?

km

27-3 For evacuation, what kind of transportation means do you have a mind to use?

a. Tricycle b. Bicycle c. Car/Jeap
d. Motorbike e. Foot f. Truck
g. Others (Specify): _____

Q28 What kind of seminars or drills have you or your family members ever participated in over last five (5) years (1999~2004)?

a. Seminar on how to prepare for disasters like eruption of the volcano, typhoon and flood & debris flows, and how to cope with them and evacuate to safe place.

a-1 _____ times over last five (5) years

b. Seminar on functions and operations of the Barangay Disaster Coordinating Council or other agencies related to disaster prevention and mitigation

b-1 _____ times over last five (5) years

c. Seminar on how to understand the meaning of alert and warning signals of the volcano eruption, and typhoon and flood warnings

c-1 _____ times over last five (5) years

d. Seminar on the past serious disasters (volcano eruption, typhoon, floods, etc.) in the area with some lessons to service.

d-1 _____ times over last five (5) years

e. Evacuation drills conducted by Barangay Disaster Coordinating Council or other government agencies

e-1 _____ times over last five (5) years

**Q29 Which of the following do you have in your home preparing for a disaster?
(You may choose more than one.)**

a. Stock of emergency food for _____ days

b. Stock of water for _____ days

c. Radio with batteries

d. Candles or flashlight

e. Spare batteries

f. First-aid kit

g. Others (Specify): (g-1) _____

(g-2) _____

h. None

SECTION IV: DISASTER MANAGEMENT

Q30 What do you think would be needed to mitigate the natural disaster?

Q31 What do you think about the concepts of “Self-Prevention of Disaster” and/or “Community-based Disaster Management”?

Q32 Who do you think would be responsible for establishing the community disaster prevention structure?

Q33 The disaster prevention itself does not make any profit. What is your opinion about an idea to establish a “calamity fund” by setting aside a special budget for disaster prevention?

33-1 Do you agree to collect money from the residents to establish a such special community calamity fund?

- a. Yes (How much the maximum amount per gear): Peso _____
- b. No (Why?): _____

Q34 What do you comment on an idea to integrate the disaster prevention plan (or projects) into the LGU’s Development Plan with a view to materialize the projects or ensure the budget appropriation?

Q35 As for the community-based disaster management, there is an idea that it should be based on the principle of “low cost and free maintenance”. What is your opinion about this idea?

Thank you very much after your kind cooperation.

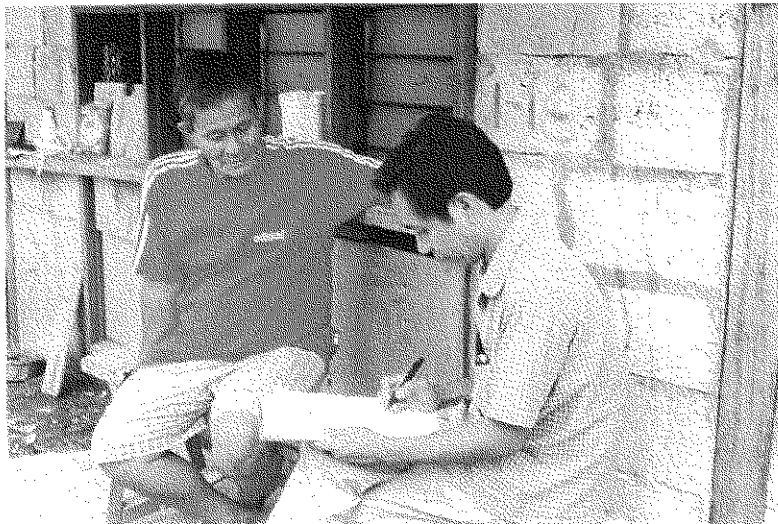
Annex - B

Photos

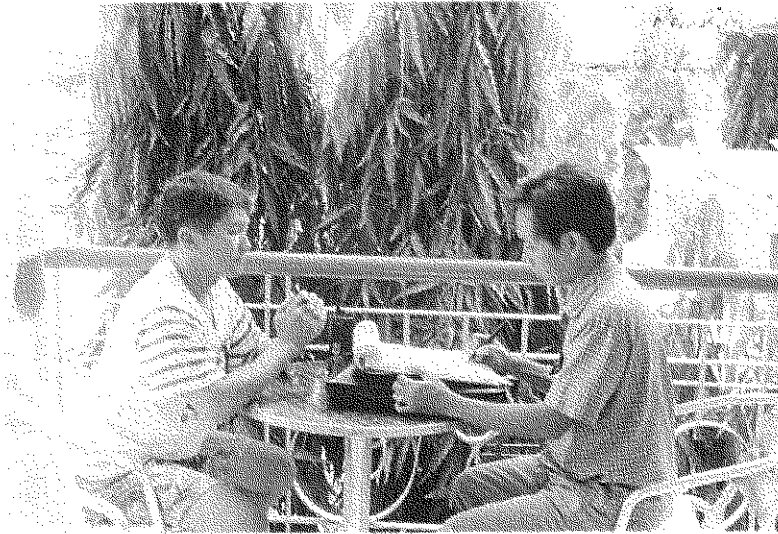
Photo Documentation of Disaster Survey



Minalin, MDCC Office



Brgy. Sto Rosario Pau, Sto. Tomas BDCC



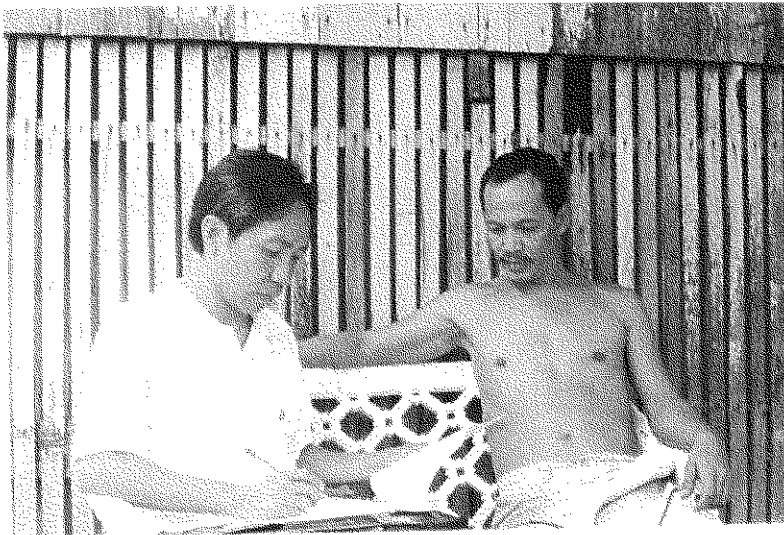
Minalin, Bgy San Nicolas, MDCC



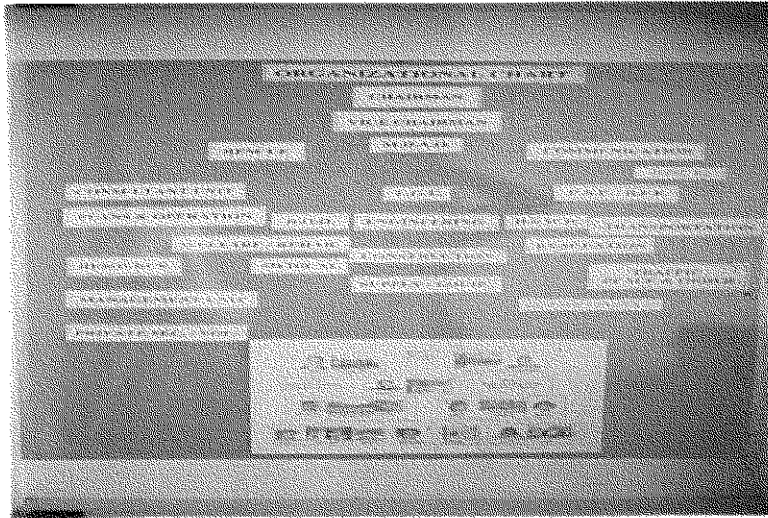
City of San Fernando, Brgy. Sta. Lucia BDCC



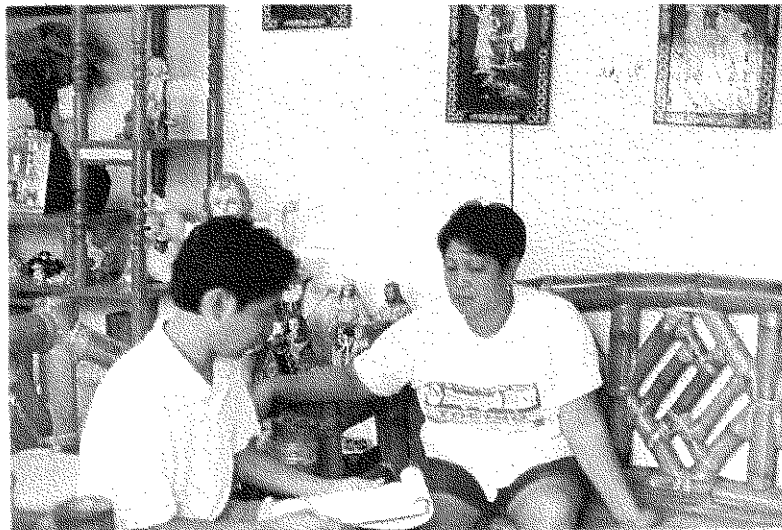
Brgy. Sto. Tomas, Sasmuan Household



Brgy. Sto. Cristo, Guagua Household



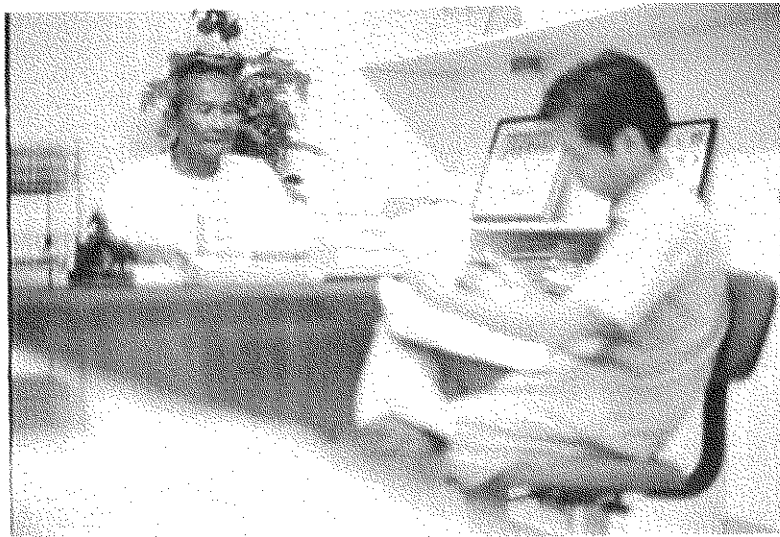
Minalin; MDCC Structure



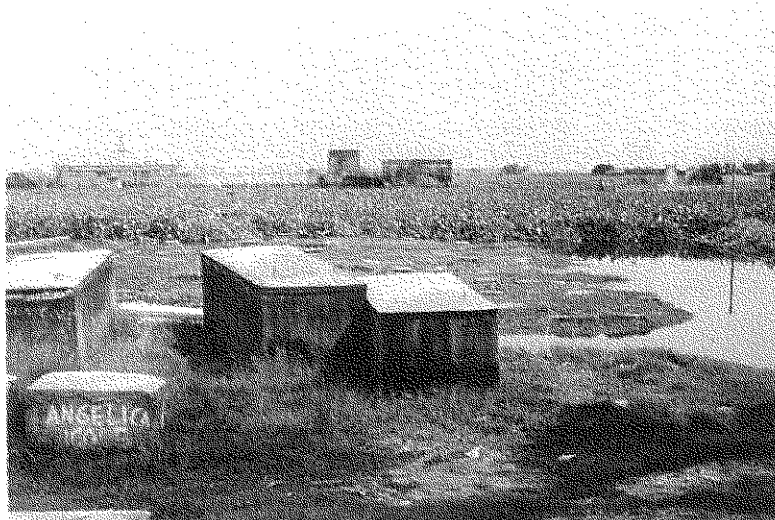
Brgy. Sta. Lucia, San Fernando Household



Brgy. San Agustin Household and BDCC



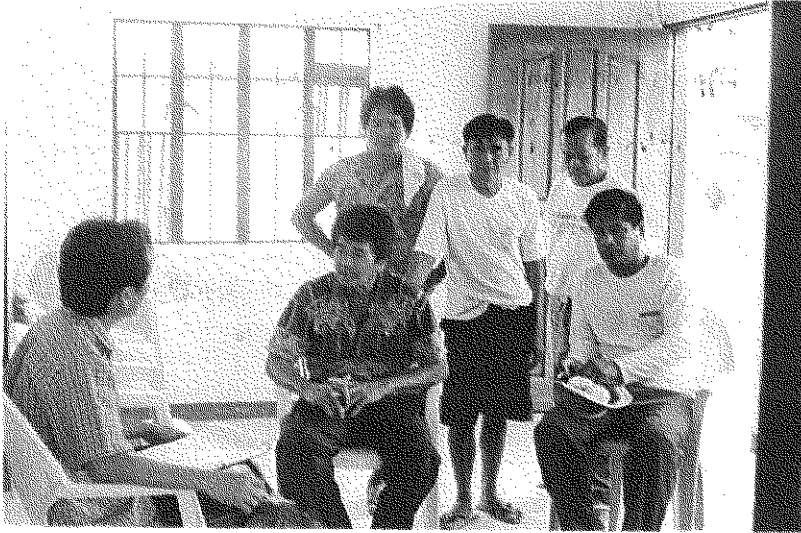
Brgy. San Nicolas, Poblacion, Minalin BDCC



Sto. Tomas Flood-Prone Area



Brgy. Sto. Rosario, Sto. Tomas Pao Flood-Prone Area



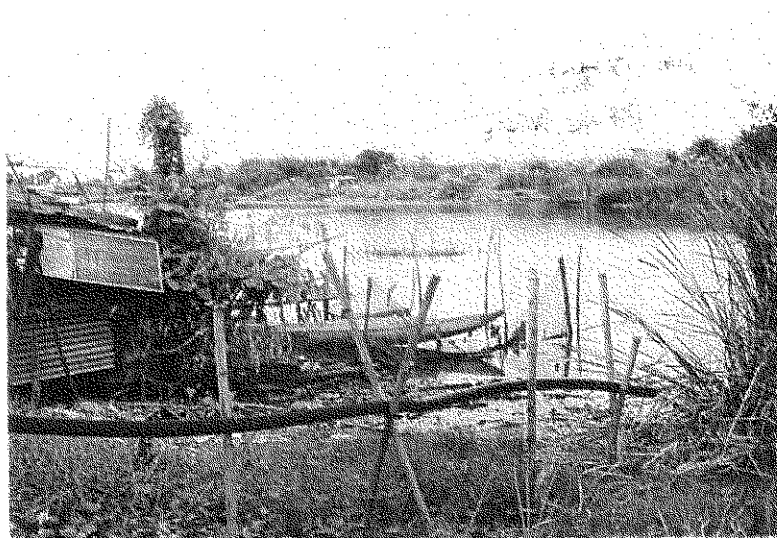
Brgy. San Agustin BDCC Office



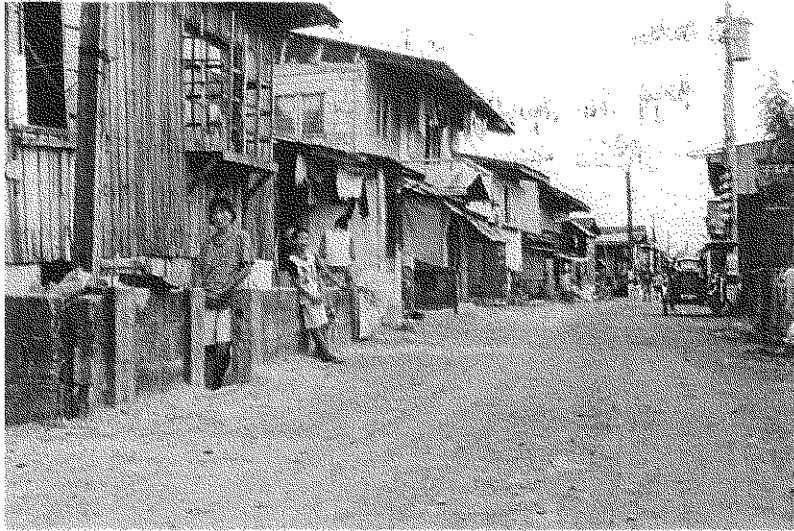
Sto. Tomas Flood-Prone Area



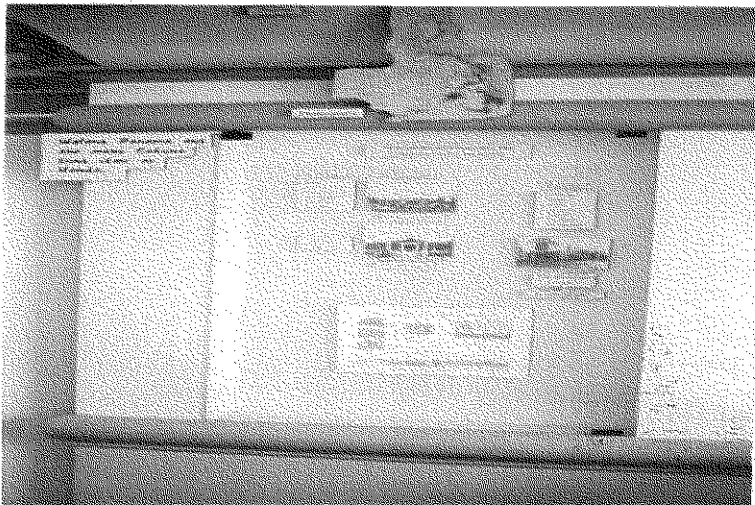
Sasmuan



Sto. Tomas, Sasmuan Flood-Prone Area



Brgy. Sto. Tomas, Sasmuan Flood-Prone Area (Household)



Minalin MDCC Office

Annex - C

List of Respondents

The Study on Program Formulation on Disaster Management Sector in the Philippines
Flood Disaster Mitigation Sector

	Office	Interview/ Visit Date	Respondent Name
1	DPWH Planning Service	05-Oct-04	Orlando Casio
2	DPWH PMO MFC Cluster I	05-Oct-04	Mario Navarro, Proj. Mgr II
3	DPWH PMO MFC Cluster II	05-Oct-04	Rey Marfiga
4	DPWH FCSEC	08-Oct-04	Engr. Jerry A. Fano
	DPWH NCR	05-Oct-04	Engr Carla Bartolo
5	DPWH Region III	06-Oct-04	Engr. Irma Talens
6	DPWH Mt. Pinatubo PMO	07-Oct-04	Engr. Thomas Edison Olalia
7	Metro Manila Development Authority	07-Oct-04	Engr. Melgar / Rimano
8	PAGASA - Flood Forecast Bureau	07-Oct-04	Dir. Rosa Perez
9	PAGASA - Natural Disaster Mitigation Bureau	07-Oct-04	Rolly Encarnacion
10	PAGASA - Pamp River Flood Forecasting Ctr	07-Oct-04	Armando Taruc
11	PHIVOLCS	06-Oct-04	Dr. Arturo S. Daag
12	NEDA - Infrastructure Staff	07-Oct-04	Robert C. Domingo
13	NEDA - Region III	07-Oct-04	Consuelo Tessa M. Sibal
14	DSWD - Program Mgt Bureau	08-Oct-04	Rey E. Martija
15	DSWD - Social Welfare Institutional Devt Bureau	06-Oct-04	Nancy Fortes
16	DILG-Local Government Academy	08-Oct-04	Jose Gonzalo P. Abilay III
	DND - Plans and Programs Division		
17	Nat'l Disaster Coordinating Council Secretariat	07-Oct-04	Edgardo Ollet
18	OCD - Regional Disaster Operation Center	07-Oct-04	Neri Amparo
19	OCD - Communication and Warning Division	10//2004	Susana M. Cruz/Agnes Palacio
20	OCD - Region III	07-Oct-04	Nelia S. Tabliago
21	Metro Manila Disaster Coordinating Council	07-Oct-04	Mrs. M. Serion
	National Disaster Management Center		
	Non-Government Organization (NGO)		
	International Institute for Rural Reconstruction		
	IANDR Inter-Agency Network for Disaster		
22	CARE Philippines	08-Oct-04	Monette Igoy
23	Citizen's Disaster Response Center	06-Oct-04	Rolando Libang
	Council for Peoples Development		
24	Philippine National Red Cross	05-Oct-04	Emmeline U. Managbanag
	Phil. Rural Reconstruction Mov't		
25	Social Action Center (Pampanga)		Rowena Binuya
	Luzon Secretariat for Social Action		
26	Philippine Business for Social Progress	05-Oct-04	Jerome Montemayor
	Academe		
	UP National Hydraulic Research	06-Oct-04	Dr. Leonardo Liongson
27	Mapua Institute of Technology	05-Oct-04	Dolly Arciaga
28	De La Salle University	06-Oct-04	Dionisio D. Escarez
	Regional Disaster Coordinating Council		
	National Capital Region		
29	Region III	07-Oct-04	Supt. Abelardo Villacorta
	Provincial Disaster Coordinating Council		
30	Pampanga	07-Oct-04	Engr. Armando S. Austria
	Municipal Disaster Coordinating Council (9)		
31	Sasmuan	06-Oct-04	Danilo Torres
32	Minalin	05-Oct-04	Freddie Manalili
33	Masantol	11-Oct-04	Engr. Jaime C. Ducut
34	Macabebe	09-Oct-04	Engr. Nemesio Benoza
35	Guagua	06-Oct-04	Isaias M. Panganiban, Jr.

	Office	Interview/ Visit Date	Respondent Name
36	Lubao	06-Oct-04	Engr. J. Waje
37	San Fernando	06-Oct-04	Engr. Ferdinand Z. Caylao
38	Candaba	07-Oct-04	Leny Torres
39	Santo Tomas	05-Oct-04	Engr. Reynaldo Ingal
	Brgy Disaster Coordinating Council (10)		
40	Brgy. Sto. Tomas, Sasmuan	06-Oct-04	Ferdinand Pantig Sr.
41	Brgy. Sto. Rosario Pau, Sto. Tomas	05-Oct-04	Jesus S. Catacutan
42	Brgy. Sn. Nicolas Poblacion, Minalin	05-Oct-04	Cesar Magat
43	Brgy. Sto. Cristo, Guagua	06-Oct-04	Elfonso Aurello
44	Brgy. Sta Lucia, San Fernando	06-Oct-04	Bener Aldana
45	Brgy. San Agustin, Candaba	07-Oct-04	Rudy DeLa Peña
46	Brgy. San Isidro, Lubao	08-Oct-04	Manny Santos
47	Brgy. Caduang Tete, Macabebe	09-Oct-04	Joel Simpauco
48	Brgy. San Agustin, Masantol	11-Oct-04	Jose Viray
49	Brgy. San Pedro, Sasmuan	14-Oct-04	Alex Lagman
	Selected Households (21)		
50	Brgy. Sto. Rosario Pau, Sto. Tomas	05-Oct-04	Angelina B. Figaroa
51	Brgy. San Vicente, Sto. Tomas	05-Oct-04	Fernando Alonzo
52	Brgy. Sn. Nicolas Poblacion, Minalin	05-Oct-04	Juvita Rabaria
53	Brgy. San Francisco 1, Minalin	05-Oct-04	Jab Manansala
54	Brgy. San Francisco 2, Minalin	05-Oct-04	Rogelio Magtoto
55	Brgy. Sto. Cristo, Guagua	05-Oct-04	Reynaldo Palma
56	Brgy. Sto Tomas, Sasmuan	14-Oct-04	Carmencita Vinlas
57	Brgy. Sta Lucia, San Fernando	06-Oct-04	Gloria A. Monteroza
58	Brgy. Maimpis, San Fernando	06-Oct-04	Edgar De Guzman
59	Brgy. San Agustin, Candaba	06-Oct-04	Ismael Lulu
60	Brgy. San Agustin, Candaba	07-Oct-04	Ramon Santos
61	Brgy. San Agustin, Candaba	07-Oct-04	Gregorio de la Peña
62	Brgy. Prado Siongco, Lubao	08-Oct-04	Rizaldo M. Lacsina
63	Brgy. Prado Siongco, Lubao	08-Oct-04	Bernardo R. Sica
64	Brgy. Prado Siongco, Lubao	08-Oct-04	Nestor N. Salazar
65	Brgy. San Nicolas 1, Lubao	08-Oct-04	Evelyn Bolante
66	Brgy. San Nicolas, Masantol	12-Oct-04	Andres Lacap
67	Brgy. Cadwang Tete, Macabebe	09-Oct-04	Adriano Navarro
68	Brgy. Santo Tomas, Sasmuan	14-Oct-04	Bobot Arce
69	Brgy. Sua, Masantol	11-Oct-04	Joel Villamor
70	Brgy. San Agustin, Masantol	15-Oct-04	Marcelo Usi

Not interviewed