

付属書

- AT-1 Report on 1st PCM (Project Cycle Management) Workshop for the Study on Comprehensive Disaster Prevention around Mayon Volcano
- AT-2 The Record of a Seminar on Overview of Remote Sensing and GIS Technology and its Application to Mt. Mayon Project
- AT-3 Seminar on Disaster Prevention around Mayon Volcano
- AT-4 Seminars on Trench Excavation Works at the Sites of Cagsawa and Sto. Domingo
- AT-5 Report on the 1st Technology Transfer Seminar of the Study on Comprehensive Disaster Prevention around Mayon Volcano
- AT-6 Second PCM Workshop – Resettlement Site and Livelihood Development
- AT-7 Proceedings of the First Workshop of the Pilot Project (Part 1)
- AT-8 Implementation of Pilot Project in Forecasting, Warning and Evacuation
- AT-9 Workshop for Pilot Project Implementation (Part 2)
- AT-10 Report on the 2nd Technology Transfer Seminar of the Study on Comprehensive Disaster Prevention around Mayon Volcano
- AT-11 Workshops for the Second Pilot Project

Report
on
1st PCM (Project Cycle Management) Workshop
for
the Study on Comprehensive Disaster Prevention
around
Mayon Volcano

1. Introduction

The 1st PCM (Project Cycle Management) Workshop was held on October 15-16, 1998, in Legazpi city (see Annex-1 for the workshop schedule). There were 32 Philippine participants from the following organizations (see Annex-2 for the list of participants):

- Government Agencies (9 GAs with 16 participants)
- Local Government Units (11 LGUs with 14 participants)
- Non-Government Organizations (2 NGOs with 2 participants)

At the beginning of the Workshop, the following objectives were shared with the participants:

- To come up with a common understanding of problems regarding disaster prevention around Mayon Volcano; and
- To understand the PCM Methodology and its processes as part of technology transfer component of the Study.

The following points were also emphasized:

- This is the first in the series of the PCM Workshops in the course of the Study;
- It is expected that the same participants will attend a series of workshops to ensure continuity of the learning process; and
- The outputs of the 1st Workshop will be considered by the Study Team in formulating the Master Plan and selecting the priority projects.

2. Proceedings

Participation Analysis

Through the participation analysis, 28 agencies and institutions were identified as those involving in disaster management (see Annex-3 for the Results of “Participation Analysis”). The tasks of the identified agencies and institutions were divided into such five steps of the “Disaster Management Cycle” as prevention, mitigation, preparedness, response and recovery.

Problem Analysis

The following core problem statements were pointed out by the participants:

- Participatory disaster management program around Mayon Volcano has not been realized.
- Current disaster management program around Mayon Volcano is not holistic.
- Current disaster management program around Mayon Volcano is not comprehensive.
- Low effectiveness of disaster management program around Mayon Volcano.
- Provision of disaster management services is not comprehensive nor integrated.
- Disaster management around Mayon Volcano is not institutionalized.
- Inadequate disaster management program and projects around Mayon Volcano.

The participants agreed to have “Inadequate disaster management program and projects around Mayon Volcano” as the “Core Problem”. The participants were then divided into three groups to further analyze problems concerning “Disaster Prevention and Mitigation”, “Response”, and “Recovery” (see Annex-4 for the groupings, and Annex-5 for the results of “Problem Analysis”).

Objective Analysis

Based upon the result of “Problem Analysis”, the participants were requested to transform the “problem trees” into “objective trees” (see Annex-6 for the results of “Objective Analysis”). In doing so, the Vicious Circle of Vulnerability and Hazard contained in the Inception Report (see Figure 2.1 in Inception Report, page 2-6), to encourage the participants to consider both direct (i.e., hazards, and vulnerability) and indirect factors (i.e., livelihood, and environmental issues) in causing disasters.

3. Conclusions

The following major conclusions can be drawn from the above analyses’ results.

- The participation analysis enabled the participants define the tasks and functions of each agency and specify the focus of the programs and services in relation to the disaster management cycle.
- The results of the participation analysis also provided information to the Study Team on what agencies/ institutions are to be involved and their extent of involvement in specific areas to be covered by the Master Plan preparation. The importance of the roles of the Local Government Units (LGUs) and private sector in disaster management was also emphasized in the discussion.
- Likewise, it was observed that the participation analysis only covered the institutions that are involved in disaster management. The role of the community on this aspect was not defined nor discussed by the participants. To ensure the involvement of the community on this regard, it is important that their representatives will be included in the next workshop. As part of the

efforts to involve the community in the planning process, the JICA Study Team will conduct the “Participatory Rural Appraisal Surveys on the Calamities and Casualties by Flood and Debris Flow” and the “Disaster Awareness and Preparedness including Evacuation” during the course of the Study. These surveys will enable the residents share their experiences, comments and suggestions on disaster management-related activities around Mayon Volcano.

- The problem analysis also established the interrelationship among the problems identified by the participants. It specified areas where strengthening efforts will be needed to come up with an effective disaster management plan.

4. Evaluation by Participants

At the end of the 2nd day, the participants were requested to fill in an evaluation sheet. The following is the synopsis of the results of the participants’ evaluations.

Item	1. Experience in Similar Workshop ?	2. Overall Rating ?	3. Most Interesting Part of PCM Method ?	4. Useful Aspect (s) of Workshop ?	5. Useful for Your Work ?
Result	Yes 9 - 1-3 times 4 - 4-6 times 2 - 6 – times 3 No 18	Excellent 6 Very Good 20 Fairly Good 1 Not So Good 0	PCM approach itself 20 Participation Analysis 1 Problems Analysis 8 Objective Analysis 7 Other 1	Consensus building 14 Exchange of Ideas 21 Understanding of Situation 18 Others 0	Yes 23 No 4

Although most of the respondents (18 participants) attended this type of workshop for the first time (item 1), the overall rating of the participants is positive (item 2). According to the item 5, most of respondents (18 participants) considered this type of workshop would be useful for their work. The following are additional feedback obtained through the participants’ evaluation:

- (in relation to item 2) Most of the participants attributed their favorable rating to ① learning the PCM method (11 participants), and ② opportunities for various agencies to undertake joint discussions (10 participants).
- Nearly half of the respondents (12 participants) suggested to invite additional agencies/ groups, in the 2nd and 3rd Workshops, i.e., representatives from local communities (6 participants), other public sector agencies (5 participants).
- At the same time, suggestions were made (8 respondents) to ensure continuity in the 2nd and 3rd Workshops, further refining the results of the problem/ objective analyses, inviting the same participants as 1st Workshop.

5. Technology Transfer

The workshop constitutes a part of the technology transfer plan of the Study; it is expected to

provide opportunities for the participants to enhance their knowledge and awareness both on disaster management and PCM method. In order to quantify the effectiveness of the workshop in technology transfer, each participant was requested to fill in the Questionnaire and Evaluation Sheet.

As for “Summary of Questionnaire Results”, please refer to Annex-7 : Questionnaire Results.

6. Closing Remarks by Mr. Orlando B. Roces, Director, DPWH Region-V

During the closing ceremony, Mr. Orlando B. Roces, Director of DPWH Region-V, appreciated the workshop participants’ strong interest in JICA Study. In view of the financial difficulties of the GOP, Mr. Roces expressed his hope for the Japanese government to respond to such local enthusiasm by securing funding for implementation of the projects/ programs proposed in Master Plan. In this context, it was also emphasized that the proposed projects/ programs should be viable and sustainable so that the donor countries and/or international financing institutions could favorably consider financial and technical assistance for their implementation.

7. Issues to be Considered in Organizing Next Workshop

The 2nd workshop is scheduled in August 1999, at the beginning of the Phase-II. The following are the points to be considered for the next occasion.

- The 1st workshop focused on what external support (governmental and non-governmental) can be provided. While this meets the purpose of the 1st workshop, as Mr. Sato, the Study Team Leader, emphasized in his concluding remarks, the 2nd workshop should focus more on circumstances surrounding local communities. The Study Team would be able to share the results of social surveys, in time for 2nd workshop. As proposed by some participants, people’s representatives could be invited as resource persons.
- The JICA Study Team members attended the workshop basically as observers. Several participants expressed their hope for more active interactions with the JICA consultants. In fact, the Evacuation Expert helped Group 2 in their problem analysis, imparting her knowledge on disaster mitigation and preparedness. For the 2nd workshop, the Team members may as well be actively involved by sharing the results of the Phase-I surveys.

Annex-1

Workshop Schedule

day	time	proceedings
Day 1	8:00 a.m.	(start of registration)
	9:15 a.m.	Opening Remarks by DPWH Assistant Director (Region V) JICA Study Team Leader, & Albay Provincial Governor's Representative
	9:30 a.m.	Scope of Work for JICA Study (by JICA Study Deputy Leader)
	10:00 a.m.	Introduction of Participants
	(10:15 a.m.)	(Coffee Break)
	10:30 a.m.	Lecture on PCM Method
	10:50 a.m.	Participation Analysis
	(12:00 p.m.)	(Lunch Break)
	1:00 p.m.	Lecture on Problem Analysis
	1:10 p.m.	Plenary Work on Problem Analysis
	(3:15 p.m.)	(Coffee Break)
	3:30 p.m.	Group Work on Problem Analysis
	5:00 p.m.	Conclusion
Day 2	8:00 a.m.	(start of registration)
	9:00 a.m.	Review of Day 1 Results
	9:10 a.m.	Plenary Discussion on Group Work Results
	10:10 a.m.	Lecture on Objective Analysis
	(10:20 a.m.)	(Coffee Break)
	10:30 a.m.	Group Work on Objective Analysis
	11:20 a.m.	Plenary Discussion on Group Work Results
	11:50 a.m.	Conclusion
	(12:00 p.m.)	(Lunch)
	1:00 p.m.	Closing Ceremony - Remarks by DSWD Director (Region V), DPWH Assistant Director (Region V) & JICA Study Team Leader - Certificate Distribution

Annex-2**List of Participants**

<u>Name</u>	<u>Designation</u>	<u>Office</u>
1. Government Organizations (Gos)	(16)	
1.1 Jesus R. Villareal	LGOO V	Department of Interior and Local Government (DILG)
1.2 Eduardo P. Laguerta	Sr. Science Research Specialist Resident Volcanologist	Philippine Institute of Volcanology and Seismology (PHIVOLCS)
1.3 Alex Baloloy	Science Research Assistant	PHIVOLCS
1.4 Consolacion P. Arafiles	Regional Director	Department of Social Welfare and Development (DSWD)
1.5 Milagros P. Orticio	Social Welfare Officer IV	Department of Social Welfare and Development (DSWD)
1.6 Ms. Julie Cristina T. Lorbes	Trade and Industry Specialist	Department of Trade and Industry (DTI)
1.7 Frank Vergara	Forester III	Department of Environment and Natural Resources (DENR)
1.8 Alexander S. Mandac	CDO II	Office of Civil Defense, Department of National Defense (OCD-DND)
1.9 Victor Ubaldo	CEDS	National Economic Development Authority (NEDA)
1.10 Cristeta E. Mesias	Engineer A	National Irrigation Administration (NIA)
1.11 Efren L. Mendoza	Engineer III	Department of Public Works and Highways (DPWH)
1.12 Vicente A. Miraballes	Engineer III	DPWH
1.13 Dexter Atutubo	Engineer III	DPWH
1.14 Constantino Antimano	Engineer II	DPWH
1.15 Mendibel N. Sanosa	Engineer II	DPWH
1.16 Orlando M. Casio	Engineer III	DPWH-Manila

2. Non-Government Organizations (NGOs) (2)

2.17	Allan H. Maquiniana	DS-DMS	Philippine National Red Cross (PNRC)
2.18	Cynthia C. Oreste	Assistant Director	Bicol Small Business Institute Foundation, Inc. (BSBI)

3. Local Government Units (LGUs) (14)

3.19	Randolph A. Base	Social Welfare Assistant	Municipality of Camalig
3.20	Roberto L. Magayanes	Municipal Engineer	Municipality of Daraga
3.21	Mariano L. Garcia	Municipal Environment and Natural Resources Officer (MENRO)	Municipality of Ligao
3.22	Edgar B. Bilasano	Municipal Mayor	Municipality of Malilipot
3.23	Alfredo A. Escoto	Executive Assistant	Municipality of Malilipot
3.24	Ricardo B. Banares	Municipal Planning Development Office Staff	Municipality of Bacacay
3.25	Romeo B. Cabria	Municipal Planning and Development Coordinator	Municipality of Sto. Domingo
3.26	Juan B. Berces	Municipal Planning and Development Coordinator	Municipality of Tabaco
3.27	Felix O. dela Cruz	Municipal Engineer	Municipality of Guinobatan
3.28	Norma L. Bondal	Municipal Engineer	Municipality of Malinao
3.29	Joel E. Pecson	OIC, CLO	City Mayor's Office, Legazpi City
3.30	Ruben A. Limos	Sr. Agriculturist	Provincial Agricultural Services Province of Albay
3.31	Cedric D. Daep	Department Head	Provincial Disaster Management Office (PDMO), Province of Albay
3.32	Rowena L. Ondiz	Statistician III	PDMO

4.0 JICA Study Team Members (9)

4.33	Hideki Sato	Team Leader
4.34	Fumihiko Furuichi	Deputy Leader/Non-structural Measures
4.35	Norio Takanayagi	Forecasting & Warning System
4.36	Masayuki Shiraishi	Hydrology/Hydraulics/River Planning
4.38	Kumi Saito	Land Use Planning
4.39	Itaru Nagamine	Surveying, Aerial Photo/Satellite Image Analysis
4.40	Katsuhiko Masaki	Socio-Economy/Financing (1 st PCM Workshop Resource Person)
4.41	Anita Ambrosio	Evacuation System (1 st PCM Workshop Moderator)
4.42	Taro Tsubogo	Logistics Support

Annex-3

Participatory Analysis

Agency	Prevention	Mitigation	Preparedness	Response	Recovery
DILG	- IEC	- IEC	- LDCC Trngs - LDCC Org. Operation Centers	- Assistance Relief Distribution - Assistance Damage Assessment	- Price Monitoring
OCD		- Risk Mapping & Vulnerability Analysis - Communication & Warning	- Organize & Train Local DCC. - Organize C.O.W.S for Info Disse- mination - Conduct Drills & Exercise	- Coordination - Information Dessemina- tion of Warning Bulletin from Warning Agencies	
PDMO	- Communicate Hazard Mapping Research & Investigation - Information or Warning Identify Prone Areas	- Training & Education - Vulnerability Assessment - Legislation	- Organizing Transporta- tion - Information System - Drills & - Exercises - Warning - Alert Involved Agencies	- Coordinating Relief - Rescue - Medical - Response - Mobilization - Evacuation	- Rehabilitation & Reconstruction
LGUs	- LGU-Disaster Prevention Education - Conduct Training Seminars	- Desiltation River/Creeks - Reforestation - Proper Waste Disposal - LGU-Mitigation - IEC	- Community Awareness - LGU-Malilipot Organize MDCC - LGU-Prepare- dness 24 Hr. Monitoring - Communica- tion Facilities	- Construction of Flood Control & River Control - LGU-Response Task Force - Rehabilitation of Structural & Non- structural - Dredging of River beds - Relief Assistance	- LGU-Recovery <u>Declaration of State of Calamity</u>
PNRC	- Information Dessemination	- DM Training /Seminar - Coordination with RDCC/PDCC/ CCDC - Preparation of D. Supplies - Creation of Chapter Disaster Response Teams/Disaster Operation Center		- Rescue Relief Medical & CISD	- Rehabilitation
NHA					- Plng/Impl of Low Cost Housing

DSWD	- Advocacy IEC	- Structural Repair of Dwells	- DM Training at all LEVELS - Stockpiling Volunteer - Training on DMT - ID of Evac. Centers	- Augmentation of Relief (RTEF, Clothing) - Assist in Rescue Operations towards EVAC centers - Set up inquiry desk	- Balik-Probinsiya (Return to Original Residence) - Conduct C.I.S.D. (Critical Incidence Stress Debriefing) - Emergency Shelter Assistance Referrals
PHIVOLCS	- Info/Education Campaign	- Hazard Mapping	- Forecasting		
DPWH	- Const. of Infra Projects on Identified Disaster Areas, like SABO Structures, Dredging and Other Flood Control and Erosion Facilities	- Repair and Maintenance of Infrastructure along Disaster Areas specifically Flood Control Structures and Slope Protection Structures	- Organization of Disaster Control Team Allocation of IRF Fund Construction of Alternate Road	- Keep All Roads and Bridges Open before and after the Calamity. - Assist in the Evacuation and Relief Distribution. - Construct Evacuation Center and Install Basic Facilities in it	- Repair and Rehab. Damaged Infra Specially National Roads and Bridges including Main Flood Control Facilities
Religious Group				- Relief Operations	
DA					- Provision of Rehab. Program of Agricultural Lands
BSBI		- Introduction of Projects on Environmental Protection - Promotion of Enterprises	- Conduct of Disaster Mgt. Training - Stockpiling of Goods - Allocating Budget - Continuing Education for Staff/Volunteer	- Provision of Basic needs - Provision of Relief Goods	- Provision of Start-up Capital for Business - Community Organizing Involvement in Critical Incidence Stress Debriefing
DAS	- Info. Dissemination	- Agroforestation	- Dam Protection/ Maintenance	- Damage Assessment - Evacuation Plan for Livestock	- Planting Materials Distribution - Dam Rehabilitation
NFA			- Stockpiling of rice	- Transport Services	
DOH	- Health Education		- Training of Paramedics - Stockpiling of Medicines	- Epidemic Control Analysis of Potable Water	- Stress Debriefing
DECS	- Info/Education Campaign		- ID of Evac. Centers	- C/L as Evacuation Center	
KBP and PIA		- IEC			

PCN				- Comm'n Service	
DOTC				- Transport Services	- Comm'n Service Rehab.
AFP and PNP			- Organization of Rescue Groups	- Transports - Rescue - Peace & Order	- Communication Services - Security Maint. in Evac. Centers
NIA	- Watershed Protection & Development	- Dam Protection Works/Rehab. - Desilting of Rivers and Canals	- Info. Dessimination to farmers thru Seminars /Trainings - Maintenance of Existing Dams/Irrigation Structures	- Inspection of damages - Damage Control Measures	- Program of Work Preparation
DTI		- Consumer Awareness and Education/Information Dessimination	- Weekly Monitoring of Price and Supply of Basic Commodities under DTI's Jurisdiction - Quarterly Monitoring of Price and Supply of Prime Commodities - Monthly LPCC Meetings - Attendance to Regional and Provincial Disaster Coordinating Council Meeting - Regular Enforcement of Fair Trade Laws (e.g. Price Act, Consumer Act)	- Daily Price and Supply Monitoring of Basic and Prime Deemed Critical Shall be Conducted Immediately Following the Onset of Calamity. - Take Inventory of Basic Commodities if Necessary. - Facilitate Flow and Supply of Critical Commodities through Coordination with Suppliers and Concerned Government Agencies. - Enforce Price Act especially the Provision on Automatic Price Control. - Adjudicate Cases..	- Regular Monitoring of Price and Supply of Basic Commodities. - Provide/conduct Livelihood Training or Technology Transfer.
DAR					- Identification of Resettlement Areas
Albay Chamber of Commerce				- Provision of Relief Items.	

Annex-4

Distribution of Participants in Small Group Discussions

Group 1 : Mitigation and Preparedness

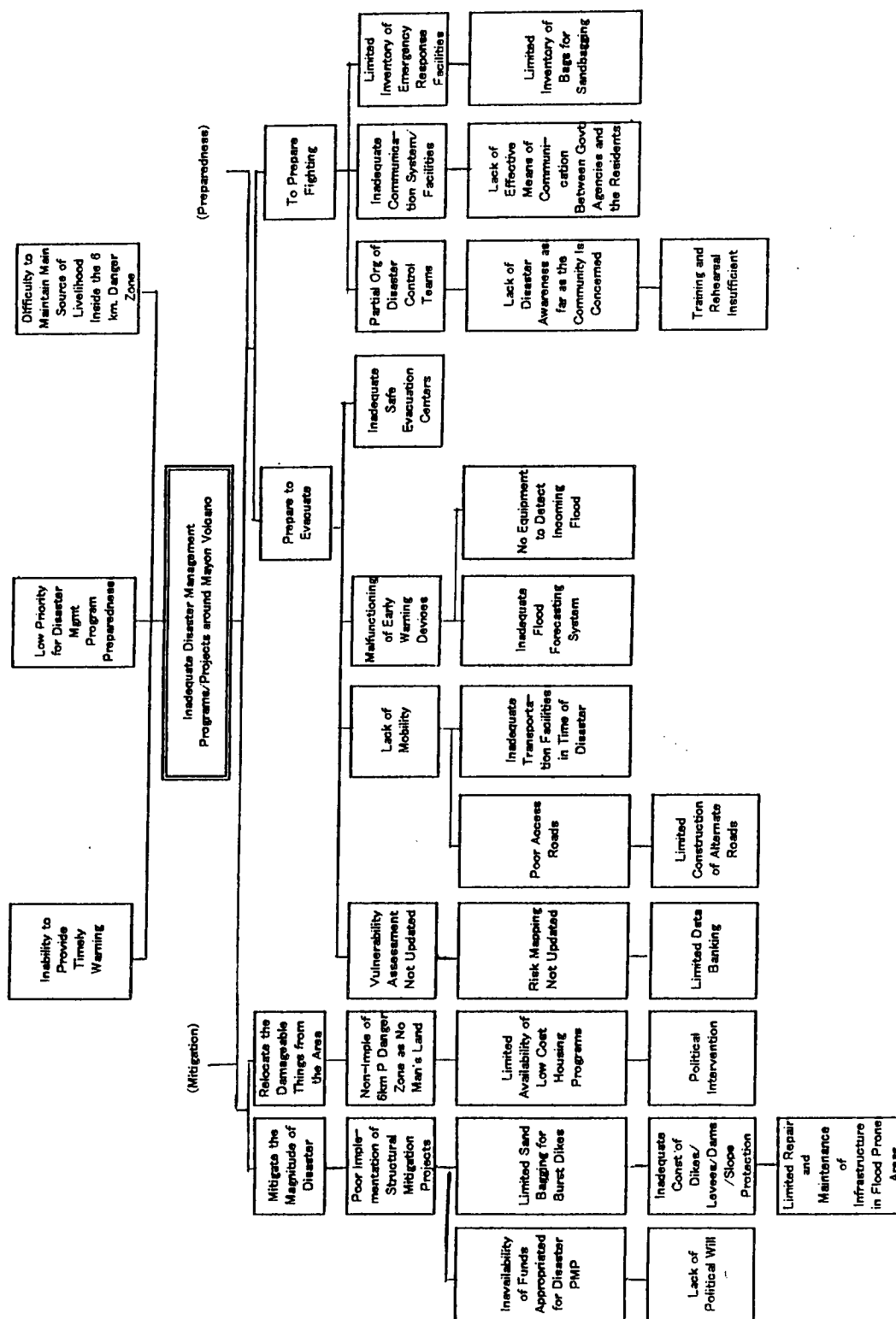
Eduardo P. Laguerta
Alexander S. Mandac
Rowena L. Ondiz
Ruben A. Limos
Romeo B. Cabria
Juan B. Berces
Norma L. Bondal
Vicente A. Miraballes
Jesus R. Villareal
Edgar B. Bilasano
Mendibel N. Sanosa

Group 2 : Response

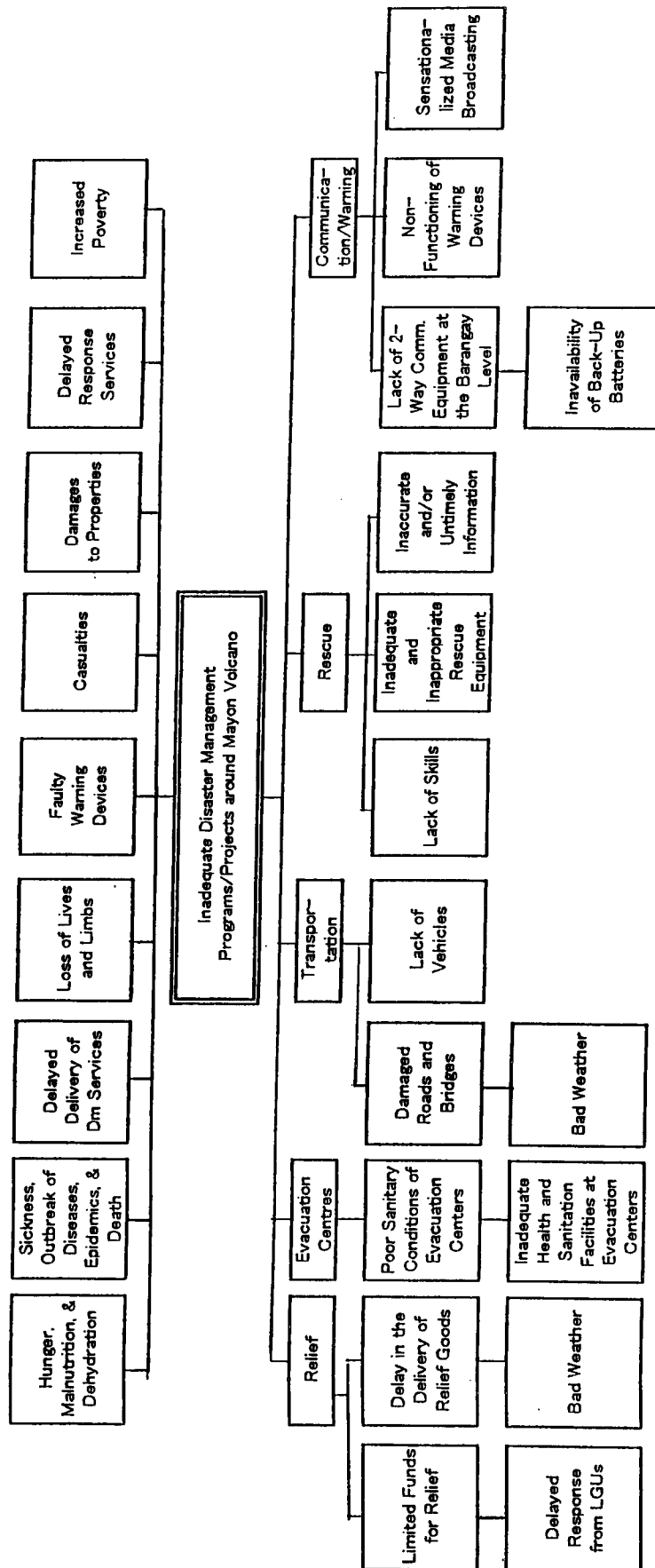
Randolph A. Base
Frank Vergara
Cedric D. Daep
Joel E. Pecson
Allan H. Maquiniana
Consolacion Arafiles
Alfredo A. Escoto
Dexter Atutubo
Constantino Antimano

Group 3 : Recovery

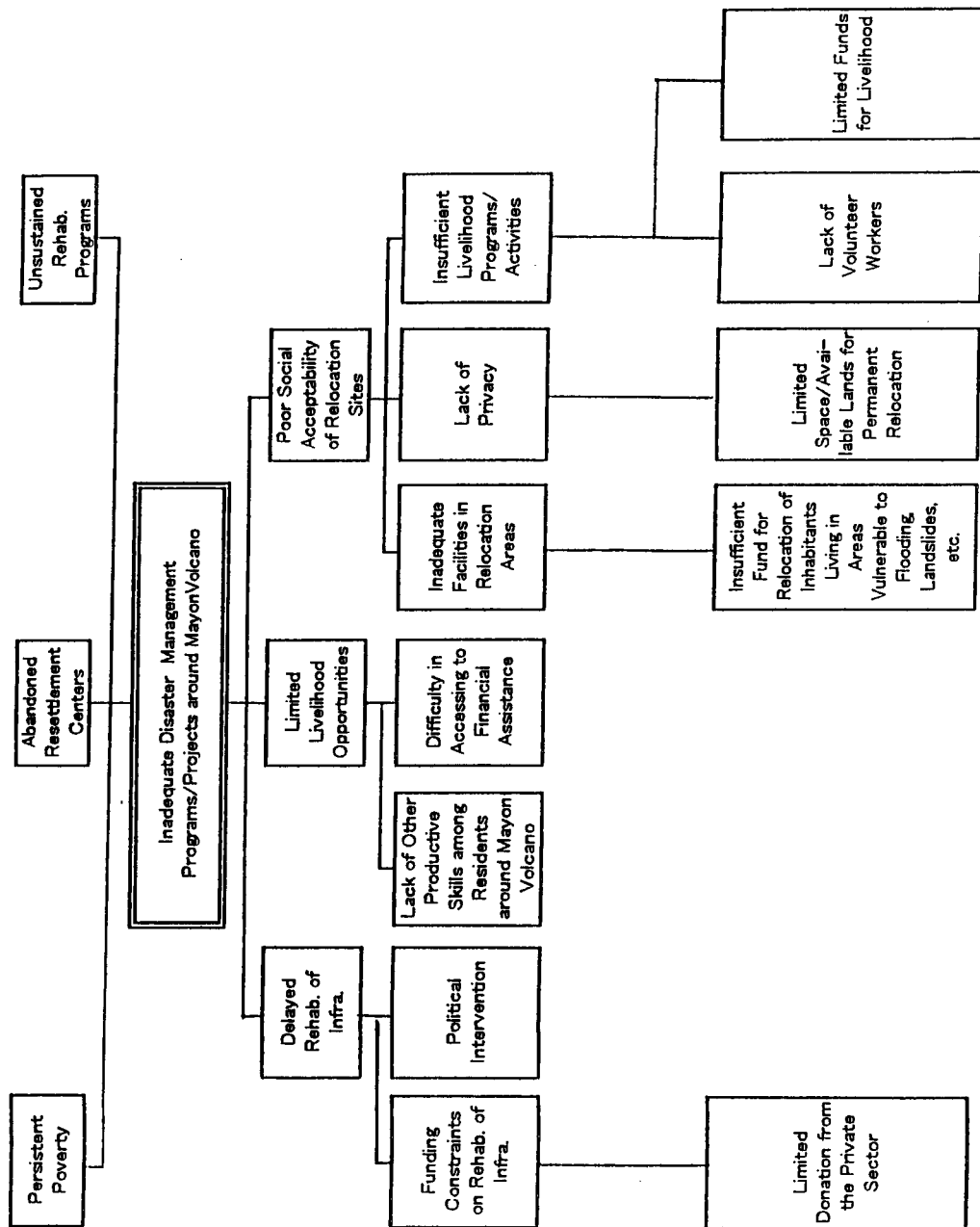
Milagros P. Orticio
Ma. Julie T. Lorbes
Victor Ubaldo
Cristeta E. Mecias
Mariano L. Garcia
Cynthia C. Oreste
Roberto L. Magayanes
Ricardo B. Banares
Felix O. dela Cruz
Constantino Antimano
Efren L. Mendoza
Orlando M. Casio



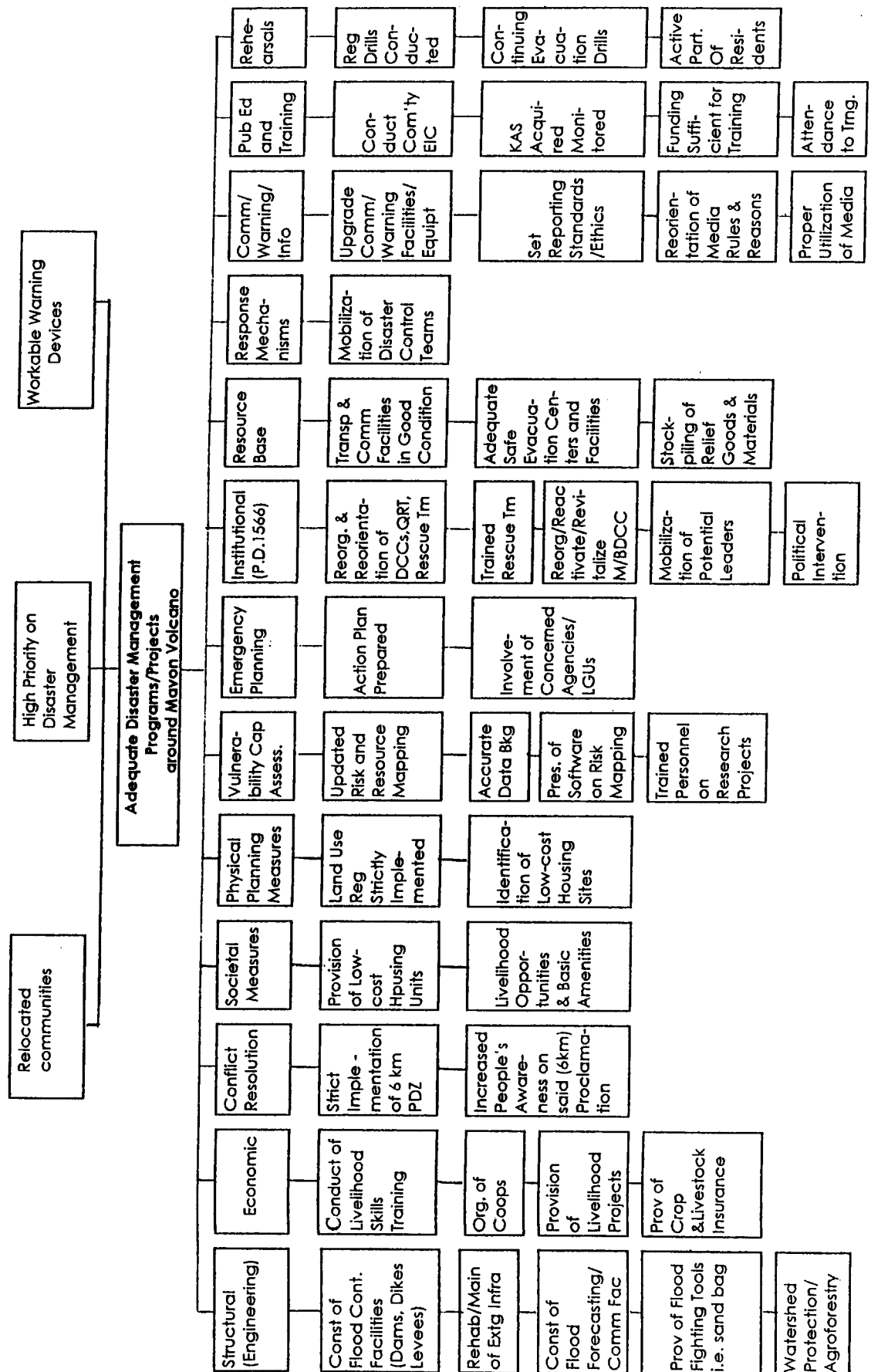
Problem Analysis (Group 2) : Response



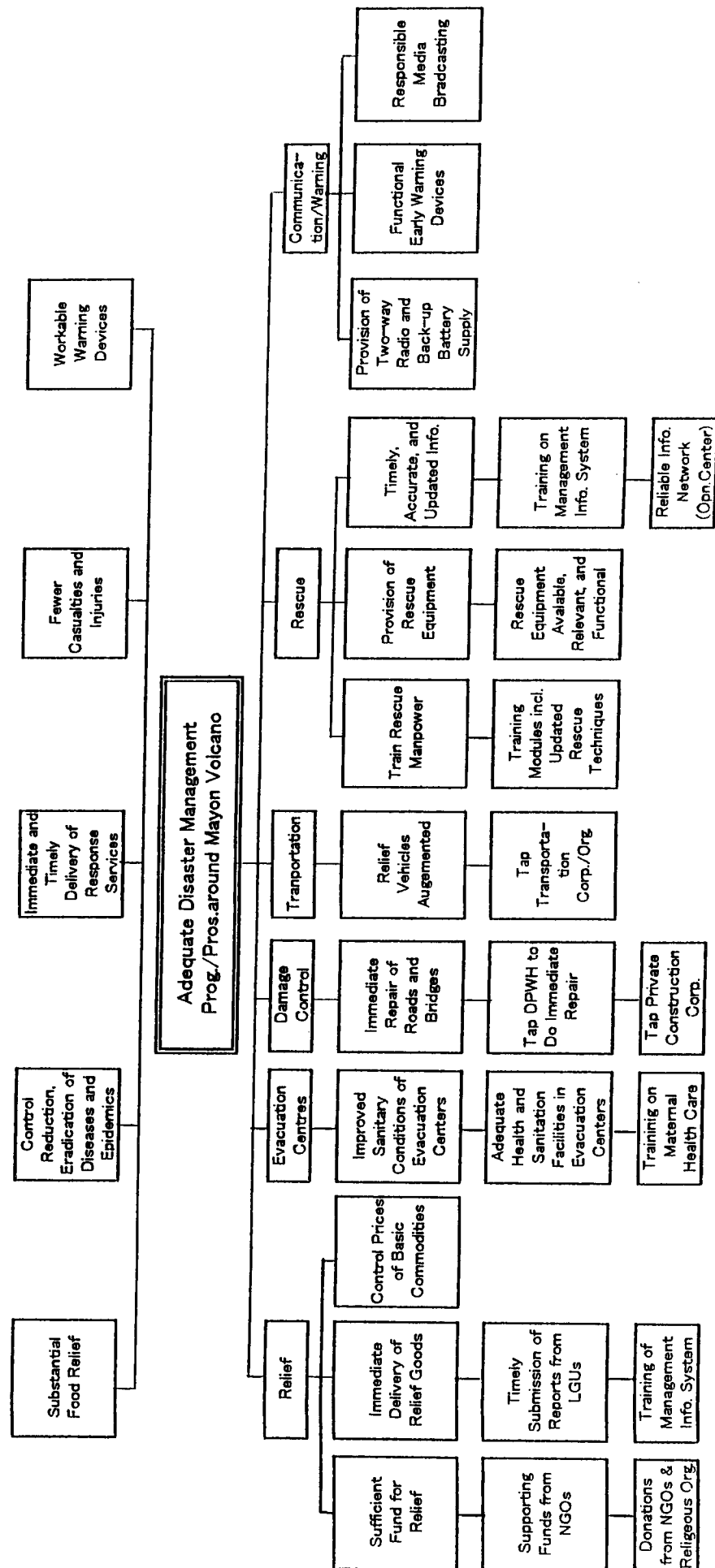
Problem Analysis (Group 3) : Recovery



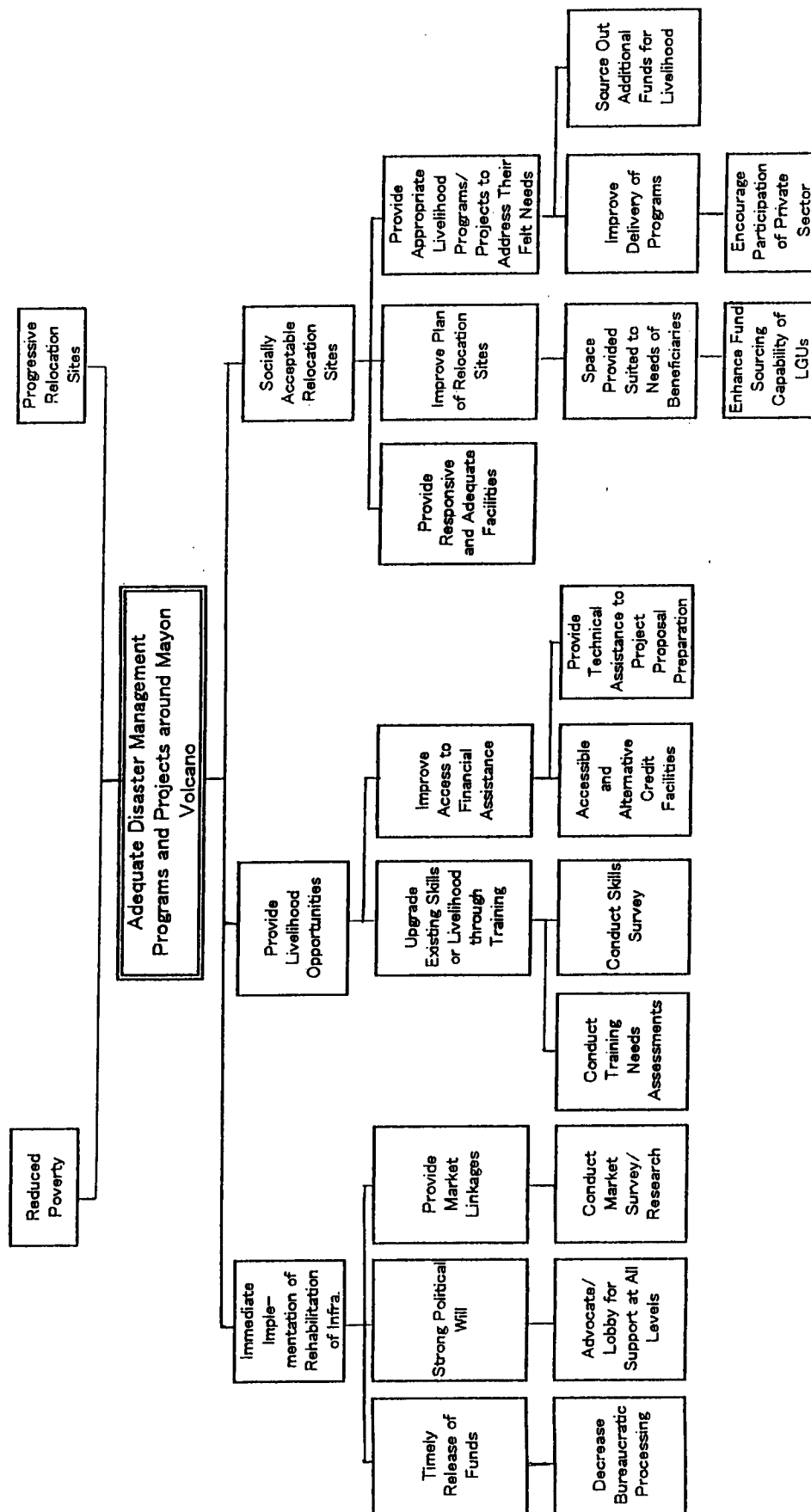
Objective Analysis (Group 1) : Mitigation and Preparedness



Objective Analysis (Group 2) : Response



Objective Analysis (Group 3) : Recovery



Annex-7

Questionnaire Results

Questions	Answer	Right	Wrong	% of Right Answer
Q1 Mayon Volcano repeats its eruptions periodically. In what years the latest two eruptions were took place ?	84	25	4	86%
	93	27	2	93%
Q2 How often the eruptions of Mayon Volcano are occurred in last 50 years ?	b.	28	1	96%
Q3 Do you remember that due to the latest eruption (lava and pyroclastic flows), how many people died ?	70-80	15	14	51%
Q4 At the time of the latest eruption of Mayon Volcano, about how many people were evacuated ?	c.	7	22	24%
Q5 The surroundings of Mayon Volcano are considered as disaster-prone areas. Associated with attacks of typhoons, disasters are occurred repeatedly. Do you think what are the main causes of casualties and calamities brought by the typhoons of "Akang" and "Rosing" in 1994 ?	b.	16	13	55%
	c.	16	13	55%
Q6 Which structure is effective to mitigate the magnitude of debris flow ?	c.	12	17	41%
Q7 Which phenomena is to be the direct cause of debris flow?	b.	10	19	34%
Q8 When formulating the comprehensive disaster prevention plan, it is said that it is important to consider the countermeasures following the "Disaster Management Cycle". Please fill up the appropriate step items in order.	d.	17	12	58%
	e.	20	9	68%
	a.	18	11	62%
	b.	20	9	68%
Q9 For warning purpose, the Operation Mayon of PHIVOLCS provides for the five levels of "Alert and Warning Signals for Mayon Volcano". Please specify the significance of "Alert Level 3 and 4 from the following.	c.	17	12	58%
	f.	23	6	79%
Q10 There are several "participatory methods" to be used for the bottom-up surveys. Please spell out the abbreviations	(PCM)	29	0	100%
	(PDM)	17	12	58%
	(RRA)	9	20	31%
	(PRA)	6	23	20%
Q11 The National Disaster Coordinating Council (NDCC) is consisted of 19 government agencies and institutions. Please indicate the <u>wrong</u> descriptions.	b.	1	28	3%
	f.	9	20	31%
Q12 Which of the following are the advantages of the PCM method.	Wrong	10	19	34%
	Right	27	2	93%
	Wrong	25	4	86%
	Right	28	1	96%
	Right	28	1	96%
Q13 Which agency is primarily responsible for flood warning dissemination to the people ?	f.	10	19	34%
Q14 From which agency do you receive the information on flood occurrence ?	f.	2	27	7%
Q15 From which agency do you receive the information of eruption of Mayon Volcano ?	f.	3	26	10%