

COMMUNITY EDUCATION TO CONTROL
NATURAL DISASTERS
IN THE SUKABUMI REGENCY LEVEL II
WEST JAVA PROVINCE

I. PREFACE

1. Honourable Ladies and Gentlemen participants of the WHO Congress,
2. Officials from the Department of Home Affairs and the Province of West Java,
3. and to all those present here,

Let me first, in the name of the Regional Government and the community of The Regency of Sukabumi, wish to all of you of the group and participants of the WHO Congress to be convened in Sukabumi Regency Area Level II, a warm Welcome. It is with a feeling of pleasure and honour to have you here in our region. May I hereby convey my utmost gratitude for this occasion.

On this occasion I would like to try to draw a picture of the situation in the Sukabumi Regency, mainly in relation with the efforts of the community to control natural disasters which often occur in the Sukabumi Regency Area Level II. What I would like to outline here, are the basic methods of control of natural disasters carried out by the Regional Government through a consolidated system together with the departments/instances/institutions concerned and all levels of the community. This is a system which has been applied already by us to control the various types of disasters experienced in the past. It also serves as a state of alertness to face natural disasters which possibly can be expected at any moment.

II. INTRODUCTION

1. The General Situation

I would like to continue now to explain the general situation in the Sukabumi Regency Area Level II, as follows . The Regency Area Level II, West Java Province, is located in the Western part of the West Java Province, stretching over an area of 419.970 ha. Its capital is Sukabumi located 120 kilometres away from the National capital Jakarta and 90 kilometres from Bandung (capital of the West Java Province). The Sukabumi Regency has as its borders to the north the Bogor Regency, to the East the Cianjur Regency and in the south the Indian Ocean, with the Lebak Regency in the West. Physically this area is bounded by 60 percent of land and 40 percent by sea.

The Sukabumi Regency has in general an uneven land surface, i.e. low hills in the south and becoming mountaneous towards its centre. The Gede and the Salak mountains, with their respective heights of 2.958 and 2.211 meters in the northern part, create a variety of slopes. Near these mountains the slopes are steep with deep valeys. Slopes levels vary from even to very steep throughout the whole region with the following percentage: level slopes 13,5 %, slightly ascending slopes 20,7 %, steep slopes 36.7 % and very steep slopes 29,1 %.

The area's height varies from 0 to 2.958 meters with a climate ranging from 18 - 3 Degree C. Humidity is relatively high, around 85%. Rainfall varies between 2000-4000 mm per annum.

This area is dissected by 5 rivers, the Cimandiri, Ciletuh, Cikarang, Cikaso and Cibuni. With their numerous tributaries, these rivers have a considerable impact on the water condition of this region.

Geologically, most of the Sukabumi Regency consist of vulcanic stones sediment. In this region you can find tuff layers of thick sandstone. These tuff layers are alterantively resting on sandstone and clay stones.

During the rainy season, heavy water absorption increases the danger risk of landslides at the steep slopes.

Land utilization in the Sukabumi Regency is as follows : ricefields 14%, agriculture on dry land 30%, plantations 21%, forestry 25%, and the remaining 10% is utilized for villages, ponds, rivers, and others.

The population of this area, according to the latest records is 1.700.102 people with an average density of 425 persons per km². The region is divided administratively into 6 Assistant Regencies, 27 Districts and 19 Assistant Districts, 353 Villages and 3 Village Heads.

2. Type of natural disaster

The geological, topographical and climatical situation of this region is the cause of the many natural disasters happening in this Sukabumi Regency, especially in the southern part. Experience has shown that there are 5 types of natural disasters which occur frequently, these are landslides, earthquakes, floods, fire and storms. Besides these, also draught as a result of a long dry season.

Landslides, caused by the unstable condition of the soil, generally occurs in the southern part. This area is also very sensitive to floods, draughts and fire (forest or plantation)

According to a research by the Directorate of Geology Environmental section, the southern part of West Java which include the Sukabumi Regency, is geographically located on a tectonic plate and therefore very sensitive to tectonic earthquakes. Proof of this are the earthquakes of 1975 and 1982. The earthquake which hit the Cibadak District and its surroundings including the Nagrak District caused losses up to Rp. 1.699.189.000. The earthquake of 1982 which occurred in the Sukaraja district and its surroundings counted total losses of Rp. 2.500.000.000. It destroyed 81 houses, caused heavy and light damages of 3.328 villages houses, 94 Elementary school buildings, 51 Religious Schools, 127 large and small mosques, and 38 Governmental buildings.

III. THE SITUATION AND ALERTNESS OF THE REGION

In this part I would like to give a general description on how the Regional Government prepared itself to face the possibility of natural disasters, as well as the efforts carried out at the location of occurrence. As explained earlier already, the Sukabumi Regency is a potential region for natural disasters. The Regional Government, therefore, gave special attention to this problem by creating a special Team called SATKORLAK-PBA (Coordination Unit for the Implementation-Control of Natural Disasters) Sukabumi Regency Area Level II.

This is a coordinative team, created at Level II based on the example of the West Java Province, which also has a similar Team on Provincial level. This Team is also created on District level and named POSKO-PBA (Commando Post-Natural Disaster Control) and on Village level it is called the Village Sub POSKO-PBA. The SATKORLAK-PBA team basically has the task to coordinate the various departments/instances/institutions/organizations and other related and interested parties concerned in their efforts to control natural disasters. The members of this Team, in accordance with its function and duties, consist of various elements originating from government instances as well as non-government organizations and public organizations. Among the departments/instances and organizations actively related in the SATKORLAK-PBA Team's activities are : Civil Defence, Dep. of Health, The regional Search and Rescue, Boy Scouts, Indonesian Red Cross and the Family Welfare Education, besides the other governmental departments/instances which are functionally related with the tasks of the Team, such as Armed Forces units. The basic principles of the Team's duties are coordination and integration of all the supportive elements.

Community involvement, in all levels, is an inseparable part of the natural disaster control as well as all its efforts.

Based on these facts, the involvement of the community members is dynamized and organized to provide precise guidance in accordance with the development needs. One of the efforts to organize the community's interest is through the Civil Defence forum. The Civil Defence is organized from National level to village level and is a non-military public defence organization. It is an integral part of the National Defence System and has the task to protect the people within the framework of the National Defence. The duties of the Civil Defence are based on 4 principal functions, as follows :

1. Defence of the Country; within the framework of the National Security and Defence and based on the People's Security and Defence as a realization of Article 30 Law 1945, that all citizens should participate in defending their country based on honour and which is part of the exercising of rights and responsibilities in implementing the Country's security.
2. Protection of the Country; which consist of activities to protect the people through control of natural disasters impacts, victims of war, assist the govenment's rule and to increase production for the welfare of the people and the needs of the defence.
3. People's Security; to assist defence operations, especially the tasks of the police force and to maintain security and order within the community, as well as traffic and to create a condition of security and order, i.a. to restore the security within the country.
4. People's Resistance; is the direct participation in military operations againts the enemy, in active fighting or as well as administrative assistance, covering provisions, communications, specially in isolated areas, guides, convoy escorts, provision distribution as well as its maintenance, and others.

The Civil Defence is set up at every level based on governmental hierarchy, work area, and the importance of certain activities. Within the Governmental scope the organization's Headoffice is accountable to the Minister of Home Affairs, at Provincial level to the Governor and at Regency level to the Regent, district level to the District Head, and in the villages to the respective Village Heads/Centres.

In the Sukabumi Regency Area Level II, being one of the Regional Headquarters within the West Java Provincial Headquarters, the organizational structure of the Civil Defence is as follows :

1. Regency level : The Regency Civil Defence Headquarters, headed by an Regional Headquarter Master.
2. District level : The District Civil Defence Headquarters, headed by a District Headquarter Master.
3. Village level : Civil Defence Task Units, headed by a Task Unit Head.

Every Task Unit (every village) is divided into 9 Task Force Units, consisting of units which are active in the Medical Emergency, Stretcher carriers, evacuation, supervision/reconnaissance, Search and Rescue, Pioneers, Public Kitchens, Liason officers and Firefighting control.

The Sukabumi Regency Area Level II Civil Defence consist at present of 111.072 persons, distributed over 27 districts and 356 villages/village centres. In every village there are 312 Civil Defence members. Among these members there are 58.740 trained Task Force unit members ready for action (for every village this is 165 persons). These Task Units are divided into 9 Task Force units, specified as follows :

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|-------------------------------|----------------------|
| 1. Medical Emergency unit | : 20 persons |
| 2. Stretcher carriers | : 10 25 " |
| 3. Evacuation unit | : 10 " |
| 4. Supervision/reconnaissance | : 10 " |
| 5. Search and Rescue unit | : 15 " |
| 6. Public Kitchen unit | : 25 " |
| 7. Liason Officers | : 10 " |
| 8. Firefighting | : 20 " |
| 9. Pioneering | : 30 " |

These members of the Task Force units, and the Civil Defence in general receive continuous training and guidance in the necessary skills in accordance with the tasks which they have to perform. The organizational structure of the Civil Defence as outlined above, shows how the members of the community are prepared to perform various tasks, including control of natural disasters. To control natural disasters occurring in this region, the Civil Defence played a very important role in the front lines. What and how the role of the Civil Defence is in controlling natural disasters, will be demonstrated in the landslide disaster staging at North Nagrak village, Nagrak district. The whole group, especially the participants of the WHO Congress, are invited to witness from nearby, how the Civil Defence takes part in controlling natural disasters by a coordinated and integrated system.

Not less important in serving the community, mainly the control of natural disasters, are the participation of the Department of Health, the Indonesian Red Cross, Boy Scouts. regional SAR agency, Family Welfare Education, and the Indonesian Radio amateurs.

These instances and organizations hold a are very important position in every natural disaster occurrence. The Regional Government, therefore, through the SATKORLAK-PBA, always endeavours to secure their participation and to establish a close cooperation.

The Medical unit is important in controlling natural disasters in its role as life saver of victims. The available medical facilities at Sukabumi Regency consist of One Government Hospital, one private hospital, 35 Medical Centres, 79 Support Medical Centres, 24 mobile medical centres and 1989 Consolidated Welfare Service units, one ambulance. The medical team consist of 32 physicians, 9 dentists, 201 para-medics and 420 other personnel.

The function and the role of the medical facilities described above, can be specified as follows :

1. Hospitals

The only hospital from the Regional Government is located in Cibadak District. This "D" type hospital provides :

(a) medicines, treatment, rehabilitation of patients and emergencies, (b) treatment of patients forwarded by the Consolidated Welfare units to the Support Medical Centres and from these to the Medical Centres and to the hospital. After treatment by the hospital these patients are returned for after treatment to the respective Medical Centres.

2. Medical Centres

Medical Centres are health service facilities at district level. Medical Centres provides curative and preventive treatment and rehabilitation for all levels and ages of the community, starting from pregnancy until death.

3. Support Medical Centres

This are simple, miscellaneous facilities to support the Medical Centres, and are distributed throughout the villages. They are the frontline posts of medical services for the community.

4. Mobile Medical Centres

These are mobile medical service units utilizing four-wheeled vehicles to increase the medical service reach.

5. Consolidated Service Posts

These are distributed throughout all villages. And are the community's activity centres providing services of health by the community, for the community and guided by the Medical Centres.

6. Ambulances

Ambulances and mobile Medical Centres are provided at a stand-by basis. The facility's function is to serve medical emergencies, transporting patients to the nearest hospitals through a monitoring system by the Medical Emergency Team.

To control natural and mass disasters in general, medical services provisions are divided into :

a) to search and save victims through medical activities, b) transportation of victims, c) extended treatment at Emergency units with adequate medical equipment.

Implementation is executed in two stages, which are preparation and actions.

1. Preparations

The preparation stage covers the following activities :

(a) preparing the implementation components, (b) provide instructions for the actions units, (c) education and training as well as guidance in first aid knowledge on the field site.

2. Actions

The medical actions during mass disaster cover three phases of activity :

a) the pre-hospitalization phase, b) hospitalization, and c) post-disaster phase.

a. The pre-hospitalization phase

This phase concentrates on medical first aid activities at the site of disaster, as follows :

- (1) The Medical Centre First Aid Team provides medical aid at the disaster site. The members of the First Aid Team consist of medics and para-medics from the Regional Medical Centre concerned. This team immediately communicates information to the area and Regency Medical Instances responsible for all the medical activities at the location of diasaster.
- (2) Mini Emergency Team. This team is set up by the area's medical instance of the disaster area concerned, as close as possible to the site of occurrence, and has the task to :
 - set up a medical field post with all available facilities;
 - prepare a stretcher carrier- and ambulance team;
 - to open a traffic road, communications and security within the limits of the available medical equipment and facilities;
 - accomodate and provide first aid and victim selection;
 - prepare victims for evacuation to medical treatment centres.

The Task Force Team consist of 3 general physicians on rotation basis, depending on the number of victims, 8-10 skilled para-medics and non-medics covering administrative personnel (recording), communications, ambulance drivers and stretcher carriers.

The facilities availble for this Team are :

- Emergency tents for the victims or temporary occupation of local houses with beds and mattresses;
- supply of clean water, public kitchens, warehouses for medical equipment and medicine provisions.

The basic supportive facilities are :

- Medical equipment and medicines; to standardize the required medical equipment and medicine packets for the Mini Emergency Team , and inventarization of medical equipment and medicines by providing an adequate warehouse.

- Transportation: regulate and prepare ambulance utilization and assisting in opening up a road for traffic and evacuation of victims by helicopter.
 - Communications: provide and receive information/instructions utilizing the available communication equipment of the supervising instance.
- (3) Field hospital. Located near the Mini Emergency Unit, but outside the danger area, and within the area of a possible traffic lane for vehicles and a helipad.
- To set up a Field Hospital is the task of a Special Team, consisting of units of the Armed Forces and other hospitals, and Team 118. The Field hospital is set up to accomodate as many as possible victims which can be treated, and equipped with the following facilities : admittance room, having the same function as selection room, operation room, cardiac-pulmonary resuscitation room, injury treatment room, recovery room and evacuation preparation room. The field hospital personnel consist of specialists such as surgeons anaesthesians, general physicians, trained para-medics, and non-medic covering administrative and communications personnel.
- Medical equipment and medicines for the Field Hospital are standarized packets such as for the surgery team, cardio-pulmonary resuscitation and infusion/transfusion teams.

b. Hospitalization phase

This phase covers all activities related to admittance of victims relayed by the pre-hospitalization phase instances. The treatment instances cover :

- (1) Regional Hospitals; these are located in the disaster region. For the Sukabumi Regency these are the Sekarwangi, Samsudin, Police hospitals, the Moslim hospitals of Cibolang and Asysyifa.

(2) Extended Hospitals; are hospitals having complete facilities. These are located in Bandung: Hasan Sadikin, Dustira; in Jakarta: Gatot Subroto, Cipto Mangunkusumo.

c. Post-disaster phase

During this phase preventive activities, contagious disease, malnutrition and social sickness control, are carried out, through information, vaccination and distribution of additional nutrition.

As explained before already, consolidated disaster control involves important elements to support its success. Besides the Civil Defence and medical elements, other elements of importance are the Armed Forces units, Regional SAR agency, Boy Scouts, First Aid and the Radio Amateurs communications.

The Armed Forces with their various professions and facilities available to them are, a strategic element, not only as a security force, but also as a provider of miscellaneous support required, personnel as well as equipment.

The Indonesian Red Cross in the Sukabumi Regency has 5.330 members. This element, with the skills they have, play an important role in saving the victims, in cooperation with the medical units. The SAR agency, being part of the National SAR with their skills in search and rescue, play an important role in the search for victims and are in general closely cooperating with the Radio Amateurs which are responsible for the smooth flow of communications.

The Boy Scouts is an organization which always shows up in all community happenings. In assisting in the disaster areas, they never lag behind and are even active in the frontlines, executing miscellaneous activities in line with their skills.

The Boy Scout has at presently 100.524 members which are trained and educated in various professions and skills. With so many skilled members , the Boyscounts are an effective element in the various community tasks, especially in controlling natural disasters.

The Family Welfare Education Centre is a specific element, actively involved in the control of natural disasters, as this organization is initiated by women. The PKK is a lower level community development movement put in motion by women to develop the family as a unit or smallest community group to develop, to pool, guide and educate the family towards health and welfare. The aim of the PKK is to educate the family as the smallest unit or group of the community in resistance, toughness and endurance, able to adapt themselves and cope with the era's progress, by contineously improving the quality and standard of living through self-support and self-endeavour, and thus create a harmonious, happy and healthy family.

With this function and role, and its orientation as the backbone of the village community development, the PKK is a strategic element in development. In the control of natural disasters, the PKK plays, same as the other elements, an important role in sucessfull control.

IV. DEMONSTRATION OF DISASTER CONTROL

As how to control natural disaster, especially in connection with the coordinating mechanism of the consolidated control system, can be followed by the demonstration presented by us, and observations can be made directly from this coming field demonstration.

V. NATURAL DISASTER IMPACT

One matter which always receives special attention as a result of natural disasters is the impact on Government, Development and Community.

Experience has shown, that natural disasters not only results in losses of lives and material, but also generates a wide negative impact on the government's rule, development and Community. The occurrence of a natural disaster often hinders governmental rule and that of development as a result from damages of various facilities and means as well as other factors.

To the community, natural disasters generates considerable impacts on the way of living which results in the disturbance of the community's defence stability. Considering this, the policies of natural disaster control are not only emphasized at the time of occurrence and rehabilitation of damages to physical facilities, but also, and even more important is the education of the community hit by the disaster, rehabilitate and recover their resistance on various fields which covers ideology, politics, economy, cultural-social, defence-security, and religion.

VI. CLOSING

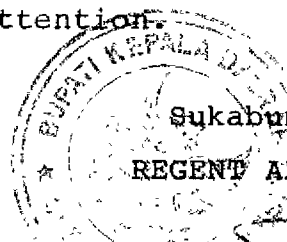
Thus my description on natural disasters control in the Regency Area Level II Sukabumi.

Basically, the control policies are laid on the efforts to activate various elements in the regions, those directly or indirectly interested, through a control system coordinating and integrating said elements. Besides these there are three principal matters which are the base of the control efforts:

- (1) Alertness of the region to face possible disasters;
- (2) Speed and accuracy of actions at the moment of disaster;
- (3) Education of the community after the disaster.

I hope that this short explanation provides sufficient material to meet the purpose of the WHO Congress participants' visit to this region. I also would like to apologize for the mistakes and shortages found in this description.

Thank you for your attention.



Sukabumi, 52 November 1987.
REGENT AREA LEVEL II SUKABUMI