

**PART I :**  
**REPORT OF THE SEMINAR AND**  
**WORKSHOP**



**TERM OF REFERENCE WHO/INDONESIA INTER-REGIONAL  
WORKSHOP ON DISASTER PREPAREDNESS AND  
HEALTH MANAGEMENT  
JAKARTA, 2-6 NOVEMBER 1987**

**BACKGROUND INFORMATION :**

The ever expanding world population and advances in technology aggravate the number and extent of natural and man-made disasters. Good disaster preparedness and management dictate strengthening of intersectoral coordination and community participation to guarantee better result and effectiveness.

The involvement of the World Health Organization in emergency dates from the inception of the organization. In the early years, the activities were aimed primarily at furnishing aid in emergencies and consisted mainly of immediate action to combat epidemics and provide relief to victims of a calamity. Over the years, this ad-hoc immediate response has been strengthened by planned action and preventive measures.

The WHO approaches towards emergency response are as follows :

- a. Strengthening disaster preparedness and management capacities of member states.
- b. Intensification of WHO technical cooperation at the country level.
- c. Emergency response as an integral part of the strategies for health for all.
- d. Linking emergency action to the health development programmes.

It is planned that in 1986-1989 period, the global and regional programmes for health emergency and disaster preparedness and management will be established and implemented at regional and national level.

Indonesia, as a member state is developing its national disaster preparedness and management concept under coordination by the National Coordination Agency for Natural Disaster Mitigation (BAKORNAS PBA) and the health sector is taking part in formulating national policy and in the implementation of policy.

Through this workshop participants will be able to share knowledge and experiences which will be contributory to the efforts to develop disaster preparedness and management in their respective countries.

It is within this context that it has been decided that every WHO member state should develop a concept on its national Emergency preparedness and management within the health sector, which shall be incorporated into the National disaster Preparedness and Management concept.

#### **SCOPE AND PURPOSES :**

1. To orient the managers of disaster management all aspect of disaster management particularly community involvement in disaster management.
2. To orient the managers of disaster management regarding inter-sectoral coordination internally and technical cooperation between member states.
3. To evaluate existing system and possible remedial and strengthening measure as an integral part of the strategies for Health For All.

Because of similar geographical and socio-economic conditions and economic interest, this workshop will be attended by WHO member countries of South East Asia and Western Pacific regions. The international gathering is expected to become a stimulus for the domestic side to establish cohesiveness among government institutions and the already available infrastructures and to develop the national concept in disaster preparedness and management and in the implementation of the concept.

- It is expected that a regional cooperation in disaster preparedness and management between member countries will be established through multilateral cooperation with the World Health Organization and other United Nations specialized agencies, ASEAN, the Government of Canada, Japan, France, the United States of America, Sweden and others.

To orient the participants disaster preparedness and management in other regions, some papers from France, Japan, and the United States will be presented.

A field demonstration will highlight the integration of community participation in disaster management which will involve the Indonesian Civil Defence Organization, the Indonesian Red Cross, the Indonesian Boy scout Organization, the Indonesian Amateur Radio Association, The Ambulance Services and others.

These are all meant for a genuine intersectoral approach in disaster management particularly through WHO with regard to the involvement of the health sector.

### **PROVISIONAL AGENDA :**

1. Opening : WHO and MOH.
2. Keynote address.
3. General lectures or panel discussion on :
  - Disaster mapping of Indonesia.
  - The use of satellite in disaster monitoring.
  - Medical Management aspect.
  - Public Health Management aspect.
  - Environment Management aspect.
  - Community participation aspect.
4. Case studies :
  - The Mount Krakatau Disaster Preparedness plan.
  - The Mount Merapi Disaster Preparedness plan.
  - The Mount Galunggung Disaster Preparedness plan.
  - The Mount Saint Helena case.
  - The Mount Agung case.
  - The Dieng Plateau case.
  - The Bangladesh Tidal Wave —Limitation of Disaster Medicine
  - The Bhopal case.
  - The Mexico City earth quake case.
  - The columbia volcanic eruption case.
  - The Mexico City Gas Explosion case.
5. Disaster mapping of South East Asia and Western Pacific regions.
6. States of national Disaster Preparedness in member countries in South East Asia and Western Pacific regions.
7. Policy issues related to the legislation of national disaster prepar

edness and management.

8. Policy issues related to the medical management aspect of disaster.
9. Policy issues related to the public health management aspect of disaster.
10. Policy issues related to the prevention and early detection of disaster.
11. Policy issues related to the environment management aspect of disaster.
12. Policy issues related to the community participation aspect in disaster management.
13. Infrastructure for intersectoral coordination in disaster management, role of the health sector in predisaster, during disaster and post-disaster periods.
14. Resource allocation.
15. Conclusion and recommendation.

#### **PARTICIPANT :**

Participants of this workshop will be senior officials who are responsible for policy and planning from various governmental as well as non-governmental units from Indonesia and a senior official from each member country of South East Asia and Western Pacific regions.

#### **PROVISIONAL LISTS OF PARTICIPANTS FROM INDONESIA:**

1. Ministry of Health.
2. Ministry of Interior.
3. Ministry of Defence.
4. Ministry of Public Works.
5. Ministry of Energy and Mining Directorate General of Volcanology.
6. Ministry of Social Affairs.
7. Ministry of Communication, Post and Tourism.
8. Ministry of Transportation.
9. National Coordinating Agency for Natural Disaster Mitigation. (BAKORNAS PBA).
10. IDMC (Indonesia Disaster Management Center).

11. National Search and Rescue Agency.
12. The Armed Forces Medical Corps.
13. The Indonesian Civil Defence Organization.
14. The Indonesian Red Cross Society.
15. The Indonesian Amateur Radio Association.
16. The Indonesian Defence Institute.
17. WHO Office Indonesia.
18. USAID.
19. The Indonesian Critical Care Medicine Association.
20. Responsible Officials from some disaster prone areas.
21. Regional Health Offices from some disaster prone areas.
22. Various Women Organizations (PKK, Kowani, Dharma Wanita, Wanita Golkar, etc.)

#### **SPONSORS :**

This international workshop is made possible through the sponsorship of the WHO Headquarters and co-sponsored by CIDA, and the government of Japan, France, Canada and The United States of America.

#### **PLACE, TIME AND VENUE OF THE WORKSHOP.**

The workshop will be held at Horizon Hotel in Jakarta or the surrounding area on 2- 6 November 1987.-

**REPORT BY THE CHAIRMAN OF THE ORGANIZING  
COMMITTEE WHO/INDONESIA INTERREGIONAL WORKSHOP  
ON DISASTER PREPAREDNESS AND HEALTH MANAGEMENT  
Jakarta, November 2, 1987**

Your Excellencies, Coordinating Minister for People's Welfare and  
Minister of Health of the Republic of Indonesia,

Your Excellencies, Ambassadors of the Participating and Collaborat-  
ing Countries,

Honourable Guests from the World Health Organization Headquar-  
ters, Regional Office and Representative to Indonesia,

Distinguished Guest, Ladies and Gentlement,

First of all, as the Chairman of the Organizing Committe, I would like to convey my sincere welcome to all participants to this work-  
shop which is to be opened by his Excellency the Coordinating Mi-  
nister for People's Welfare of the Republic of Indonesia. This work-  
shop is scheduled to be held until November the sixth, 1987, includ-  
ing a one day field demonstration.

Please allow me to give a brief report on the preparation and the  
outline of the programme of the workshop. Initiative for organizing  
and conducting this workshop was taken last year by the Ministry of  
Health of the Republic of Indonesia with assistance from the WHO  
Headquarters in Geneva and also from the WHO Representative to  
Indonesia in Jakarta.

It is also necessary to mention here the role and participation of  
various ministries and other non-governmental organizations of  
Indonesia and collaboration from the Governments of Canada,  
France, Japan and the United States of America.



Participants to this workshop are from WHO member countries from the South East Asia and Western Pacific Regions, namely India, Nepal, Sri Lanka, Malaysia, The Philippines and Vietnam.

Local participants from Indonesia are officials from the Ministries of Health, Home Affairs, Defence and Security, Public Works, Mining and Energy, Post Telecommunication and Tourism, Foreign Affairs, Communications, Information and Ministry of Education and Culture.

There are also officials from the National Coordinating Agency for Natural Disaster Mitigation, National Search and Rescue Agency, Armed Forces Medical Corps and the National Defence Institute, etc. From the Indonesian private sector, the Indonesia Critical Care Association, the Indonesian Public Health Society, the Indonesian Amateur Radio Organization and various women's organizations are also participating in this important workshop. Looking at the list of participant taking parts in this workshop, it is obvious that they will naturally bring a convincing results by the end of the workshop. I am definitely sure that within the periods of plenary sessions, panel discussions, working groups, and final formulation of recommendations, participants will be able to exchange views, share their valuable contribution and then come to a final attainment of the objectives of the workshop.

Distinguished Guests, Ladies and Gentlemen,

On this opportunity, I would like to express our gratitude to the various Ministries, non-governmental organizations, private companies, as well as all the international participants and experts who come to share their experiences in this workshop. I would like also to convey my deep appreciation to His Excellencies the Ambassadors of the United States of America, France, Canada and Japan in providing sponsorships, especially in supporting us with their highly qualified experts.

My sincerest appreciation also goes to the World Health Organization for their understanding and full assistance in facilitating us to make this workshop possible.

Finally, I wish to have the honor of inviting His Excellency the Minister of Health of the Republic of Indonesia, to deliver his key-

note address and also His Excellency Coordinating Minister for People's Welfare to officially open this workshop.

Thank you.

Jakarta, November 2, 1987  
Chairman of the Organizing  
Committee

Dr. H. Mohamad Isa  
Director General for Medical Care  
Ministry of Health.

**OPENING REMARKS BY  
WHO REPRESENTATIVE AND PROGRAMME  
COORDINATOR TO INDONESIA**

**EXCELLENCIES, DISTINGUISHED PARTICIPANTS,  
LADIES AND GENTLEMEN**

On behalf of Dr H Mahler, Director General, WHO and Dr U Ko Ko, Regional Director, WHO SEARO, I welcome all participants to this workshop.

There are various types of disasters including natural and made disasters. Disasters always create emergency situations and the response involves many sectors including health sector. A recent phenomenon is the technological disaster whose health aspects are a matter of concern to many developing countries with industrial complexes.

WHO emphasizes the importance of strengthening the capacity of Member States to integrated emergency preparedness and response in their overall development. WHO emphasizes the fundamental importance of preventive measures and preparedness.

In the health management of disasters, it is necessary to integrate preparedness and response to emergencies with the primary health care system. Local communities carry the first responsibility for dealing with an emergency and hence they must be armed with appropriate information to mitigate the impact when disaster strikes and there should be mechanisms to reduce their vulnerability. Primary health care structures and district health system are the appropriate means for an integrated and coherent response in disasters.

The stress in emergency preparedness should be on community participation, local planning and development of self-reliance. The identification of hazards, the assessment of risks, the organization and management of action in emergencies and the monitoring and evaluation of the impact of such action are in the first instance a community responsibility. Priority should be given to training,

development of management skills at that level in order to strengthen the capacity of the communities to prepare for and to cope with disaster situations and, if possible, to mitigate them.

The importance of district health system to disaster preparedness lies in the monitoring of health status and the key risk factors, the identifying and monitoring of vulnerable groups, better organization and management of interventions, and the monitoring and evaluation of their impact.

Environmental health is an essential component of primary health care. Since it covers the questions of shelter, water supply, sanitation, drainage, rubbish disposal, vector control and food safety, environmental health is intimately bound with emergency preparedness and response. The main environmental health concern in emergency situations is to prevent the spread of disease leading to epidemics, to maintain the health status of the population, and to ensure that essential services are restored or improved. Veterinary public health is also a fundamental consideration in disasters and emergencies.

For the health service to cope rapidly with an outbreak of disease, contingency planning and setting up of an early warning system are essential. Mass movements of population and concentration of refugees increase enormously the risks of epidemics of communicable diseases. Nutritional monitoring and surveillance are of importance to ensure food distribution to vulnerable groups in famine situations.

I wish this workshop all the success in its deliberations and I look forward to the conclusions and recommendations of this workshop.

**DR. M. SATHIANATHAN**  
**WHO REPRESENTATIVE TO INDONESIA**

## **OPENING REMARKS BY DIRECTOR, EMERGENCY PREPAREDNESS AND RESPONSE WHO HEADQUARTERS**

Your Excellency, Distinguished Participants, Ladies and Gentlemen.

It is a great pleasure for me to attend this workshop and bring the best wished of Dr Mahler, the Director-General of the World Health Organization, for the success of this workshop.

Disaster strike many times unexpectedly. Your country has a long experience of natural disasters such as volcano eruptions which have caused serious damage. Very recently, another type of disaster that we may call a technological, occurred, namely a serious rail accident, which struck with serious consequences to hundreds of people. We all grieve with the victims and their families.

Natural disasters cannot be prevented, but one certainly is able to predict and prepare for those, so that their adverse consequences can be reduced. Technological disasters, on the other hand, have a strong component of human error involved. The human factor can be minimized with careful planning, strict safety standards and training. In today's world, we have to be prepared for both natural and technological disasters.

National efforts for disaster preparedness and the strengthening of the national capacities for disaster response are the key for minimizing the harmful consequences of disaster. The emphasis in WHO's emergency programmes is strongly in the support to the Member States in building up their capacities for disaster response. Training and communication are key elements in these preparedness programmes.

Sometimes the national capacities are not sufficient for such response, and external relief is needed. Rapid assesment of the situat-

ion and needs by the Government, together with the international community and coordinated communication, are the ways to secure the appropriate and prompt relief, avoiding chaotic dumping in the country of unsolicited relief items. WHO among the other UN organizations is available for such coordinated efforts, together with the Member States whenever required.

Experiences of individual countries in disaster preparedness and response differ from each other. The sharing of experiences and creating contacts between institutions or individuals is one of the ways to support the national programmes.

This workshop is a good example of such cooperation. We in WHO Secretariat, together with the support of the international community, are prepared to participate in and facilitate these efforts for the benefit of all Member States.

I should like to wish the best success to this workshop.

**Dr. OLAVI ELO**  
**WHO/HQ-GENEVA**

**ADDRESS BY  
THE MINISTER CO-ORDINATOR FOR PEOPLE'S WELFARE  
AT THE OPENING CEREMONY OF THE WHO  
INTER-REGIONAL WORKSHOP ON  
"DISASTER PREPAREDNESS AND HEALTH MANAGEMENT"  
JAKARTA 2 – 6 NOVEMBER 1987**

Excellencies,  
Distinguished Guests and Participants;  
Ladies and Gentlemen,

On this happy occasion let us give praise and thanks to God for providing us with good health, so that we could attend the inter-regional Workshop on Disaster Preparedness and Health Management today.

On behalf of the Government of the Republic of Indonesia allow me to express warm and happy welcome to all distinguished guests and participants of the Workshop. Further, I would like to thank you for giving Jakarta the honor of acting as host for this important gathering.

I wish to express an appreciation to the WHO Representative for the Southeast Asia and Western Pacific Region for organizing this Inter-regional Workshop here in Indonesia.

Indonesia, like many other countries is aware of the crucial needs for strengthening disaster preparedness and management. We are anxious to join in any initiatives suggested by international bodies to give greater contents and shapes to the solution of these hazardous phenomena.

Hazardous events have been occurring in many countries and are emerging as the gravest threat to the national economic stability and achievements.

Flood in Banglades, landslides in Columbia, industrial accident of Bhopal in India and of Chernobyl in USSR, earthquakes in Mexico, and forest fire in China, had brought about calamities to human lives and destruction to living environment. Here in Indonesia we have

also been suffering these similar events, i.e. the landslides of Padangpanjang and Aceh, the eruption of Mount Agung, Galunggung, Semeru and Cholo, the forest fire of East Kalimantan, and others.

As we realize that coping with disaster has the primary aim of saving human lives, the medical aspects in disaster management become more important for helping the people who have been subjected to disaster occurrences. Prevention, preparedness and emergency response as well as rehabilitation activities on medical aspects require professional expertise and experiences.

Ladies and Gentlemen,

Since the sixties the Government of Indonesia has been very concerned with disasters as they have tended to become more and more destructive affecting ever larger concentration of the population. While its response has been primarily that of relief, it has now been realized that the actual and potential consequences of natural and technical or industrial hazards are becoming so serious and so increasingly global in scale.

Current thinking on disaster management, while recognizing the importance of disaster relief, places increasing emphasis on conservation, prevention, preparedness, and mitigation. The need to improve disaster management in the Asian region is recognized, especially in Indonesia and other developing countries. Disaster management is now accepted as an important and integral part of the national development planning. The fact that such disasters have multi aspects on mankind's social and economic live, prevention as well as mitigation should become a matter for everyone's concern.

Disaster management is not, however, mono-sectoral whether in the disaster prevention, preparedness, mitigation, relief or rehabilitation. The socio-economic and spiritual welfare of people, the protection of personal and public property, and development programmes require cross-sectoral efforts and resources at all administrative levels responsible for planning and response.

Natural, as well as technical or industrial, disasters threatening Indonesia are varied, and their impacts in the form of damages and destruction have caused great losses in terms of human lives and properties. Estimated losses in the past five year period (1978/79–1983/84) in Indonesia show an annual average of 2,814 significantly destructive events, with an annual average of 890 deaths; 5,100



injured; 67,352 families made homeless; 1,240,000 hectares of agricultural land destroyed; with total direct cost at approximately Rp. 135,500,000,000,— (equivalent approximately US \$ 125,000,000,—).

These types of disasters are closely related with geological conditions, and therefore to a certain extent an effort of inventorization, prediction and monitoring might be possible.

It is my hope that this Workshop will excite in the general public awareness of the need to live in a healthy environment and the desire to actively participate in shaping the public preparedness and resilience to overcome any type of disaster occurrences.

I wish to conclude by saying that the Government of Indonesia expects to see this Workshop to take concrete and effective discussions and come for speedy and decisive actions for further regional co-operation and measures.

With God Almighty's blessings and guidance I do the honor to declare the Workshop on Disaster Preparedness and Health Management officially opened.

Thank you.

Jakarta, 2 November 1987  
MINISTER CO—ORDINATOR  
PEOPLE'S WILFARE

ALAMSYAH RATU PERWIRANEGARA

## KEYNOTE ADDRESS

### WHO/Indonesia Inter–Regional Workshop on Disaster Preparedness and Health Management.

Dr. Suwardjono Suryaningrat  
Minister of Health Republic of Indonesia

- Your Excellency Coordinating Minister For People's Welfare of the Republic of Indonesia
- Your Excellency Minister of Internal Affairs, of the Republic of Indonesia
- Your Excellencies Ambassadors from participating countries and collaborating countries
- Honourable Director of Emergency Preparedness and Response WHO Headquarters.
- Honourable WHO Programme Coordinator and Representative to Indonesia,
- Distinguished guests, ladies and gentlemen.

It is a great honour for the Ministry of Health of the Republic of Indonesia and myself to welcome all participants to this workshop on Disaster Preparedness and Health Management which is expected to come up with mutual benefits for Indonesia and WHO member countries especially those from the South East Asia and Western Pacific Regions.

I reacted with enthusiasm several months ago when the proposal to hold this important workshop in Indonesia was submitted by the Directorate General For Medical Care to be partly financed by the WHO Headquarters. I would like also to congratulate the Organizing Committee for the initiatives taken to broaden the scope of this workshop by establishing bilateral cooperation with some embassies here in Jakarta, so that more experts have been able to come and contribute their knowledge and experiences.

Distinguished guests, ladies and gentlemen,

Throughout history, mankind has always been exposed to disasters which have been responsible for millions of death, countless injuries and illness, and extensive but poorly characterized psycho-social and economic effects. Indonesia is no exception and in fact, this country possess a high number of disaster prone areas, most notably caused by volcanic eruption, in which Indonesia is part of the "ring of fire" of the earth with the highest number of active volcanoes in the world (130 or 15% of the world total).

In the period of 1600–1980 about 161.000 deaths (67 percent of the 238.900 for which data exist) have resulted from volcanic eruptions in Indonesia, 31.000 (13 percent) in the Carribean, 19.000 (8 percent) in all other areas of the world. The eruption of Mount Tambora (1815) and Mount Krakatau (1883) killed 90.000 and 36.000 people respectively, when the country was not as densely populated as it is now. Other form of natural disasters in Indonesia are flood, landslide, earthquake, Tsunami waves, forest fire, drought and typhoon. In the meantime the national development effort toward modern and industrious Indonesia has brought about some negative aspects, in which the potentials of technology related and man-made disasters have increased significantly, combined with the unevenly distributed population of over 160 million people.

Some part of the country have become new disaster prone areas caused by the disruption of ecology system and the presence of giant industrial complex.

It is within this consideration that besides striving to increases production and modernize, the Government of Indonesia has put great attention on the population and environment control aspects in the national development programs.

Nowadays, people realize that if not managed properly, disaster can be detrimental to the development of a country. Therefore, any country must be prepared to face disaster and able to minimize the risk and to facilitate physical, mental and social rehabilitation. Development also brings about new social values and social changes and with more modern and faster transportations and communications, traffic accidents have been increasing in the last twenty years, exceeding the number of deaths and invalidity caused by large scale disasters. With more and more sophisticated technology used, some large scale disaster are initiated by small accidents due to lack of dis-

cipline and carelessness. Therefore accidents prevention and standard safety measures must be given great attention most notably in factories where sophisticated technology and dangerous materials are used. The role of the health sector in disaster management is obviously important, bearing in mind that any disaster management first goal is to save life and limb of human beings. Therefore a medical and rescue team must be ready at all level from national to provincial, regency and sub-regency level. This team consists of health personnel of the emergency service department, the police, the fire brigade, Red Cross and other voluntary organizations.

Distinguished guests, ladies and gentlemen.

The impact of disaster to the health service and infrastructure is not only limited to the urgency to mobilize dramatically to help the victim at once but also the immediate and long term effects on public sanitation, nutritional status and disease control. These must be overcome by intensive and integrated efforts despite of limited resources. It is an undeniable fact that at the onset of disaster, the organization and facilities of the medical services are among the first focal points for the community to ask for and seek help. The medical services are expected to react immediately with well organized and integrated manner. At present, one has to realize the fact that despite the abundance of disaster in Indonesia, the organization and coordination in management of disaster need to be improved and the health sector is no exception.

However this does not mean that there is no national effort to overcome this problem. The formation of the National Coordinating Agency For Natural Disaster Mitigation as stipulated by the Presidential Decree # 28/1979, the Law # 5/1974 on Civil.

Administration, Presidential Decree # 11/1972 on the formation of the National Search and Rescue Agency and Government regulation # 7/1987 and our own National Health System, have become the umbrella for and can be used as the basic criteria for the formulation of strategies, policies, and operational procedures of disaster preparedness and management within the health sector. Therefore, it is our sincere hope that this workshop will come up with recommendations on at least strategies and policies and general operating procedures of disaster preparedness and disaster health management and its linkage to the national disaster preparedness and management as

a whole. It is expected that as a follow-up, a set of manuals on specific aspects in disaster management in Indonesia will be developed in cooperation with other government agencies and the World Health Organization. Some well written and well developed manuals on certain disaster prone area are already available, for example the Mt. Merapi disaster plan, the Mt. Krakatau disaster plan, the Sinila (Dieng Plateau) disaster plan and the Mt. Agung disaster plan.

Distinguished participants, ladies and gentlemen .

Please allow me to appeal in this opportunity to the distinguished participants the possible approach toward the formulation of such concept.

1. There is a necessity to develop a pre-disaster plan within the health sector and this plan must be integrated with the national activities in the pre-disaster phase.

Training of the health personnel, laymen, voluntary organizations, the police fire brigade, and civil defence in basic medical emergency technique, simple life-saving procedures, evacuation and transportation of patients, will improve the people self-reliance status in case of disaster before external help arrives.

Basically, improvement of sanitary condition, immunisation, improvement of nutritional status and other primary health care measures are directly contributory to disaster preparedness. Healthier people will exert better endurance in time of physical and psychological distress. The hospital should establish a disaster plan covering its catchment area, the health centers and the health sub-centers. The local government should establish a network of radio communication link between hospitals health centers, health sub-centers and ambulances.

Data of the epidemiology of diseases and public health situation of a given area is important in establishing hazards mapping of a given area.

These data must be integrated with other data from geology, climatology, vulcanology and other needed data to form hazard mapping of a given area.

It is vitally important to develop standard operating procedures in case of disaster at this stage and carry out exercise at least once a year. Effective network of daily emergency medical service that some

ve small scale casualties can easily be adapted to large scale casualties in time of disaster.

3. The scope of the plan must cover all administrative level from the central level down to the front-line level of health services and infra-structure.

2. The health sector disaster plan is an entegral part of the national disaster preparedness and management plan. Every sector must develop their plan of action which covers pre-disaster preparedness, disaster response and post disaster rehabilitation.

4. The health sector plan should also include all organizations that directly or indirectly provide health services for example: the Armed Forces Medical Corps, the Red Cross, private hospitals, civil defence, boy scouts etc.

5. At the village level the activity should cover the basic capability to stimulate the people's self reliance so that they can save themselves and those nearly.

Distinguished guests, ladies and gentlemen.

The effects of a Disaster might be local, national or even international. Ever since his existence mankind has always been moved to help others in distress or in life and death situation. The sufferings of the people in one part of the world is felt by others especially in the present era of fast communications and informations technology. Many international rules, regulations, and efforts are dedicated to help those inflicted by disasters.

Based on this principle, this inter-regional workshop is expected to identify common problems and promote technical cooperations between WHO member states in these two regions. It is not improbable to assure that a big explosion of Mt. Krakatau will effect all neighbouring countries of South-East Asia.

Even though the topic of discussions will be more on Indonesian--based situations and conditions, I am sure that foreign participants can share their experiences in common problems and by the presence of those from other parts of the world, this workshop is also expected to result in regional and international cooperative effort in disaster preparedness and management within the health sector.

I wish all participants for a fruitful workshop and nice stay in Indonesia.

Thank you.

**LIST OF PARTICIPANS**  
**WHO/INDONESIA INTER-REGIONAL WORKSHOP ON DISASTER**  
**PREPAREDNESS AND HEALTH MANAGEMENT**  
**JAKARTA, NOVEMBER 2 - 6 1987**

NO	N A M E	OFFICE/COUNTRY	A D D R E S S
1	2	3	4
1	Dr. H. Mohamad Isa	Ministry of Health	Jakarta Indonesia
2.	Dr. Soemarja Aniroen, MHS	Ministry of Health	Jakarta Indonesia
3.	Dr. Nyoman Kandun	Ministry of Health	Jakarta Indonesia
4.	Dr. H. Abdul Radjak	Ministry of Health	Jakarta Indonesia
5.	Dr. Rustandi, MPH	Ministry of Health	Jakarta Indonesia
6.	Dr. Suriadi Gunawan	Ministry of Health	Jakarta Indonesia
7.	Dr. Suparnadi P.	Ministry of Health	Jakarta Indonesia
8.	Dr. Pranowo S.	Ministry of Health	Jakarta Indonesia
9.	Budi Yahmono SH	Ministry of Health	Jakarta Indonesia
10.	Rusjdi Djunaid	Ministry of Health	Jakarta Indonesia
11.	Titi Indiyati	Ministry of Health	Jakarta Indonesia
12.	Dr. S. Djumhana S. MPH	Ministry of Health	Jakarta Indonesia
13.	Drs. Pudji M. Achmad	Ministry of Home Affair.	Jakarta Indonesia
14.	Dr. Sonya Purnomo Roesma	Ministry of Health	Jakarta Indonesia
15.	Dr. Boedihartono, MHA	Ministry of Health	Jakarta Indonesia
16.	Dr. Dirk Palekahelu, MPH	Ministry of Health	Jakarta Indonesia
17.	Dr. Soedibyo Sardadi, MPH	Ministry of Health	Jakarta Indonesia
18.	Dr. Soeharto Wirjowidadgo	Provincial Health Office	Jakarta Indonesia
19	Dr. IGA Gde Oka, MPH	Denpasar Hospital	Denpasar Indonesia
20	Dr. IGM Subandi	Denpasar Hospital	Denpasar Indonesia
21.	Dr. Kariadi	Dr. Soetomo Hospital	Surabaya Indonesia
22.	Dr. IGM Hussaini	Dir. Sukabumi Hosp.	West Java Indonesia
23.	Dr. Purnomo Sidhi	Gatot Soebroto Hosp.	Jakarta Indonesia
24.	Dr. Santosa Seto	Central Police Hosp	Jakarta Indonesia
25	Dr. Premadi Sutrisno	Pertamina Hospital	Jakarta Indonesia
26.	Dr. Soehardo Miloredjo	Aneka Tambang Hosp.	Jakarta Indonesia
27.	Dr. Djuhara Asgar	Aneka Tambang Hosp.	Jakarta Indonesia
28	Dr. Satmoko	St. Carolus Hosp.	Jakarta Indonesia
29	Dr. Widodo Suwarno	Central Police Hosp	Jakarta Indonesia
30.	Dr. Luthfi Hamzah	Central Police Hosp.	Jakarta Indonesia
31.	Dr. Abdus Syukur	Dr. Soetomo Hosp.	Surabaya, Indonesia
32.	Dr. Teguh Sylvaranto	Dr. Soetomo Hosp.	Surabaya, Indonesia
33.	Drg. Muryono Subyakto	Air Force Hosp. Jkt	Jakarta Indonesia
34.	Dr. Soeradi	Fatmawati Hospital	Jakarta Indonesia

1	2	3	4
35	Dr. M. Markum S.	Cipto M. Hospital	Jakarta Indonesia
36	Dr. Mulyono S.	Gatot Soebroto Hosp.	Jakarta Indonesia
37	Dr. Aryono D. Pusponogoro	118 Ambulance Service	Jakarta Indonesia
38	Dr. Susilo Wibowo	Indonesia Critical Care Ass.	Jakarta Indonesia
39	Dr. Andries	Krakatau Steel	West Java Indonesia
40	Dr. Burhanuddin Taher	Krakatau Steel	West Java Indonesia
41	Dr. Tekky P. Jokom	ITCI/Balikpapan	Kalimantan Indonesia
42	Dr. Olavi Elo	WHO-HQ	Geneva Switzerland
43	Dr. Moh Hedayetullah	WHO-SEARO	
44	Dr. Robert Bernstein	WHO-Indonesia	
45	Dr. Michael Linnan	WHO-Indonesia	Atlanta, Georgia
46	Dr. Andi MF. Pangerang	WHO-Indonesia	Jakarta Indonesia
47	Dr. Claude De Ville De Goyet	WHO-AMRO	
48	M. Lechat, Prof.	WHO-CRED	Bruxelles, Belgium
49	Mr. Soeparno, Drs.	East Java Prov. Health Office	Surabaya, Indonesia
50	Dr. Bambang Soetrisno MHE	SPH-UI	West Java Indonesia
51	Dr. Noor Sasongko	M.O. Agriculture	Jakarta Indonesia
52	Mien S. Warnaen, Mrs.	Ind. Scouts/Guides Hq	Jakarta Indonesia
53	Dr. Z. Iskandar	Soroako	Sulawesi Indonesia
54	Dr. Nardho Gunawan, MPH	Prov. Health Office	Semarang, Indonesia
55	Drs. Aspan S. Danuatmodjo	BAKORNAS-PBA	Jakarta Indonesia
56	Mr. Jayusman	M O. Home Affair	Jakarta Indonesia
57	Mr. John Brata	Indonesian Police	Jakarta Indonesia
58	Mr. Hendra Jaya	Ind. Amateur Radio Association	Jakarta Indonesia
59	DR. Ir. A. Sudradjat, MSc	Volcanology Direct	Bandung, Indonesia
60	Dr. Jati S. Pratiknyo	Pertamina	Sumatera Indonesia
61	Dr. Syafei	Pertamina	Palembang Indonesia
62	Dr. Soegono S. DOH	Pertamina	Balikpapan Indonesia
63	Dr. Bachtiar Nasution	Pertamina	Jakarta Indonesia
64	Dr. Soebyakto, MSc.	PT. Arun NGL Co.	Aceh, Indonesia
65	Dr. Wawan Irawan	PT. Arun NGL Co.	Aceh Indonesia
66	Dr. Achmad Antono	M.O. Industry	Jakarta, Indonesia
67	Drs. Sonny Harsono	Indonesian Police	Jakarta Indonesia
68	Rashim Ahluwalia	C.I.D.A.	Canada
69	Dr. T. Boediono	Indonesia Air Force	Jakarta Indonesia
70	Dr. Soesanto	Indonesian Red Cross	Jakarta Indonesia
71	Letkol A.L. Soeparno	S A R	Jakarta Indonesia
72	Sunawang	Unicef Health Prog	Jakarta Indonesia
73	R. Soeryono	Armed Forces Hq	Jakarta Indonesia



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74	Soebadi	M.O. Mining & Energy	Jakarta Indonesia
75	Drs. Soetrisno	M.O. People's Welfare	Jakarta Indonesia
76	Entang Suhara	Civil Defence	Jakarta Indonesia
77	Dra. H. Nasjerah M.E.	Kowani	Jakarta Indonesia
78	Drs. Suranto	M.O. Social Affairs	Jakarta Indones
79	Dr. Salmanul Asri	Indonesian Police	Jakarta Indonesia
80	Kol. Sudarto	Indonesian Police	
81	Dr. R. Adiwidjaya Tjenrad	M.O. Tourism, Pos&Tel	Jakarta Indonesia
82	Ir. Mardjono N.	M.O. Public Works	
83	Syamdudin BA	M.O. Social Welfare	Jakarta Indonesia
84	Drs. Darius Djana	I.D.M.C.	Jakarta Indonesia
85	Y u h a n d a	HANKAMNAS	Jakarta Indonesia
86	Dr. Soepriardjo G.	LEMHANAS	
87	Dr. Andrian T.	Jakarta Prov. Health Office	Jakarta Indonesia
88	Dr. Ismet Sanusi	Jakarta Prov. Health Office	Jakarta Indonesia
89	Dr. H. Rustamadji	I A K M I	Jakarta Indonesia
90	Dr. Samsi Jacobalis	Husada Hospital	Jakarta Indonesia
91	Dr. Mushadi Kolonel CKM	Ind. Armed Forces Medical Services	Jakarta Indonesia
92	Drs. Jacky Mardono	Indonesian Police	Jakarta Indonesia
93	Dr. Toga Sibuea	Cikini Hospital	Jakarta Indonesia
94	TA. Manurung	BASARNAS	Jakarta Indonesia
95	Dr. Michael Joli	France	Paris, France
96	Dr. Chandra Rajapaksa	Srilanka	Srilanka
97	Mr. Donald Abeyasinghe	Srilanka	Srilanka
98	Dr. Abdurachman Bin Muda	Malaysia	Malaysia
99	Dr. E. Thomas	Geneal Hospital	Malaysia
100	Dr. Govinda Man Shrestha	EDM Kathmandu	Kathmandu, Nepal
101	Dr. Rosalinda Ul. Majarias	Philippines	Manila, Philippines
102	Dr. Primo V. Brillantes, Jr	Phillipines	Manila, Philippines
103	Dr. Hrouda Philippe	France	France
104	Dr. Med. Cap Richter	France	France
105	Mr. Takemoto Naokazu	Japan	Tokyo, Japan
106	Dr. Verma Bipin Kumar	India	New Delhi, India
107	Dr. Nguyen Quang Khang	Vietnam	Vietnam
108	Dr. Ngo Van Hop	Vietnam	Vietnam

**TIME TABLE**  
**WORKSHOP ON DISASTER PREPAREDNESS AND HEALTH MANAGEMENT**  
**NOVEMBER 1 - 6 1987**

1	2	3	4	5	6	7	
Sunday, Nov. 1, 1987							
12.00-18.00	Registration						
19.00-20.00	Dinner						
20.30-21.30	SC Meeting			Hotel Lobby Swimming pool terrace Java/Bali Room		DC FDC+SC	
Monday, Nov. 2, 1987							
07.00-08.00	Late Registration			Hotel Lobby			
08.00-10.25	Official Opening Opening of exhibi- tion Cocktail		- Dr. Moh. Isa - W H O - Minister of Health - Coordinating Minister for People's Welfare Dr. Olavi Eio	Bidadari Room		Dr. Rusdy Husein M.C. Mrs. Dewi Drs. Sudaryanto	
10.30-11.15	General Lecture 1	WHO Global & Regional Acti- vities in disaster prepared- ness and Health Management		Java/Bali/Room	Dr. Moh. Isa	Dr. Rushdy Husein	

1	2	3	4	5	6	7
11.15-12.00	General Lecture 2	The Epidemiology of National Disaster in the Caribbean, its implication for Disaster Preparedness in South East Asia & Pacific Region	Dr. Claude De Ville De Goyet	Java/Bali Room	Dr. Sonya Purnomo	
12.00-12.45	General Lecture 3	The French National and Global disaster management organization	Dr. Michel Joli	Java/Bali Room	Dr. Soemarja Anireen MHA	
12.45-13.45 Lunch						
13.45-14.30	General Lecture 4	The use of satellite in disaster monitoring	Director of LAPAN Indonesia	Java/Bali Room	Dr. Abdul Radjak	
14.30-15.15	General Lecture 5	The problem of disasters at Sea	J.E. Habibie			
15.15-15.45	Coffee Break					
15.45-17.15	Panel Discussion	Public Health aspect in disaster preparedness and Management	1. Dr. Claude De Ville De Goyet 2. Prof. M. Lechat 3. Dr. Nyoman Kandun 4. Wahyu Widodo MSc.	Java/Bali Room	Dr. Bambang Sutrisna	
19.30-22.00 Tuesday, Nov. 3, 1987	Banquet			Bidadari Room		M.C. Mrs. Desi Dewi
08.00-08.45	General Lecture 6	Forecasting and mitigation of Geological disaster in Indonesia	Prof. J.A. Katili		Dr. Samsi Jacobalis	Dra. Susbendy Min Rustyn

1	2	3	4	5	6	7
08.45-09.30	General Lecture 7	The role of the health sector in Indonesian disaster preparedness and management	Dr. Moh. Isa		Dr. Surjadi Gunawan	
09.30-10.00	Coffee Break					
10.00-11.30	Panel Discussion 2	The Medical Management Aspects in disaster	1. Dr. Soesilo W. 2. Mr. N. Takemoto 3. Dr. Pranowo 4. Dr. P. Hrouda		Dr. Samsi Jacobalis	
11.30-13.00	Panel Discussion 3	Community participation aspect in disaster	1. Dr. Ibnu Sutowo 2. Drs. Pudji AM 3. Dr. Claude De Ville De Goyet 4. ORARI		Dr. Sonya Purnomo	
13.00-14.00	Group Session 1	Working Group Discussion			Group Leader	
14.00-16.00	Coffee Break					
16.00-17.00	Group Session 2	Working Group Discussion			Group Leader	
Wednesday, Nov. 4, 1987						
08.00-09.30	Panel Discussion	Environment Management aspect in disaster	1. Muradi Yuti, SE 2. Dept. of Public Work 3. Dr. Claude De Ville De Goyet 4. Dr. Robert Bernstain	Java/Bali Room	Dr. Surjadi Gunawan	Dr. Tyas Katamsi Delly
09.30-10.00	Coffee Break					

1	2	3	4	5	6	7
10.00-11.30	Panel Discussion 5	The role of radio-communications in disaster management	1 Dr. Karyadi W. 2 Dr. Michael Linnan 3 Dr. Adjat S. 4 Ir. S. Abdurrahman	Java Bali Room	Dr. Abdul Radjak	
11.30- 13.00	Panel Discussion 6	Intersectoral coordination regional and international cooperation in disaster preparedness and management	1. Mr. David Nelson 2. Mr. Jean-Perre Boldue 3. Dr. Med. Cap Richter 4 Dr. Claude De Ville De Goyet	Java/Bali Room	Prof. M. Lechat	
13.00- 14.00 14.00-15.30 15.30- 16.00	Lunch Group Session 3 Group Session 4				Group Leader Group Leader	
Thursday, Nov. 5, 1987 07.30 19.00-21.00	Bus Trip for Field Demonstration	Field Desentrations	Governor of Jakarta DG for Medical Care WHO HQ	1. Cibubur 2. Sukabumi Pasar Seni Ancol		Dr. Darmawan T Dr. Parlin
Friday, Nov. 6, 1987 08.00-09.30 09.30-10.00 10.00-13.00 13.00-14.00 14.00- 16.00 16.00-17.00	Group Session 5 Coffee Break Group Session 6 Lunch Plenary Session Official Closing			Java/Bali Room Java/Bali Room Java/Bali Room	Group Leader Group Leader	Dr. Sudaryanto

