

Annex 5

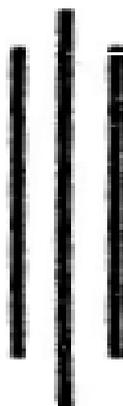
NATIONAL ACTION PLAN

ON

DISASTER MANAGEMENT

IN NEPAL

1996



**His Majesty's Government,
Ministry of Home Affairs,
Singh Durbar, Kathmandu, Nepal**

Acronyms

CDRC	- Central Disaster Relief Committee
DDRC	- District Disaster Relief Committee
DHM	- Department of Hydrology and Meteorology
DMG	- Department of Mines and Geology
DoAD	- Department of Agricultural Development
DoI	- Department of Irrigation
DoL	- Department of Labour
DoR	- Department of Roads
DoSCWM	- Department of Soil Conservation & Water Management
FNCCI	- Federation of Nepal Chamber of Commerce and Industry
IDNDR	- International Decade for Natural Disaster Reduction
INGO	- International Non-Government Organisation
MHPP	- Ministry of Housing and Physical Planning
MoA	- Ministry of Agriculture
MoEC	- Ministry of Education and Culture
MoF	- Ministry of Finance
MoFA	- Ministry of Foreign Affairs
MoFSC	- Ministry of Forest and Soil Conservation
MoHA	- Ministry of Home Affairs
MoHE	- Ministry of Health
MoI	- Ministry of Industry
MoIC	- Ministry of Information and Communication
MoLD	- Ministry of Local Development
MoLJ	- Ministry of Law and Justice
MoPE	- Ministry of Population & Environment
MoWR	- Ministry of Water Resources
NASC	- Nepal Administrative Staff College
NCC	- National Cadet Corps
NFC	- Nepal Food Corporation
NGO	- Non-Government Organisation
NPC	- National Planning Commission
NRCS	- Nepal Red Cross Society
RNA	- Royal Nepal Army
SWC	- Social Welfare Council
WIDPTC	- Water Induced Disaster Prevention Technical Centre

INTRODUCTION

Nepal is characterized by its rugged topography with high relief, complex geology, concentrated rainfall and a high population density. The country faces several natural hazards and larger part of the country is vulnerable to earthquake, landslide, debris flow, flood, drought another forms of hazards. Natural disasters occur year after year causing immense damages of public properties and human lives. Sometimes the extent of damage is enormous as we experienced during the earthquakes of 1980 and 1988 and flood of July 1993. Apart from these events, there are several natural calamities, which struck the country in the past; the earthquake of 1934 was one of the serious disasters, the country ever faced.

The natural disasters may not be stopped, but efforts can be made to reduce the impact of disaster. Considering this fact, the United Nation General Assembly in its resolution 44/236 of 22 December 1989 decided to launch a far-reaching global undertaking for the decade of 1990s to save humanities and reduce the impact of disaster. To initiate a process toward global culture of prevention, the United Nations declared the decade of 1990-2000 as an International Decade of Natural Disaster Reduction (IDNDR). Responding the global call of prevention, Nepal constituted IDNDR National Committee under the chairmanship of Minister for Home Affairs. The National Committee met several times to undertake preventive measures so as to reduce the impact of disasters. The National Committee felt the need of preparing a practical and effective action plan on disaster management as previous efforts were concentrated basically on the rescue and relief operations.

In this connection, four core groups, comprising of experts, administrators, security personnel, academicians, were formed to prepare a National Action Plan on Disaster Preparedness, Response, Mitigation, Rehabilitation and Reconstruction. The preliminary National Action Plan was prepared and also presented in IDNDR World Conference, 1994. The World Conference, after assessing the outcome of the efforts made by member countries, declared the strategy for remaining period of the decade and also accepted a plan of action for disaster reduction.

The Preliminary Action Plan on Disaster Preparedness, Disaster Response, Disaster Rehabilitation and Reconstruction as well as Disaster Mitigation which was presented in the world conference, was prepared by different core groups separately. Due to this fact these Action Plans lacked consistency and inter-relationship. The drafted Action Plan tried to cover every aspect of disaster management with more attention on theoretical and procedural aspects rather than prevailing situation of disaster arrangement in the country. Similarly it recommended estimated cost of each activity irrespective of the national capacity and available resources. So, the Preliminary Action Plan appeared to be difficult for proper execution.

Despite these deficiencies, it must be remembered that the Preliminary Action Plan was prepared prior to the World Conference, 1994; the strategies and Plan of action adopted by the World Conference were not incorporated;

Keeping these shortcomings in mind, the IDNDR National Committee in it's meeting on 27 April 1995, felt the need of incorporating Yokohama Strategy in National Action Plan and simplifying the preliminary draft in order to adopt a more practicable and implementable Action Plan on Disaster Management. Hence, IDNDR National Committee, Nepal, finally prepared an Action Plan on Disaster Management in 13 July 1995 and submitted it to HMG/Nepal for its approval. Later, on 18 Feb. 1996 HMG/Nepal had principally accepted this plan as the "National Action Plan on Disaster Management in Nepal"

A. National Action Plan on Disaster Preparedness

The suggested national action plan on disaster preparedness is presented in the form of a matrix indicating priority item group, activities, the time schedule and the executing agencies with specific co-operating agencies.

The priority item group includes following preparedness activities.

1. Measures related to national policy and planning for making institutional arrangement, providing legal framework, adopting national policy and plan on disaster management.
2. Measures related to geological, hydrological and meteorological hazard assessment and environmental engineering studies.
3. Infrastructure specific and hazard specific preparedness measures.
4. Measures related to strengthening fire-fighting capabilities in fire prone areas.
5. Measures related to awareness raising, training, rehearsal, simulation activities.
6. Measures related to establishment of disaster management information system and stockpiling of emergency supply materials.

The activities involve the formation of appropriate institutional arrangements in terms of National Disaster Management Council at policy level, a National Disaster Management Centre at the central executive level and various disaster management committees at regional, district and village level for effective implementation. The activities also include the enactment of appropriate legislation with specified responsibilities to concerned agencies.

The action plan also proposes the incorporation of disaster management as multi-sectoral activities in next five year development plan. The emphasis is given to the preparation of hazard assessment and mapping of the recurring disasters in Nepal like earthquake, flood, landslides, GLOF etc. The activities further specify the selected areas in this concern so as to attain the objectives in the remaining part of the decade.

Several arrangements have been recommended in the context of capacity building at local level. Public awareness programmes, rehearsal, drills, stockpiling of emergency relief materials are included in the action plan. The environmental, geological studies have been prioritized. The measures related to strengthening the infrastructures for reducing the impact of disasters have been proposed.

Disaster Preparedness Action Plan Matrix

S.N.	Priority Item Group	Priority Item and Activities	Time of Completion	Executing Agency (Co-operating Agency)
A	Measures related to National Policy and Planning	A1. Making institutional arrangements	Mid 1996	MoHA
		(a) Study of constituting National Disaster Management Council		
		(b) Finalize organizational structure for disaster Management Committees at central, regional, district and village levels		
		(c) Finalize organizational structure and system for disaster management operation unit/agency		
		A2. Providing legal framework	1996	MoHA
		(a) Review existing laws		
(b) Identify and finalize changes needed				
(c) Prepare draft of amendment of new laws and by-laws on disaster management				
A3. Adapting National Policy and Plan		A3.1 Incorporate Policy on Disaster Management in 9 th 5 Year Plan as a multi-sectoral activities	1996	MoHA (NPC)
		A3.2 Review of National Comprehensive Plan on Disaster Management	1996	MoHA
		(a) Prepare TOR for task force for reviewing existing National Comprehensive plan for Disaster Management and prepare updated draft		
		(b) Appoint consultants/task force for the task		
(c) Consider and finalize draft plan				
(d) Adopt and publicize plan				
B B1.	Measures Related to Geographical, Hydrological and Meteorological Hazard Assessment	B1. Earthquake Hazard		
		B1.1 Collect compile and disseminate Earthquake hazard map		
		B1.2 Training support to National Seismological Network of DMG		
		B1.3 Technical support for micro-seismic zonation study on selected geographical locations	Start now and to be continued	DMG
		B1.4 Establish and operate National Accelerometer Network	1996	DMG
		B1.5 Vulnerability assessment of selected public buildings (e.g. Hospitals, Schools etc) and infrastructure (e.g. power station, bridges etc)	Start now and to be continued	DMG
		B1.6 Active fault inventorying and monitoring	2000	DMG
		B2. Landslide hazard assessment		
		B2.1 Landslide hazard mapping of selected areas	1998	MHPP (DMG)
		(a) Identify priority areas		
(b) Establish standard for landslide hazard mapping	2000	DMG		
(c) Assess existing data on landslides				

		(d) Introduce remote sensing techniques for landslide detection (e) Collect, compile, produce and disseminate landslide hazard maps and reports	1996	MOFSC, TU, DPTC, DMG
		B3. Planned Engineering and Environmental Geological Studies B3.1 Engineering and environmental geological mapping (a) Kathmandu valley (b) Pokhara valley	1995	DMG
		B4. Hydrological meteorological hazard Studies B4.1 Preparation of flood hazard map (a) Koshi, Bagmati, Tinau, Mahakali (b) Babai, West Rapti	1996 2000	DoI (DPTC, DHM) DoI (DPTC, DHM)
		B4.2 Preparation of debris flow hazard map (a) Bagmati (Palung Khola) Trishuli 9 Agra, Belkhu, Malekhu) (b) Bagmati (Marin)	1995	DPTC (TU)
		B4.3 Preparation of glacier lake location map	1995	WECS
		B4.4 Preparation of rainfall intensity map Start now and to continued	Start now and to be continued	DHM
		B4.5 Establishments of flood forecasting and warning system (a) Bagmati (b) Kamala, East Rapti	1995	DPTC (TU)
		B4.6 Improvement of hydro-meteorological observation network	1995	WECS
C	Infrastructure Specific and Hazard Specific	B4.7 Collect, compile and disseminate flood hazard maps	Start now and to be continued	DHM
D.		C1. Preparedness measures Roads and Bridges C1.1 Identify disaster prone sections of highway C1.2 Assess vulnerability of disaster prone sections C1.3 Implement suggested measures	1996 2000	DoI (DPTC, DHM) DoI (DPTC, DHM)
		D1. Institutional development of fire brigades D2. Strengthening of fire fighting service in Kathmandu, Lalitpur and Bhaktapur	1997	DHM
		(a) Improve the fire fighting facility in Kathmandu valley (b) Relocate fire brigades stations to suitable places (c) Provide additional equipment to fire brigades (d) Training of fire fighters	2000	DoI (DPTC, DGM)
E.	Awareness Raising Programmes	D3. Strengthening of fire fighting facilities in Municipalities	1996 1997 1997	DoR (DMG) DoR (DMG) DoR
		E1. Raising awareness through mass media (Television, newspaper, radio bulletin etc.) E2. Distribution of pamphlets, posters and other materials E3. Preparation of documentary film, slides for public show E4. Inclusion of disaster management course in secondary school syllabus	1997 1998	MoLD MoHA (MoLD)
F.	Training/ Rehearsals/ Simulations	E5. Poetry, debate and essay competition (Every Year) E6. Regional workshop and national conference (GO, NGOs, INGOs) Every Year	1998	MoLD
G.	Disaster Management Information System	F1. Community leaders training programme at local level (Every Year) F2. Training on disaster management at various level F3. Conduct rehearsals and simulations in vulnerable areas	Start now and to be continued Start now and to be continued 2000	MoIC (MoH) MoIC (MoH)

H.	Stockpiling Emergency Relief Supplies and Rescue Equipment and Personnel	G1. Establish and maintain a communication system in all 75 districts (HF/VHF/UHF-Transceiver System) with access to centre	2000	MoIC (MoH)
		G2. Encourage, support and expand local communication practice	Start now and to be continued	MoEC
		G3. Establish a National Disaster management Information System for disaster information collection and dissemination	2000	MoEC MoHC (NASC)
		H1. Establish/manage emergency supply warehouses in 5 development regions at accessible location	2000	NRCS (DDRC)
		H2. Provide regular supplies of relief materials in warehouses	Start now and to be continued	MoH
		H3. Establish stations with minimum rescue equipment and rescue personnel in all 75 districts	1997	DDRC (Local NGOs)
		H4. Training on warehouse management and supply of relief materials	2000	MoIC (MoH, RNA, Police Headquarters etc.)
			1997	MoIC
				MoH (INGOs, NGOs)
			2000	MoH (NRCS, NGOs, NFC)
	Start now and to be continued	MoH (NRCS, NGOs, INGOs)		
	Start now and to be continued	MoH (RNA, Police, NCC, Scout,NGOs)		
	Start now and to be continued	DDRC		

B. National Action Plan on Disaster Response

As the activities of disaster response start only after a disaster has struck in certain area, the action plan is prepared as a part of preparedness for actual response operations. This action plan is prepared with the assumption that about 15000 families (with an average of 6 members in a family) will be affected by disaster every year. Considering this size, the items and activities included in this action plan should be carried out so as to build the capability of disaster management by the end of 2000 A.D. In this context equipment necessary for disaster response activities have been recommended and the list of it is included in the Annex A-C

The disaster response action plan includes following activities:

1. Evacuation, Search and Rescue:

The main objective of the action plan is to strengthen the capability of the agencies involved in rescue and evacuation operation. Identification of dead bodies, need and damage assessment, supply of necessary equipment needed for rescue operations, appropriate training for the rescue personnel and preparation of emergency evacuation site plan are the main activities recommended in this part.

2. Communication and Transportation:

As the means of communication and transportation should be procured not only for disaster response operations, there is a need for preparing inventory and updating it. Communication equipment should be supplied and necessary transportation vehicles including aircrafts and helicopters should be procured for carrying out efficient operations.

3. Temporary Settlement:

The temporary settlement sites should be identified. For this purpose roadside land, community land, unused government land, public buildings like schools can be taken into consideration. There should be a definite plan of settlement sites which can be used during the disasters.

4. Health, Nutrition, and Sanitation:

For this purpose a disaster unit with minimum facilities should be established in every hospital for emergency operations. The health offices at district headquarters should have necessary emergency medicines.

As the response activities are purely managerial functions, regular trainings and exercise should be carried out at local level every year.

Disaster Response Action Plan Matrix

S.N.	Priority Item Group	Priority Item and Activities	Time of Completion	Executing Agency (Co-operating Agency)
A.	Evacuation, Search and Rescue	A1. Preparation of evacuation plan of public buildings and areas (a) Rehearsal/drills exercise	1997	MHPP (MoH)
		A2. Identification of emergency evacuation sites at local level	2000	DDRC
		A3. Formation of a permanent search and rescue team at district and local level	1996	MoH (DDRC)
		A4. Training for rescue personnel	Start and continue	MoH (RNA, Nepal Police, Scot, NCC, SWC, Local NGOs)
B.	Emergency Need Assessment	B1. Formation of a permanent need assessment team at district level	1996	DDRC
		B2. Preparation dissemination of standard format on need assessment	1996	MoH
		B3. Training and orientation on need assessment	Start ad continue	DDRC
C.	Communication and Transportation	C1. Establishment of emergency and information operation centre level with access to centre	1996	CDRC (RNA, Nepal Police, Experts)
		C2. Equip the centre with necessary communication facilities	1993	CDRC (RNA, Nepal Police)
		C3. Preparation of communication network at the local level	Start and continue	DDRC (RNA, Nepal Police)
		C4. Preparation of Inventory on transportation vehicles for rescue and relief operation	Start and continue	CDRC (DDRC)
		C5. Procurement of appropriate transportation vehicles for rescue and relief operations	Start and continue	CDRC
D.	Temporary Settlement	D1. Include open spaces in urban planning for post-disaster temporary settlement sites	1996	MHPP
		D2. Prepare settlement plan at local level	Start and continue	MHPP
		D3. Establish warehouses and stockpile light shelter materials (Plastic sheets, tents etc) at district level	Start and continue	MHPP (MoH)
E.	Survivor Response, Coping and Security	E1. Health and Nutrition		
		(a) Formation of medical assistance team	Start and continue	
		(b) Storage of emergency medicines and medical instrument at local level	Start and continue	MoHE
		(c) Setting up of mobile hospitals with necessary manpower (predetermined)	Start and continue	MoHE
		(d) Establish disaster unit in each public hospitals	2000	(INGOs)
		E2. Sanitation and drinking water		
		(a) Storage of bleaching powder for chlorination of water in temporary resettlement sites	Start and continue	MoHE
		(b) Storage of polythene pipes in necessary numbers at local level	Start and continue	MHPP
E3. Training for manpower involved in coping mechanism	Start and continue	MHPP		
E4. Establish temporary police post at the affected area.	Start and continue			
		According to need	DDRC (NRCS, local NGOs)	
			MoH (Nepal Police)	

C. National Action Plan on Disaster Reconstruction and Rehabilitation Action

The action plan calls for the development of standard damage assessment format for all types of natural disasters with formation of a permanent damage assessment team at central as well as local level. There is also recommendation on compiling and disseminating the information on extent of damages.

The action plan also includes rehabilitation and reconstruction planning with emphasis on creating permanent committees for such activities centrally and locally. A sectorwise expert group for different types of disasters should review the information of damage assessment and should prepare guidelines for rehabilitation and reconstruction works.

For sustainable rehabilitation, income generating programmes should be implemented for which a feasibility study should be conducted to find out the local trends and availability of local resources. A special directive for loans to the disaster victims with subsidized interest rates is also recommended.

The action plan also emphasizes the need of carrying out regular capability assessment and inventory preparation at various levels including the resources of local community and NGOs.

Disaster Reconstruction and Rehabilitation Action Plan Matrix

S.N.	Priority Item Group	Priority Item and Activities	Time of Completion	Executing Agency (Co-operating Agency)
A.	Damage Assessment	A1. Preparation of standard damage assessment format for recurring types of disaster.	Mid 1996	MoH (MHPP, DoR, DoSC, DMG, DoI)
		A2. Orientation training for damage assessment format users.	1997 & continue	MoH (DDRC)
		A3. Formation of a permanent team for damage assessment at district level	Start and continue	CDRC, DDRC
		A4. Collect, compile and disseminate	Start and continue	MoH, DDRC
B.	Rehabilitation Planning Reconstruction Programme	B1. Formation of a permanent committee for rehabilitation and reconstruction planning at district level	Mid 1996	MoH
		B2. Setup permanent sector wise expert group for different types of disaster to review the damage assessment report.	Mid 1996	MoH
		B3. Prepare guidelines for resettlement rehabilitation and reconstruction (e.g. low cost disaster resistant housing, low cost sanitation measures etc.)	1999	(MHPP, DoR, DoI, DPTC, TU)
		B4. Develop manuals for rehabilitation and reconstruction operations.	1996	MHPP
		B5. Formulation of rehabilitation plan for victims (disabled and orphan) encouraging social institutions.	1997	MoEC
C.	Income Generating Activities	C1. Feasibility study of local income generating activities in each district.	2000	Mol (DoAD, DoL)
		C2. Design special directives for loan with subsidized interest rate to disaster victims.	1997	MoF
D.	Capacity Assessment	D1. Capability assessment of GO, NGO and others.	Start and continue	CDRC, DDRC
		<ul style="list-style-type: none"> a) Regular capability assessment b) Inventory preparation c) Feed back 		

D. National Action Plan on Disaster Mitigation

The action plan recommends the identification and recognition of the major natural hazards by the government for proper management and also for the direction of mitigation measures effectively for rest of the decade.

As the disaster mitigation is multi-sectoral activities, each sector needs proper resources to conduct its programme. Hence, allocation of financial resources for disaster management and mitigation programme to each disaster actor in National Budget is inevitable. As the internal resources could not meet the demand for disaster mitigation activities, international assistance should be encouraged. There should be a special disaster cell in the organization of every key disaster actor to conduct mitigatory works regularly.

The formulation of building codes and by-laws for disaster resistance structures, a preparation and dissemination relevant measure to increase resistance in existing structures is also necessary. The National Land Use and Land Cover Plan and National Disaster Reduction programmes for impending disasters should be formulated and implemented. The action plans call for national programmes on the hazards like earthquake, landslide; flood, drought and fire.

According to the strategies of IDNDR World Conference, 1994, the following activities have been included in the action plan.

- a) Risk assessment for development planning
- b) Policies on the role of NGOs, local community, private sector and also policies on peoples' participation especially women and socially disadvantaged groups.
- c) Incorporation of Environment Impact Assessment for disaster reduction in development planning.
- d) Promotion of regional and sub-regional co-operation between countries exposed to same types of hazards.
- e) Establishment of documentation centre on disaster reduction activities.

Disaster Mitigation Action Plan Matrix

S.N.	Priority Item Group	Priority Item and Activities	Time of Completion	Executing Agency (Co-operating Agency)
A.	Mitigation Strategies	A1. Identification of major types of natural hazards A2. Recognize and disseminate the results	1996 1996	CDRC CDRC
B.	Financial Strategies	B1. Allocate financial resources for disaster management and mitigation programme for each disaster actor in National Fiscal Budget B2. Encourage international donor (bilateral, multilateral and INGOs)	Start and continue	MoF MoF (MoFA, SWC)
C.	National Land Use and Land Cover Plan	C1. Formulation of National Land Use and Land Cover Plan C2. Implementation of Plan	Start and continue 1998	MoFSC (MoWR) (MHPP, DoR, DoT, DPTC, TU)
D.	Construction of Earthquake resistant Building	D1. Formulation of building code used and by-laws D2. Approval and implementation of building code D3. Formulation of relevant national legislation D4. Implementation of national laws on relevant measures prepared for increasing resistance	1998 and continue	MHPP MHPP (MoI) MHPP
E.	Risk Assessment	E1. Develop risk assessment programme for all types of disaster E2. Incorporate the results of risk assessment in development activities	1995 1996 1995 1996	MHPP MHPP (MoI) MHPP CDRC (Various line agencies) HMG line agencies
F.	Policy on Disaster Reduction Measures	F1. Formulation of policies on disaster reduction F1.1. National Disaster Reduction Programmes (a) Landslides and debris floods (b) Floods (c) Earth quake (d) Drought (e) Epidemics F2. National Programme on developing fire fighting capabilities F2. Approval and implementation of programmes on disaster reduction as mentioned in F.1	Start and continue Start and continue 1998 1998	MoWR (DMG) MoWR DMG MoA (MoLD) MoH

G.	Policies on NGOs Private Sector and Communities on disaster	F3. Adoption of integrated policies for prevention and preparedness	1998 1998 1998	MoLD (MoH)
		G1. Formulation of national plan on involvement of NGOs, reduction on following areas (a) Community based approach and people's participation (b) Involvement of women and other socially disadvantaged groups (c) Local non-government organization (d) Efforts of private sector	1998 1999 2000	Sectoral Ministries CDRC (NPC)
H.	Environment and Indigenous Technology Disaster Reduction	H1. Incorporation of Environmental Impact Assessment for disaster reduction in development planning	1998	CDRC (NPC, SEC, FNCCI)
		H2. Application of traditional knowledge, practices and values of local community for disaster reduction. (a) Study on Indigenous technology (b) Preparation of reports and dissemination (c) Adoption of the results in developing planning	1997	CDRC (NPC)
I.	Promotion of regional and Sub-Regional Cooperation between Countries Exposed to same Natural Hazards (like Floods and Earthquakes)	I1. Set up bilateral for multilateral Joint Committees on disaster reduction I2. Exchange information and share experiences for disaster reduction issues I3. Implement disaster reduction strategies	1998	CDRC (DDRC)
		J1. Establish documentation centre for compiling collecting, publishing and disseminating information on disaster management	1998 1999 2000	CDRC (DDRC) CDRC (DDRC) CDRC (DDRC, MoFA, MoWR, Mol)
J.	Establishment of Documentation Centre on Disaster management		Start and continue 1997 1998	MoFA (MoWR, Mol) MoWR, Mol MoH

Supplement

While implementing the plan, with a view to make it easier and more effective, some amendments were made by IDNDR, National Committee on 29 Sept. 1996 which are as follows:

1. The executing agency for (i) Flood Hazard Mapping and (ii) the establishment of Flood Forecasting & Warning System is to be the Department of Hydrology & Meteorology instead of Department of Irrigation.
2. As a part of Disaster Mitigation Action Plan :
 - (A) Policies on – (i) prevention & preparedness, (ii) participation of NGOs, private sector and local communities and (iii) incorporating environmental impact study in development plan, have to be carried out by Ministry of Population and Environment instead of CDRC.
 - (B) Ministry of Land Reform & Management has to be the co-operating agency for (i) the preparation of land use plan, (ii) rehabilitation plan and (iii) reduction programmes.
3. Regarding the amendments in the specified time frame, it is needed, the concerning agencies are requested to inform the IDNDR National Committee.
4. To monitor the execution of the action plan, a Monitoring and Evaluation Committee comprised of representatives from Ministry of Home Affairs, National Planning Commission, Ministry of Finance, Ministry of Water Resources, Ministry of Industry (Department of Mines and Geology), Nepal Red Cross Society and Royal Nepal Army has been constituted.

ANNEX – A

EQUIPMENT AND MATERIALS FOR RESCUE AND EVACUATION

1. AIR CRAFTS:

- a) C-130 (Hercules) or 1 (one)
CASA –212 4 (four)
- b) Super Puma Helicopter 4 (four)
- c) Allouette/Bell/Equirell Helicopter 4 (four)

2. TENTAGE

- a) Stores Tents (80X40) 5 (five)
- b) Stores Tents (40X40) 10 (ten)
- c) 50 Men Tents 10 (ten)
- d) 30 Men Tents 10 (ten)
- e) 10 to 15 Men Tents 50

3. COMMUNICATION EQUIPMENT

- a) HF Radio Set Complete Stations 10 (ten)
 - aa) Frequency 2-30 MHz
 - bb) RF Power output 100 to 150 watt PEP
 - cc) Power input 220 volt AC, 50 Hz
- b) Hand Held VHF/FM Ratio Set Complete stations 30 (thirty)
 - aa) RF Power output 5 watt
 - bb) Frequency 30.88 MHZ
- c) Mobile VHF/FM Ratio Stations Complete 10 (ten)
 - aa) RF Power output 30.88 MHZ
 - bb) Frequency 50 watt
 - cc) Power input 12 volt DC
- d) Hand Held VHF Am Radio Set Complete 10 (ten)
 - aa) RF Power output 25 watt
 - bb) Frequency Range Aeronautical 118-140 MHZ

4. TRANSPORT

- a) TATA Truck 75 (seventy five)
- b) Bus 20 (twenty)
- c) Jeep 50 (fifty)
- d) Ambulance 12 (twelve)

5. MISCELLANEOUS EQUIPMENT AND MATERIALS.....

- a) Bailey Bridges..... 10 (ten) sets
(if required to erect two 80/100 M.) Bridges
- b) Rubber Boats..... 50 (fifty) sets
(With Accessories)
- c) Boat Assault (Universal type) 10 (ten) sets
(Capacity 10 persons)
- d) Life Jackets 100(hundred) sets
- e) Nissin Huts (30'x80') 5 (five)
- f) Compressor with Rock Drills 10 (ten)

g)	Mini Dumpers	10 (ten)
h)	Tripper Trucks (4WD)	10 (ten)
i)	Dozer (D-50 ND-8-)	10 (ten)
j)	Wheel Loader (125 to 145 HP)	4 (four)
k)	Cranes - 10 Tons	2 (two)
	25 Tons.....	1 (one)
l)	Excavators (0.8 M)	2 (two)
m)	Suspension Bridges	5 (five) sets
n)	Aerial Cable Way (100 M)	5 (five) sets
o)	Manila Rope (1" Dia.)	2500 Meters
p)	10 KVA Generator	10 (ten)
q)	6 KVA Generator	20 (twenty)
r)	Fire Engine	39(thirty nine)
s)	Leather Gloves	100 (hundred) sets
t)	Carreabina	100 (hundred) sets
u)	Aluminum Ladder	50 (fifty) sets

ANNEX – B

MATERIALS FOR TEMPORARY SETTLEMENT

1. Tarpaulin Polythene Base Blue Sheet 10 sft. Per family
2. Other building materials: (stones, bricks, partition mats, nails, wooden frames, etc.)
3. Other items: (Lanterns, Jerry cans, bedding materials, etc.)
4. Toilet blocks.

ANNEX – C

LIST OF MATERIALS AND MEDICINES

1. Vehicles
2. Ambulances, stretchers
3. Cardiopulmonary resuscitation set
 - Ambu bag
 - O2 cylinder
 - ECG Machine
 - O.T. tubes
 - Drugs: Dexona i.v. fluidsAvil, Hydroloetrisene, Astropine
Morphine
Ethidine
Fortwin
Soda. bicarbonate
4. Suture sets
5. Crash injury set
6. Antibiotics, oral, local, parenteral
7. Rehydration fluids
8. Vit A, D, B 12 and Vit C
9. Folic Acid, Iron
10. Antiprotozoal/ Antihelminthic drugs
11. Water container, safe with small mouth
12. Milk powder
13. Nutritious and proteinous
14. Flour