## Tables

		Ta	irget	. ,	up		
Number	Task	Item	Description	Civil servants	Citizens	Schools	Masons
1	Risk Assessment	Damage Estimation at local level	Dissemination of results of the Estimated Damages in the Valley. <b>Dissemination Tool:</b> DIG	0	0		L
		Diagnosis of Eq. Resilience at community level	Preparation of precise diagnosis of the potential hazard and resources in the local areas smaller than ward. <b>◇Dissemination Tool:</b> Community Watching DIG, PRA	0	Ø		
		Preparing and disseminating Hazard Maps	<ul> <li>diagnosis in the smaller area than ward and disseminating maps to local residents.</li> <li>♦ Recommended Scale: at least 1/10,000</li> </ul>		0	0	
2	Public Awareness Raising	Public Information Dissemination	Utilising mass media, TV radio and newspapers for disseminating disaster mitigation information, introducing activities of Public Authorities. Producing Pamphlets for disseminating Earthquake knowledge and drawing interest of the citizens, promoting mitigation countermeasures among citizens as a final product of community based participatory meetings.		O		
		Draw up School Curriculum	Draw up School Curriculum in proportion to different levels of class and authorise it for the national standard. As an initial step, a model school to be chosen to delineate curriculum.	0		0	
		Holding Exhibition for Earthquake Disaster Mitigation	Reinforcing Earthquake Safety Day on Jan. 15 in commemorating 1934 earthquake. Holding Experience-Oriented-Exhibitions on this day to make the participants think about the earthquake mitigation more close to themselves.				
			Examples of Exhibitions Shaking table experiments for examining building vulnerability, Tips of Earthquake Resistant Buildings Experiencing mock earthquake, Demonstration of preparedness at home, Exhibition and selling of Earthquake Disaster Mitigation Kit, Past mitigation activities municipalities have done.	0	O	0	0
		Holding Seminars, WorkshopsHolding seminars, workshops for raising awareness of the general public. See Figure 3.3.3 for detailed model for the citizens' awareness programme.		0	0	0	0

 Table 3.3.1
 Recommended Task Target Matrix for Effective Exercise and Education (1/2)

	1able 5.5.2		ask larget Matrix for Effective Exercise and E			Gro	up
Number	Task	Item	Description	Civil servants	Citizens	Schools	Masons
3	Human Resource Development	Administrator Training	Training administrators to gain knowledge for daily services, to increase resilience among the citizens.	0			
		Training of local leaders	Training local leaders with specific and practical knowledge for earthquake mitigation in general to lead the community based mitigation activities, rescue and relief in the emergency situation.		0	0	
		Conducting Earthquake Drill	Developing the sense of cooperation, and coordination, raising awareness. Practising evacuation, first aid, role playing for residents, school, administrators.	0	0	0	
		Mason Training	Train local masons for earthquake safer building technology. Those who have acquired training courses shall receive certifications which ensure higher payment.				O
4	Capacity Building for organisations	Emergency Response	Upgrading organisational skills and capacity for emergency response including search and rescue immediate relief etc. Focus on capacity building among the local governments and community based organisations.	0	0		
		Strengthening Coordination	Special emphasis will be provided to strengthen the coordination among government organisations and agencies at different levels. Coordination among government and non-government organisations and residents will also be enhanced.	0	0		
5	Networking	Formulation of Disaster Management Committee	Disaster management committee will be formed at community level to promote understanding and responsibilities before, during and after disasters.	0	0		
		Inter-linkages of different voluntary organisations	Information database will be made on different voluntary organisations (including individuals) which can be effective during emergency situations. Emphasis will be given to establish linkage and coordination among these organisations.		O		
6	Establishing infrastructure for effective disaster management	Operation of Information and Communicati on Centre	Operation of Information and communication Centre can be set up at the Municipality level to enhance resources and information. This centre will act as training cum public awareness and information dissemination centre. During emergency this centre can also act as an emergency coordination cum relief centre.	0	0		

 Table 3.3.2
 Recommended Task Target Matrix for Effective Exercise and Education (2/2)

Main Menu 1:Bibliography		Main Menu 4:Seism ic Dam age Analysis File :
List of m aps and docum ents	Excel	Sub-m enu 1:Building Dam age Distribution
Main Menu 2:Natural/SocialConditions		1 Heavily Dam aged Building Num ber for Scenario EQ I Arc
Sub-menu 1:NaturalConditions		2 Heavily Dam aged Building Num ber for Scenario EQ II Arc
1 Topography	A rcV iew	3 Heavily Dam aged Building Num ber for Scenario EQ III Arc
2 S bpe G radient	A rcV iew	4 Heavily Dam aged Building Num ber for Scenario EQ IV Arc
3 G eo bgy	A rcV iew	5 Heavily Dam aged Building Num ber for Scenario EQ V Arc
4 G eom orpho bgy	A rcV iew	6 Heavily Dam aged Building Ratio for Scenario EQ I Arc
5 S bpe susceptbility	A rcV iew	7 Heavily Dam aged Building Ratio for Scenario EQ II Arc
6 G roundwater Table	A rcV iew	8 Heavily Dam aged Building Ratio for Scenario EQ III Arc
7 River	A rcV iew	9 Heavily Dam aged Building Ratio for Scenario EQ N Arc
8 Faults and Lineam ents	A rcV iew	10 Heavily Dam aged Building Ratio for Scenario EQ V Arc
9 EpicentralD istribution in Nepal	A rcV iew	Sub-m enu 2:Casualty D istribution
Sub-menu 2: Social Conditions	A 37.1	11 Death TollDensity for Scenario EQ I Arc
10 Administrative boundary	A rcV iew	12 Death TollDensity for Scenario EQ II Arc
11 Locality Classification	ArcV iew	13 Death TollDensity for Scenario EQ III Arc
12 Population	A rcV iew	14 Death TollDensity for Scenario EQ IV Arc
13 Population Density	A rcV iew	15 Death TollDensity for Scenario EQ V Arc 16 TotalCasualty Density for Scenario EQ I Arc
14 Landuse 15 Land Capability	ArcV iew	
	ArcView ArcView	17 Total Casualty Density for Scenario EQ II Arc
16 Land System Sub-m enu 3:Builling Distribution	AICVIEW	18 TotalCasualty Density for Scenario EQ III Arc 19 TotalCasualty Density for Scenario EQ IV Arc
	A sur V in m	
17 Building Distribution (Tota) 18 Building Distribution (Predominant)	A rcV iew	20 TotalCasualty Density for Scenario EQ V         Arc           21 Death TollNum ber for Scenario EQ I         Arc
	A rcV iew	
19 Building Distribution (\$ tone) 20 Building Distribution (A dobe)	A rcV iew	22 Death To INum ber for Scenario EQ I Arc
20 Building Distribution (Adobe) 21 Building Distribution (Brick with Mud Mortar : regular)	A rcV iew	23 Death TollNum ber for Scenario EQ     Ⅲ     Arc       24 Death TollNum ber for Scenario EQ     №     Arc
	A rcV iew	
22 Building Distribution Brick with Mud Mortar : well-build)	ArcView ArcView	25 Death TollNum ber for Scenario EQ V Arc Sub-m enu 3: Infrastructure Dam are Distribution
23 Building Distribution (Brick with Cement Mortar) 24 Building Distribution (RC Frame Masonry : up to 3 stories)	ArcView ArcView	26 Dam age of W ater Supply Network for EQ I Arc
24 Building Distribution (RC Frame Masonry Sup to 3 stories) 25 Building Distribution (RC Frame Masonry Sover 4 stories)	ArcView ArcView	26 Dam age of Water Supply Network for EQ 1 Arc 27 Dam age of Water Supply Network for EQ II Arc
Sub-m enu 4: Public Facility	AICV IEW	28 Dam age of Sewerage Network for EQ I Arc
26 Public Facility (Hospitals)	ArcV iew	281Dam age of Sewerage Network for EQ I Arc
27 Facility Access bility (Hospitals)	ArcView	30 Dam age of Electricity Network for EQ I Arc
28 Public Facility (Public Schools)	ArcV iew	31 Dam age of Electricity Network for EQ II Arc
29 Facility Accessibility (Public Schools)	ArcV iew	32 Dam age of Telecommunication Network for EQ I Arc
30 Public Facility (Fire Station)	ArcV iew	33 Dam age of Telecommunication Network for EQ II Arc
31 Facility Accessibility (Fire Station)	ArcV iew	34 Bridge Dam age D istribution for EQ I Arc
32 Hazardous Facility (LPG G as center & Petrol station)	A rcV iew	35 Hazardous Points of Roads Arc
Sub-m enu 5: Infrastructure	MICV LW	36 Accessbility of Roads for EQ I Arc
30 Lifeline (Vater supply network)	A rcV iew	Sub-m enu 4:Fire Outbreak
31 L ife line (E lectricity network)	ArcV iew	37 Fire O utbreak Rank for Scenario EQ I Arc
32 Lifeline (Electricity: Branch office coverage)	ArcV iew	38 Fire Outbreak Rank for Scenario EQ II Arc
33 Lifeline (Electricity:Sub-station coverage)	A rcV iew	
34 Lifeline (Telecommunication network)		Main Menu 5: Misce Janeous
35 Life line (Sewerage network)	ArcView ArcView	Sub-m enu 1:Statistics of Past D isasters
36 Road Network		1 Data source: M inistry of Hom e Affairs (MOHA) Ex 2 Data source: D isaster Review 1997 (DPTC) Ex
37 Brilge Location	A rcV iew	2 Data source: Disaster Review 1997 (DPTC) Ex Sub-m enu 2: MeteorobgicalFefatures
38 Road Length by Area	A rcV iew A rcV iew	3 Precipitation, W ind vebcity, Temperature etc.
	AICV LEW	
Main Menu 3:Seismic Hazard Analysis		Sub-m enu 3:SocialSurvey
Sub-m enu 1:Ground Model	A 37.1	Map
1 Location M ap of Boreholes	A rcV iew	4 Location m ap of SocialSurvey Arc
2 G round M odel for Seism ic Analysis	ArcV iew	5 Land Development Sites Arc
Sub-m enu 2: Scenarb Earthquake	A 37.1	6 Newar Settlement Arc
3 Source Fault Models for Scenario Earthquakes	ArcV iew	Result
Sub-menu 3: Peak Ground Acceleration Distribution	A 17.1	7 Report of Social Survey
4 Peak Ground Acceleration Distribution for EQ I	ArcV iew	Sub-m enu 4:Building Inventory
5 Peak Ground Acceleration Distribution for EQ II	A rcV iew	Map
6 Peak Ground Acceleration Distribution for EQ III	A rcV iew	8 Loation map of Building Inventory Survey Arc
7 Peak Ground Acceleration Distribution for EQ IV	ArcV iew	Result
Sub-m enu 4: Seism is Intensity Distribution	A rcV iew	9 Report of Building Inventory Survey W
8 Seism ic Intensity Distribution for EQ I		Sub-m enu 5:B heprint P kn
9 Seism ic Intensity Distribution for EQ II	ArcV iew	10 B Leprint for Kathm andu Valley Earthquake D isaster W
10 Seism ic Intensity Distribution for EQ III	A rcV iew	Main Menu 6:Dem onstration
11 Seism ic Intensity Distribution for EQ IV	ArcV iew	1 Auto dem onstration of outline result Powe
Sub-menu 5: Liquefaction and S bpe stability		Main Menu 7:Video
12 Water Table for Lique faction Analysis	ArcV iew	1 Information Dissemination Video Med
13 Liquefaction PotentialDistribution for EQ I	A rcV iew	Main Menu 8:New Sin ulation
		Step 1 : Calculate Seism i: Hazard
14 Liquefaction Potential Distribution for EQ II	ArcV iew	
14 Linuefaction PotentialDistribution for EQ II 15 Linuefaction PotentialDistribution for EQ III	ArcView ArcView	Step 2 : Display Seism i: Hazard
14 Liquefaction PotentialDistribution for EQ_II 15 Liquefaction PotentialDistribution for EQ_III 16 Liquefaction PotentialDistribution for EQ_IV	ArcView ArcView ArcView	Step 2 : D isp ky Seism is Hazard           1           Peak G round Acceleration D istribution
14 Linue faction Potential Distribution for EQ II 15 Linue faction Potential Distribution for EQ III	ArcView ArcView	Step 2 : Display Seism i: Hazard           1         Peak Ground Acceleration Distribution         Arc           2         Seism i: Intensity Distribution         Arc
14 Lique faction Potential Distribution for EQ II 15 Lique faction Potential Distribution for EQ III 16 Lique faction Potential Distribution for EQ IV 17 Shope Stability	ArcView ArcView ArcView	Step 2 :D isp by Seim is Hazard           1 Peak Ground Acceleration Distribution         Arc           2 Seim is Intensity Distribution         Arc           3 Lique faction Potential Distribution         Arc
14 Linue faction Potential Distribution for EQ II         15 Linue faction Potential Distribution for EQ III         16 Linue faction Potential Distribution for EQ IV         17 S bpe Stability         Basem ap	ArcView ArcView ArcView ArcView	Step 2 : D isp by Seism is Hazard           1         1 Peak Ground Acceleration D istribution         Arc           2         Seism is Intensity D istribution         Arc           3         Lique faction P otential D istribution         Arc           Step 3 : Cabulate and D isp ky Seism is D am age         Dam age
14 Linue faction Potential Distribution for EQ II 15 Linue faction Potential Distribution for EQ III 16 Linue faction Potential Distribution for EQ IV 17 S bpe Stability Basem ap 1 S tudy Area (Watershed boundary)	ArcView ArcView ArcView ArcView ArcView	Step 2 : Disp by Seism is Hazard         Arceleration Distribution         Arc           1 Peak Ground Acceleration Distribution         Arc         Seism is Intensity Distribution         Arc           2 Seism is Intensity Distribution         Arc         Step 3 : Cabulate and Disp by Seism is Dam age         Arc           5 tep 3 : Cabulate and Disp by Seism is Dam age         4  Heavily Dam aged Builling Num ber         Arc
14 Liue faction PotentialD istribution for EQ II 15 Liue faction PotentialD istribution for EQ III 16 Liue faction PotentialD istribution for EQ IV 17 S bpe S tability Basem ap 1 S tudy Area Ø atershed boundary) 2 M esh	ArcView ArcView ArcView ArcView	Step 2 : D isp by Seim is Hazard         Azerd           1 Peak Ground Acceleration D istribution         Are           2 Seim is Intensity D istribution         Are           3 Lique faction P otential D istribution         Are           Step 3 : Cabubte and D isp by Seim is D am age         4Heavily D am aged Builting Num ber           4 Heavily D am aged Builting Ratio         Are
14 Linue faction Potential Distribution for EQ II 15 Linue faction Potential Distribution for EQ III 16 Linue faction Potential Distribution for EQ IV 17 Shape Stability Basemap 18 Study Area (Natershed boundary) 2 Mesh Note:	ArcView ArcView ArcView ArcView ArcView	Step 2 :D isp by Seim is Hazard         Area           1 Peak Ground Acceleration Distribution         Are           2 Seim is Intensity Distribution         Are           3 Liquefaction Potential Distribution         Are           Step 3 :Cabukte and Disp ky Seim is Dam age         4Heavily Dam aged Builting Num ber           4 Heavily Dam aged Builting Ratio         Are           5 Heavily Dam aged Builting Ratio         Are
14       Linue faction Potential Distribution for EQ II         15       Linue faction Potential Distribution for EQ III         16       Linue faction Potential Distribution for EQ III         17       Sippe Stability         Basem ap       IStudy Area (Matershed boundary)         2       Mesh         Note:       Scenario Earthquake	ArcView ArcView ArcView ArcView ArcView	Step 2 :D isp by Soim is Hazard         Arce           1 Peak Ground Acceleration Distribution         Arc           2 Seim is Intensity Distribution         Arc           3 Liquefaction Potential Distribution         Arc <b>Step 3 :Cabulate and Disp ky Seism is Dam age</b> Arc           4 Heavily Dam aged Builting Num ber         Arc           6 Death TollDensity         Arc           7 TotalC asualy Density         Arc
14 Liuefaction PotentialD istribution for EQ II 15 Liuefaction PotentialD istribution for EQ III 16 Liuefaction PotentialD istribution for EQ IV 17 S bpe S tability <b>Basem ap</b> 15 tudy Area (Matershed boundary) 2 M esh Note: S cenario Earthquake FM il NepalEarthquake	ArcView ArcView ArcView ArcView ArcView	Step 2 :D sp by Seisn is Hazard           1 Peak Ground Acceleration D istribution         Arc           2 Seism is Intensity D istribution         Arc           3 Lique faction P otential D istribution         Arc           5 tep 3 :Cabulito and D isplay Seism is Dam age         4           4 Heavily Dam aged Builling Num ber         Arc           5 Heavily Dam aged Builling Ratio         Arc           6 Death Toll Density         Arc           7 Total Casual by Density         Arc           8 Death Toll Num ber         Arc
14       Lique faction Potential Distribution for EQ II         15       Lique faction Potential Distribution for EQ III         16       Lique faction Potential Distribution for EQ III         17       S bpe S tability         Basem ap         18       S tudy A rea (W atershed boundary)         2       M esh         Note:       S cenario Earthquake         F.M il NepalEarthquake         II.North Bagm at Earthquake	ArcView ArcView ArcView ArcView ArcView	Step 2 :D isp by Seim is Hazard         Arce           1 Peak Ground Acceleration Distribution         Arc           2 Steim is Intensity Distribution         Arc           3 Lique faction Potential Distribution         Arc           3 Lique faction Potential Distribution         Arc           5 top 3 : Cabubte and Disp by Seim is Dam age         4           4 Heavily Dam aged Builting Number         Arc           5 Heavily Dam aged Builting Ratio         Arc           6 Death TollOensity         Arc           7 TotalCasuaby Density         Arc           8 Death TollNumber         Arc           9 Dam age of WaterSupply Network         Arc
14       Linue faction P otential D istribution for EQ III         15       Linue faction P otential D istribution for EQ III         16       Linue faction P otential D istribution for EQ III         16       Linue faction P otential D istribution for EQ III         17       S bpe S tability         Basem ap         15       Study Area (M atershed boundary)         2       M esh         Note:       Scenario Earthquake         IF M il Nepal Earthquake       IF. North B agm ati Earthquake         IF. North B agm ati Earthquake       IF. North B agm ati Earthquake	ArcView ArcView ArcView ArcView ArcView	Step 2 :D isp by Seim is Hazard         Arce           1 Peak Ground Acceleration Distribution         Arc           2 Seim is Intensity Distribution         Arc           3 Liquefaction PotentialDistribution         Arc <b>Step 3 :Cabulate and Display Seism is Dam age</b> 4Heavily Dam aged Builting Num ber           4 Heavily Dam aged Builting Num ber         Arc           5 Heavily Dam aged Builting Ratio         Arc           6 Death TollDensity         Arc           7 TotalCasualy Density         Arc           9 Dam age of Water Supply Network         Arc           10 Dam age of Sewerage Network         Arc
14       Lique faction Potential Distribution for EQ II         15       Lique faction Potential Distribution for EQ III         16       Lique faction Potential Distribution for EQ III         17       Sope Stability         Basem ap       1         18       Study Area (Watershed boundary)         2       Mesh         Note:       Scenario Earthquake         FM il NepalEarthquake       If North Bagm ati Earthquake	ArcView ArcView ArcView ArcView ArcView	Step 2 :D isp by Seim is Hazard         Arce           1 Peak Ground Acceleration Distribution         Arc           2 Seim is Intensity Distribution         Arc           3 Lique faction Potential Distribution         Arc           3 Lique faction Potential Distribution         Arc           5 top 3 : Cabubte and Disp by Seim is Dam age         4           4 Heavily Dam aged Builling Num ber         Arc           5 Heavily Dam aged Builling Ratio         Arc           6 Death TollOensity         Arc           7 TotalCasuaby Density         Arc           8 Death TollNum ber         Arc           9 Dam age of WaterSupply Network         Arc

### Table 8.6.1 Function List of the Database System

Table 10.2.1	Cost Estimate for Programmes	(1/2)
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				Cost			Re	sponsi	ble 0 rganizat	ion		
No.	Item s	(MJPY)		Breakdown		NationalG	overnm en	t	Local	Pr	ivate Sect	ors
Farthoar	ke Disaster Estin ation	wjri/	M M	H/W etc.				Governm ent				
ED -1	Seism obgicalM easurem ents											
ED -1.1	Seism obgicalobservation	100	2x5	instrum ents, install	DMG							
ED-1.2	GPS observation	500	2x20	instrum ents, install	Survey I	)ept.						
ED-2	Basir data											
ED-2.1	Regulation of M ap data	100	2x5	investigation, data input	Survey I	)ept						
ED-3	GeobgicalData											
ED -3.1	Basem ent structure m easurem ent of Kathm andu valley	500	3x10	investigation	DMG					NepalG e	obgicalSo	ociety
ED -3.2	G eo bgiraldatabase	500	3x10	data input, software	DMG					NepalG e	epalGeobgicalSociety	
ED-4	Infrastructure database											
ED-4.1	Building inventory/Census	1,000	2x20	investigation, database	MPPW					NepalEng	gg Assoc.	
ED-4.2	Lifeline G IS database	inclPL-6			MPPW	NEA	NTC					
ED-4.3	Bridge ledger	inclPL-6			MPPW							
ED-5	Data clearing house	100	2x6	equipm ents, data input	MOHA	MOCom						
ED6	In provem ent of D am age estim ation											
ED-6.1	Historical data gathering and analysis	50	2x5	investigation	DMG							
ED-6.2	S trong m otion observation network	200	2x5	equipm ents, install	DMG							
ED -7	Education and Research											
ED-7.1	Earthqake engineering laboratory	100	2x10	traning, sem inar	MOSE	MPPW	Tribhuvan				gg. A ssoc.	
ED -7.2	Training earthquake engineers	100	2x10	traning, sem inar	MOSE	MPPW	Tribhuvan	Univ.		NepalEng	gg. Assoc.	

	7			Cost			R	esponst	le 0 rganiza	tion		
No.	ltem s	(MJPY)	M M	Breakdown H/W etc.		National	overnm e	nt	Local Government	Pr	Private Sectors	
Sustainal	ble Mechanism for Development of Disaster Management											
SM-1	Establishm ent of Legal Foundation	80	5x5		PM 0ffic	MOHA						
SM-2	Establishm ent of D isaster M anagem ent Council											
SM-2.1	NationalD isasterM anagem entCouncil	50	3x5		PM 0ffic	<pre>eNPC</pre>	MOHA	M O LD				
SM-2.2	Kathm andu Valleyl Disaster Managem ent Council	40	3x4		MPPW	MOHA	MOLD		Municipalities	S		
SM-2.3	M unicipality/W ard D isaster M anagem ent Council	50	3x5		MOLD				M unic ipalities	5		
SM-3	Cooperation between Government and Private sector	35	3x3		MOHA							
SM - 4	Preparation of Disaster M anagem ent P lan											
SM-4.1	NationalP lan	80	5x5		NPC	MOHA	MOLD					
SM-4.2	Centralgovernment Plans	80	5x5		A 11 M in ist							
SM-4.3	Kathmandu Valleyl Plan	50	3x5		MPPW	MOHA	MOLD		Municipalities	S		
SM-4.4	M unicipality Plans	72	3x6	training	MOLD				M unic ipalities	S		
SM-4.5	D istrict P lans	50	3x5		MOHA				VDC			
SM-4.6	Private Plans	30	3x3							Hospital	School	Company
SM-5	Em phasis of Earthquake Managem enm t in National 5 Year P	40	2x6		NPC	A 11 M in is	ries					
SM-6	Exercises and Education											
SM-6.1	Citizens	65	2x6	trainig	MOLD				M unic ipalities	s		
SM-6.2	SchoolChildren	50	3x6	trainig	MOSE				Municipalities	s		
SM-6.3	CivilServants	75	3x5		MOLD				M unic palities	s		
SM-6.4	Masons	100	3x8	building, training, facilities	MPPW				M unic palities	s		

	Prov. c			Cost			Respo	nsible Organiza	tion		
No.	Item s			B reakdow n				Local		Private Sectors	
		(MJPY)	M M	H/W etc.		NationalG overnm ent		Governm ent	1 11	TATE Sec.	tors
	Sovemance										
	Establishm ent of Real T in e Earthquake Inform ation System										
MG-1.1	Earthquake Information System	90	2x6	communication equipment		MOHA		Municipalitie			
MG-1.2	Seism ic Intensity Information System	56	2x6		DMG	MOHA		M unic ipalitie	s		
MG-1.3	Earthquake Information Reporting System	65	2x5	communication equipment	DMG	MOHA		M unicipalitie	s		
MG-2	Assesment of Damage Information System										
MG-2.1	Establishm ent of Lines of Communications	20	2x3		A 11 M in is			M unicipalitie			
MG-2.2	Im provem ent of Daily Business Style	50	3x5		A 11 M in is	tries		Municipalitie	s		
MG-2.3	Preparation of Taking AerialPhotos	10 1x3 Survey		Survey I	) epartm en	t					
MG-3	Empowerm ent of M edia										
MG-3.1	Sem inars and Trainning	20	2x3		MOCom.	. NepaIFV	RadioNepal		Media FM	New spap	ers
MG-3.2	Am endm ent of NationalBroadcasting Act	20	2x3		MOCom.						
MG-3.3	Publicizing	20	2x3		MOHA	MOCom.			Media FM	N ew spap	ers
MG-4	Establishment of Emergency Communications										
MG-4.1	Identifying the Defects of Radio Wave Propagation	24	2x3		MOCom.	. NTC					
MG-4.2	Digital MobilMulch ChannelAccessSystem	310	2x10	equipm ents, construction	A 11 M in is	tries		M unic ipalitie	s		
MG-4.3	S in ultaineous Reporting System	inclMG-	4.2		MOHA						
MG-4.4	Portable Handset	120	2x5	equipm ents, construction	A 11 M in is	tries		M unic ibalitie	s		
MG-4.5	Initiatiate Am ateur Radio Network	InclMG-	4.2		MOCom.				Amatuer	Radio Cor	nmunity
MG-5	Preparation for Em ergency Response										
MG-5.1	ControlSvstem	20	2x3		PM 0 ffi	e.					
MG-5.2	CentralGovernment EOC	1,500	3x8	building, facilities, traning	PM 0 ffi	A II M in is	tries				
MG-5.3	Municipality/Ward EOC	1.000	3x10	building, facilities, traning				M unic ibalitie	s		
MG-5.4	P lans/M anua ls	100	3x6		MOHA	MOLD	A 11 M in istries	M unic ibalitie			
MG-5.5	Facility for EO C	inclMG-	5.2. M G -5		A 11 M in is			M unicipalitie			
	Discipline Public Sector					1					
MG-6.1	Discipline Public Sector	50	3x5		A 11 M in is	tries		M unic ipalitie	s		
MG-6.2	Line of Succession	50	3x5		A 11 M in is			M unic ipalitie			
MG-6.3	Preservation of V italR ecord	50	3x5		A 11 M in is			Municipalitie			
MG-7	Preparation for Recovery	00	- 40			1		in and parter			
MG-7.1	Capacity Building	50	3x5		A 11 M in is	tries		M unic ipalitie	s		
MG-7.2	Review /Evaluation of Existing Priorities and Projects	100	5x5		MPPW	T					
MG-7.3	P reparedness	100	5x5		A 11 M in is	tries		M unic ipalitie	s		

### Table 10.2.2 Cost Estimate for Programmes (2/2)

	-			Cost			Responsi	ole Organiza	tion		
No.	ltem s	(MJPY)	ММ	Breakdown H/Wetc.		NationalG over	mm ent	Local Government	Pı	Private Sectors	
Protect	ife and Property of the People										
PL-1	Search and Rescue										
PL-1.1	P lan for improvement of research and rescue	100	3x6	sem har, traning	MOHA	MOHealth		M unic ipalities	Red C ros	WHO	
PL-1.2	Acceptance of InternationalSupport	40	2x4		MOHA	MOHealth			Red C ros	WHO	
PL-1.3	In provem ent of D isaster M edicine	500	3x6	equipm ents, fac ilities, tran	MOHealt	h			Red C ros	WHO	Hospitals
PL-1.4	Food and water supply	100	3x6	equipm ents, fac ilities, tran	MOHealt	h					
PL-2	Shelter and Evacuation										
PL-2.1	P lan for shelter, evacuation and rem oval	100	3x6	traning, estate	KVTDC			M unic ipalities	5		
PL-3	M edicalP roblem										
PL-3.1	Public Health Care	200	3x5	equipm ents, sem inar,trani	MOH					Red C ros	ss Assoc.
PL-3.2	Remains	20	2x3		MOH			Municipalities	S		
PL-4	0 ther Functions										
PL-4.1	Security	20	2x3		MOHA	RNA					
PL-4.2	Firefighting	300	3x6	facilities	MOHA						
PL-4.3	M anagem ent of volunteers	20	2x3		MOHA			M unic palities	S		
PL-4.4	Safety Inspections	200	3x6	traning, sem inar	MPPW			M unic ipalities	NepalEn	gg. A ssoc.	
PL-4.5	Debris rem oval	50	3x5		MPPW			M unic palities	NepalEn	gg. A ssoc.	
PL-5	Transportation System (Roads and Bridges)										
PL-5.1	Database	200	2x8		MPPW						
PL-5.2	Temporary Bridges	500	3x10	construction	MPPW	RNA					
PL-6	E lectricity Supply										
PL-6.1	Database	100	2x8	software, data input	NEA						
PL-6.2	SohrPower	500	3x10	equipm ents, construction							
PL-6.3	Wind Power	500	3x10	equipm ents, construction	NEA						
PL-6.4	D iesel generators	1,000	3x10	equipm ents, construction	NEA						
PL-7	S taging area	500	3x10	estate, facilities	MOHA						

				Cost		Res	ponsible Organiza	tion	
No.	ltem s	(MJPY)	M M	Breakdown H/W etc.	_	NationalGovernm ent	Local Government	Priva	ate Sectors
Strength	en Socio-Econom ic System								
	Urban P lanning								
SE-1.1	Urban Space Allocation DetailPlanning	100	3x10		KVTDC	MPPW	M unic ipality		
SE-1.2	Assignment Planning of Intensive Development Areas	50	2x5		KV TD C	M P P W	M unic ipality		
SE-1.3	Assignment Planning of Mitigation Bypass Routes	50	2x5		KVTDC	MPPW	M unic ipality		
SE-1.4	Urban Zoning for Disaster Mitigation measures	400	2x10	estate, construction	KV TD C		M unic ipality		
SE-2	Transportation Facilities								
SE-2.1	Roads to in prove access to the Valley	3,000	3x20	construction	MPPW				
SE-2.2	Roads to in prove mobility inside the Valley	2,500	3x20	construction	MPPW				
SE-2.3	Im provem ent of bridges	2,000	3x20	construction	MPPW				
SE-3	Building								
SE-3.1	In proving Building construction	80	2x10	traning	MPPW		M unic ipalitie:	Masons	
SE-3.2	NationalBuilding Code	50	2x6	sem inar, training	MPPW			NepalEngg	
SE-3.2	Training	200	3x8	traning, sem inar	MPPW		M unic ipalitie:	Masons N	epalEngg. Assoc.
SE-3.4	Inspection of Key Buildings	200	3x10	inspection	MPPW			NepalEngg	Assoc.
SE-4	Electricity								
SE-4.1	Network in provement	500	2x10	equipm ents	NEA				
SE-5	Water Supply & Sewerage Facilities								
SE-5.1	Database system	100	2x8	software, data input	NW SC				
SE-5.2	Distribution system by water tankers	50	2x5	investigation	NW SC				
SE-5.3	Preservation of existing wells and spouts	100	3x5	investigation	NW SC		M unic ipalitie:	5	
SE-5.4	Preparation of earthquake resistant design ,m anual	100	3x5	traning, sem inar	NW SC				
SE-6	Telecommunication facilities	inclMG-	4.2		MOCom.	. NTC			
SE-7	Socip-economic influence	50	2x5	sem har	MOCom	nerce			

### Table 10.3.1 Implementation Plan (1/2)

No.	Item s		Rating		In plem etation P lan (Year)							
NO.	Liem s	Tem	Priority	Reality								
		A/B/C	A/B/C	A/B/C		5	10	30	50	100		
	ike Disaster Assessment											
	Seism obgicalM easurem ents											
ED-1.1	SeismobgicalObservation	В	В	В								
ED-1.2	GPS Observation	С	В	С								
ED-2	Basic Data											
ED-2.1	Regulation of M ap D ata	Α	A	A								
ED-3	GeobgizalData											
ED-3.1	Basem ent Structure M easurem ent of Kathm andu Valley	В	В	C								
ED-3.2	GeobgicalDatabase	В	A	В								
ED-4	Infrastructure D atabase											
ED-4.1	Building Inventory/Census	A	A	A								
ED-4.2	Lifeline GIS Database	A	A	A								
ED-4.3	Bridge Ledger	Α	A	Α								
	Data Clearing House	В	A	C								
ED-6	In provem ent of D am age Estim ation											
ED-6.1	HistoricalData Gathering and Analysis	Α	A	A								
ED-6.2	Strong Motion O observation Network	В	A	В								
ED-7	Education and Research											
ED-7.1	Earthqake Engineering Laboratory	В	В	В								
ED-7.2	Training Earthquake Engineers	A	В	В								

	Item		Rating		In plem etation Plan (Year)							
No.	Item	Tem	Priority	Reality		_						
		A/B/C	A/B/C	A/B/C		5	10	30	50	100		
	ble Mechanism for Development of Disaster Management											
	Establishm ent of Legal Foundation	В	A	C								
SM-2	Establishm ent of D isaster M anagem ent Council											
SM-2.1	NationalD isasterM anagem entCouncil	В	A	С								
SM -2.2	Kathm andu Valley1D isaster Managem ent Council	В	A	В								
SM -2.3	Municipality/Ward Disaster Management Council	A	A	A								
SM -3	Cooperation between Government and Private Sector	В	В	В								
SM-4	Preparation of D isaster M anagem ent P lan											
SM-4.1	NationalP lan	A	A	В								
SM-4.2	CentralGovernm ent Plans	В	A	В								
SM-4.3	Kathm andu Valley1P lan	В	A	В								
SM-4.4	M unicipality P lans	A	A	A								
SM-4.5	District Plans	В	В	С								
SM-4.6	Private Plans	В	В	В								
	Em phasis of Earthquake Managem enm t in National5 Year Plan	A	A	A								
SM-6	Community Resilience and Self-Reliance											
SM -6.1	C itizens	A	A	A								
SM -6.2	SchoolChildren	A	A	A								
SM -6.3	C ivil Servants	A	A	Α								
SM -6.4	M asons	A	A	A								

	The second secon		Rating		In plem etation Plan (Year)							
No.	Item s	Temm A/B/C	Priority A/B/C	Reality A/B/C		5	10	30	50	100		
Maintain	Governance		· · ·									
MG-1	Establishm ent of Real T in e Earthquake Inform ation System											
MG-1.1	Earthquake Information System	A	A	A								
MG-1.2	Seismic Intensity Information System	A	A	A								
MG-1.3	Earthquake Information Reporting System	Α	A	A								
MG-2	Assesment of Damage Information System											
MG-2.1	Establishment of Lines of Communications	A	A	В								
MG-2.2	Im provem ent of Daily Business Style	C	A	C								
MG-2.3	Preparation of Taking AerialPhotos	A	В	A								
	Em powerm ent of M edia											
MG-3.1	Sem inars and Trainning	A	A	A								
MG-3.2	Am endm ent of NationalBroadcasting Act	В	В	C								
MG-3.3	Public ising	A	A	A								
MG-4	Establishm ent of Em ergency Communications											
MG-4.1	Identifying the Defects of Radio Wave Propagation	A	В	A								
MG-4.2	Digital MobilMulch ChannelAccess System	A	B	В								
MG-4.3	S in ulta neous Reporting System	A	В	В								
MG-4.4	Portable Handset	A	В	C								
MG-4.5	Initiatiate Amateur Radio Network	A	В	A								
MG-5	Preparation for Emergency Response											
MG-5.1	ControlSystem	A	A	В								
MG-5.2	CentralGovernment EOC	A	A	В								
MG-5.3	Municipality/Ward EOC	A	A	A								
MG-5.4	Em ergency P hns/M anuab	A	A	A								
MG-5.5	Facility for EOC	A	A	В								
MG-6	Discipline Public Sector											
MG-6.1	Discipline Public Sector	В	A	С								
MG-6.2	Line of Succession	A	Ā	B					1			
MG-6.3	Preservation of Vital Record	В	B	C					1			
MG-7	Preparation for Recovery											
MG-7.1	Capacity Building	С	В	C								
MG-7.2	Review / Evaluation of Existing Priorities and Projects	C	B	B								
MG-7.3	P reparedness	Ċ	B	Ċ	1							

### Table 10.3.2 Implementation Plan (2/2)

No.	Item s	Rating			In plem etation Plan (Year)						
		Tem	Priority	Reality							
		A/B/C	A/B/C	A/B/C		5	10	30	50	100	
Protect	Life and Property of the People										
	Search and Rescue										
PL-1.1	P lan for Improvement of Research and Rescue	B	A	В							
PL-1.2	Acceptance of InternationalSupport	В	A	C							
PL-1.3	Im provem ent of D isaster M edicine	C	В	C							
PL-1.4	Food and Water Supply	В	A	С							
PL-2	Shelter and Evacuation										
PL-2.1	P lan for Shelter, Evacuation and Rem oval	C	В	В							
PL-3	M edicalProblem										
PL-3.1	Public Health Care	В	A	A							
PL-3.2	Remains	C	В	C							
PL-4	0 ther Functions										
PL-4.1	Security	В	В	A							
PL-4.2	Firefighting	В	В	В							
PL-4.3	M anagem ent of V olunteers	В	В	C							
PL-4.4	Safety Inspections	В	В	В							
PL-4.5	Debris Removal	В	В	C							
PL-5	Transportation System (Roads and Bridges)										
PL-5.1	Database	A	A	A						-	
PL-5.2	Tem porary Bridges	B	В	C							
PL-6	Electricity Supply										
PL-6.1	Database	A	A	A							
PL-6.2	SohrPower	В	C	C							
PL-6.3	W ind Power	C	С	C					1		
PL-6.4	Diese1Generators	В	В	С							
PL-7	S taging A rea	A	В	В							

No.	Item s	Rating			In plem etation Plan (Year)						
		Tem	Priority	Reality							
		A/B/C	A/B/C	A/B/Ċ		5	10	30	50	100	
Strengthen Socio-Econom ic System											
SE-1	Urban Planning										
SE-1.1	Urban Space A llocation Detail Planning	A	A	A							
SE-1.2	Assignment Planning of Intensive Development Areas	С	A	В							
SE-1.3	Assignm ent Planning of Mitigation Bypass Routes	С	В	C							
SE-1.4	Urban Zoning for Disaster Mitigation measures	С	A	В							
SE-2	Transportation Facilities										
SE-2.1	Roads to Improve Access to the Valley	С	A	A							
SE-2.2	Roads to Inprove Mobility Inside the Valley	С	A	В							
SE-2.3	Im provem ent of Bridges	С	A	В							
	Building										
SE-3.1	Improving Building construction	A	A	A							
SE-3.2	NationalBuilding Code	A	A	A							
SE-3.2	Training	A	A	A							
SE-3.4	Inspection of Key Buildings	A	A	A							
	E lec tricity										
SE-4.1	Network Improvement	В	A	В							
SE-5	Water Supply & Sewerage Facilities										
SE-5.1	Database System	A	A	A							
SE-5.2	Distrbution System by WaterTankers	В	В	C							
SE-5.3	Preservation of Existing W ells and Spouts	A	A	В							
SE-5.4	Preparation of Earthquake Resistant Design Manual	В	A	В							
SE-6	Telecommunication Facilities	A	В	В					1		
SE-7	Socio-Economic Influence	В	A	В							

# Figures

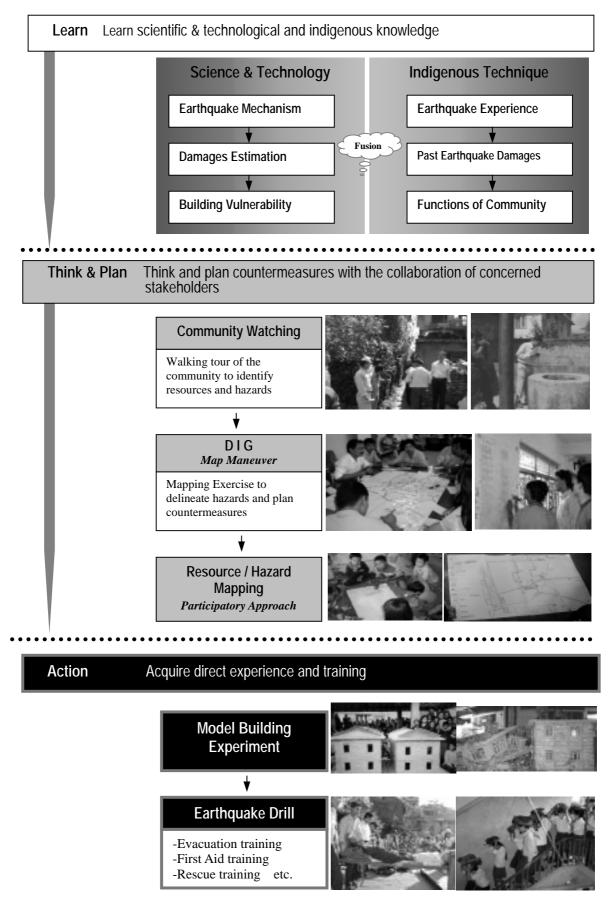


Figure 3.3.2 Model Plan for Earthquake Disaster Mitigation Activities

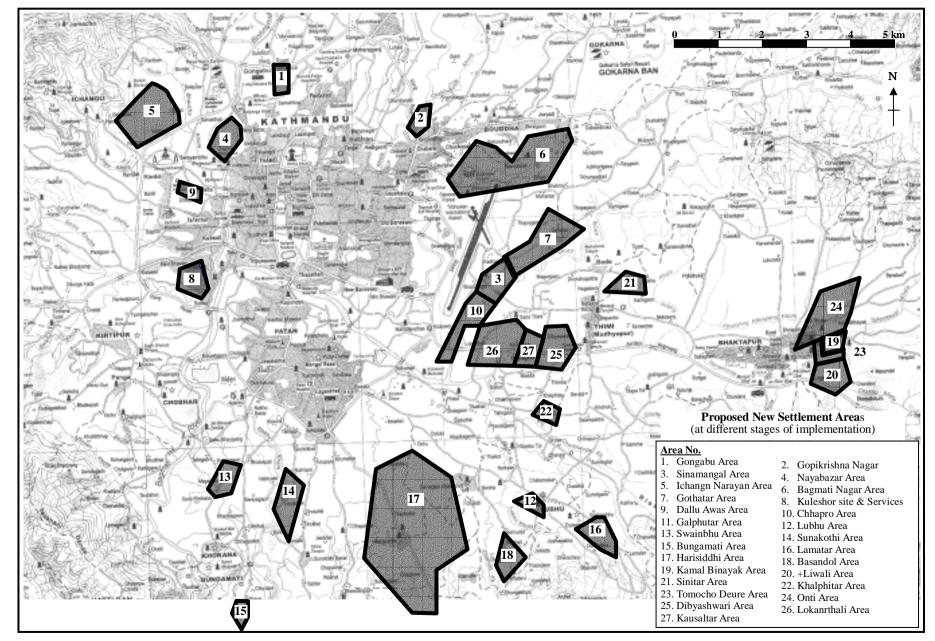


Figure 5.5.1 Overview of New Settlement Areas in the Kathmandu Valley

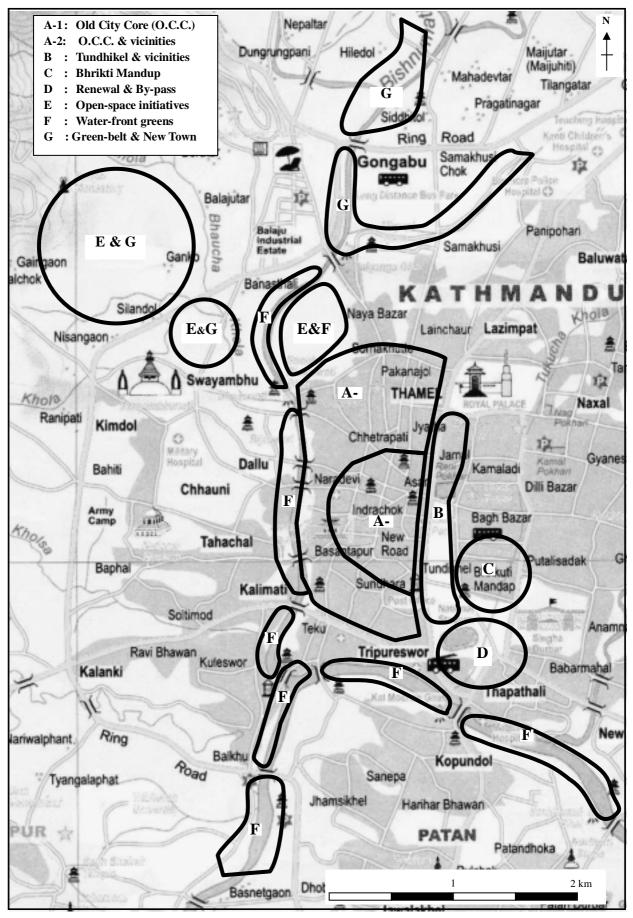


Figure 6.1.1 Development Zones for Disaster Mitigation

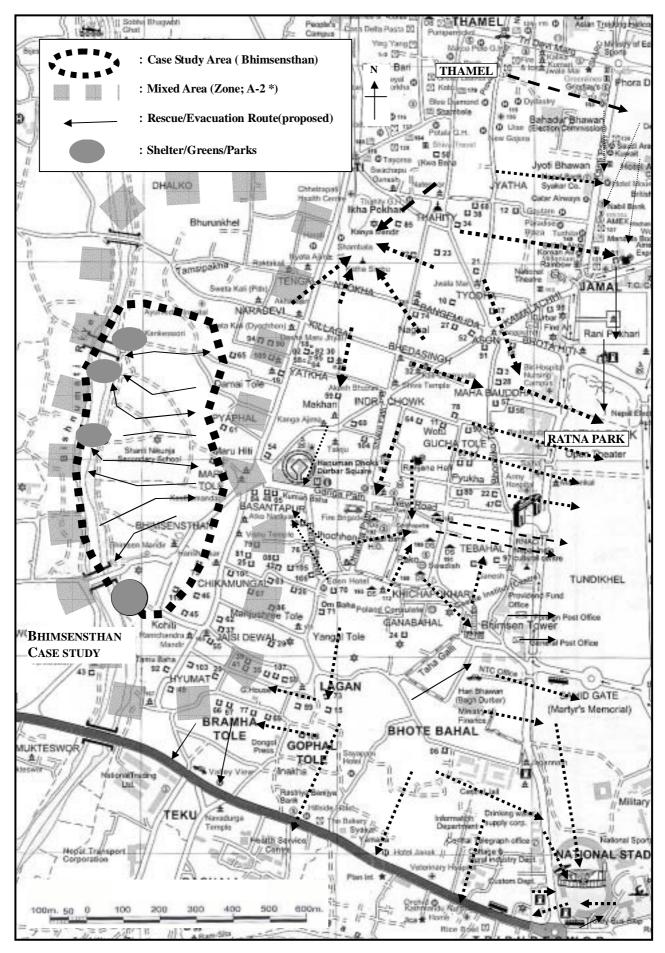


Figure 6.6.2 Case Study for Rescue/Evacuation and Shelter in City Core Area; (Zone A-1,2)

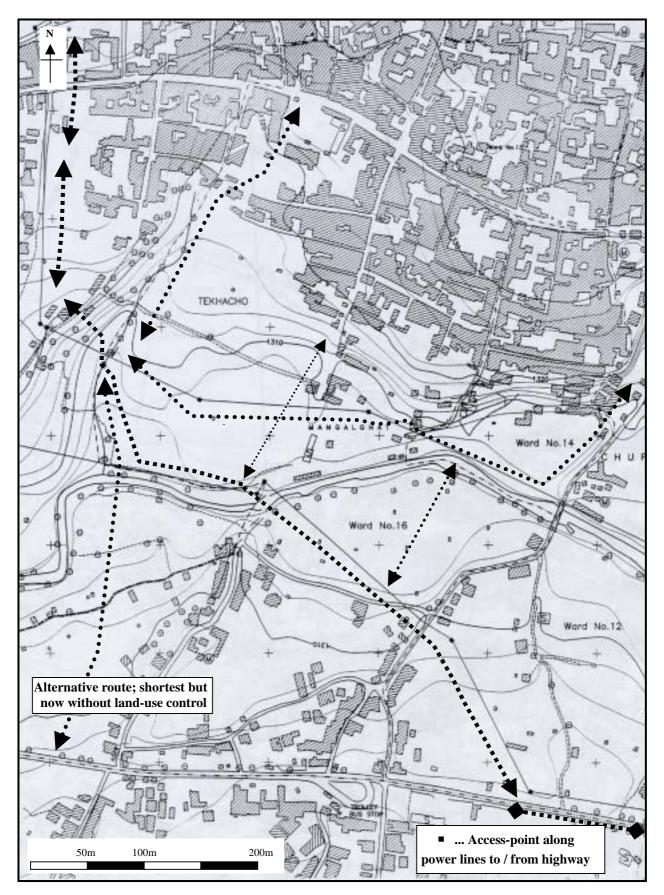


Figure 6.6.3 Disaster Mitigation Bypass Routes for Rescue and Evacuation (in case of designating along electric power lines, in fringe of Bhaktapur built-up area)