

Earthquake Risk Reduction and Recovery Preparedness (ERRP) Programme for South Asian Region ---Overview of Country Projects---
 <UNDP Project funded by MoFA Japan> (Draft Version as of Nov. '07)

	Bangladesh	Bhutan	India	Nepal	Pakistan
Expected Outcome / Indicators	Strengthen the institutional and community level capacity to plan and implement earthquake risk reduction strategies and disaster preparedness and recovery in three Hill Districts of CHT region	Strengthen the institutional and communal capacity to plan and implement disaster risk reduction strategies through integrated disaster preparedness and recovery approach for high risk areas in Bhutan following regional approach	Strengthen the capacities of construction practitioners on multi-hazard resistant technology in selected multi-hazard prone districts of India, and promote safe construction practices in some of the earthquake prone districts in Bihar, Delhi and Uttaranchal	Risks of natural hazards to rural and urban livelihoods and infrastructure reduced./Disaster risk management integrated into the livelihoods and infrastructure related sectoral plans of the government	To contribute to the process of integrating disaster risk reduction into recovery and development programming for safer communities in Muzaffarabad and Mansehra Municipalities
Target Districts/ Municipalities	Chittagong Hill Tract (CHT) Districts: Rangamati District Khagrachari District Bandarban District	Thimphu, Phuentsholing, Gelephu, Samdrup Jongkhar	18 earthquake prone districts in Bihar, Delhi and Uttaranchal Bihar: Araria, Khagaria, Madhepura, Munger, Muzaffarpur, Patna, Samastipur, Sitamarhi, Supaul Delhi: East Delhi, New Delhi, North east Delhi, North west Delhi, South west Delhi Uttaranchal: Bageshwar, Dehradun, Nainital, Uttarkashi	Central :Hetauda Municipality Eastern :Biratnagar sub-Metropolis Western :Pokhara sub-Metropolis (including Lekhanath Municipality.) Mid-West: Surkhet Municipality Far-West:Dhangadi Municipality.	Muzaffarabad and Mansehra Municipalities
Partners	Min. of Food and Disaster Management, Min. of Chittagong Hill tracts Affairs, Disaster Management Committees and pre-qualified NGOs	Dept. of Local Governance (DLG), Min. of Home and Cultural Affairs (MoHCA), Standards & Quality Control Authority (SQCA), Min. of Works & Human Settlement, Dept. of Aid and Debt Management (DADM)	Department of Economic Affairs (DEA), Ministry of Home Affairs (MHA)	Ministry of Physical Planning and Works (MOPPW), Government of Nepal (GoN) Ministry of Home Affairs (MOHA) and Ministry of Local Development (MOLD) of GoN, selected municipalities and UNDP	UNDP Pakistan Municipality. Gov. of Muzaffarabad and Mansehra, Municipality. Dis. Man. Authorities, National Society of Earthquake Technology - Nepal, Geological Survey of Pakistan, Centre of Excellence in Geology, University of Peshawar, Agha Khan Planning and Building Services, Regional Coordination Team
Output / Activities	<u>1. Standard seismic hazard and vulnerability maps for Chittagong Hill Tract (CHT) districts developed</u> - Survey and develop maps for fault lines and time-predictive fault modeling - Produce maps for human settlement and vulnerability of structure - Produce maps showing geological/geomorphology strata - Preparation of Digital Elevation Model (DEM) - Produce earthquake hazard maps - Produce maps of liquefaction areas - Produce maps for potential landslides in human settlements - Produce vulnerability maps with emphasis on risks of women, children and disable persons	<u>1. Standards, codes and guidelines for seismic evaluation and retrofitting of buildings developed/ reviewed</u> - Develop/ review appropriate standards, codes, guidelines for EQ resistant building design - Develop/ review seismic vulnerability evaluation guidelines and tools - Develop/review seismic retrofitting guidelines and tools	<u>1. Capacity building and skill up gradation of various professional on hazard resistant technologies</u> - Design specific trainings modules on cost effective hazard resistant technologies for local construction with linkages to traditional IS Codes - Training of masons and creation of a pool of master trainers selected from amongst the trained masons on hazard resistant technologies - Advocacy for Certification of the trained masons. - Design training manuals for masons in regional languages and demonstration kits - Strengthen capacities of professional architects and engineers in conducting Rapid Visual Screening, vulnerability assessment of existing buildings and retrofitting techniques - Capacity enhancement of the ITIs conducting mason training programmes for local masons, professionals etc. - Identify the Interlinkages with the National programmes for capacity building of architects and engineers/architects in earthquake risk management - Strengthening the capacity of the Hazard Safety Cells with clear roles and responsibilities to carry out risk mitigation activities for structural safety	<u>1. EQ risk, vulnerability and capacity assessment conducted in the project areas, especially from gender and poverty perspective, to support the government and communities</u> - Assessment of seismic vulnerability of building stock (public constructions/ private housings) - Review of impact of settlement pattern/ land use practice and options in high risk areas - Review of existing governmental and municipal policies on EQ preparedness and response - Review of livelihood and socioeconomic condition in relation to EQ hazard	<u>1. Earthquake risk assessment (ERA) conducted in Muzaffarabad and Mansehra towns/municipalities to support local/municipal governments and communities to identify earthquake vulnerabilities and capacities</u> - Formulation of Earthquake Risk Scenario of Muzaffarabad and Mansehra - Launch of ERA reports at national level event - Development of websites for MDMA (Muzaffarabad and Mansehra)
Output / Activities	<u>2. Institutional and community capacity building for earthquake resistant construction, preparedness and mitigation strengthened</u> - Reviewing existing training documents and carrying out modification - Training of Trainers on earthquake safe constructions - Developing training materials for the masons and bar binders - Distribution of training materials to local planning and construction agencies - Providing training to at least 40 participants in each three district HQs - Preparing documentary video knowledge products for training sessions	<u>2. Identification of earthquake risk and vulnerability assessment conducted</u> - Develop EQ hazard and vulnerability maps with emphasis on vulnerability and risks of women, disabled person and children - Assess seismic risks and vulnerability of public constructions and private housings - Review existing government and municipal policies on EQ preparedness, response and post disaster recovery	<u>2. Demonstrate appropriate disaster resistant construction technologies for vulnerability reduction and risk reduction</u> - Construction of multi-hazard resistant Technology Demonstration Units which would be used as public Centres - Establish interlinkages with the ongoing physical infrastructural planning and developmental projects /programmes of the Governments. - Develop simplified construction guidelines for hazard resistant construction of masonry buildings along BIS (Bureau of Indian Standards)Codes. - Develop simplified earthquake resistant construction	<u>2. Capacities of government institutions and communities living in high risk areas enhanced to adapt and implement earthquake preparedness planning and safe construction practice using appropriate earthquake resistant construction guidelines</u> - Review and upgrading of existing EQ safety specifications in building code or guidelines - Undertake capacity building for land use planning for EQ risk reduction and recovery preparedness - Develop seismic vulnerability evaluation guidelines and tools for private and public buildings (pre/ post damage assessment) - Professional training on EQ resistant construction - Sensitization to relevant stakeholders for EQ safe construction and their implementation - On the job training on low cost & simple EQ safe construction to key construction stakeholders - Public Education and Awareness (PEA) on low cost & beneficial EQ safe construction for house/ building owners/ managers	<u>2. Municipal Disaster Management Authority (MDMA) established in Muzaffarabad and Mansehra Municipalities</u> - Set up of office for MDMA in two municipalities - Finalization of operational guidelines and training of MDMA staff as to the use of guidelines
Output / Activities	- Arranging presentation of the documentary in the national television channels. - Conducting trainings on Medical First Responder, search and rescue, Hospital Preparedness for Emergency Response	<u>3. Institutional & community capacity building for EQ resistant construction, preparedness and mitigation strengthened</u> - Training of trainers on EQ safe construction using shake table demonstration - Transfer the Trainers' skill to construction professionals and local communities - Short term training for capacity buildings to government officials for EQ preparedness and safe construction - Visits to EQ affected areas to learn and document - Attend regional workshops, seminars			<u>3. Formulation of Muzaffarabad and Mansehra Earthquake Risk Scenarios and Earthquake Vulnerability Reduction Plans</u> - Preparation & launch of finalized EQ vulnerability reduction plans outlining roles and responsibilities - Simulation/rehearsal 50 public officials etc. for effective delivery in case of EQ

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Output / Activities	<p><u>3. Public awareness campaign organized and selected communities are better equipped to cope with earthquake hazards</u></p> <ul style="list-style-type: none"> - Development of campaign materials to suit local conditions through identifying important message for EQ preparedness - Conduction of public awareness campaigns - Conduction of safety and evacuation training at schools - Conduction of orientation sessions in selected communities to establish linkages with service providing agencies - Conduction of local level mock drills on EQ preparedness and response - Organizing shake table demonstration at selected places 	<p><u>4. Model projects to support mitigation measures for seismic risk reduction implemented</u></p> <ul style="list-style-type: none"> - Model retrofitting of selected houses (privet or public) using EQ resistant construction guidelines 	<p>guidelines for schools linking with the government schemes for adoption of these construction guidelines</p> <ul style="list-style-type: none"> - Conduct awareness generation programmes for the community with focus on gender equity to promote hazard resistant and cost effective construction - Specific awareness campaign on available hazard resistance construction practices for women self help groups 	<p><u>3. Capacities of the government strengthened in disaster recovery preparedness to support enhanced recovery operations in post-disaster situations</u></p> <ul style="list-style-type: none"> - Conduct Central and municipality level workshops/seminars on recovery preparedness - Undertake Sector wise (ministries/ departments) analysis for incorporation of recovery preparedness - Carry out lessons learned exercise on past disasters - Develop and incorporate recovery guidelines into the national development planning - Promote early recovery as a cross-cutting issue at the country level - Initiate a recovery preparedness planning process for urban local bodies to follow 	<p><u>4. Development of easily understandable and applicable guidelines and technologies on earthquake safe construction</u></p> <ul style="list-style-type: none"> - Review existing building codes and analyze locally available technologies for EQ safer construction - Develop/ Disseminate easily understandable guidelines on safer construction - Review study of local land use planning at two locations - Development/modification of training materials in land use planning, design, construction
Output / Activities	<p><u>4. Most vulnerable public buildings identified through seismic safety survey and documentary knowledge products developed</u></p> <ul style="list-style-type: none"> - Conducting structural analysis including foundation review and determining necessary retrofitting options - Carrying out retrofitting of selected buildings to create awareness and demonstrative effect - Developing documentary video product on the retrofitting exercise - Arranging media display of the knowledge product for creating public awareness 	<p><u>5. Capacity of the government, Community in disaster recovery preparedness support to ensure enhanced recovery operation in post disaster situation strengthened</u></p> <ul style="list-style-type: none"> - Set up media committee on Public Education Awareness - Conduct awareness workshops at national and local level to share lessons from recovery on EQ in Dzongkhags (Feb 2006) - Educate community stakeholders on DRR for both men & women 	<p><u>3. Facilitate exchange of knowledge on best practices and construction designs and technologies for earthquake vulnerability reduction in South Asia through knowledge management initiatives</u></p> <ul style="list-style-type: none"> - Support and participate in platforms that provide DRM practitioners in the region with opportunities for sharing and acquiring 'cutting edge' knowledge, products, services, activities and research - Transform individual expertise and experience into regional knowledge through systematic knowledge sharing, codification and development of tools for disaster risk management - Participate and contribute in regional and national level workshops on disaster risk management including integrating gender concerns 		<p><u>5. Municipal (Muzaffarabad and Mansehra) capacities enhanced in integrating earthquake vulnerability reduction in the reconstruction process and development practice</u></p> <ul style="list-style-type: none"> - Training of 50 public officials in land use planning - Training of 50 local officials on EQ vulnerability reduction and role of municipal government - Training of 100 private construction professionals for EQ resistant construction design, materials and reinforcement - Production of PEA (public education and awareness) materials and dissemination
Output / Activities	<p><u>5. Sharing and exchange of national and regional information, lessons and best practices for policy feedback and advocacy facilitated</u></p> <ul style="list-style-type: none"> - Organizing workshops and seminars on project activities to raise awareness at national and regional level - Documenting the lessons from the project interventions and capturing models and experiences for replication in other areas - Organizing field visits and exchanges between national and local officials and international institutions - Establishing linkages with regional initiatives for sharing and exchanging best practices and lessons learned - Participating Project Board Meetings for the Regional Project 	<p><u>6. Locally appropriate solutions for earthquake risk reduction proposed by individual countries supported</u></p> <ul style="list-style-type: none"> - Develop guidelines for EQ preparedness and mitigation trainings and local planning - Establish emergency operations centre (EOC) - Establish Municipal Disaster Management Unit (MDMU) with women participation - Establish/ strengthen gewgaw (village) disaster management committees (GDMC) - Establish disaster response structure from village to district level, and organize communities into volunteer-based response team - Develop comprehensive data set of historical EQs - Conduct EQ and fire safety response mock drills 		<p><u>4. Capacities of the government developed to implement national disaster management framework by supporting locally appropriate solutions for earthquake risk reduction proposed by Nepal</u></p> <ul style="list-style-type: none"> - Seismic safe construction / retrofitting of selected public buildings undertaken as a demonstration (1-3 buildings /municipality) - Support providing to a national Emergency Operation Centre (EOC) (as per the availability of resources) 	<p><u>6. Improved awareness of public officials and communities to earthquake risk through demonstration projects and public awareness campaigns</u></p> <ul style="list-style-type: none"> - 22 EQ vulnerability reduction demonstration projects at selected sites & communities in three broad categories: <ul style="list-style-type: none"> 1) Reconstruction/ retrofitting, 2) Mitigation infrastructure and services, 3) Emergency response capacity development
Output / Activities		<p><u>7. Sharing and exchange of national and regional information, lessons and best practice for policy feedback and advocacy facilitated</u></p> <ul style="list-style-type: none"> - Convene workshops at national and regional level - Field visits and exchanges between officials and international institutions - Facilitate linkages with regional DRM initiatives 			<p><u>7. Reflective learning practices institutionalized for structured learning, improved knowledge management/resource development and wider dissemination</u></p> <ul style="list-style-type: none"> - 3 Project reflection/learning workshop organized - 3 Issues of project newsletter produced - Participation of regional learning workshops/events - End project dissemination workshop organised at national level