



**A STRATEGIC FRAMEWORK FOR NATURAL DISASTER  
AND RISK REDUCTION IN IRAQ**

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## LIST OF ABBREVIATIONS AND ACRONYMS

CAC	Crisis Action Cell	MoDM	Ministry of Displaced and Migrants
CAP	Consolidated Appeal Process	MoE	Ministry of Education
CBO	Community-Based Organization	MoEnv	Ministry of Environment
CCA	Common Country Assessment	MoH	Ministry of Health
CCCS	Coordination and Command Crisis Structure	MoHESR	Ministry of Higher Education and Scientific Research
CERF	Central Emergency Response Fund	Mol	Ministry of Interior
CFSVA	Comprehensive Food Security and Vulnerability Analysis	MoLSA	Ministry of Labor and Social Affairs
CHAP	Common Humanitarian Action Plan	MoMPW	Ministry of Municipalities and Public Works
CHF	Cooperative Housing Foundation	MOPDC	Ministry of Planning and Development Cooperation
COSIT	Central Organization for Statistics and Information Technology	MoST	Ministry of Science and Technology
CSO	Civil Society Organization	MoT	Ministry of Trade
DDG	Danish Demining Group	MoTA	Ministry of Transport
DOS	Department of Statistics	MoWR	Ministry of Water Resources
DPT 3	Diphtheria, Pertussis and Tetanus 3 vaccine	MNF-I	Multi National Forces - Iraq
DRC	Danish Refugee Council	MoU	Memorandum of Understanding
DSRSG	Deputy Special Representative of the Secretary-General	NAPA	National Adaptation Plan of Action
EC	European Commission	NCA	Norwegian Church Aid
EMIS	Education Management Information System	NCCI	NGO Coordination Committee for Iraq
EMRO	Eastern Mediterranean Regional Office	NDS	National Development Strategy
EPI	Expanded Programme on Immunization	NFE	Non-formal Education
ERF	Emergency Response Fund	NFIs	Non-Food Items
ERW	Explosive Remnants of War	NGO	Non-Governmental Organization
EU	European Union	NRC	Norwegian Refugee Council
EVI	Extremely Vulnerable Iraqis	OCHA	Office for the Coordination of Humanitarian Affairs
FAO	Food and Agriculture Organization	OHCHR	Office of the High Commissioner for Human Rights
FHH	Female-Headed Household	PA P	Participatory Assessment
FSAVA	Food Security and Vulnerability Analysis	PAC	Protection Assistant Centre
FTS	Financial Tracking Service	PDS	Public Distribution System
GBV	Gender-Based Violence	PFDM	Post Food Distribution Monitoring
GEC	Governorate Emergency Cells	PHC	Primary Health Care
GEF	Global Emergency Fund	PIN	People in Need
GIS	Geographic Information System	PJAK	<i>Partî Bo Jiyani Azadî la Kurdistan</i> (Party for a Free Life in Kurdistan)
GoI	Government of Iraq	PKK	Partî Karkaren Kurdistan( Kurdistan Workers Party)
HC	Humanitarian Coordinator	POT	Protection Outcome Team
HIPC	Heavily Indebted Poor Country	PRM	Bureau of Population, Refugees and Migration
HR	Human Rights	RBM	Results Based Management
HRD	Humanitarian Reconstruction and Development	RC	Resident Coordinator
HRDF	Human Rights Democracy Fund	RI	Relief International
HRDU	Human Rights Documentation Unit	SCR 1170	Security Council Resolution 1770
HRO	Human Rights Office	GBV	Sexual and Gender-Based Violence
IASC	Inter-Agency Standing Committee	SOT	Sector Outcome Team
IAU	Inter-Agency Information and Analysis Unit	SRM	Summary Results Matrix
ICI	International Compact with Iraq	ToT	Training of Trainer
ICRC	International Committee of the Red Cross	UNAMI	United Nations Assistance Mission for Iraq
IDP	Internally Displaced Person	UNCT	United Nations Country Team
IFRC	The International Federation of Red Cross and Red Crescent Societies	UNDAF	United Nations Development Assistance Framework
ILO	International Labor Organization	UNDG	United Nations Development Group
IMC	International Medical Corps	UNDP	United Nations Development Programme
INP	Iraq National Police	UNEP	United Nations Environment Programme
INEE	Inter-agency Network for Education in Emergencies	UNESCO	United Nations Educational, Scientific and Cultural Organization
IOM	International Organization for Migration	UNFPA	United Nations Population Fund
IR	Islamic Relief	UNHABITAT	United Nations Human Settlements Programme
IRC	International Rescue Committee	UNHCR	United Nations High Commissioner for Refugees
IRCS	Iraqi Red Crescent Society	UNICEF	United Nations Children's Fund
ISF	Iraqi Security Forces	UNIDO	United Nations Industrial Development Organization
ITF	Iraq Trust Fund	US	United States
KRG	Kurdistan Regional Government	VAM	Vulnerability Analysis Mapping
MCH	Maternal and Child Health	WFP	World Food Programme (UN)
MICS	Multiple Indicator Cluster Survey	WHO	World Health Organization (UN)
MoMP	Ministry of Municipalities (KRG)	UNIFEM	United Nations Development Fund for Women
MoA	Ministry of Agriculture	UNOPS	United Nations Office for Project Service
MoC	Ministry of Culture		
MoCH	Ministry of Construction and Housing		

## EXECUTIVE SUMMARY

Iraq is beset with a plethora of natural and human induced hazards that threaten to affect the lives and livelihoods of its citizens. The nation is still seeking to recover from the effects of three wars, an economic and intellectual embargo, a repressive political structure and instability undermining social well-being and created suffering across the entire social spectrum. Iraq's human development indicators that once ranked at the top have now dropped towards the bottom and now the nation ranks lower than some of the poorest nations in the world. Iraq's ability to increase its capacity to withstand the impact of natural and human induced threats lies in its adoption of new, proactive disaster risk management approaches. The development of safety mechanisms that both protect resources invested in national development as well as the lives and livelihood of the most vulnerable sector of the population is an imperative.

Even the most powerful nations in the world are vulnerable to catastrophic disaster episodes. For example, Hurricane Katrina struck the southeast coast of the United States on August 29, 2005 killing 1,836 persons and causing an estimated US \$81.2 billion in damages, making it the costliest environmental disaster in US history and the deadliest storm since 1928. Three years later, thousands of displaced residents of the states of Mississippi and Louisiana were still living in temporary shelters.

The failure of the New Orleans flood protection system prompted a congressional investigation into the Army Corps of Engineers, which had responsibility for this system. The investigation revealed the recommendations of the Army Corps of Engineers to strengthen the levees and other flood devices were never initiated. For the horrific response to this disaster, the Director of the US Federal Emergency Management Authority was forced to resign. The National Hurricane Center and National Weather Service agencies received commendation for accurate weather forecasts.

The major lessons learned from a series of shortcomings that failed to protect the coastal residents include the following which may be relevant by the Gol in its deliberations on the state of disaster risk management in Iraq:

- Impact scenarios were ignored and weather forecasts shrugged off.
- There were identifiable weaknesses in the defense mechanisms of the flood protection system and an artificial reliance by government officials that the structures would withstand any storm surge and flood levels.
- The emergency plan was inadequate to meet this catastrophic event.
- The federal response was slow and inefficient.
- Lessons learned from earlier hurricane episodes were not incorporated into any updates response strategy.

This example demonstrates that rich nations, with apparently large investments in disaster preparedness, are not necessarily better protected from environmental events, though resultant loss of life is usually less.

The purpose of *A Strategic Framework for Natural Disaster and Risk Reduction in Iraq* is to describe a possible pathway for the Gol and concerned disaster risk reduction stakeholders to establish a National Disaster Management Commission and a National Disaster Management Authority in order to initiate a multi-disciplinary approach to disaster risk planning and take a major step forward towards the attainment of a disaster resilient society. The commitment of the Gol to establish a national institution and legislation to redress disaster risk reduction is not

an easy accomplishment in an environment where many had viewed natural disasters as an unfortunate and unforeseen event. And, the massive competition for funding risk reduction initiatives in light of competing priorities for national funding for poverty alleviation, restoration of governance structures, economic growth and social services cannot be underestimated.

The United Nations has a mandate to strengthen national capacities in managing disaster risk in nations around the world. Other international donor agencies share the same viewpoint that development can be accelerated when a nation's vulnerability to life and livelihood threatening hazards is decreased.

Thus, the manner in which the GoI elects to address the significant life/livelihood threats will measure its progress of offering an assurance of life and livelihood security to those still living in the shadow of potential hazards.

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EJG  
22 August 2009

## **I. SITUATION ANALYSIS**

## Introduction

Recent decades have seen an alarming increase in the frequency of disaster occurrences each year and the magnitude of their social, economic and environmental impacts. While natural and environmental hazards may confront any nation in the world, they disproportionately become disasters with devastating effects on the poorer nations in the developing world. Recurrent natural hazards such as floods, drought, earthquake or human induced hazards such as civil unrest, terrorism, environmental pollution and the threat of a catastrophic collapsed structure can negate decades invested in pursuit of sustainable economic development and often lead to acute food insecurity and malnutrition, dislocation of populations and aggravate shocks to financial, health, environmental and livelihoods.

The central link between hazards, disasters, conflict and economic development is vulnerability. Disaster risk management (DRM) is based on the premise that natural hazards do not necessarily lead to disaster, but may do so when they affect vulnerable populations. The concept of disaster risk reduction (DRR) highlights the connection between DRM, poverty reduction, and inclusive growth, as well as the linkage between vulnerability and natural and human induced hazards. An analysis of what transforms an event into a human and economic disaster that the development issues are the same as those that contribute to Iraq's vulnerability: (i) persistence of widespread urban and rural poverty and social degradation, (ii) degradation of Iraq's environment, (iii) lagging investment in infrastructure, and (iv) poor governance and weak institutions that limit the ability to mitigate and manage disaster risks. Iraq is facing these situations like other nations in conflict or post-conflict that has sharp social divisions and a weakened infrastructure.

The long list of natural and human-induced hazards, identified in *The State of Disaster Risk Reduction in Iraq*<sup>1</sup>, shows the daunting challenges facing Iraq to create policies, institutions and investments in productive social and service sectors to reach and sustain a seven percent annual GDP growth rate required to meet the Millennium Development Goals. The crisis resulting from man-made conflict and global warming are stark impediments to the development process of wealth creation and social well-being. Further, progress towards ensuring gender equality and equal access to education, healthcare, economic opportunities, justice and security have been uneven.

## Vulnerability Profile

The 2009 study of disaster risk reduction initiatives in Iraq arrived at significant findings that can be summarized as follows:

- **Institution:** Disaster risk reduction has yet to be effectively institutionalized in Iraq where a historical preference has been to reactively respond to crises through the appointment of ad hoc response committees at the central government level.
- **Knowledge Management:** Inadequate attention to information management and communication, training and research.

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<sup>1</sup> Consultant document prepared for UNDP/OCHA/UNAMI and Gol. 8 August 2009. Earl James Goodyear, Ph.D., Disaster Risk Management Consultant.

- **Governance:** Inadequate involvement of stakeholders; Citizens are often mere recipients of disaster management activity outputs.
- **Risk Identification and Assessments:** Limited number of risk identification and assessments conducted since the early 1980's.
- **Emergency Response:** Disaster management has yet to be integrated into the national development policies

As such, the following common objectives have been identified for proposed support to the GoI to establish a national platform for disaster risk reduction, mainstream disaster risk reduction into the national development programme, the strengthening of early warning systems, the creation of disaster risk reduction policies and legislation and the establishment of a national disaster management institution.

- Increase political commitment to disaster risk reduction;
- Improve identification and assessment of disaster risks;
- Enhance knowledge management for disaster risk reduction;
- Increase public awareness of disaster risks and mitigation/prevention strategies;
- Improve governance of disaster risk institutions;
- Integrate disaster risk reduction into emergency response management.

## **Rationale for Disaster Risk Management in Iraq**

Iraq is exposed to a range of natural and human induced disasters i.e. floods, epidemics (cholera and measles), sand storms, drought in the north and the southern part of the Mesopotamian Plain, desertification and soil salination of the fertile soils. Some parts in eastern Iraq lying parallel to Zagros Seismic Belt and in central/western Iraq are earthquake prone. Also Iraq has and continues to experience internal conflict whose effect on the well-being of the population are considerable including the internal displacement of over 2 million Iraqis. Man – made disasters include among others depleted uranium, sulphur dioxide release due to native sulphur stockpiles, fire and surface water contamination by oil spills due to sabotage of oil pipelines and unexploded ordnance and land mines that threaten both the safety of Iraqi citizens and impedes the productive usage of arable lands. These episodes have left many essential services dysfunctional and citizens vulnerable to otherwise manageable disasters and large numbers of citizens exposed to radiation and other pollutants.

Iraq has begun a gradual movement from state of crisis to "... a mosaic of development gains and humanitarian gaps."<sup>2</sup> The security and political context is now more encouraging than in the last three years with rates of violence dropping. More IDPs are returning to their homes and social indicators slowly rising in the health, education and food security sectors. What has not changed is the absence of the paradigm shift in disaster management thinking in Iraq regarding the adoption of an all-risk disaster reduction system to replace their reactive disaster response operational mechanisms.

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<sup>2</sup> Iraq and the Region:2009 Consolidated Appeal. The UN Common Action Programme.

Iraq lacks a comprehensive and coordinated disaster management system of risk management that includes a risk analysis based on an examination of hazards and the vulnerabilities and capacities of resident populations and the first responders charged to assist in times of emergencies. The United Nations, the International Committee of the Red Cross and national/international non-governmental agencies have provided ad-hoc support to the GoI in order to respond to emergencies. The need for stronger technical and infrastructural capabilities within the GoI and other disaster risk reduction stakeholders is an imperative to plan for, mitigate and respond to future crises in Iraq.

The Inter-ministerial Committee on Disaster Management, comprising ten ministries including Defense, Interior, Education, Environment, Health, Water Resources, Foreign Affairs and the State Ministry of Security was formed in 2007 and has prepared a Concept Note for the creation of a National Center for Disaster Management. The Center would act as a permanent Secretariat for disaster risk reduction initiatives i.e. research and studies, emergency planning, coordination of regional/provincial interventions, capacity building, media on advocacy and informational exchange, and a database for recording information on hazards, risks, vulnerability and responses to crisis episodes.

In addition, other GoI institutions (the National Operations Center and its predecessor the National Joint Operations Center) have expressed interest to the Consultant to broaden their scope of activities to include the coordination of natural disaster preparedness and response initiatives.

Disaster risk management, in nearly all the nations of the world, is the primary responsibility of the government to protect its people, infrastructure and other natural assets from the impact of natural and all other hazards. Humanitarian crises may be due to planners' inability to anticipate potential hazards and to appreciate their significance, and to decision-makers' inability to reconcile competing demands for resources. The GoI needs to forestall potential disaster episodes by demonstrating a political will to adopt/adapt proactive mechanisms to develop a strategic and sustainable all-risk disaster management structure at the central, provincial/regional and community levels interlinked to the national development plan.

## **Disaster Risk Management Context in Iraq**

### **Institutional Context**

In 2005 three representatives from the GoI <sup>3</sup> participated in the Kobe World Conference on Disaster reduction where 168 nations adopted the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters. One of the HFA's strategic goals is "the development and strengthening of institutions, mechanisms and capacities to build resilience to hazards". It calls on all nations to "support the creation and strengthening of national integrated mechanisms such as multi-sectoral<sup>4</sup> National Platforms" to ensure that DRR is a national and a local priority. The HFA also encourages all States to designate a national mechanism for the coordination of and follow-up to the HFA, to

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<sup>3</sup> Represented by officials from the Ministry of Environment, Ministry of Interior and the Metrological Organization of Iraq.

communicate DRR information and progress to the UN/ISDR secretariat. Iraq is not a signatory of the HFA.

However, the Gol has participated in numerous regional and international events organized by the UN-SPIDER<sup>4</sup> network developed to circulate data relevant to disaster preparedness and response planners working to better manage and mitigate the impacts of local hazards. This network has proved its efficiency in confronting disasters on the global level. Iraq has not succeeded to achieve the potential benefit of its participation in strengthening and developing disaster risk reduction initiatives in Iraq as well as creating effective partnerships between the networks various institutional stakeholders. This is likely due to the volatile nature of Iraq's environment and donor/disaster risk reduction stakeholder institutions reluctance or inability to support initiatives in a high-risk conflict zone.

Therefore, the Ministry of Science and Technology adopted in mid 2007 a preliminary proposal for the utilization of advanced technology, formulation of the required mechanism to coordinate between the parties concerned with disaster management to mitigate its impacts. The proposal was submitted to the representatives of the Secretariat General of the Council of Ministers, Ministries of Health, Environment, National Security, Defense, Interior, Communications, Water Resources, Planning and Development Cooperation and Foreign Affairs in addition to the Ministry of Science and Technology.

The preliminary proposal was met with great interest in the subject of disaster risk reduction and all parties emphasized the necessity of taking measures to enhance coordination between ministries and incorporate disaster risk reduction amongst the ministries' development plans. It was agreed to pursue a proposal, taking into consideration the expertise of various ministers and making use of the international expertise in this field. Reference was made to the National Security Strategy 2007-2010 (Para, D - First) envisaging the necessity of establishing of a system, provide accurate information and making timely delivery of relief assistance in order to support the national interests as a foundation for broadening the playing field for a national disaster risk reduction center..

Subsequently, seven meetings were held by the Inter-ministerial Committee on Disaster Management from July 2007 to July 2008 to develop a proposal which paves the way for a national strategy which would mitigate disaster impacts, formulate mechanisms and means to achieve disaster resilience and a proposed organizational framework to be submitted to the Council of Ministers for formal adoption. The proposal is still awaiting presentation to the higher offices of the Gol.

### **Disaster Risk Reduction Strategy – Proposed by the Inter-Ministerial Committee**

The draft proposal of the Inter-ministerial Committee on Disaster Management is entitled, *PROPOSAL FOR A NATIONAL CENTER FOR THE MANAGEMENT AND MITIGATION OF DISASTERS IMPACTS* And was prepared by the following project preparation team:

1. Dr. Sameer Saleem Al-Attar, Chairman of the Committee, Sr. Under Secretary of Ministry of Science and Technology
2. Dr. Omar Burhan Al-Jarrah, Ministry of Science and Technology
3. Dr. Ma'ath Isma'il Mahmoud, Ministry of Science and Technology

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<sup>4</sup> United Nations Space Applications for Disaster Risk Management and Emergency Response

4. Ibtesam Aziz Ali, Member, General Secretariat of the Council of Ministries
5. Abbas Fadhel Ahmad, Member, Ministry of Interior
6. Col. H Ain Maher Younes Abdul Mohsen, Member, Ministry of Defense
7. Mr. Odai Abdul Hasan Abdul Ameer, Member, Ministry of Communications.
8. Eng. Issa Raheem Dakheel, Member, Ministry of Environment
9. Dr. Jaseb Lateef Ali, Member, Ministry of Health
10. Dr. Husain Ali Dawoud, Member, Ministry of Foreign Affairs
11. Eng. Taleb Hasan Isma'il, Member, Ministry of Water Resources
12. Mr. Issa Ja'far Al-Ghareebi, Member, Ministry of State for National Security Affairs
13. Miss Sundus Ahmad Mousa, Committee's Secretariat, Ministry of Science and Technology

Their objective was to formulate a strategy that would amass the collective efforts and capabilities available to participating ministries and institutions to enhance national capacities in disaster risk management in order to mitigate the impacts from prevailing natural and man-made hazards. A general national framework was proposed to achieve their objectives that maintains the executive responsibilities of participating ministries and concerned parties and enhances their activities by providing coordination and circulation of information. Their proposal envisages:

1. Establishing a National Disaster Center managed collectively by the concerned ministries.
2. Establishing a national network for disasters information which strives to link all local and international information sources with disaster risk reduction stakeholders and decision-makers.

### **Project Functions**

The Inter-ministerial Committee stated that disasters are one of the main reasons for hindering development plans and affecting negatively the local economy. Therefore, governments should endeavor to extend its efforts to be prepared for disasters through the formulation of a clear disaster risk reduction strategy, including a mitigation and response strategy for addressing identified hazards and ensuring that lives and livelihoods are not needlessly lost.

The Committee described the functions of the proposed National Disaster Center as follows:

1. Emphasize the importance of disasters as having effect on all the Iraqi people and the national economy thereby requiring attention and adherence from the highest political authority in the state.
2. Involve all levels of decision - makers in the strategy of mitigating the impact of disasters and incorporate the strategy of mitigating its effects in the official development plans in order to develop the capacities of different ministries for this purpose as being a basic element in the sustainable development plans, millennium development goals and reducing poverty since the poor are the most vulnerable to disasters.

3. Make use of the expertise and experience of other countries as well as the international organizations in this field.
4. Facilitate the dialogue and participation with the international community such as the United Nations and regional and international organizations in mitigating the impacts of disasters.
5. Identify effective mechanisms to analyze and compile various types of information, analyze it and provide information to decision-makers as well as executive leaders and agencies responsible for initiatives in disaster preparedness, response and recovery activities.
6. Make use of modern technology such as space information and images, various types and sources of maps and tools of satellite communications in order to mitigate disaster impacts, respond to crisis episodes and to chart their impact for planning for future hazard events.
7. Coordinate the efforts of ministries and various concerned authorities in preparing to confront disasters, mobilize rescue works, capacity building and facilitating the exchange of information and expertise.
8. Encourage and facilitate the exchange of information, expertise and transfer of technology between national concerned parties and organizations at the international level.
9. Coordinate and approve emergency plans in an effective manner between the ministries and other parties.

### **Proposed Organization Structure**

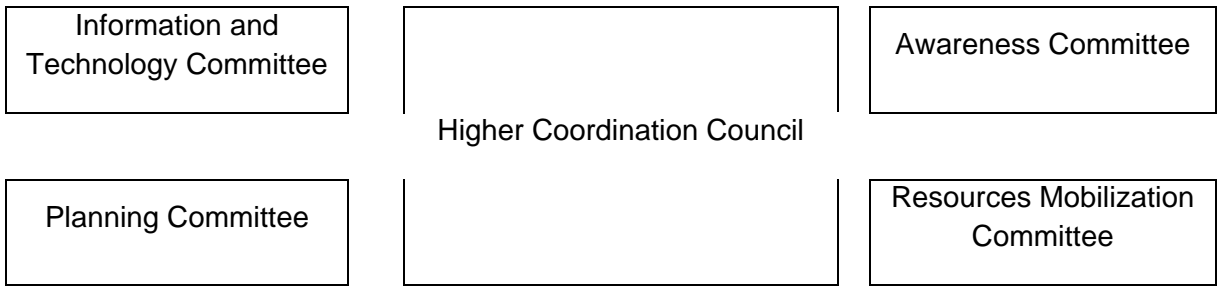
The Inter-ministerial Committee proposes to establish a National Disaster Management Center (NDMC) to undertake the coordination functions between active parties prior to the onset of a disaster event, and monitor response and recovery functions undertaken by respective ministries and agencies during and after the occurrence of the disaster. It is proposed that the Director of the NDMC should report to one of the deputies of the Prime Minister in view of the importance of the topic as well as to give its work the political clout necessary to achieve effective disaster management.

The proposed structure consists of a coordinating and administrative structure which assists in the management of its work and diversity of its tasks as shown in the following diagram:

### **National Disasters Management Center**

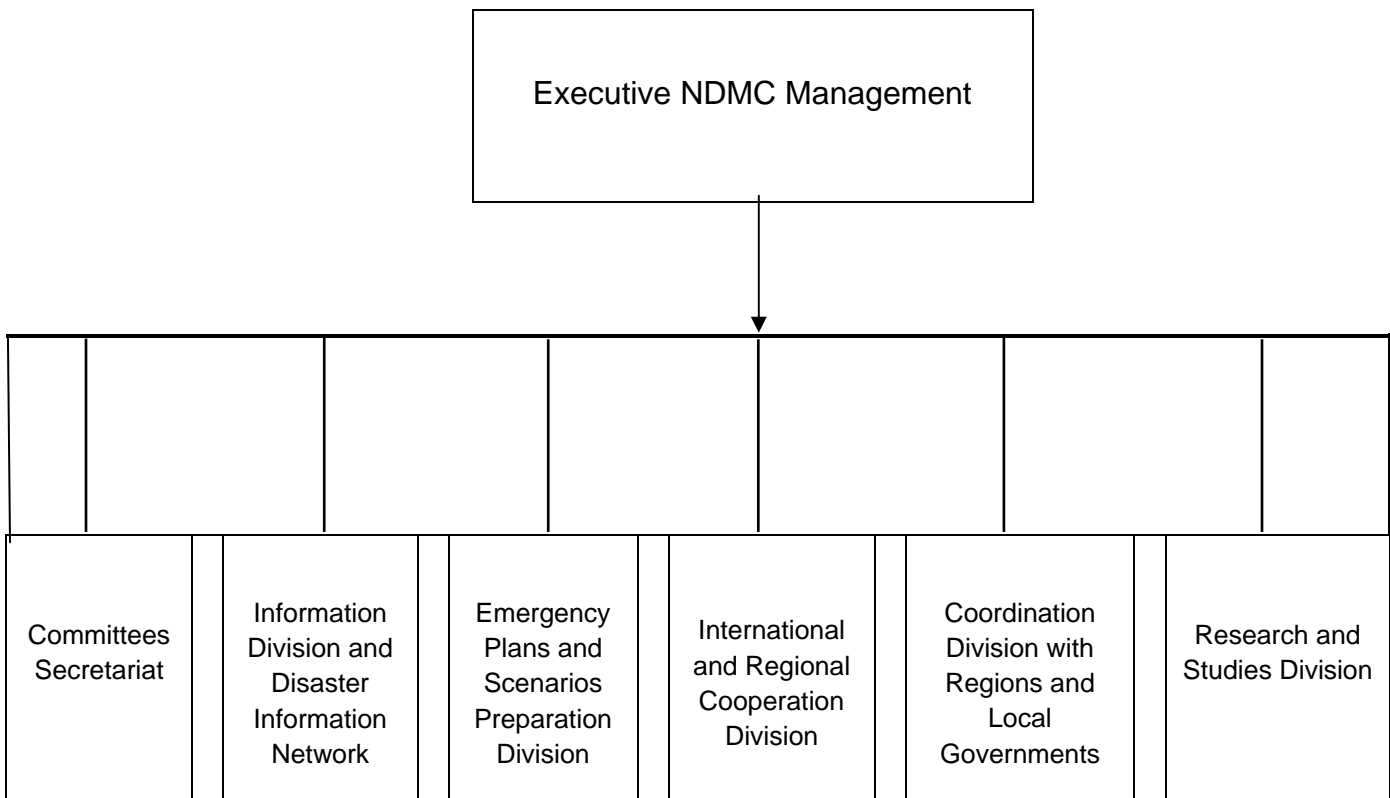


## Coordination Committees




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## Administrative Structure



### Higher Coordination Council

The Higher Coordination Council (HCC) is composed of senior representatives from all ministries participating in disasters management. The representative ministries also participate

in specialized sub-committees concerned with the various dimensions of disaster risk reduction including the authority to initiate specific activities in preparedness, mitigation and response. Members must be vested with decision-making authority in order to commit their ministry to undertake specific responsibilities.

The Chairman of the HCC, proposed to jointly hold the position of the Director of the NDMC, should report to one of the deputies of the Prime Minister. In this manner, the attention of the Gol to issues of disaster risk reduction will be well placed and the development of policies, legislation and other regulatory procedures shall be facilitated.

The functions entrusted to this Council and its committees shall be as follows:

- Formulate a national strategy for disasters management.
- Secure a joint reference authority for the management of disasters and build material and human capacities and strengthen risk reduction capacities in all of the state's ministries and institutions.
- Coordinate response mechanism between the executive and operational institutions particularly during the preparation for and mobilization after a disaster event.
- Approve projects which assist in mitigating disaster impacts within the short and long term development plans.
- Assist disaster in building its capacity in disaster management.
- Prepare the necessary information in advance and provide it to all parties which participate effectively in disaster management.
- Approve the emergency plans and timetables in order to prepare for the various types of disasters.

### **Sub-Committees**

It is proposed that the following sub-committees be established in the HCC and that its membership is composed of representatives at the level of Director General and above. The proposed committees are as follows:

#### **Information and Technology Committee**

Its function shall be to supervise the proposed national disaster information network, formulate the work strategy to coordinate between the sources of information and those participating in the network, to prepare the information in an easy-to-use form for the concerned parties before, during and after of occurrence of disasters. It shall also be responsible for the preparation and updating of disaster preparedness plans including communication and coordination channels and the usage of available modern technology during disaster episodes.

#### **Planning Committee**

Its functions are to formulate plans and incorporate projects which contribute to the mitigation of disasters into the State's official development plans in a coordinated manner and to allocate funds as required. The Studies and Research Division will be responsible for preparing studies and conducting research for the NDMC as well as to coordinate with concerned parties such as academic institutions.

#### **Resources Mobilization Committee**

Its functions shall be to develop and maintain an up-to-date data base on the material resources which can be used during disasters, track the implementation of approved projects and follow the planning processes of activities in the pipeline by Gol ministries.

### **Awareness and Media Committee**

This committee shall be responsible for the media activities during disasters, management of awareness campaigns in preparation to disasters by utilizing all media and education means at the national, provincial and community levels, cooperate and coordinate with the media in order to support the media's role in disseminating the culture of disasters management and for the purpose of upgrading the national consciousness in facing crisis incidents while reducing their negative impacts on civil community.

### **Administrative Structure / Center's Management**

The NDMC management should report to one of the deputies of the Prime Minister and shall undertake the administrative supervision over its activities and daily follow-up of work of the staff through the NDMC's specialized divisions as follows:

#### **Research and Studies Division**

This division coordinates with the research staff, expertise in-houses, including universities, for conducting specialized researches which contribute to improving preparedness to confront disasters and mitigate their impact as well as formulate future concepts of new disaster risk reduction strategy.

#### **Coordination with Regions and Local Governments Division**

This division carries out contacts and coordination with regional and local government and local authorities to follow up the implementation of the central plans in light of the approved disaster preparedness and response strategy.

#### **Regional and International Cooperation Division**

This division coordinates and follows up with regional and international parties for the purpose of scientific and logistic cooperation according to international agreements and conventions.

#### **Emergency Plans and Scenarios Preparation Division**

This division coordinates with various ministries to prepare all the necessary disaster emergency plans and scenarios for all types of disasters.

#### **Information Division**

It compiles and maintains information and data bases related to probable types of disasters, rescue works available particulars at the various ministries and supervises the work of national network for the disaster information.

#### **Sub-Committees Secretariat Division**

This division provides secretariat and documentation activities as well as logistical support for the Higher Coordination Committee, Sub-Committees and follows up the implementation of its decisions and archival of same.

### **National Network for Disasters Information**

The Iraqi institutions have a number of databases, information sources and operating or under construction geographic information systems. Such information sources are important in the rescue and planning activities as well as in the mitigation of disaster impacts. The formulation of such information in an appropriate form in prior to a crisis and its continuous updating as well as making it available quickly and promptly during disasters will contribute in the acceleration of rescue works and reduce material and human losses to the minimum. The NDMC shall supervise the network activity while the concerned ministries shall provide a timely and accurate flow of information to the network as per a NDMC central policy.

## **Alternative Programme Approach and Coordination**

The development of a new approach to initiate disaster risk management in Iraq can be described in a two-prong manner:

- First, by developing a strengthened capacity to track, collage, monitor and disseminate information on phenomena and activities known to trigger disaster events, such as drought, floods, earthquakes and man-made hazards like environmental pollution, conflict and remnants of war. This needs to be supported by an institutional emergency preparedness and response capacity primarily by government at local, provincial and national levels.
- Secondly, increased commitment to prevention and mitigation actions that will reduce the probability and severity of disaster events. These actions should be incorporated into existing and future policies, plans and projects of national, provincial and local government, as well as policies and practices of the private sector.

## **Interwoven Themes**

The development of national capacities in disaster management is an important process in the pathway to better serve the needs of the most vulnerable people in Iraq. Thus, it is encouraging to note that the Gol has begun the process to establish capacities aimed at saving lives and protecting resources and assets before they are lost. To correspond to the two-prong approach to disaster management, a set of five interwoven themes should be considered for adoption to tie in activities to critical outcomes:

- **Commitment to Change**
- **Institutional Development**
- **Knowledge Management**
- **Risk Identification and Management**
- **Leadership.**

**Commitment to Change** refers to the process that shall develop new disaster management planning, policy, legislation and resource allocation at the government level.

**Institution Development** is visible in the planned organizational strengthening of governmental agencies, non-governmental agencies and civil society, particularly high-risk rural and urban communities. The development of inter-ministerial, multi-sectoral and multidisciplinary

committees at the national, provincial and community levels with defined roles in disaster management is a key activity. The monitoring of disaster management functions, codes, standards and norms is another component essential to effective risk reduction.

**Knowledge Management** is a central theme with education and training, information management and communications, public awareness and research in risk reduction given a priority position.

**Risk Identification and Management** is a theme of singular importance when one foresees a period of growing rather than lessening risk for a vulnerable populace. Activities would entail undertaking vulnerability and capacity assessments, hazard assessments and a risk analysis in order to create mitigation programs that offer social protection and safety nets for at-risk communities, the development of forecast and early warning systems for other hazards besides floods and drought and determining the level of funding necessary for new risk-reduction initiatives.

**Leadership** is acquired via the development change process as sectoral specialists' link disaster management and risk reduction into the planning and policies of development programs such as poverty reduction, social mitigation, sustainable development, climate change adaptation, energy, natural resource management, agriculture, health, urban planning, drought and biodiversity.

## **Model for Disaster Risk Reduction and Response in Iraq**

The need for a structured and strategically placed agency responsible for policy formation, information sharing and to serve as a coordinating body for the implementation of cross-sectoral disaster management programs has been accepted as a necessity by senior government officials, donors, non-governmental agencies and the United Nations Country Team in Iraq. The following model proposes consideration for a hybrid that incorporates elements of the Inter-ministerial Committee for Disaster Management model with components that will address risk reduction issues at all societal levels in Iraq.

At the national level, the suggested model would have three component parts, (i) a National Disaster Management Commission, (ii) a National Disaster Management Authority and (iii) Technical Sub-Committees. At the provincial/regional level in Iraq, the disaster risk reduction and response model would be composed of three component parts, (i) a Provincial Disaster Management Commission, (ii) Provincial Disaster Management Authority and (iii) a District or Municipal Disaster Management Authority.

### **The National Disaster Management Commission**

At the central government level the National Disaster Management Commission is responsible to establish disaster risk reduction and preparedness policies, systems and capacities. The Commission will ensure coordination for disaster risk management includes an all hazards approach to mitigation, prevention, preparedness, response and recovery in addition to overseeing the integration of disaster risk management issues into sectoral development planning. The Prime Minister is the chairperson of the Commission with membership including the leadership of the Kurdistan Regional Government, Majority and Minority leadership of the

national parliament, Ministers of core disaster preparedness and response ministries, and representatives of the Iraq Red Crescent Society and other agencies as proposed by the Prime Minister.

The National Disaster Management Commission (NDMC) would be responsible for the following actions:

- Establish national policies on disaster risk management;
- Approve the National Disaster Management Authority Framework and Annual Plan;
- Approve plans prepared by Ministries or Provincial government in accordance with the National Disaster Management Framework and Plan;
- Preparation of guidelines to be followed by national and provincial authorities;
- Arrange for and oversee the provision of funding for mitigation, preparedness and response and recovery measures;
- Provide such support to other nations affected by major crises as may be determined by the national government;
- Take appropriate measures in preparedness, mitigation, capacity development to strengthen national skills to prevent unnecessary loss of life, livelihood and developmental assets;
- The NDMC may constitute an advisory committee or committee of experts in disaster risk management. Members of the advisory committee are eligible to receive allowances applicable under prevailing national government regulations;
- The NDMC shall meet twice a year and when early warning thresholds indicate need, as well as when a disaster event occurs;
- The NDMC will establish a permanent agenda for their meetings that must be review the preparedness of the national and provincial government to all risks in addition to response and recovery capacities.

### **The National Disaster Management Authority**

The National Disaster Management Authority (NDMA) is proposed to establish an apex institution within the Gol, under the Office of the Prime Minister, with responsibility to create disaster risk management policy formation, information sharing and serve as the coordinating body for the implementation of cross-sectoral disaster risk management programs. The NDMA would aim to develop a sustainable operational capacity and professional competency to undertake the following tasks:

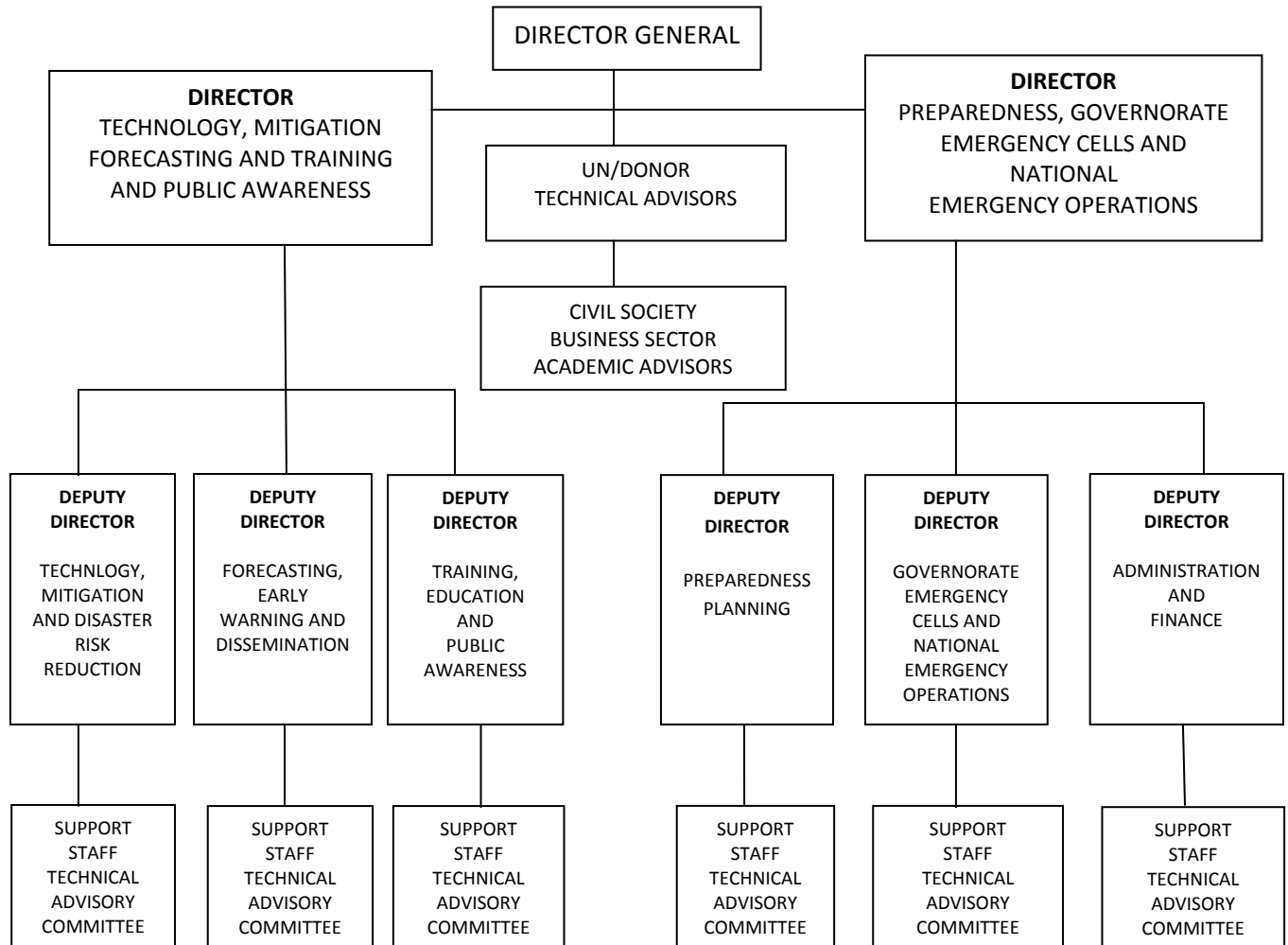
- Act as Secretariat of the NDMC and as implementing and coordinating body for disaster risk reduction employing an all-hazards approach.
- Develop guidelines for all stakeholders (ministries, departments, technical organizations and provincial/regional governments) at national, provincial and local levels regarding their roles and responsibilities in disaster risk reduction, preparedness and response.
- Ensure the establishment and maintenance of Governorate Emergency Cells that enable efficient operational coordination for all disasters at all levels.
- Ensure the incremental establishment of disaster management authorities at the provincial, district and community levels in hazard-prone areas.
- Provide necessary technical assistance to provincial/regional governments for preparing disaster risk reduction and response plans in accordance with guidelines approved by the National Commission.

- Work with provincial/regional Disaster Management authorities to implement disaster risk reduction and preparedness programs at local levels.
- Identify and map all hazards in the country and conduct a risk and vulnerability analysis on a regular and continuing basis.
- Identify training and awareness needs and organize activities for capacity development of stakeholders in disaster risk management at all levels, particularly stakeholders residing in hazard-prone areas.
- In collaboration with provincial/regional governments, collect, analyze, process and disseminate inter-sectoral information required in an all-hazard management approach; Act as a repository for archival and current disaster risk management information and where appropriate regularly disseminate information to other stakeholders either through periodic newsletters, memos, conferences, and education and training venues, and include information management systems into public awareness programs on disaster risk management within communities.
- Mobilize required financial and material resources for prevention/mitigation, preparedness and responses.
- Draft appropriate policy and legislation and regulations for disaster risk reduction agencies in Iraq.
- Ensure that appropriate regulations are developed for disaster response volunteer teams.
- Serve as the lead agency for the GoI in regional and international disaster risk management cooperation. This will include areas of disaster risk management such as information gathering, sharing, early warning surveillance, joint training and common standards and protocols required for regional and international cooperation.
- Serve as the responsible authority to ensure disaster responses match accepted international standards i.e. SPHERE for non-governmental agencies and UN standards for reference to humanitarian standards in emergency relief, early recovery, rehabilitation and reconstruction.
- Create the requisite environment in which the media will participate in disaster risk management activities.
- Coordinate responses in the event of any threatening disaster episode.
- Require any department or agency of the GoI to make available men or material resources as are available for the purpose of emergency response, rescue, and relief.
- Perform any other function as may be required by the National Disaster Management Commission.

The National Disaster Management Authority shall be lead by a senior government official in the role of Director General and support by two Directors covering the responsibilities associated with technology, mitigation, forecasting, training and preparedness, emergency operations and recovery. The Directors will oversee seven Deputy Directors and their support staff. It is recommended that international disaster risk reduction agencies i.e. the European Union, the U.S. Office of Foreign Disaster Assistance, the Department for International Development, the UN International Strategy for Disaster Reduction, the UN Development Programme Bureau for Crisis Prevention and Recovery and the UN Office for the Coordination of Humanitarian Affairs be approached to provide advisors/short-term technical assistance. The provision of such technical support would contribute to the strengthening of the institution and support knowledge management, institutional development, risk identification and reduction and an important commitment to change activities.

The following organizational chart represents the abovementioned structure suggested for the national level in Iraq:

### NATIONAL DISASTER MANAGEMENT AUTHORITY



### Technical Sub-Committees

To facilitate proper coordination and enable optimum use of available skills and resources in Iraq, a number of Technical Sub-Committees would be established under the supervision of the of the National Disaster Management Authority. Technical sub-committees will focus on specific disaster threats and be responsible for providing a post-disaster report on the efficiency and effectiveness of preparedness, mitigation and disaster response programs. The specific sectoral areas that could be covered through the establishment of the technical sub-committees include:

- Drought
- Floods
- Dust Storms
- Earthquakes

- Urban and Forest Fires
- Land Slides
- Climate Change and Global Warming
- Environmental Pollution
- Land Mines and Remnants of War
- Population Displacements
- Terrorism
- Industrial and Transport Accidents
- Marine Disasters Including Oil Spills
- Health Epidemics
- Civil Conflict
- Chemical, Biological or Nuclear accidents

### **Provincial Level Model for Disaster Risk Management and Response**

Building on the development of the existing Governorate Emergency Cells now functioning in half of the 18 governorates in Iraq, the proposed model creates a parallel structure for disaster risk management that is linked to the national framework through guidelines established by the National Commission. The membership of the Governorate Emergency Cells includes the Governor as the Chairperson and representatives of the various ministries represented in the governorate along with public sector stakeholders, civil society organizations, police and fire services personnel along with the Iraq Red Crescent Society. Each Governorate Emergency Cell shall be a channel for information and resources and the link between national level disaster risk reduction and provincial priorities.

The Governorate Emergency Cell shall also be responsible for developing and implementing a public awareness campaign to make vulnerable populations more acutely aware of specific threats to natural and human induced disaster risks and the creation of new approaches, methods and techniques for disaster reduction and recovery.

The proposed responsibilities of the Governorate Emergency Cells shall include:

- Development and compliance to a provincial disaster risk management policy;
- Design of a provincial disaster risk reduction and response plan in accordance with guidelines established by the National Commission;
- Ensure the formulation of disaster risk reduction and response plans by all vulnerable communities in the province;
- Develop strategies and measures for prevention or mitigation of hazards and the reduction of community level vulnerabilities;
- Continuously monitor the hazards, risks, disaster threats and conditions of vulnerability of communities within the province;
- Identify training needs and promote education, awareness and training on disaster risk reduction and response;
- Approve of the disaster risk reduction and response plans prepared by departments and ministries present in the governorate;
- Regularly review the risk reduction and response plans and conduct a simulation exercise to identify any weaknesses in the proposed strategy;
- Coordinate response activities following a disaster event;
- Oversee the provision of funds for mitigation and preparedness measures;
- Ensure that communication systems are in order and disaster response drills are being regularly undertaken;
- Encourage the involvement of community groups in disaster risk reduction and response by providing them necessary financial and technical assistance for implementing community level initiatives;

- Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at short notice;
- Review the measures being undertaken for mitigation, capacity building, and preparedness and issue guidelines or directions as required;
- Perform other functions as may be assigned by the National Commission.

## **The United Nations Role in Disaster Risk Reduction**

The United Nations Country Team in Iraq are crucial partners in disaster management. In concert with the GoI and other disaster management stakeholders, the United Nations collaboratively works to improve disaster response and mitigation systems for risk reduction through support for effective national policies and strengthening institutions and communities to lower their risk from hazards. The UN works in areas affected by prolonged emergencies by offering humanitarian assistance and technical support to affect positive changes to economic, infrastructural and environmental conditions.

The UN is supporting the following initiatives in many nations with vulnerabilities similar to that facing Iraq:

- UN agencies participate in national and regional disaster management forums for the purpose of information and experience sharing.
- Participate in technical committees dealing with specific disaster types and environmental shocks.
- Provides financial and technical support for the development of sustainable disaster management preparedness and response capacity with key stakeholders in addition to responding to humanitarian crises.
- UN agencies contribute to knowledge management in the technical application of risk reduction strategies in a plethora of development areas from health to education to livelihoods and good governance.

## **Civil Society Organizations and Other Stakeholders**

Civil society organizations, including non-governmental organizations, are important partners in disaster management activities as they are often able to respond rapidly and with flexibility to urgent needs during a crisis episode. In order to forge a closer link to the national and provincial disaster management agencies, it is recommended that civil society organizations should be:

- Encouraged to participate in disaster management activities aimed at reducing vulnerability at the community level and among high-risk groups. In specific terms, civil society organizations should be encouraged to participate in training, public education, needs and damage assessments, and relief and recovery initiatives in disaster affected areas.
- Expended invitations to participate in the development of disaster preparedness and response planning at the national, provincial and community levels for the multiple purposes of information sharing on disaster preparedness, mitigation, early warning and response roles and for resource mobilization. The linkage between civil society

organizations and the proposed National Disaster Management Agency will ensure that the strategic policy and operational implementation incorporates their participation.

- Non-governmental organizations and other disaster stakeholders will further ensure that their participation comply fully with international standards of emergency relief and human rights.

## **The Role of the Private Sector**

The role of the private sector is often neglected when discussions on disaster management are overwhelmed by the public sector and humanitarian participants. Corporate social responsibility and disaster risk reduction can be a most effective match. Corporate social responsibility often refers three elements of interest – profit, environmental quality and social justice – implying that private sector interests are by served by embracing all three factors. The private sector may contribute an assortment of skills, experiences and models that are applicable to disaster risk reduction.

For example, in hazard mitigation the private sector can offer a plethora of experiences in devising alternate safety nets, guarding against future risk, protecting assets and creating sustainable growth. For post-impact reconstruction, private enterprise has the expertise and cost-effective technologies essential for devising a more effective approach to mass reconstruction. Private sector experience also could be useful in fundraising for mitigation, providing inputs into retrofitting essential infrastructure, developing resource inventories, initiating and administering debris management systems, managing logistics, developing risk transfer systems and, most importantly, developing public awareness programs.

## **Donor Assistance to Develop a Disaster Risk Reduction Agenda**

The development of Iraq's disaster risk reduction capacities is an important step towards being better able to redress its social, economic, environmental and political issues. With an extensive list of natural and human induced hazards to address, the international donor community recognizes that the nation is unable to meet all these challenges without external support. In interviews with a few international donors in Baghdad, the Consultant was able to discern an interest to support disaster risk reduction capacity development following an expression of political will to create more effective preparedness, mitigation and response mechanisms.

The development of a structured and strategic agency to coordinate disaster risk management activities for the GoI is likely to draw support from donors in the form of technical support for training, institutional development, capacity development and long-term relationships with regional and international disaster risk reduction institutions. International agencies and donors are acutely aware of the importance of lowering risks to natural and human induced hazards in nations struggling to overcome a host of destabilizing forces.

Thus, the opportunity exists for the United Nations and other international disaster risk reduction stakeholders to form a partnership with the GoI as it shifts from a response driven approach to one of strategic and lasting dimensions.

**II. STRATEGY AND OBJECTIVES**

## Preparatory Assistance

The scale, frequency and complexity of disasters can only be addressed by deploying a vast range of knowledge, skills and resources that are being utilized in both developmental and risk reduction programming. This means that effective disaster risk reduction initiatives must be multi-disciplinary partnerships involving a range of stakeholders that will offer the range of skills and resources needed to manage the complex issues that transform hazards into disasters. Thus, disaster risk reduction requires a systematic approach to identifying, assessing and reducing the risks that are prevalent in Iraq.

Thus, preparatory assistance undertaken by the United Nations or other stakeholders should commence with the development of a partnership with representatives of the GoI to initiate activities that will achieve the following outcomes:

- A shared vision of a prepared and disaster risk resilient nation;
- Disaster risk reduction plans informed by understanding of underlying causes of vulnerability and other factors;
- Partners agree upon long-term perspective, focusing on outcomes and impact of disaster risk reduction;
- Effective and accountable leadership developed through a participatory process;
- Shared understanding among all stakeholders regarding disaster risk reduction responsibilities, authority and decision making;
- All stakeholders committed to a genuine partnership with open and shared principles of collaboration and high levels of trust;
- The importance for creating a devolved disaster risk reduction structure that will facilitate the participation of a wide audience of stakeholder groups.

The process of initiating a dialogue on disaster risk reduction might be pursued through the Office of the Prime Minister or through the Chairman, Prime Minister's Advisory Commission who has already indicated his willingness to support such an initiative. In order to support the initial processes related to the establishment and subsequent functioning of a National Disaster Management Authority, the Consultant is recommending the recruitment of a Iraqi national Project Liaison Officer with knowledge on disaster risk management and substantial experiences on institutional and capacity development to contribute to the establishment of the national and provincial disaster management centers and defined activities.

This individual will be given a six month extendable contract as the UN liaison with the GoI focal point for disaster risk reduction during the preparatory phase of activities. The Terms of Reference for this position shall be jointly developed by the UN/GoI along with a process for recruitment, interviewing and selection. An international consultant, also jointly selected, shall be recruited to provide short-term technical backstopping for the in-country initiatives and to contribute to the planning of technical and managerial training of Government stakeholders in disaster risk management.

The opportunity to conduct a round table dialogue on the development of a partnership between the GoI and the United Nations representatives on the steps forward in the creation of a programme to redress vulnerability to disaster risks should lead to the formation of a strategic group entrusted with the task to prepare a framework for the development of: (i) the expected outcome of the partnership, (ii) strategic goals; (iii) priorities for action and (iv) key activities.

Using the Hyogo Framework for Action 2005-2015: *Building the Resilience of Nations and Communities to Disasters* as a model, the Expected Outcome might be expressed as, The substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and the nation.

Three Strategic Goals were developed which also have relevance to Iraq are:

- The integration of disaster risk reduction into sustainable development policies and planning.
- The development and strengthening of institutions, mechanisms and capacities to build disaster resilience to hazards.
- The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.

Five Priorities for Action are described as follows:

**1. *Ensure that disaster risk reduction (DRR) is a national and local priority with a strong institutional basis for implementation.*** Activities include the following:

- DRR institutional mechanisms (national platforms); designated responsibilities;
- DRR part of development policies and planning, sector wise and multi-sector;
- Legislation to support DRR;
- Decentralization of responsibilities and resources;
- Assessment of human resources and capacities;
- Foster political commitment;
- Community participation

**2. *Identify, assess and monitor disaster risks and enhance early warning.*** Activities include the following:

- Risk assessments and maps, multi-risk elaboration and dissemination;
- Indicators on DRR and vulnerability;
- Data and statistical loss information;
- Early warning; people centered information systems; public policy;
- Scientific and technological development; data sharing, space-based earth observation, climate modeling and forecasting; early warning
- Regional and emerging risks.

**3. *Use knowledge, innovation and education to build a culture of safety and resilience at all levels.*** Activities include the following:

- Information sharing and cooperation;
- Networks across disciplines and regions; dialogue;
- Use of standard DRR terminology;
- Inclusion of DRR in school curricula, formal and informal education;
- Training and learning on DRR; community level, local authorities, targeted sectors; equal access;

- Research capacity; multi-risk; socio-economic; application;
- Public awareness and media.

4. **Reduce the underlying risk factors.** Activities include the following:

- Sustainable ecosystems and environmental management;
- DRR strategies integrated with climate change adaptation;
- Food security for resilience;
- DRR integrated into health sector and safe hospitals;
- Protection of critical public facilities;
- Recovery schemes and social safety nets;
- Vulnerability reduction with diversified income options;
- Financial risk-sharing mechanisms;
- Public-private partnerships;
- Land use planning and building codes;
- Rural development plans and DRR.

5. **Strengthen disaster preparedness for effective response at all levels.** Activities include the following:

- Disaster management capacities: policy, technical and institutional capacities;
- Dialogue, coordination and information exchange between disaster managers and development sectors;
- Regional approaches to disaster response with risk reduction focus;
- Review and exercise preparedness and contingency plans;
- Emergency funds;
- Voluntarism and participation.

The Hyogo Framework for Action identified four cross-cutting issues as being (i) multi-hazard approach, (ii) gender perspective and cultural diversity, (iii) community and volunteer participation and (iv) capacity building and technology transfer.

For the United Nations and participating disaster risk reduction partners, the opportunity to support the Gol in a multi-dimensional capacity development initiative might be undertaken in the following manner::

- (1) Provision of technical assistance to strengthen the capacities of a national and provincial disaster risk management entity that share a mandate to support the development for managing and reducing disaster risk;
- (2) Provide policy advice for mainstreaming disaster risk reduction into overall development policy and implementation strategy in order to enhance and sustain national development objectives;
- (3) Mobilize disaster risk reduction stakeholders in the public, private and civil society sectors through the exchange of risk management knowledge and the creation of sustainable networks for the dissemination of effective best practices and lessons learned in disaster risk reduction at the local, national and regional levels in the Middle East.

(4) Support initiatives in high-risk areas of Iraq to lower risks through the development of appropriate, cost-effective technology to lower risk within the context of local development planning.

## Technical Support

Five areas of technical support in disaster risk management that may be relevant to the needs of the Gol include:

1. **Prioritizing disaster risk management while strengthening national institutions to build resilience to hazards.** The emphasis shall be placed in expanding the political commitment to disaster risk reduction and focus attention on creating policies and planning on risk reduction or strengthening local coping strategies. The institutional capacity of the proposed apex institution for disaster risk reduction in Iraq shall be increased in order for them to develop their own 'national platforms'<sup>5</sup> on disaster risk reduction.

2. **Developing and strengthening disaster risk assessment and early warning.** Disaster risk assessment capacities are rare in Iraq where risk maps and land use capability maps have not been updated for decades with reference to natural hazard risks. Early warning systems to address food security, drought and climatic factors, mechanisms for warning on desertification and other major hazards are undeveloped or limited to risk surveillance and monitoring. Thus the promotion of (a) hazard and vulnerability assessment, monitoring and early warning; (b) strengthening all elements of famine and food security early warning systems in the sub-region; and (c) monitoring desertification and climate impacts, should be proposed.

3. **Enhancing the use of knowledge and innovation to reduce disaster risks.** The major challenge is threefold: (a) to expand and enhance mechanisms for the generation and dissemination of disaster risk information, (b) the integration of disaster risk reduction in formal and non-formal education, and (c) promoting research and innovation in disaster management.

4. **Reducing development risk factors.** Arid land agrarian societies and one-commodity based economies often associated with chronic poverty contribute to the high level of vulnerability of countries to natural hazards. The adoption of interventions in early warning, hazard management, post-conflict food crises are essential to create sustainable food security and poverty reduction gains. Specific project interventions for consideration might include (i) raising the dialogue on food security challenges and assessment of existing drought and desertification management programmes; (ii) ensure complementarity between disaster risk reduction, early recovery and conflict mitigation and management issues; and (iii) expand public-private sector partnerships.

5. **Strengthening preparedness and response.** Preparedness planning involves contingency planning, early warning and strategies to address the needs of displaced victims of a natural or man-made catastrophic event. The absence of an emergency management institution or the facilities to pre-test their contingency plans is likely to weaken the country's ability to respond in a timely and effective manner. Further, innovative approached to

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<sup>5</sup> 'National Platform' is a generic term used for national mechanisms for the coordination and policy guidance on disaster risk reduction between public, private and civil society participation within a country.

emergency response, linking relief to development, through cash-for-work instead of using food, small-scale water harvesting, and integration of food, health, functional education programmes and security using gender equality standards are not well known. The particular challenges to address this priority are to (a) enhance the capacity for national and provincial emergency response and contingency planning; (b) integrating early warning into disaster management (c) harmonizing national emergency systems; (d) strengthening interaction between disaster managers and development practitioners, and (e) developing volunteerism in emergency management.

The secondary strategy might consider supporting local government and civil society organizations, including non-governmental organizations, in efforts to mitigate vulnerability to recurrent natural disasters. Research on the role of local institutions in reducing vulnerability to natural disasters was initiated in 2002 by the UN Food and Agricultural Organization to provide guidance to policy makers on how local organizations could be best empowered on disaster risk management. Case studies and dialogues confirmed that locally organized preventative action could help limit damage and losses in emergencies. The FAO study also confirmed that what is lacking is a good understanding of local knowledge and concrete guidance on how to strengthen the role of local government and community-based organizations in disaster risk management.

The overall emerging pattern from this study shows the comparative strengths of local governments to include:

- Monitoring of risk and vulnerability: pre-disaster vulnerability assessments and emergency needs assessment, early warning systems (dissemination of alerts requires that the message is understood by various users and community involvement/ownership).
- Contingency planning and co-ordination of emergency operations: setting up of local co-ordination bodies for evacuation, relief goods distribution, health services, transport and planning of rehabilitation;
- Integration of disaster risk management components into natural resource management plan.
- Development of horizontal partnerships with the private sector, non-governmental organizations and community groups, and establishment of inter-municipal agreements.

Once the platform for a national disaster management authority and activities has been drafted, the Consultant suggests that a one-day national consultation workshop be organized to present the strategy to representatives of all relevant ministries, departments and disaster risk reduction stakeholders as well as donor agencies, academia, civil society organizations, including international and national non-government organizations and the United Nations. The workshop will help achieve consensus on the strategy to incorporate disaster risk reduction in national, provincial, regional and global activities and to help identify partnerships among and between the national and international agencies.

## **Training and Capacity Development**

In collaboration with the Iraq Red Crescent Society and with support from Red Cross partners in the International Federation of Red Cross and Red Crescent Societies and the International Committee of the Red Cross, training workshops should be organized for national and provincial

level selected government staff in a variety of areas in disaster risk management and technical skills.. As noted in the interviews conducted by OCHA Field Officers in July/July 2009, 17 governorates indicated that provincial response strategies and capacity building aptitudes to respond to local crises were inadequate to meet most needs.<sup>6</sup> Thus, initiatives to identify high-risk communities and organize community volunteers for training in preparedness skills i.e. first aid, search and rescue, shelter management will support the effectiveness of future relief and recovery operations.

In collaboration with the Governorate Emergency Cells, capacity building initiatives can be demonstrated by the formulation of provincial disaster preparedness and response plans through the active participation of all stakeholders in creating a multi-hazard framework. These plans can significantly reduce the impacts of disaster on people and infrastructure through the development of capacities to better coordinate and respond by all first responder departments and stakeholder groups.

The development of community contingency plans can be the byproduct of civil society organizations efforts working with trained community volunteers. The linkage with the Governorate Emergency Cells can guarantee the support of the provincial government while also building ownership, confidence and sustainability at the community level Provincial and community level capacity development should be undertaken in accordance with a National Disaster Management plan.

While national level preparedness will be engaged in the formulation of disaster preparedness and response plans, institutional strengthening at the provincial level will be achieved by strengthening the current Governorate Emergency Cells in nine provinces and establishing nine new Governorate Emergency Cells. All 18 cells should have communications and early warning systems to ensure two-way communication flow with all other stakeholders at the intermediate and national levels in times of a crisis.

## **Community Based Disaster Risk Management**

The top down approach to addressing issues of vulnerability at the community level has often be recognized as a failure in creating an effective disaster management structure. Small and medium scale disaster losses are often not addressed by national governments and thus the top down approach cannot build on successful interventions to adopt new strategies that directly involve vulnerable populations in the planning and implementation of mitigation measures. However, the bottom up approach has received wide acceptance because communities are considered the best judges of their own vulnerability and can make the best decisions regarding their well being.

The aim of the community based disaster management (CBDM) approach is to reduce vulnerabilities and strengthen people's capacity to cope with hazards. A thorough assessment of a community's exposure to hazards and an analysis of their specific vulnerabilities and capacities is the basis for activities, projects and programs that can reduce disaster risks. Because a community is involved in the whole process, their felt and real needs as well as

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<sup>6</sup> Hazards Identification By Governorates. Table 5. P.27. *The State of Disaster Risk Reduction in Iraq*. Earl James Goodyear, Ph.D. August 5, 2009.

inherent resources are considered. Therefore there is a greater likelihood that problems will be addressed with appropriate interventions.

People's participation is not only focused in processes but on content. The community should be able to directly gain resulting from improved disaster risk management. This in turn will contribute, to a progression towards safer conditions, security of livelihood and sustainable development. This underlines the point that the community is not only the primary actor but also the beneficiary of the risk reduction and development process.

Some disaster risk management practitioners differentiate between community participation and involvement. Community participation is generally taken to mean that a given community takes responsibility at all stages of a program including planning and implementation. Community "involvement" refers to a 'less than' ideal situation where the community is asked to participate in a program that has already been designed by someone else. The main characteristics of a Community Based Disaster Management system points to the following features:

- The community has a central role in long term and short term disaster management. The focus of attention in disaster management must be the local community.
- Disaster risk or vulnerability reduction is the foundation of CBDM. The primary content of disaster management activities revolves around reducing vulnerable conditions and the root causes of vulnerability. The primary strategy of vulnerability reduction is by increasing a community's capacities, their resources and coping strategies.
- Linkage to the development process. Disasters are viewed as unmanaged development risks and unresolved problems of the development process. CBDM should lead to a general improvement of the quality of life of the vast majority of the poor people and of the natural environment. CBDM contributes to people's empowerment – to possess physical safety; to have more access and control of resources; to participate in decision making which affects their lives; to enjoy the benefits of a healthy environment.
- Community as a key resource in disaster risk reduction. The community is the key actor as well as the primary beneficiary of disaster risk reduction. Within the community, priority attention is given to the conditions of the most vulnerable as well as to their mobilization in the disaster risk reduction. The community participates in the whole process of disaster risk management from situational analysis to planning to implementation.
- Application of multi sectoral and multi disciplinary approaches. CBDM brings together the multitude of community stakeholders for disaster risk reduction to integrating poverty reduction programs with disaster risk reduction.
- CBDM as an involving and dynamic framework. Lessons learned from practice continue to build into the theory of CBDM. The sharing of experiences, methodologies and tools by communities and CBDM practitioners continues to enrich practice.

## **Initiating the Disaster Reduction Process**

Getting started can begin with the identification of particular hazard-prone areas by representatives on the Governorate Emergency Cells or by other risk reduction stakeholders familiar with vulnerable communities facing an impending disaster threat. Civil society

organizations can also identify communities fitting a specific criteria i.e. most disaster prone area; most vulnerable to a particular hazard; least served by the government and/or NGOs; additional considerations such as possibility of replication or spread effects of the program to neighboring communities, presence of existing development projects or community partners.

In many instances, a probable hazard event or disaster threat can be turned into an opportunity to start a community-based disaster management program. When the knowledge, skills and experiences in disaster risk reduction, which are in communities are systematized and disseminated, there will be more community-to-community sharing on how to get started and implement community-based disaster management.

### **Community Profiling**

Community profiling involves building up a picture of the nature, needs and resources of a community with the active participation of the community. It is an important preliminary step in any planning process, especially when outsiders (intermediary organizations) are involved. It usually involves building rapport/ trust with the community through interaction and gathering basic information or the surfacing of the general community profile. It leads to an understanding of the community's development position and the context upon which disasters will impact. Basic elements of a community profile will include the following: social groups, cultural arrangements, economic activities, spatial characteristics and vulnerable households and groups.

### **Community Risk Assessment**

Community risk assessment is a diagnostic process to balance known disaster risks against available resources. Through the risk assessment process, the community comes to a common understanding of its disaster risks. The size of the problem as well as the resources and opportunities involved are identified and analyzed. Community risk assessment has four components as follows: hazard assessment, vulnerability assessment, capacity assessment and people's perception of the risks.

Community risk assessment provides a systematic process for identifying, estimating, and ranking community risks and contributes to the community's awareness about potential risks. This is usually the contribution of technical staff bringing bring scientific and technical information on hazards which the community has not experienced before. Community risk assessment is an essential precursor to a bottom up decision making process for development policies, strategies, plans, programs and projects in disaster risk reduction. More specifically they help:

- To prioritize community's risks which need to be reduced. The community has to address all its disaster risks but its actions and resources can be prioritized based on the frequency, extent of damage and other considerations which the community members decide upon.
- To ensure that the risk reduction is going to be adequate and appropriate. Risk reduction planning should incorporate a balance between preparedness and long term mitigation measures.
- To ensure that risk reduction will be cost effective and sustainable. In many situations, the viable track to reduce vulnerabilities is through increasing the community's

capacities. Existing material, social and attitudinal capacities should be built and areas and strategies for capacity building should be identified. The impact of various preparedness and mitigation measures on risks in the immediate and in the long-term can also be compared.

- To identify external resources which have to be tapped and risk reduction strategies to address vulnerabilities, which the community on its own cannot address.
- To have a yardstick to assess if the community is succeeding in reducing risk. Community risk assessment provides indicators to measure changes in people's vulnerability over time.

Community Risk Assessment provides the community and support agencies with disaster specific baseline data that can be integrated in a situational analysis for development planning purposes. Furthermore, it provides the community and support agencies with baseline data which is useful in doing the 'damage, needs, capacities assessment' of the community for emergency response purposes.

### **Formulation of Disaster Risk Reduction Plan**

Preparedness and mitigation measures to reduce disaster risks are identified. These risk reduction measures are not necessarily big projects. The important point is to start off the risk reduction process through community mobilization based on existing capacities and resources within the community's immediate reach. Overall objectives, strategies are translated to operational plans and activities. The people, timetable, resources within and outside the community needed to turn the intent of the plan into reality are identified. Community targets in undertaking preparedness and mitigation measures in terms of particular capacities increased and vulnerabilities decreased.

At the planning stage, agreements with intermediary organizations are formalized regarding their supports in the risk reduction plan implementation and their expectations/requirements of resources, which they commit to mobilize. Outsiders are usually expected to assist the community in the following areas: community capability building through training and education activities and materials, resource mobilization to supplement the community's efforts to generate resources to realize the risk reduction plan, and facilitate linkages with concerned government agencies and NGOs to access information, resources, etc.

### **Implementation and Monitoring**

The formation and/or strengthening of a community disaster management machinery is usually helpful in the implementation of the risk reduction plan. A wide range of organizational arrangements vital in implementation of the plan could include the following: -- a committee of an existing community organization, a disaster volunteers team, a project management committee, a network of community organizations for disaster management, etc.

Besides monitoring the progress of the plan implementation, this core group motivates the community through translation of plan objectives and targets into disaster reduction activities. This group also amends targets and plans, when necessary, to keep on course with set objectives to reduce vulnerabilities and increase capacities in the immediate and long-term.

## Evaluation and Feedback

Evaluation is concerned with the effects of the risk reduction measures in terms of reducing the vulnerability situation of the community. If vulnerability has not been significantly reduced, the reasons for this are analyzed. The significance of building on existing capacities and those, which have been actually increased, are also analyzed. It is concerned with the difference the results of the risk reduction measures have made to the community situation and its overall quality of life. Lessons are drawn and best practices are shared with other groups and communities to promote the CBDM framework and strategy.

The following table describes useful tools and application for undertaking a community risk assessment:

### Tools of Community Risk Assessment

TOOL	DESCRIPTION
Review of secondary data	Collection of relevant information from published or unpublished sources.
Direct observation	Systematic observation of people and relationships, objects, events, processes and recording these observations to get a better picture of the community.
Semi-structured interviews	Informal discussions with the community members using a flexible guide of questions – interviews, group discussions or bunch of people sitting around the table (BOPSAT).
Drama, Role Play and Simulations	Acting out a particular situation.
Diagramming and Visualization tools	Drawing maps, diagrams, etc. to illustrate, analyze, make relations or draw trends. Historical profile, mapping, modeling, transect, seasonal calendar, institutional and social network analysis, livelihood/ class analysis, problem tree, gendered resource mapping are some examples of diagrammatic tools.

## Development of a National Disaster Risk Reduction Framework

One of the most relevant deliverables of the national disaster management coordinating body in Iraq is a holistic and comprehensive framework of goals, objectives, outcomes and activities that will create a stronger national capacity to address natural and man-made hazards. In order to pursue the goal of establishing a clear strategy for disaster risk management in the country and to achieve above mentioned tasks, a two-step process is proposed:

First, it is proposed that working groups (under the leadership of the Inter-Ministerial Committee for Disaster Management) be constituted for the preparation of a National Disaster Risk Reduction Framework.. Each working group will include members from relevant institutions for a specific task or thematic area and will be chaired by one of the senior members of the Inter-Ministerial Committee. The United Nations (through UNDP, UNOCHA or other members of the UN Country Team in Iraq) may provide necessary secretariat support to each of the working groups. The working groups will review existing studies, consult with a wide audience of

stakeholders in order to produce a specific multi-year action plan. This action plan will identify programmes and projects that need to be undertaken over the short, medium and long term. The international development and donor agencies will be invited to contribute to the process as necessary. The working groups submit their final reports (action plans including specific programmes and projects) to their Chairperson within a specified time period.

The United Nations and the Inter-Ministerial Committee will compile the inputs of the working groups into a draft “National Framework Towards a Safer Iraq from Disasters” document. As the overall coordination body of disaster risk reduction efforts, there is a need to bring all the stakeholders into common platform at the national, provincial/regional and municipality levels.

Secondly, a national level workshop should be organized to describe the Framework the roles and responsibilities for all involved stakeholders and to receive constructive commentary how the Framework may be strengthened.. This will be followed by a series of consultation and coordination meetings with the relevant stakeholders, including representatives of parliament, the private sector, civil society, academia and international agencies, at national level

### **Implementing Disaster Risk Management From National to Community Levels**

Ensuring that appropriate enabling mechanisms are in place, including policy, structure, capacity building, and resources is an imperative when establishing a national to community level disaster risk management structure. As disaster reduction becomes essential to sustainable development, disaster reduction policies and measures need to be developed and institutionalized at national and local levels. They should enable communities to be resilient to natural hazards while ensuring that development efforts do not increase vulnerability to those hazards.

The following enabling mechanisms for effective disaster reduction are necessary:

(1) Policy. A clear and comprehensive policy that defines the objectives and commitment of the government, organization, or community to disaster reduction and response efforts, is important. This may assume the form of legislation, policy guidelines, promulgated plans, or protocols. A policy developed through a strategic and consultative planning process could effectively address the identified gaps in the disaster management cycle.

(2) Structures and systems. Organizational structures and systems that facilitates and ensures coordination of stakeholders’ action and contributions should be in place. This involves the establishment and strengthening of focal points and national and local coordination bodies for disaster reduction and response activities, and disaster management systems.

(3) Capacity enhancement. The enhancement of national and local capacity to establish and implement disaster reduction and response measures, especially for vulnerable sectors and communities, should be a constant undertaking. This includes education and training in disaster reduction and related fields.

(4) Resources. The identification and provision of resource requirements, including funds and trained human resources, are important. This includes means to access and use authorized fund appropriations for disaster reduction and response.

These enabling mechanisms are more effective when sustained by institutional enthusiasm, political will and commitment, and responsible focal points and advocates in government. Among the possible program activities for this strategy are: (a) Capacity enhancement for national and local disaster coordination bodies; (b) Policy and program development for disaster reduction (including development of disaster reduction plans); and (c) Resource generation and management.

(5) Implementing the disaster risk management process from the national level to the community level. The disaster risk management process is a process for good decision-making and ensuring the best use of limited resources. It applies the standard principles, process and techniques of risk management to disaster management. The process presents a framework and systematic method for identifying, analyzing, assessing and managing disaster risks in six systematic steps:

(1) Establish the disaster risk context. This step establishes the strategic, organizational and risk management context in which the rest of the process takes place. The strategic context refers to the operating environment (i.e. stakeholders, legislations, standards, etc.); the organizational context to organizational goals, objectives and policies; and the risk context to specific disaster risk issues. The criteria against which the risk will be assessed are established through consultation, and the structure of the analysis is identified.

(2) Identify the disaster risks. Second, identify the disaster risks. This step identifies what, why and how hazards or certain events or occurrences could translate into disasters. The sources of risks, areas at risk, and the existing disaster risk reduction measures are also identified.

(3) Analyze the disaster risks. This step determines the existing controls and analyzes disaster risks in terms of likelihood and consequences in the context of those controls. The analysis should consider how likely is an event to happen, and what are the potential consequences and their magnitude. The analysis results in an estimation of the level of risk.

(4) Assess and prioritize the disaster risks. This step compares estimated levels of risk against the pre-established criteria and ranks disaster risks to identify disaster management priorities. (Acceptable vs. treat risk)

(5) Treat the disaster risks. This step involves identifying a range of options for treating the priority risks, such as options for prevention, preparedness, response, and recovery, selecting intervention options, planning and implementing intervention strategies. Moreover, the specific disaster risk management plans for priority disaster risks are developed, funded and implemented.

(6) Lastly, monitor, review and communicate. Since few risks remain static, it is important to monitor and review the performance of the disaster risk management system (Steps 1-5), the changes that might affect it, and ensure that the disaster risk management plan is relevant. It is therefore necessary to undertake the disaster risk management process regularly. The entire process is iterative.

Among the advantages of using the standard risk management process to disaster management are: (a) it is a formalized and systematic decision-making process; and (b) its adoption provides a common language, system, and process to all organizations and sectors involved, thereby facilitating coordination and collaboration among them and integration of actions.

In general, this process aids decision makers in determining possible outcomes of risks and undertake appropriate measures to control or mitigate their impact based on reliable information and available resources. In this regard, disaster risk management promotes good disaster management practice, and therefore, should be incorporated in disaster reduction plans and programs, and implemented in all sectors.

Among the possible program activities for this strategy are: (a) Human resource development in disaster risk management process; (b) Collaboration in disaster risk assessment of specific vulnerable communities; (c) Assessment of disaster risk reduction efforts (including development of methods of measure).

## **Conclusion**

Over the past two decades both poverty reduction programs as well as disaster reduction programs have gone through a paradigm shift. Both have moved towards being establishing stronger linkages with sectoral issues. However, there has been relatively few examples of effective, systematic and long-term integration between disaster reduction and poverty reduction programs. There are tangible opportunities for integration between the two. This will require more research on understanding the nature of linkages between poverty and vulnerability in different social, political, economic and hazard-specific contexts. This understanding will lead to development of specific frameworks and methodologies for integration of poverty and disaster reduction programs. At present, livelihood frameworks that recognize people's vulnerability context, community-based disaster management approaches and risk transfer and finance mechanisms are some of the approaches that can be used for this integration. In the coming years, poverty reduction and disaster reduction programs will have to develop innovative, multi-dimensional, inter-sectoral approaches to mutually support each other.

The current state of disasters and the prevalence of disaster risks in the world present a challenge to all to address the problem of disaster risks as they impact on humanity, the environment and the future. Based on the recent trends of increased toll on human lives, properties, economy and the environment due to disasters and the inadequacy of response and coping systems, the disaster potential of natural hazards and the vulnerability of social systems have worsened.

The disaster potential of natural hazards is likely to intensify because of (1) increase in population and population density; (2) increase in population exposed to natural hazards; (3) increased use of hazard-prone land for productive purposes; and (4) expected increase in hazard intensity and/or frequency due to climate change and other human interventions into geo-chemical cycles.

As disaster potential increases, the coping mechanisms of many societies tend to become less effective. Moreover, vulnerability tends to increase due to the (1) speed of urbanization; (2)

insufficient speed in building infrastructures to cope with urbanization; coupling of independent risk sources (interaction of natural hazards with chemical, technological, lifestyle, and social risks); (3) increase of mobility and cultural de-rooting (loss of traditional management capabilities); (4) increase of social pressure and conflicts; (5) insufficient management capacity; (6) lack of capacity for mitigation and contingency management.

Furthermore, although risk assessment has played an important part in disaster management, the many uncertainties brought about by recent global developments have limited the reliability of recent risk assessments in view of the following: (1) unpredictable global climate changes have a definitive but not fully understood impact on the occurrence and magnitude of disasters precipitated by natural hazards; (2) the combined effects of several natural phenomena aggravate the potential damage; (3) the estimation of probabilities and damage potential depend largely on social and political context; (4) because of population density and increased use of technologies, natural events trigger secondary impacts released from technologies and other human-made facilities; and (5) natural catastrophes interact with technological, social, and lifestyle risks.

A participative, community approach in disaster risk reduction is essential. The effectiveness of disaster risk management interventions could be ensured when the community and people at risk are directly involved in the disaster risk management process. It is also critical that any disaster risk management plan is dynamic and remains relevant to the community and the roles and contributions of the members are defined. Community involvement not only allows problems to be defined correctly and responsive measures to be designed and implemented, but also allows people to respond to disasters more efficiently and effectively with existing local resources. Also, community based-activities tend to be multi-sectoral, thereby reinforcing local organizations, and enhancing consciousness, awareness and critical appraisal of disaster risks and their inter-dependence. Altogether, they increase the community's capacity and people's potential for reducing their vulnerability to disasters.

Through the participative approach, the determination of risks and the intervention measures are not imposed on the community, but rather accomplished by the very people concerned. Moreover, greater emphasis is placed on local knowledge and the indigenous ways of knowing, rather than on expert knowledge and technologies. This allows also for a shift of focus from hazards to socio-economic vulnerability (level of poverty, human development, etc.) of the communities at risk.

The pursuit of the disaster risk reduction approach, with special regard for the involvement of the community, is in consonance with the Yokohama Strategy and Plan of Action for a Safer World: Strategy for Disaster Reduction for the Year 2000 and Beyond and the Hyogo Framework for Action. The strategy advocates for, among others: (1) adoption of a policy of self-reliance in each vulnerable country and community, comprising capacity-building as well as allocation and efficient use of resources; and (2) involvement and active participation of the people in disaster reduction, prevention and preparedness, leading to improved risk management. This context of the current state of disasters and prevalence of disaster risks underscores the critical need to develop an effective and holistic risk management approach to disaster management. Moreover, the increase in risks generated by flawed development activities and the inadequacy of traditional disaster management practices to address them call for a new approach to disaster management. This approach is called disaster risk management

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