

# ***Towards an Iranian Environmental Emergencies Centre***

**Workshop Outcomes and Proposal for  
Iranian Environmental Emergencies Center**



**Tehran, Iran July 23-28 2005**

**Joint UNEP/OCHA Environment Unit**



**United Nations Office for the  
Coordination of Humanitarian Affairs  
(OCHA)**



**United Nations  
Environment Programme  
(UNEP)**

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Cover photo: View of Tehran (R. Brooke)

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## Section 1: Introduction

### *Summary*

The Islamic Republic of Iran is one of the world's most disaster prone countries<sup>i</sup>. Environmental issues and impacts may be both a cause and consequence of these disasters. For example, earthquakes can damage industrial facilities and cause spills of hazardous materials that damage the environment and endanger lives. The Iranian Department of Environment (DoE) determined that the development of an Environmental Emergencies Centre (EEC) could be an important mechanism to help address these environmental issues in a disaster context, and invited the Joint UNEP/OCHA Environment Unit (Joint Unit) to lead a multi-disciplinary workshop to exchange information and ideas for such an EEC in Tehran, July 23-28, 2005. This document describes the major outcomes of the mission, and proposes a structure and next steps for the EEC.

### *The Islamic Republic of Iran*

The Islamic Republic of Iran is located in South West Asia and is bordered by Turkmenistan and the Caspian Sea, Afghanistan, Pakistan, the Persian Gulf, the Gulf of Oman, Iraq and Turkey. Iran's terrain consists of barren desert in the east and center, and mountainous regions in the north and west. It is one of the most arid regions of the world, and suffers frequent droughts, floods and landslides. Iran is also subject to numerous and often severe earthquakes due to its position in the Alpine-Himalayan mountain system<sup>ii</sup>. These frequent disasters can erode or in some cases negate the Iran's development.

Earthquakes in particular take a heavy toll, and have killed an estimated 180,000 people in Iran in the last 90 years. Historical data suggests that Iran is exposed to a major earthquake every 2-3 years<sup>iii</sup>. The most recent major earthquake struck the city of Bam in 2003 and killed an estimated 30,000 people. It is feared that the city of Tehran, with over 10 million inhabitants, could also be the site of a devastating earthquake<sup>iv</sup>.

### *Environment and disasters*

All disasters result in some form of environmental



(UNDP)

damage, ranging from minor to acute. In some cases, natural disasters such as earthquakes may cause 'secondary effects' such as damage to industrial facilities that pose as much or more risk to human life and the environment, as the earthquake itself. Environmental aspects of disasters must therefore be identified and addressed as early as possible to prevent or limit damage to the environment and impacts on human health and well-being.

The Joint Unit generally describes three scenarios of environmental emergencies, as noted in Box 1.

**Box 1. Three types of environmental emergencies**

The Joint UNEP/OCHA Environment Unit generally describes three types of environmental emergencies:

1. A classic environmental emergency situation such as a chemical spill, or a breach in a mine tailings dam, or a fire at an industrial facility. These are usually the result of human error, and can occur anywhere hazardous products are used.
2. A major natural disaster that has significant secondary impacts such as effects on an industrial facility, sewage, or serious waste problems.
3. Environmental impacts in complex emergencies, for example serious environmental impacts in camps or settlements for displaced people.

*Disaster Management in Iran*

A wide range of organizations take part in disaster management in Iran. Overall supervision rests with the Ministry of Interior (Mol) by virtue of a 1991 Budget Act. The current structure for disaster management in Iran is based on the April 2003 *Comprehensive National Relief and Rescue Plan*. The Plan sets out Natural Disaster Task Force (NDTF), which operates under the Mol as an interagency coordination body, whose functions vary with the disaster phase. When a disaster occurs, the NDTF coordinates relief operations, and at other times is concerned with preparedness and prevention. The NDTF structure is mirrored at a provincial level. The Ministry of Interior also manages a *Bureau for Research and Coordination of Reconstruction Affairs* to undertake research, developing preparedness and mitigation plans, information collection and reconstruction activities. Within the national framework, the Iranian Red Crescent Society of Iran (IRCS) is by far the most significant non-governmental player and has as its mission the planning for, and providing rescue and relief services in response to natural disasters<sup>v</sup>. The Management and Planning Organization (MPO) approves and sets guidelines for all development plans and projects in Iran, and controls the national budget. Following the Bam earthquake, a Prevention and Management of Natural Disasters High Task Force was also created to facilitate coordination of all organizations involved in disaster management, including the Mol. The First Vice President chairs the High Task Force.

### *Rationale for an Environmental Emergency Center*

The Iranian DoE has headquarters in Tehran and offices in each of Iran's 29 provinces. It is an advisory organization attached to the office of the Iranian president. The Department is broadly divided at a headquarters level into 2 branches, one dealing with 'green' issues such as biodiversity and one dealing with 'brown' issues including pollution. DoE currently has no formal or permanent structure to deal with environmental aspects of disasters, although it does have a range of highly applicable knowledge and resources that would be relevant in ensuring that environmental risks are identified and addressed. Within this context, the DoE identified a need and rationale to develop an Environmental Emergencies Center, and in March, 2005, invited the Joint Unit to conduct a workshop to support EEC development, including sharing international lessons learned on the development of similar EECs. The workshop objectives were to convey and discuss key elements of, and considerations for, and Iranian environmental emergencies centre based on an exchange of information on international experience and lessons learned.

### *The Joint UNEP/OCHA Environment Unit*

The Joint Unit is the United Nations mechanism to respond to environmental emergencies, including natural disasters with major environmental impacts. It is located within the Office for the Coordination of Humanitarian Affairs, in Geneva. Emergency preparedness training and capacity building is also a key competency of the Joint Unit. It leads multidisciplinary missions to assist countries in the development of environmental emergency response mechanisms, and has developed related tools including the *Guidelines for the Development of a National Environmental Contingency Plan* and *Guidelines for Establishing a National Environmental Emergency Response Mechanism*.

The Joint Unit also acts as Secretariat to the Environmental Emergencies Partnership (see Box 2), which provides a framework for this mission.

In this instance, the Joint Unit lead a mission team that included experts from the Awareness and Prevention of Emergencies at a Local Level programme<sup>vi</sup>, the Swedish Rescue Services agency, and a Swiss disaster management consultant who is a member of the United Nations Disaster Assessment and Coordination team.

#### **Box 2. Environmental Emergencies Partnership**

The Environmental Emergencies Partnership was launched by OCHA and UNEP at the World Summit on Sustainable Development, in 2002. The Partnership was initiated to enhance environmental emergency management practices in developing countries, and countries with economies in transition, by 'bridging gaps' between phases of the disaster management cycle (prevention, preparedness and response) and between disaster management stakeholders.

The Islamic Republic of Iran joined the Partnership in 2004 and undertook the workshop as a first activity within it.

(<http://www.humanitarianinfo.org/eep>)

## Section 2: Summary of Consultations and Workshop

The mission consisted of two parts: consultations with individual organizations, and a one-day workshop.

Consultations were held between the mission team and representatives of:

- The DoE's Tehran Province Directorate, Natural Environment Department, Humanitarian Environment Department, and Marine Environment Division.
- Tehran refinery (within the Ministry of Oil)
- Management and Planning Organization (MPO)
- Ministry of Foreign Affairs
- Iranian Red Crescent Society
- Ministry of Interior

The workshop itself consisted of representatives from the DoE, MPO, Ministry of Foreign Affairs, Iranian Red Crescent Society, Ministry of Interior and the City of Tehran. The first workshop segment consisted of presentations by Iranian officials on topics including the unique environmental challenges and vulnerabilities in Tehran, which has a population of over 10M and over half the countries industrial facilities<sup>vii</sup>. A presentation was also made on the marine emergency response program and risk reduction activities in the Caspian Sea and Persian Gulf. A specific case study was given presented on a recent environmental emergency in Iran, the March 2003 spill of MTBE at the Vehdat Dam, including specific lessons learned from this incident. This was followed by presentations from the mission team on the international system for environmental emergency response, the UNEP-APELL program, the Swedish structure for environmental emergency response, and proposed elements for an environmental emergency response system (see Annex 2 for full agenda). Presentations were followed by a work group session to develop specific recommendations based on an environmental emergency response scenario.

The workshop proved lively and engaging and resulted in a number of specific draft conclusions and proposed actions, the full text of which can be found in Annex 3. The multi-disciplinary nature of the workshop was particularly important to its success and ensured that a wide range of views were represented.

Three points from the consultations and workshop should receive particular emphasis when considering possible models for an EEC: the existing basis for an EEC, the existing response structure, and the strong goodwill and interest in an EEC, as follows.

*1. A strong basis for the EEC already exists.* Many elements of an EEC already exist in terms of relevant knowledge, capacity, and communication networks in Iran, and should form a starting point for the Centre, to be enhanced as required.

For example, the DoE possesses considerable knowledge and resources that may be relevant to addressing environmental emergencies, including:

- 35 government laboratories that could be used for a range of sample analysis, supplemented by a network of about 100 other national labs<sup>viii</sup>;
- capacity to advise on a range of reconstruction projects including road and sewage systems;
- Vulnerability maps, including of environmentally-sensitive coastal areas
- The ability to mobilize assist assistance to marine and coastal incidents, in collaboration with the Ports and Shipping organization.

Furthermore, other organizations have knowledge, resources and ongoing activities relevant to addressing environmental emergencies. For example, the Tehran refinery, has capacity to assist in emergency response at locations other than the refinery itself. As another example, the IRCS, the main rescue and response organization in Iran, indicated that they already have a strong emphasis on environment as an integral part of their operations.

*2. A response framework exists and opportunities exist to strengthen collaboration within it.* The Mol provides the main response framework within the country. It was clear in the workshop and individual meetings that an EEC should in no way duplicate this existing structure, but rather, integrate in it and support it.

*3. There is interest and goodwill in further strengthening the environmental component and disaster response.* Significantly, the Mol expressed strong willingness to further enhance collaboration with the DoE to address environmental emergencies, and to work closely with any EEC. The IRCS also expressed a strong willingness to further enhance collaboration with the DoE, and integrate environment into its operations.

One of the key suggestions from the workshop, namely that the Joint Unit develops a more fulsome proposal for the form and structure of an EEC, forms the basis of the next section.

### **Section 3: Proposal for an EEC**

This section contains a specific proposal for the EEC. The proposal draws on the outcome of the workshop and discussions with Iranian officials, and in should be understood as a collaborative effort. It is also informed by the Joint Unit's *Guidelines for Establishing a National Environmental Emergency Response Mechanism*<sup>x</sup>.

It is divided into:

- General considerations
- Key dimensions of an EEC
- Structure
- Tasks
- Phases

#### **General considerations**

As noted, DoE already has a range of capacities relevant to environmental emergencies, some of which are routinely used – for example, the response capacity of the Marine Environment Division. Furthermore, other agencies such as the IRCS already integrate environment to varying degrees in response operations. The challenge should therefore be understood as a further strengthening and formalizing DoE's existing capacity to prepared for, and respond to, environmental emergencies, and the EEC as one important catalyst or mechanism to achieve this.

#### **Key Dimensions of an EEC**

Whatever final specific structure the DoE chooses to adopt for an environmental emergencies center, it should ensure that:

1. The EEC is reachable 24 hours per day, 7 days per week, and that one or more trained staff members who are knowledgeable about the Centre and what can and cannot be offered, can be immediately contacted in the event of an emergency.
2. The EEC should be first and foremost a provider or 'broker' of relevant knowledge and service to the existing Iranian response structure. In other words, the EEC should not endeavour to be an operational emergency response entity. 'Response' should be understood by the EEC as providing the right knowledge and tools, to the right people, in the right format, when it is required.
3. Whatever the details, the EEC should have a very clearly defined structure and mandate that is known and accepted within DoE and to the Iranian response community for generally. This should be clearly articulated in a contingency plan (see below for details). These should be explicitly sanctioned by senior management.

## Structure

Given that the EEC would serve primarily as a broker, it is suggested that a maximum of 2-4 environmental experts are required, plus an administrative support person. There should be the flexibility to provide additional assistance to the EEC as and when tasks become more complex and demanding during an emergency. During emergencies, it will be essential to provide an EEC staff member to participate in national operational planning activities, as noted below. Also, several other DoE staff members (5-10) should be trained and available to share the 24-hour on call duty.

The EEC should ideally be housed at a central DoE location with access to telephones, faxes, computers, audiovisual equipment and sufficient space to conduct meetings as required.

## Tasks

This section proposes key tasks for which the EEC would be responsible. Not all the items below can be done immediately upon launching an EEC. Rather, it represents a task list that a fully operational EEC should be able to perform. Proposed steps towards this are noted in the section following.

With respect to **emergency prevention** the EEC should be able to:

- Provide specific relevant information and/or training to first responders on identifying and minimizing environmental hazards. As a specific example, a need was identified by IRCS for additional resources on how to deal with hazardous materials during an emergency.
- Work, through the 29 regional DoE offices, with local communities to identify specific environmental risks and vulnerabilities at a local level and support the development of plans to deal with these risks. Partnerships that use existing tools and methods such as the UNEP-APELL program would support these activities.
- Support awareness raising on the importance of addressing the environmental dimensions of disasters.
- Provide general support /guidelines in environmental risk assessment to other authorities and organisations.

For **emergency preparedness** the EEC should:

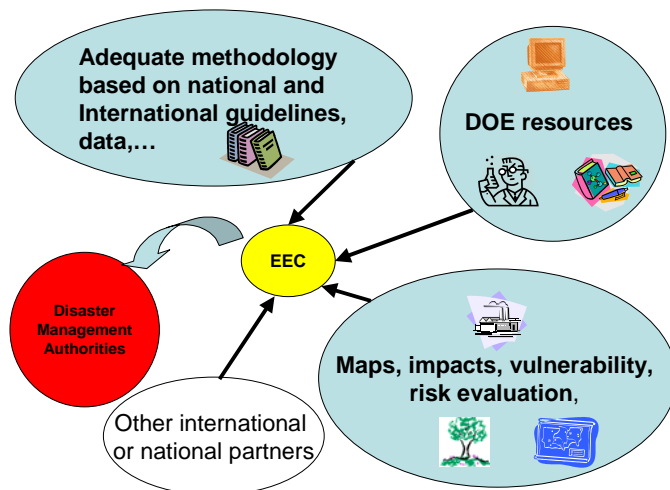
- Develop and maintain a national contingency plan that describes what activities will be undertaken, how, and with whom, in the event of an emergency. The Joint Unit has developed specific guidelines that could support this<sup>x</sup>.

During an **emergency response phase** the EEC should be able to:

- Deploy an expert who can rapidly assess the immediate or potential environmental impacts of a disaster, and formulate specific recommendations that support response activities. The experts could include pre-identified staff within the Ministry or be deployed through partnership mechanisms, for example the Joint Unit or other partners.
- Provide relevant information on environmental vulnerabilities.
- Provide responders with accurate environmental information on specific steps that need to be taken to deal with are particular hazard. For example, the EEC should be able to access internally or through partnership arrangements, the type of specific advice contained in the 2000 Emergency Response Handbook and other relevant databases.<sup>xi</sup>
- Provide responders with a rapid analysis of samples through the existing DoE laboratories or national network.

These tasks should be conducted in an integrated fashion at strategic, management and operational level.

At a **strategic** level, the EEC should be able to provide senior decision makers in the National Disaster Task Force and High Council with cogent information on the need to address the environmental dimensions of disasters, and support this with details of specific risks, vulnerabilities and the resources available to address them. As a specific example, the unique environmental vulnerabilities of Tehran in the event of an earthquake should be included in relevant strategic decision-making processes. At the level of EEC **management** and decision-making, there should be the ability to determine what specific resources are required in a given scenario (e.g. an expert to conduct a rapid environmental assessment, or maps, or supplementary international assistance) and to take decide and coordinate and mobilize as required. At an **operational** level specific tasks must be executed through, or in collaboration with the EEC to support specific activities, for example, sample analysis.



**Figure 2. The proposed Iranian Environmental Emergencies Centre.**

*The EEC should provide appropriate knowledge and services during prevention, preparedness and response phases.*

## Phases of the EEC

### *Phase 1: Early actions towards an EEC – 0-6 months*

The Iranian EEC will not have the ability to undertake all of the above tasks immediately. In some cases, existing resources or training may be required. However, it is evident that many resources do already exist, and with limited additional time and resources, could be put to increased use to reduce environmental emergency risks. The following can therefore be considered as first tasks for the small EEC staff noted above, or as activities that are undertaken by focal points within DoE even before an EEC structure is in place.

#### 1. Mapping available environmental emergency resources

A key recommendation from the workshop was the creation of a simple databank of existing environmental emergency capacities and activities in Iran. This would support an appropriate division of labour by reducing duplication of effort and overlap, and help to make efficient use of existing resources. It will also help to identify any significant gaps and weaknesses. As a starting point, the databank should include a description of what is available within the DoE, and key contact people. Following this, government wide resources should be mapped and included on the database, as well as relevant international resources and capacities. One of the specific outcomes from this exercise should be comprehensive emergency contact lists, which need to be kept up to date.

#### 2. Meeting immediate needs and internal communication

There may be immediate opportunities for DoE to add value and reduce environmental emergency risks even absent a formal structure. For example, during an individual meeting, IRCS identified a need for more information on hazardous material that could be integrated into training material and exercises. Such information would be used to ensure that volunteers and managers are informed of appropriate techniques and procedures.

As a starting point, IRCS and DoE should consider meeting to share information, and in particular, identify the specific needs of IRCS, what DOE can offer, and based on this, determine needs and gaps. Where needs and gaps are in evidence, a joint strategy could be developed to meet them. This type of information session should also be undertaken between DOE and other departments and Ministries. The Ministry of Interior offered to play a facilitative role in this respect, as required.

It will also be important to meet with MPO at this early stage. MPO is developing a 'code' of roles and responsibilities during disasters, and the EEC role needs to be reflected appropriately within this.

#### 3. Strengthening vulnerability mapping

DoE already has a variety of disaster risk and vulnerability mapping efforts underway. For example, the Marine Environment Division indicated that they have maps of vulnerable coastal areas. Participants at the workshop felt that these efforts should be consolidated, strengthened, and the resulting products shared with relevant local, regional, national and international operational authorities. A first step could be to undertake a meeting of all DoE staff with responsibilities for mapping activities to develop an inventory of existing maps, capacities, as well as needs and gaps.

#### 4. Strengthening Internal capacity

Strengthening internal capacity will be an ongoing challenge and activity. However, it will be important at an early stage to address any high priority needs and gaps, including those identified in the resource mapping exercise. Where particular needs are identified – for example in contingency planning or rapid environmental assessment - steps should be taken to ensure appropriate training. These should be communicated to the Joint Unit, which may be able to provide or facilitate the provision of training, depending on the specific need.

##### *Phase 2: Becoming operational (6-12 months)*

Effective response requires a clear plan of who will do what in the event of an emergency. Using as a basis the resources identified in the above mapping exercise, a contingency plan should be developed to ensure a clear division of roles and responsibilities, and to identify when and how DoE resources are used, and when and how national and international partners (including the Joint Unit) and networks are used. This contingency plan should be tested on a regular basis. Specific details of how the EEC will be contacted in the event of an emergency, and by which people and organizations, must be established at this stage. The resource mapping exercise, above, will provide a basis for identifying appropriate focal points in various organizations. A consultant with specific contingency planning expertise may be appropriate for this stage.

Additional DoE staff who are not regular members of the EEC should be trained (as per *Structure* section, above) to share on-call duties. This should include training for undertaking coordination and mobilization functions.

##### *Phase 3: Operational phase*

Once operational, EEC activities should be developed and expanded according to a multi-year implementation plan that:

- Provides increasing levels of supporter to first responders, initially using available national and international resources, and ultimately through enhanced internal capacity.
- During an emergency, provides an EEC expert who can become fully integrated into national operations.

- Provides training to first responders in critical areas such as hazardous materials.
- Prioritises and supports communities that need assistance in the development of risk identification and preparedness.
- Ensures an appropriate emergencies culture or ethic within DoE. As a knowledge and resource broker, the EEC will draw on staff resources from throughout the Ministry. DoE staff must therefore be aware of their possible roles in the event of an emergency, and ready and willing to perform them quickly and effectively in the event of a crisis.
- Continually strengthens DoE's own internal capacity to respond to environmental emergencies, based on the needs and gap analysis and priorities identified in the implementation plan.

### Annex 1: List of Meetings and Interviews

| Name*                       | Organization  |
|-----------------------------|---|
| Dr. M.H. Pirasteh           | Director General, Tehran Province Directorate, DoE  |
| Mr. A. Kayemi               | Managing Director, Tehran refinery  |
| Dr. Sulyman-pour            | Director Natural Environment Department, DoE  |
| Dr. Y. Hojat,               | Director General, Humanitarian Environment Department, DoE  |
| Dr. Mohammad Saeid Hossieni | Director General, Marine Environment Division, DoE  |
| Mrs. Behnaz Pourseyyed      | Director General, Technical Criteria Codification & Earthquake Reduction Affairs Bureau<br>Management and Planning Organization |
| Dr. S. Babran               | Director General, Public Relations and International Affairs  |
| Mr. Hassan Tajik            | Director, Department for International Affairs, Ministry of Foreign Affairs   |
| Mr. B. Daftari              | Head of Relief and Rescue Organization  |
| Mr. M. Jazaeri              | Ministry of Interior  |

\* Indicates principal contact person in each meeting

## **Annex 2: Workshop Agenda and Participants**

- 09:00** *Opening session by Dr. Babran, Director General, Public Relations and International Affairs*
- 09:10** *Introduction by Dr. Shafipour, Advisor to the Vice-President and Head of DoE*
- 09:25** *Introduction by Ambassador Shabestari, OCHA liaison officer, Tehran*
- 09:40** *Presentation by Dr. Pirasteh, Director General, Tehran Province Directorate, DoE*
- 10:00** *Presentation by Dr. Towfighi Director General for IRCS*
- 10:10** *Break*
- 10:30** *Presentation of Ms. Shoaiee, Marine Environment Division, DoE*
- 10:45** *Presentation of Ms. Roostayi, Water and soil contamination department, DoE*
- 11:00** *Presentation of Mr. Fathi, Department of Water and Soil Contamination, DoE*
- 11:15** *Lecture by representative from Khuzestan province*
- 11:30** *Presentation by Roy Brooke – presentation on international community and disaster response*
- 12:00** *Presentation by Ernst Goldschmitt, presentation on UNEP-APELL process*
- 12:30** *Lunch break*
- 13:30** *Presentation by Mattias Stromgren – presentation on Sweden Rescue Services Agency*
- 14:30** *Presentation by Alain Pasche – presentation on lessons learned on environmental emergencies centers*
- 15:00** *Break*
- 15:15** *Work groups and wrap-up*

**Annex 2: Workshop Agenda and Participants - continued**

| <b>DOE – Joint Unit Workshop on Iranian Environmental<br/>Emergency Center<br/>July, 27 Tehran I.R. Iran</b> |                     |          |                     |
|--|---------------------|----------|---------------------|
| 1  | Stromgren           | Mattias  | SRSA                |
| 2  | Goldschmitt         | Ernst    | UNEP-APELL          |
| 3  | Brooke              | Roy      | OCHA-Geneva         |
| 4  | Pasche              | Alain    | Swiss/consultant    |
| 5  | Mojtahed Shabestari | Ali      | OCHA-Tehran         |
| 6  | Delavar             | Shahriar | OCHA-Tehran         |
| 7  | Towfighi            | Farshid  | Red Crescent        |
| 8  | Shafipour           | Majid    | DOE                 |
| 9  | Babran              | Sedigheh | DOE                 |
| 10   | Shalchian           | Mehdi    | DOE                 |
| 11   | Gorji               | Mohammad | DOE                 |
| 12   | Mohammad            | Mohsen   | DOE                 |
| 13   | Saleh               | Fatemeh  | DOE                 |
| 14   | Mansouri            | Mandana  | DOE                 |
| 15   | Roostaei            | Nadia    | DOE                 |
| 16   | Safar               | Narges   | DOE                 |
| 17   | Poursaberi          | Tahereh  | DOE                 |
| 18   | Darabi              | Elmira   | DOE                 |
| 19   | Vahdati             | Amir     | DOE                 |
| 20   | Ansari              | Shina    | DOE                 |
| 21   | Pirasteh            | Mohammad | DOE                 |
| 22   | Salehi              | Hamid    | DOE                 |
| 23   | Khaman              | Azadeh   | DOE                 |
| 24   | Bolourian           | Shaban   | DOE                 |
| 25   | Amirdivani          | Pegah    | DOE                 |
| 26   | Fathi               | Touraj   | DOE                 |
| 27   | Shoae               | Farnaz   | DOE                 |
| 28   | Shakeri             | Jamal    | DOE-Khoozestan Pro. |
| 29   | Alami               | Hadi     | DOE-Khoreaan        |
| 30   | Darabi              | Mojgan   | WFP                 |
| 31   | Hashemi             | Mohammad | MFA                 |
| 32   | Houshmand           | Mohammad | MPO                 |
| 33   | Talakoob            | Mohammad | MPO                 |
| 34   | Saemum              | Sina     | UNICEF              |
| 35   | Esfandiari          | Reza     | MoI                 |
| 36   | Kamyab              | Mahdi    | UNDP                |

### **Annex 3: Draft Workshop outcomes and recommendations**

*The following draft workshop outcomes and recommendations were developed based on discussions and presented by the meeting chairman at the end of the workshop.*

#### **Foundations and principles**

- Environment is a fundamental part of disaster management. For example, natural disasters may have a range of secondary impacts as or more harmful than the original disaster. Environment must therefore be fully integrated into prevention, preparedness, and response.
- Much exists already in terms of both institutional structure, capacity, and communication networks in Iran. These should be a starting point for the EEC, to be further enhanced as a complementary component to what already exists

#### **Form of EEC**

- EEC should be fully integrated into existing response structures (e.g. Ministry of Interior), building on what exists, and focussing on low-cost, practical and achievable approaches that make best use of existing DoE, national and international resources.
- EEC should be a broker and provider of knowledge and services to this broader disaster management system to support decision-making and resource mobilization. Examples of information and services it can provide include risk and vulnerability identification and maps, risk assessments, lab support, and environmental emergency prevention and mitigation plans and strategies.
- The form of the Unit should be based on clearly identified functions and mandate that are reasonable from a financial perspective.
- The Joint Unit will develop, in full consultation with the Iranian government and based on workshop outputs, a specific proposal for EEC structure and mandate.

#### **Early actions**

A number of specific, practical actions can be considered, which do not necessarily need to await the development of a full EEC, but can be started in the near term with existing resources. Indeed, the following actions could support the development of an EEC.

1. Red Crescent has identified needs for hazmat expertise for its response operations. As a starting point IRCS and DoE should meet to share information on existing resources, identify needs and gaps, and based on this, identify requirements for additional actions. Meetings should be undertaken with other relevant authorities also.
2. A simple databank of existing capacities and activities in Iran should be developed to support an appropriate division of labour. This should

- include a clear description of what is already available in the DoE, other government authorities such as MPO, and international authorities.
3. Vulnerability mapping should be strengthened and enhanced by DoE as a priority, following formulation of pertinent response strategies. These should be shared with relevant local, regional, national and international operational authorities.
  4. Sharing of information should not end with this workshop but be part of an ongoing process so that relevant authorities are aware of what DoE can offer, and also, of the important link between environment and disasters. With respect to the latter, a specific communication effort on the unique challenges and opportunities of Tehran could be considered.
  5. The Joint Unit should work with and or provide to DoE and MPO to develop a list of relevant guidelines.
  6. OCHA Iran should consider steps that support the establishment of a regional environmental emergencies centre, in light of the interdependence of the countries in the ECO region as well as the Persian Gulf states. Expert workshops could be a first step towards this.
  7. Where DoE identifies specific environmental emergency-related training needs that must be met to develop fully the EEC, the Joint Unit will use its brokerage function to help address these needs, as appropriate.

## Footnotes

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<sup>i</sup> UNDP 5-year program for strengthening capacities for disaster risk management in Iran, 2005-2009.

<sup>ii</sup> <http://www.undp.org/iran-facts.asp>

<sup>iii</sup> UNDP 5-year program for strengthening capacities for disaster risk management in Iran, 2005-2009.

<sup>iv</sup> National Report of the Islamic Republic of Iran on Disaster Reduction, World Conference on Disaster Reduction. Kobe, Japan. January 2005.

<sup>v</sup> Ibid.

<sup>vi</sup> APELL- Awareness and Preparedness for Emergencies at Local Level is a strategy to identify and create awareness of risks in an industrialised community, to initiate measures for disaster prevention, risk reduction and mitigation, and to develop co-ordinated preparedness between the industry, the local authorities and the local population.  
<http://www.uneptie.org/pc/apell/>

<sup>vii</sup> Presentation by Dr. M.W. Pirasteh, Director General, Ministry of Environment Tehran Province Directorate, July 28, 2005.

<sup>viii</sup> The mission team visited the Tehran laboratory, which included a range of modern equipment including atomic absorption, gas chromatograph and ICP.

<sup>ix</sup> <http://ochaonline.un.org/webpage.asp?ParentID=9524&MenuID=9531&Page=647>

<sup>x</sup> <http://ochaonline.un.org/DocView.asp?DocID=1281>

<sup>xi</sup> [http://www.tc.gc.ca/canutec/erg\\_gmu/en/table\\_of\\_contents.htm](http://www.tc.gc.ca/canutec/erg_gmu/en/table_of_contents.htm)