**International Early Warning Programme**
**Advisory Group Meeting**
First session
Bonn, 26 – 27 March 2007
**Item 6(a) Status of the report of the UN Secretary-General to the sixty-second session of the GA on the subject of a Global Early Warning System**

# Guidelines and Structure of the Report of the United Nations Secretary-General on a Global Early Warning System: directions and anticipated results for the period 2007-2008

In his report on the International Strategy for Disaster Reduction (A/61/229) the Secretary-General has encouraged Member States and organizations to develop a Global Early Warning System (GEWS) for all hazards and all communities, based on existing systems, and to address the associated technical and organizational gaps and needs, as recommended in the Global Survey of Early Warning Systems. Coordinated planning and recommendations are now needed to define priorities and practical objectives to be achieved, and to engage the attention and participation of all relevant early warning system stakeholders. This should take place through existing relevant mechanisms, including through the International Early Warning Programme (IEWP).

The agenda for the first meeting of the IEWP Advisory Group (AG) includes the development of precise guidelines to assist United Nations entities in preparing their input for the Secretary-General's report and to assist the secretariat in keeping the report within the prescribed page limits. The draft guidelines and subsequent submissions to the report are to be developed jointly with all of the members of the IEWP bearing in mind the discussion by members of the AG during the first meeting.

In accordance with this approach the secretariat of the Platform for Promotion of Early Warning (PPEW) has prepared a preliminary draft of the guidelines for discussion on the web board of the Meeting in March 2007. On the basis of the preliminary draft, the secretariat is requesting both submissions for the SG report and comments on the attached guidelines which have been used for preparing the reports for consideration by the AG.

Further recommendations for the report can be provided through the AG to the ISDR Global Platform meeting in June 2007 to review the recommendations, to devise a suite of concrete follow-up actions and to develop commitment to implement the recommendations from the Global Survey of Early Warning Systems (2006), including through contributions to the ISDR system's joint work programming process.

The AG may wish to review, suggest amendments to the report structure and provide further advice on the draft guidelines and possible submissions at its first session. The present structure and suggested content of the report of the Secretary General on progress toward the establishment of the Global Early Warning System (GEWS) follows the recommendations contained in the previous SG report.

**Guidelines and Structure of the Report of the United Nations Secretary-General on a Global Early Warning System: directions and anticipated results for the period 2007-2008**

1. The purpose of the Secretary-General's report on the Global Survey of Early Warning System (A/61/229) was to provide United Nations entities a strategic survey of existing capacities and gaps in current early warning systems, and to further inter-agency cooperation and avoid duplication of efforts related to the establishment of a global early warning system. This report contains updated information provided by UN entities on their confirmation, plans and commitments for a global early warning system to be carried out in the next biennium. The report recommended that a comprehensive GEWS be built based on existing capacities, and noted that the institutional foundations for a global early warning system required strengthened international and regional mechanisms for governance, coordination and support, including through more explicit responsibilities for various United Nations and other international agencies in the technical, humanitarian and development fields.

2. The Secretary-General requested that the preparations of an annual, integrated report on the plans and programmes of United Nations entities related to the development of GEWS. The guidelines for submissions and structure of the report are to be considered by the Advisory Group of the International Early Warning Programme. The ISDR Platform for the Promotion of Early Warning in Bonn will assist in the preparation of the report.

3. The UN/ISDR Platform for Promotion of Early Warning (PPEW) will compile submissions by the entities of the United Nations system and relevant agencies and institutes to each topic of the Secretary-General's report and prepare a final draft for review by the UN/ISDR secretariat. In compiling the submissions, the UN-ISDR/PPEW will follow the instructions circulated by the Secretary-General in April 2002, which require adherence to a 16-page limit (8,500 words) for all reports originating in the secretariat.

4. The UN/ISDR PPEW will prepare drafts for the Summary and Chapters I and II of the Secretary-General's report. Chapters III will consist of submissions from national platforms based upon a benchmarking survey to be carried out by the secretariat. Chapter IV will consist of submissions by United Nations entities. The information to be included in the submissions should be based on the following general criteria as recommended in the Global Survey of Early Warning Systems and include major, new initiatives and/or activities that involve coordination and cooperation by two or more United Nations entities.

6. In view of the instructions by the Secretary-General, maximum efforts should be made for each submission not to exceed 3 pages per entity. The submission should clearly indicate a section of the draft report in which each paragraph should be included.

7. Full names and titles of projects, programmes and institutions should be spelled out when their acronyms and abbreviations appear for the first time in the submissions and especially if they have not appeared in the last reports (A/AC.105/858).

## Annex I.

## Structure of the report of the Secretary-General on a Global Early Warning System: directions and anticipated results for the period 2007-2008

**Summary**

Input from participating United Nations entities should be of generic nature, reflecting important milestones and new capabilities within the United Nations system regarding global early warning systems. Inputs based on the PPEW benchmark survey 2007 should reflect the state of implementation at the national level.

### I. Introduction

The introduction should affirm through appropriate United Nations processes the goal to build a comprehensive GEWS, rooted in existing early warning systems and capacities, and including necessary supporting governance mechanisms. The introduction should also reflect efforts at the national level to enhance disaster risk reduction and to implement the IEWP and the global system of early warning.

### II. Activities of the ISDR PPEW pertaining to the Global Early Warning System activities which strengthen the foundations for early warning.

The Secretary General has requested the International Strategy for Disaster Reduction system to facilitate the development of the comprehensive GEWS, guided by the Hyogo Framework for Action, and including overall strategies, clarification and documentation of mandates and responsibilities, definition of standards and terminology, support of capacity building, fostering of partnerships, and the development of an International Early Warning Programme for multi-party action on these issues. The scientific and technical expertise and capacity are well recognised as core features of early warning systems, particularly in respect to hazards and to operational systems. However, there are several areas of weakness, such as in knowledge of some hazard processes and risks, lack of hazard and vulnerability mapping, and the limited engagement of relevant social sciences. A description of ISDR PPEW activities will be provided, particularly those which address the recommendations contained in the Global Survey of Early Warning Systems.

### III. Current activities related to national-level capacities.

As a follow-up activity to the EWC III publication "Developing Early Warning Systems: A Checklist", the PPEW secretariat is providing national platforms with a benchmarking survey to determine national-level capacities for risk assessment, warning dissemination, preparedness and response. The anticipated results from the survey are expected to be incorporated into the SG report, and should contribute to the national implementation of efforts to establish the GEWS. For reference, a provisional copy of the survey instrument is contained in Annex 2.

### IV. Current and forthcoming early warning activities related to developing the institutional foundations for a Global Early Warning System.

As noted in the Secretary General´s Report A/61/229 "Implementation of the International Strategy for Disaster Reduction", many United Nations agencies, other international organizations and financial institutions have increased their participation in the ISDR system and their commitment to use the Hyogo Framework for Action as an instrument for the internal alignment of their work programme priorities with respect to disaster risk reduction. The GEWS as a strategy strengthening process, is intended to help clarify and confirm the responsibilities of the main international organizations and to build more effective collaborative efforts towards substantive establishment of the GEWS. Nevertheless, significant obstacles still must be overcome to systematically affirm and coordinate the

GEWS and apply the full technical capacities and financial resources of the United Nations and other international organizations.

The mechanisms of international and regional governance, coordination and support form one of the two pillars of a globally comprehensive early warning system, the other pillar being the country's capacities. These mechanisms provide clarity on the roles and capacities of the relevant organisations, support necessary institutional partnerships, coordinate technical development, and ensure appropriate mechanisms of accountability to Governments. Following the recommendations of the EWC III, the priority tasks among the UN entities are requested to be as follows:

A. Develop through Group on Earth Observation mechanisms a comprehensive long-term globally comprehensive plan for observational and communications requirements to meet the data needs for all early warning system requirements.

B. Call on the United Nations Office for Outer Space Affairs and the Group on Earth Observations to coordinate the integration, improvement and sustainability of the observing systems and data exchange policies needed to support the comprehensive global multi-hazard early warning system, and

C. Request the International Telecommunication Union (ITU) to incorporate early warning system telecommunications needs into the specifications for the Next Generation Network.

D. Upgrade the World Meteorological Organization (WMO) -coordinated Global Telecommunication System to support highspeed links to all countries and develop its capacity to handle data streams and communication of warnings for all hazards.

E. Undertake an assessment of the institutional mechanisms, capacities, and operational experience of the WMO, and apply the lessons learned, and - where advantageous - the available capacities, to the development and operation of early warning systems for hazards not currently mandated to the WMO system.

F. Call on regional organisations, including the United Nations economic and social commissions and organizations concerned with disaster reduction, preparedness and early warning, to foster partnerships and prepare strategies and plans to support the development of early warning systems in their regions.

G. Assign or reaffirm the responsibility for the global governance and coordination of early warning systems for geological hazards to the United Nations Educational, Scientific and Cultural Organization (UNESCO), in collaboration with the WMO and the International Council for Science-affiliated science organizations that currently are the main bodies active in geophysical monitoring and warning, and strengthen the UNESCO's capacities to effectively meet this responsibility.

H. Confirm the responsibilities for the global governance and coordination of early warning systems of the Food and Agriculture Organization (FAO) for food production and food security, United Nations Environment Programme (UNEP) for environment status and stress, Office for the Coordination of Humanitarian Affairs (OCHA) of the United Nations Secretariat for complex emergencies, including the World Food Programme (WFP) and the United Nations Children's Fund's (UNICEF) roles in the Inter-Agency Standing Committee for Humanitarian Action, and the World Health Organization (WHO) for health-related aspects of disasters, while recognising also the related responsibilities and competences of other United Nations and United Nations associated actors, and the need for United Nations System coordination.

I. Request the World Bank and the United Nations Development Programme (UNDP) to jointly facilitate necessary planning and coordination of, and support for, the inclusion of early warning systems development in national poverty reduction strategies and development plans, and request the

United Nations Department of Economic and Social Affairs (DESA) to support the follow up to the World Summit on Sustainable Development Johannesburg Plan of Implementation on this subject.

## V. Conclusions and Recommendations

Conclusions and recommendations should note the agencies responses in accordance with their mandates and special fields of expertise, as well as confirming focal points among agencies and Government bodies engaged in early warning systems development. The recommendations should point to establishing a systematic monitoring, evaluation and reporting mechanism on progress on the survey's recommendations, linked to the processes to monitor and report on the implementation of the Hyogo Framework for Action.

**Annex II.**
**The Provisional National Level Benchmarking Survey (2007).**

International Strategy for Disaster Reduction

UNITED NATIONS UNIVERSITY

# ISDR-PPEW and UNU-EHS Joint Questionnaire
# Benchmarking the Global Early Warning System National Level Early Warning Systems

**Name of the Agency/Organisation:** _____
**Telefon Number:** _____
**E-mail Address:** _____

## A.1 Governance and Institutional Arrangements of Risk Knowledge

| | | | | |
|---|---|---|---|---|
| On-going consultation with international agencies and national technical experts | yes ☐ | no ☐ | *If yes, please indicate:* ☐ Others: _____<br>☐ FAO ☐ UNEP ☐ UNESCO ☐ USGS<br>☐ WMO ☐ UNDP ☐ UNICEF ☐ SOPAC<br>☐ WHO ☐ OCHA ☐ UNOSAT ☐ IFRC<br>☐ WFP ☐ UN/ISDR ☐ UNOOSA ☐ NOAA<br>☐ ITU ☐ World Bank ☐ UNU ☐ ADRC | |
| On-going consultation with national agencies /experts | yes ☐ | no ☐ | *If yes, please indicate:* _____ | |
| Key national government agencies are involved in hazard and vulnerability assessments. These agencies are identified and roles clarified. | yes ☐ | no ☐ | *If yes, please indicate:*<br>Key agencies which have role in risk assessment have been identified and their roles clarified. | yes ☐ no ☐ |
| | | | There are examples and case studies of risk assessment which are used for early warning purposes and have been disseminated to senior government and political leaders. | yes ☐ no ☐ |
| Legislation or government policy mandating the preparation of hazard and vulnerability maps for all communities is in place. | yes ☐ | no ☐ | *If yes, please indicate:*<br>Clear roles and responsibilities have been defined for all organizations (government and non-government) involved in mapping hazards and vulnerabilities. | yes ☐ no ☐ |
| | | | Government funding mechanisms have been institutionalized for hazard and vulnerability assessment and mapping. | yes ☐ no ☐ |
| National standards have been developed for the systematic collection, sharing and assessment of hazard and vulnerability data. | yes ☐ | no ☐ | *If yes, please indicate:*<br>Are these standardized with neighboring or regional countries? | yes ☐ no ☐ |
| Has a strategy been developed to actively engage communities in local hazard and vulnerability analyses that targets stakeholders' needs and interests? | yes ☐ | no ☐ | *If yes, please indicate:*<br>Public information guide developed and available to help raise public awareness of natural hazard risks. | yes ☐ no ☐ |

## A.2 Governance and Institutional Arrangements on Early Warning

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| On-going consultation with international agencies on issues of early warning. | yes ☐ | no ☐ | *If yes, please indicate:* ☐ Others: _____<br>☐ FAO ☐ UNEP ☐ UNESCO ☐ USGS<br>☐ WMO ☐ UNDP ☐ UNICEF ☐ SOPAC<br>☐ WHO ☐ OCHA ☐ UNOSAT ☐ IFRC<br>☐ WFP ☐ UN/ISDR ☐ UNOOSA ☐ NOAA<br>☐ ITU ☐ World Bank ☐ UNU ☐ ADRC | |
| Has national legislation (or policies) been developed to provide an institutional and legal basis for implementing early warning systems? | yes ☐ | no ☐ | *If yes, please indicate:*<br>Relationships and partnerships between all organizations involved in early warning has been institutionalised and coordination mechanisms have been mandated. | yes ☐ no ☐ |
| | | | Has the authority and political responsibility for issuing warnings been established in law? | yes ☐ no ☐ |

| | | | | |
|---|---|---|---|---|
| | | | Are the chains of command for the dissemination of warnings clearly established? | yes ☐ no ☐ |
| Legislation or government policy mandating the implementation and operation of early warning systems targeting all hazards. | yes ☐ | no ☐ | *If yes, please indicate:* Clear roles and responsibilities have been defined for all organizations (government and non-government) involved in implementation and routine operation of early warning systems. | yes ☐ no ☐ |
| | | | Government funding mechanisms have been institutionalized for implementation and routine operation of early warning systems. | yes ☐ no ☐ |
| | | | It is possible to establish (or strengthen) a multi-party early warning roundtable, such as a subcommittee of the national platform for disaster reduction, to ensure a coordination among key actors spanning all hazards and all user needs. | yes ☐ no ☐ |
| National standards have been developed for the systematic operation of early warning systems. | yes ☐ | no ☐ | *If yes, please indicate:* Are these standardized with neighboring or regional countries? | yes ☐ no ☐ |
| | | | *If no, please indicate:* There are standards, but differ from system to system. | yes ☐ no ☐ |
| **B. Establishing Mechanisms for Monitoring and Warning Services** | | | | |
| *For relevant hazards* Is the authority to issue warnings in one organization (operational at all times) and mandated by law with roles and responsibilities clearly defined.<br><br>*Which hazard(s) need warnings?*<br>_____ | yes ☐ | no ☐ | *If yes, please indicate:* Are warning system partners, including local authorities, aware of which organizations are responsible for warnings? | yes ☐ no ☐ |
| | | | Are protocols in place to define communication responsibilities and channels for technical warning services? | yes ☐ no ☐ |
| | | | Is the system established to verify that warnings have reached the intended recipients? | yes ☐ no ☐ |
| | | | Are warning centres staffed at all times? | yes ☐ no ☐ |
| Are measurement parameters and specifications documented for each relevant hazard.<br><br>*Which hazard(s) need better measurements?*<br>_____ | yes ☐ | no ☐ | *If yes, please indicate:* Technical equipment, suited to local conditions and circumstances, is in place and personnel trained in its use and maintenance.<br><br>*Which hazard(s) need equipment?*<br>_____ | yes ☐ no ☐ |
| | | | Is there applicable data and analysis from regional networks, adjacent territories and international sources accessible?<br><br>*Which hazard(s) need data?*<br>_____ | yes ☐ no ☐ |
| | | | Procedures revised and updated or improved systematically using feedback from past events. | yes ☐ no ☐ |
| Is data received, processed and available in meaningful formats in real time, or near-real time.<br><br>*Which hazard(s) need better data?*<br>_____ | yes ☐ | no ☐ | *If yes, please indicate:* Is data analysis, prediction and warning generation based on accepted scientific and technical methodologies? | yes ☐ no ☐ |
| | | | Are data and warning products issued within international standards and protocols? | yes ☐ no ☐ |
| | | | Are warnings generated and disseminated in an efficient and timely manner and in a format suited to user needs?<br><br>*Which relevant hazards need better warnings?* | yes ☐ no ☐ |

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| **C. Dissemination and Communication** | | | | |
| Are recognized authorities empowered to disseminate warning messages (e.g. meteorological authorities to provide weather messages, health authorities to provide health warnings). | yes ☐ | no ☐ | *If yes, please indicate:*<br>The warning dissemination chain is enforced through government policy or legislation (e.g. message passed from government to emergency managers and communities etc). | yes ☐ no ☐ |
| | | | Are the functions, roles and responsibilities of each actor in the warning dissemination process specified in legislation or government policy (e.g. national meteorological and hydrological services, media, NGOs)? | yes ☐ no ☐ |
| Are communication and dissemination systems tailored to the needs of individual communities (e.g. radio or television for those with access; and sirens, warning flags or messenger runners for remote communities)? | yes ☐ | no ☐ | *If yes, please indicate:*<br>Communication system is two-way and interactive to allow for verification that warnings have been received. | yes ☐ no ☐ |
| | | | Mechanisms are in place to inform the community when the threat has ended. | yes ☐ no ☐ |
| | | | Are warning messages drafted and issued in a language understandable to those at risk? | yes ☐ no ☐ |
| **D. Disaster Preparedness and Response Plans** | | | | |
| Are disaster preparedness and response plans empowered by law? | yes ☐ | no ☐ | *If yes, please indicate:*<br>Are disaster preparedness and response plans targeted to the individual needs of vulnerable communities? | yes ☐ no ☐ |
| | | | Are hazard and vulnerability maps utilized to develop emergency preparedness and response plans? | yes ☐ no ☐ |
| Has the community ability to respond effectively to early warnings been assessed? | yes ☐ | no ☐ | *If yes, please indicate:*<br>Has response to previous disasters been analysed and lessons learnt incorporated into future capacity building strategies? | yes ☐ no ☐ |
| | | | Have community-focused organizations been engaged to assist with capacity building? | yes ☐ no ☐ |
| Has simple information on hazards, vulnerabilities, risks, and how to reduce disaster impacts been disseminated to vulnerable communities and decision-makers?<br><br>Which relevant hazards need information.<br>_____ | yes ☐ | no ☐ | *If yes, please indicate:*<br>Has the community been educated on how reliable warnings will be disseminated and how to respond to different types of hazards after an early warning message is received? | yes ☐ no ☐ |
| | | | Have mass media and folk or alternative media been utilized to improve public awareness? | yes ☐ no ☐ |
| | | | Have community-based risk assessments and early warning systems been stimulated through the support of local training and information needs, and the use of traditional knowledge in warning system design? | yes ☐ no ☐ |
| Are drills and simulations conducted in the scope of EW? | | | *If yes, please indicate*<br>Are drills and simulations conducted regularly in communities at risk to improve preparedness and response plans and to promote awareness? | yes ☐ no ☐ |

This questionnaire has been completed by Mr/Ms _____

Please return the completed form before **31 March 2007** to:

**UN/ISDR Platform for the Promotion of Early Warning**
United Nations Campus, Hermann-Ehlers-Strasse 10, 53113 Bonn, Germany

**Email:** isdr-ppew@un.org, Tel.: ++49 228 815 0302, **Fax: ++49 228 815 0399**

| **Characteristic natural hazards and related maps** | | | | | | **For which hazard has early warning been advanced in the country** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *If yes, please indicate:* | | | | | | | | | |
| Characteristics of key natural hazards (e.g. intensity, frequency and probability) analysed at the national level. | **yes** | **no** | Hazard maps have been developed to identify their geographical areas | Vulnerability assessments have been conducted with respect to these hazards | Risks assessments and risk maps developed for these hazards at the national or local levels | Years of operation of the system | System based on legis-lation | Annual funding allocated for operation | Data received and processed in real or near real time | Pre-formated messages to issue public warnings | Standard Operating Procedure s (SOPs) in place | Post-event evalu-ations used to improve the EWS |
| | | | **yes** | **yes** | **yes** | | **yes** | **yes** | **yes** | **yes** | **yes** | **yes** |
| **Volcanoes** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Lahars** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Earthquakes** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Hydro-meteorological hazards** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Severe storms** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Flash floods** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Mudflows** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Storm surges** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Flood-prone rivers** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Tsunami** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Tropical cyclones** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Coastal flooding** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Dust and sand storms** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Wildland fire** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Landslides** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Epidemics** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Locusts** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Drought** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Environmental degradation and desertification** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Famine/food insecurity** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Bird flu** | ☐ | ☐ | ☐ | ☐ | ☐ | ____ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| | |
|---|---|
| An integrated risk map has been developed to assess the interaction of multiple natural hazards. | *Which hazard(s) are included?* _____ |