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**International Early Warning Programme  
Advisory Group Meeting**

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**Item 3(c) Report of the EWC III Review for Technical Appraisal of Project Proposals**

**Report of the EWC III Review for  
Technical Appraisal of Project Proposals**

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## **Report of the EWC III Review for Technical Appraisal of Project Proposals**

### **I. Introduction**

The Third International Early Warning Conference (EWC III), held in Bonn, Germany, 27-29 March 2006, called for proposals for early warning (EW) projects. More than 100 project proposals were submitted. To ensure the quality of the projects and to revise the proposals, a review group was established. The review process was based on award criteria, quality indicators and scoring table. These guidelines are listed in Annex I of this report. They contain notes for both the submitter and reviewer of early warning project proposals. Furthermore, the expert reviewers were guided by categories of decisions. The categories were originally proposed as a scale ranging from strongly disagree "1" to strongly agree "5". For each category of decision, a new explanatory text has been proposed in this document (see Annex II). The members of the review group are listed in Annex IV.

In accordance with the guidelines, each project proposal was reviewed and given a category rating in terms of (i) needs and risk assessment, (ii) impact and objectives, (iii) project design, (iv) sustainability, and (v) an overall grade. A total of 105 project proposals were submitted for appraisal by the EWC III review with short summaries published in the EWC III publication "Compendium of Early Warning Projects" launched at the time of the conference. A complete list of these projects, location of the projects proposals and the final category for the project is given in Annex III.

In following-up the work of the EWC III conference, the PPEW secretariat is now making available to all agencies who have submitted proposals the complete review commentary, an expanded list of specific recommendations to revise and improve the project proposal and the conclusion for the project.

### **II. General Comments on the Project Proposals**

In general, most of the proposals to be amended or revised suffered from a number of common weaknesses. The proposals did not address the four elements of early warning systems as requested in the call for proposals. In a majority of the proposals the direct linkage to the four elements of effective EW needs to be significantly clarified. The "social science" dimensions of the projects were not discussed or described in detail. More detail was needed on the involvement of local communities in the project. More information on the people-centered approach should have been provided in the proposals. The issue of how to identify end-users and stakeholders was lacking. More information was also needed on the how inputs will produce the outputs at the local level. Detailed information on the target communities should have been provided. More details should also have been provided on how the activities would link to the end-users: people-at-risk.

Many project proposals under the section on "sustainability" indicated that on completion of the project, the Executing Agency would continue to maintain the activities. This is insufficient. Sustainability is most important, especially where long term inputs are required – in research, inventory and field management – as opposed to a simple, discrete study. The reviewers were especially concerned in those cases where local contributions were small in comparison with the

overall budget since this indicates that national capacity does not exist. Much more attention is required to the sustainability issue in most proposals.

The most potentially valuable proposals are those that are firmly grounded in a programme approach. Proposals should provide good details of relevant PPEW and IEWP and other donor activities and clearly show the place of the proposed project within the wider ISDR framework.

### III. Overview of Decisions on Project Proposals

The number of proposals in each category of decision is as summarised in the following tables according to hazard type proposals submitted for different regions and decision category per country. The following twelve hazard types of the Global Survey of Early Warning Systems (2006) were used in the review of the appraisal process.

#### Project abbreviation list:

Multi-hazard	(MH)*	Earthquake	(EQ)
Tornado	(TO)	Volcano	(VO)
El Nino	(EN)	Wildland Fire	(WF)
Floods	(FL)	Locust	(LO)
Tsunami	(TS)	Food security	(FS)
Drought	(DR)	Sand and dust storm	(SD)

(\* 56 Multi-hazard projects include the following devision: 29 all existing hazards in observed region, 17 hydro-meteorological hazards, 3 flood and landslide hazard, 5 tsunami and earthquake hazard, 1 landslide and avalanche hazard, 1 earthquake and volcanic hazard)

**Table 1. Summary of Hazard Types by Region**

Region	Type of Hazard												Total
	<i>MH</i>	<i>TO</i>	<i>EN</i>	<i>FL</i>	<i>TS</i>	<i>DR</i>	<i>EQ</i>	<i>VO</i>	<i>WF</i>	<i>LO</i>	<i>FS</i>	<i>SD</i>	
<i>Latin America</i>	11	-	-	6	-	-	-	1	1	-	1	-	<b>20</b>
<i>Asia Pacific</i>	25	1	1	7	7	2	4	1	-	-	-	1	<b>49</b>
<i>Africa</i>	18	-	-	5	1	-	1	-	-	1	-	-	<b>26</b>
<i>Europe</i>	2	-	-	1	-	-	2	-	-	-	-	-	<b>5</b>
<i>Global</i>	-	-	-	-	-	1	1	1	2	-	-	-	<b>5</b>
<b>Total</b>	<b>56</b>	<b>1</b>	<b>1</b>	<b>19</b>	<b>8</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>105</b>

**Table 2. Existing Appraisal Categories by Type of Hazard**

Category of Decision	Type of Hazard												Total
	<i>MH</i>	<i>TO</i>	<i>EN</i>	<i>FL</i>	<i>TS</i>	<i>DR</i>	<i>EQ</i>	<i>VO</i>	<i>WF</i>	<i>LO</i>	<i>FS</i>	<i>SD</i>	
<i>1</i>	1	-	-	1	-	-	-	-	-	-	-	-	<b>2</b>
<i>2</i>	11	-	-	1	3	-	3	-	-	-	-	-	<b>18</b>
<i>3</i>	20	-	-	6	1	1	3	1	1	-	-	-	<b>33</b>
<i>4</i>	17	1	-	9	4	2	1	2	2	1	-	1	<b>40</b>
<i>5</i>	7	-	1	2	-	-	1	-	-	-	1	-	<b>12</b>
<b>Total</b>	<b>56</b>	<b>1</b>	<b>1</b>	<b>19</b>	<b>8</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>105</b>

**Table 3. Project Proposals sorted by Country and Review Category**

Category Country	Decision categories					Total Projects
	1	2	3	4	5	
Afghanistan	-	-	2	-	-	2
Angola	-	-	-	1	-	1
Argentina	1	1	-	-	-	2
Armenia	-	1	-	-	-	1
Azerbaijan	-	1	-	-	-	1
Bangladesh	-	-	-	4	-	4
Bolivia	-	-	-	-	1	1
Bulgaria	-	1	-	-	-	1
Burundi	-	-	2	-	-	2
Cambodia	-	-	1	1	-	2
Cameroon	-	1	-	-	-	1
China	-	-	-	1	-	1
Costa Rica	-	-	1	-	-	1
Cuba	-	1	-	-	-	1
Ecuador	-	-	1	2	1	4
Fiji	-	-	1	-	-	1
France	-	-	-	-	1	1
Gambia	-	-	-	1	-	1
Greece	-	-	-	1	-	1
Honduras	1	-	-	2	-	3

India	-	-	2	1	-	3
Indonesia	-	1	1	1	-	3
Iran	-	2	-	2	-	4
Maldives	-	1	-	-	-	1
Mauritania	-	-	-	1	-	1
Mexico	-	-	-	1	-	1
Mongolia	-	-	-	1	-	1
Morocco	-	1	4	2	-	7
Mozambique	-	-	1	-	-	1
Pakistan	-	-	1	-	-	1
Philippines	-	-	1	3	2	6
PNG	-	-	1	-	-	1
Romania	-	-	1	-	-	1
Seychelles	-	-	1	-	-	1
South Africa	-	-	1	-	-	1
Sri Lanka	-	-	-	2	-	2
Tajikistan	-	-	-	-	1	1
Tanzania	-	2	-	-	-	2
Tonga	-	-	-	1	-	1
Turkey	-	-	-	1	1	2
Venezuela	-	-	-	1	-	1
Vietnam	-	-	-	1	-	1
Zimbabwe	-	-	1	-	-	1
Global	-	1	2	2	-	5
Latin America	-	-	2	3	1	6
Africa	-	-	4	1	1	6
Europe	-	-	-	1	1	2
Asia	-	4	2	2	2	10
<b>Total</b>	<b>2</b>	<b>18</b>	<b>33</b>	<b>40</b>	<b>12</b>	<b>105</b>

#### IV. Specific findings from the EWC III Review of Proposals

A summary of the comments and specific observations of the EWC III project review, as derived from the appraisal of all 105 projects by the expert reviewers, is listed below. The quality of many proposals received was below the ideal. In many cases, proponents appeared to have not

followed the guidelines. Annex V of this report contains the complete review of all 105 project proposals. It is accepted that parts of the guidelines in the original call for proposal was unclear and PPEW requests the Advisory Group of the IEWP to consider preparing a revised version for future calls for proposal, with clearer examples and guidance. Based upon the PPEW secretariat's analysis of the individual appraisal of the projects the following points are particularly important in a generic sense to the EWC III call for proposals:

1. Monitoring and evaluation aspects were not sufficiently addressed.
2. A literature survey was not included in the proposal.
3. Information on the sustainability of the project within the countries was not provided. The risk section of the proposal should describe the financial sustainability of the project activities including equipment maintenance.
4. The budgets were too large and did not provide detail. More generic approaches to raise awareness would probably have a very similar impact for a fraction of the costs. A more detailed budget should be provided.
5. The strategy for the project did not emphasize implementation in the communities and linking it to authorities and their existing practices. The strategy section of the proposal should discuss and provide clarity on how the response agencies will deal with the different stakeholders communities. A more complete description of the project strategy should be included which includes information on relevant regulations and recommended practices and procedures.
6. Indicators of the success and impact were not provided. As some proposal dealt only with the technical aspects, it was unclear whether the activities are part of a larger overall system or stand alone activities. Measurable indicators should be provided. More information should be provided on whether the proposal is part of a larger EW system. When some measurable indicators are provided, consideration should be given to intermediate indicators, such as the number of people aware of the risks, response actions, percentage of area covered by warning services, etc.
7. A detailed workplan was not provided. A more realistic timeframe should be placed on project activities.
8. A logframe matrix was not included that would guide the project design. An integrated approach to hazard warnings should be incorporated in the proposal design. More quantification information and specific numerical data is required in the justification section of the proposal.
9. The overall size, scope and staffing of the proposal was too large and should be reduced. The institutional arrangements for the project should be clarified. Information on the organizational aspects of the project should be provided.
10. The use of imagery, mapping and GIS is included in many proposals. In general, the technical difficulties that will be encountered were grossly under-estimated, as was the size of the budget required and the speed at which technical hitches will be solved. Even where the technology is well known, application can be a tedious and time-consuming process;

## V. Summary of Recommendations

In addition to the above comments and observations the Review called attention of those involved in the past and future formulation and appraisal process to the following key recommendations:

1. Prior to project formulation or in combination with project design a risk assessment should be undertaken. Information on risk assessment should be provided, or if unavailable, a risk assessment activity should be carried out in advance of the project implementation. The risk assessment should be based on quantitative parameters. Additional information should be included on what losses can be avoided through early warning.
2. Details on the sociology or content of the early warning message should be included along with measurable impact indicators. More information should be provided on any guidelines that would be used and which performance measures would be used. A description of knowledge building at the local level on how to react to information provided by the project should be included.
3. More information should be provided on whether activities under the project will be compatible with existing practices of early warning in the region.
4. More information is required on the issue of governance. Who will run the system within countries? Can these organizations ensure compliance with international protocols? Information on the social and governance aspects should be included.
5. The project proposal should be based in a long-term partnership between relevant institutions directly involved in disaster risk management and should be included in the project as collaborators to provide more governance and support. A full description of the organizational component should be included. Organizational aspects including funding; perception of risks related to sharing data with the public should be fully addressed in the project. An organization structure should be detailed.
6. The justification section of the project should clearly indicate that the project will be part of a multi-hazard system. The project proposal should clearly identify verifiable indicators to measure project achievements. The question of sustainability of the project should be addressed in detail.
7. Training of personnel of national services should be addressed in the proposal. Population training and preparedness should be strengthened in the project. A needs analysis of current public perceptions, knowledge and behaviours of early warning information should be included.
8. The detailed budget in standard UN format and costs by activities should be included and justified. Capital items should be justified by the activities proposed. In some cases, this justification was difficult to see. Where a proposal relates to a second Phase, information on the capital items purchased by the previous phase should be given. Unit cost information is essential. The proposal must include sufficient information for the Review to see readily how each cost was arrived at - unit cost and number of units.
9. In general the number of objectives and outputs should be reduced. A log frame and timeline should be included. The objectives should be simplified and focused with a demonstrated link and dissemination activities to local communities.

10. The proposal should not be too ambitious and should consider developing a pilot project which initially tests and refines the concept and target audience. Elements needed for an effective warning system, such as observation and telecommunication, dissemination networks should be included in the project.
11. The project activities which address hazard assessment and monitoring should be linked to other parts of the early warning chain. Use and implementation of the potential research results should be addressed directly. Quantitative indicators for an impact assessment should be specified along with an impact assessment. Information on how the project will address the four components of an early warning system should be included along with measurable indicators.
12. Project management should be related to the proposal and the need for each post clarified. In some cases, projects indicated full time personnel – Director, Co-ordinator, Technical Adviser – the case for such intensive management has to be clearly made.
13. The proposal should give relevant information in sufficient depth for the Reviewer to make an informed assessment. Highly technical proposals require substantial technical details.
14. Economic analyses should be realistic and documented in detail. The depth of information required depends on the proposal and its potential impact.

## **VI. Recommendations related to future submissions**

It is recommended that the ISDR focal points in Member countries ensure that proposals, prior to submission to PPEW are not only assessed at the national level with regard to the national platform's priorities, but also with particular regard to "relevance to the Hyogo Framework for Action objectives".

Where revisions are asked for, the revised proposal should contain a clearly laid out tabular annex showing the changes made (with page and section number quoted) in response to each of the Reviewer's specific recommendations as well as any other significant changes. Minor editing changes need not be referenced.

It has proved to be useful for the appraisal work of the review of proposals, and it should be reiterated for any future call for proposals, that each one of the principal evaluators provide comments in written or electronic form in order to assist the secretariat in preparing the notes, summarizing the discussion related to the overall assessment and listing the specific recommendations on each project. It is suggested that the secretariat also send briefs on the project proposals and other pertinent information to potential donors, prior to any future international early warning conference.

Dissemination is an essential part of many proposals. In addition to specific dissemination by projects, it would be useful to have funds for PPEW dissemination of results from a suite of projects. Such a fund could be created by an additional charge of 0.5% on all projects.

**Annex I**  
**Award criteria, quality indicators and scoring table for the assessment  
of EWC III project proposals. Guidelines for submitter and reviewer.**

**Needs/Risk Assessment**

Guideline for submission: Project designs must be based on a solid risk assessment, to ensure that the proposed activities respond to needs that have been clearly identified and documented by a disaster-risk management institution. Relevant questions to be answered include: What is the current level of risk and vulnerability? How many people are exposed to the hazard? Where are the gaps in existing EW systems?

**Impact/Objectives**

Guideline for submission: Proposals should clearly state the ultimate objective of the projects. Relevant questions include: What is the expected impact of the project with respect to addressing the identified needs and risks in the target region/population? What percentage of the population exposed to the hazard will benefit from the project? The proposal should quantify, as much as possible, the desired results of the project and define measurable indicators that allow reliable assessment of impact. Project proposals should furthermore address the four elements of effective early warning systems (see <http://unisdr.org/ppew/whats-ew/basics-ew.htm>) and cover technical, social and governance aspects. If the project does not span all four elements, it should be closely linked to other projects that are addressing the other components.

**Sound Project Design**

Guideline for submission: A sound project is innovative, sets realistic/ achievable goals, follows a defined timeline, is cost-efficient, draws on the experience and capacity of partners, and provides for the establishment of monitoring and evaluation. Questions would include: Is there another, simpler or more cost-effective way to achieve the objective set by this proposal? Is the project compatible with existing practice of early warning in this location?

**Sustainability**

Guideline for submission: The project should create durable systems and sustainable capabilities that are well integrated in existing government and civil society structures. This will require building on local capabilities and institutions, securing necessary skills and resources for the long-term, and designing a system suited to the development status and culture of the country or region. Partnerships are particularly important to ensure that the project makes maximum use of national or local resources (in cash and kind) and is complementary to existing initiatives. The proposal should therefore outline how the project is embedded in local, national or regional support structures and how it will help to advance the longer-term institutional, national or regional strategy on early warning. Relevant questions include: How will the results achieved by the project be secured upon its completion and after termination of international funding? What national mechanisms are or will be put in place to allow sustainability?

**Overall Grade**

Guideline for submission: Submitting the project means you are sure that you do not want to change anything on the review comments anymore. All changes after submitting will be through the database manager at PPEW.

**Annex II**  
**Categories of Decision with Proposed Explanations**

- 1 **Strongly disagree.** The Review concluded that there is insufficient information to assess the project proposal adequately.
  - a. The Review concluded that the project proposal (in its present form) is not sufficiently relevant to the mandate of the ISDR/PPEW. The Review encourages the submitting agency to seek other sources of project support.
- 2 **Largely disagree.** The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.
  - a: Such a pre-project proposal could be commended for funding.
  - b: The IEWP will need to assess the pre-project proposal before it can commend it for funding.
- 2 **Largely disagree.** The Review concluded that it could not commend the project proposal.
- 3 **Partially agree.** The Review concluded that a re-formulation of the project proposal is essential and the IEWP will need to assess the re-formulated proposal before it can commend it for funding.
- 4 **Largely agree.** The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.
- 5 **Strongly agree.** The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**Annex III**  
**List of Project Proposals Reviewed for the EWC III**

<b>Project No.</b>	<b>Title</b>	<b>Country</b>	<b>Decision Category</b>
PPEW 19/06 (MH)	Flooding and Landslide Early Warning System in the City of La Paz, Bolivia	Bolivia	5
PPEW 22/06 (MH)	Community Networks for the Prevention of Disasters and Attention of Emergencies with Application of Early Alert	Costa Rica	3
PPEW 23/06 (MH)	Community Empowerment for Effective Early Warning System	Philippines	3
PPEW 26/06 (MH)	Seismograph and Tide Gauge Networks for Earthquake and Tsunami Monitoring in Papua New Guinea	Papua New Guinea	3
PPEW 27/06 (MH)	Community Based Multi-Hazard Early Warning and Dissemination Systems Project	Bangladesh	4
PPEW 28/06 (MH)	Early Warning Dissemination Systems Project for Water Induced Hazards in Bangladesh	Bangladesh	4
PPEW 31/06 (MH)	Flood Disaster Preparedness for the Vulnerable Communities in the Province of Kampong Cham	Cambodia	4
PPEW 34/06 (MH)	Early Warning Systems for Natural Hazards in the Binational River Basin Catamayo-Chira	Ecuador, Peru	5
PPEW 35/06 (MH)	Sustainable Mitigation of Hydro Meteorological Disasters in Cities of Afghanistan	Afghanistan	3
PPEW 37/06 (MH)	Capacity Building in Disaster Prevention and Preparedness	United Republic of Tanzania	2
PPEW 39/06 (MH)	Disaster Awareness in Schools	Burundi	3
PPEW 40/06 (MH)	Youth Contribution in Disaster Reduction	Burundi	3
PPEW 44/06 (MH)	Water Related Crisis Information Centre for the Mekong, Vietnam	Vietnam	4
PPEW 48/06 (MH)	Development of an Advanced Tropical Cyclone Early Warning System for the Philippines	Philippines	5
PPEW 53/06 (MH)	Application of Information Communication Technology in Community Based Disaster Preparedness in Andhra Pradesh State, India	India	4
PPEW 54/06 (MH)	Early Warning System of Padang City - Operation Center - Earthquake and Tsunami Disaster Mitigation Pilot Project	Indonesia	4

PPEW 59/06 (MH)	Early Warning Integrated Weather and Hydrological System	Bulgaria	2
PPEW 60/06 (MH)	Enhancing Early Warning and Preparedness of Natural Hazards	United Republic of Tanzania	2
PPEW 61/06 (MH)	Strengthening the Coping Mechanisms and Monitoring Capacities of the Killer Lake Nyos Degassing Features by the Local People Themselves : Continuities and Discontinuities	Cameroon	2
PPEW 62/06 (MH)	Enhancing Hydroclimate Monitoring, Early Warning and Applications for the Reduction of Climate Related Risks in the Greater Horn of Africa	Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania and Uganda	4
PPEW 64/06 (MH)	From Local Action to Regional Cooperation: People Centered Early Warning System in the South Caucasus	Georgia, Armenia	2
PPEW 65/06 (MH)	From Local Action to National Cooperation: National and People Centred Early Warning System in Tajikistan- An Interagency Approach to Link Local and National in the Zerovshan Valley	Tajikistan	5
PPEW 68/06 (MH)	Space Science for Disaster Management	India	3
PPEW 69/06 (MH)	An Integrated Pilot System for Severe Weather (Drought and Flash Flood) Forecast, Detection and Warning in Romania	Romania	3
PPEW 71/06 (MH)	Enhancing Marine Multi-hazard Early Warning System in West African Countries for Improved Marine Safety	Cape Verde, Guinea, Mauritania, Nigeria, and Senegal	3
PPEW 72/06 (MH)	Local Action/Indigenous Knowledge: Pilot Projects and Peer Learning to Enhance Grassroots Women's Groups Capacity to Implement Early Warning Systems	Honduras	4
PPEW 73/06 (MH)	Towards a Multi-Hazard Early Warning and Response System in West Africa: A Multi-Hazard Approach to Forecasting Adverse Health Impacts in Africa	West Africa, Sahel and Niger	5

PPEW 75/06 (MH)	The Training of Leaders: A Way to Reduce the Vulnerability to Disasters	Cuba	2
PPEW 76/06 (MH)	Developing Data and Computational Tools for Assessment of Tsunamis Towards Effective Early Warning Systems	Mediterranean Sea, Aegean Sea, Marmara Sea, Black Sea	4
PPEW 78/06 (MH)	Development of Cambodia and Lao P.D.R.'S Tropical Cyclone Forecast and Early Warning Service	Campodia	3
PPEW 80/06 (MH)	Enhanced Multi-hazard Alert and Response Mechanisms for Malaysia & Bangladesh	Bangladesh, Malaysia	4
PPEW 81/06 (MH)	Regional Multipurpose Information and Early Warning System for Tsunamis, Earthquakes and Storm Swells in Central America	Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama	4
PPEW 83/06 (MH)	Early Warning on Climate Related Natural Hazards to Save Lives, Properties and Livelihoods	Gambia	4
PPEW 86/06 (MH)	Upgrade of the WMO Global Telecommunication System (GTS) to Serve as Backbone Communication Network for the Exchange of Warnings and Related Information in Support of Multi-hazard Early Warning Systems	South-East Asia and Pacific	5
PPEW 89/06 (MH)	Early Warning System for Provincial Park Pereyra Iraola	Argentina	2
PPEW 91/06 (MH)	Analysing Risk, Identifying Gaps, Preparing Communities for Developing and Operationalising Decentralised Information System Framework for Enabling Communities to Comprehend Early Warning in Disaster Prone Regions of India	India	3
PPEW 96/06 (MH)	Sub-Regional Natural Disaster Early Warning System	10 Countries of West and South-West Asia	2
PPEW 97/06 (MH)	Determination of Needed Factors for the Effective Early Warning System for Reducing the Impacts of Hydro-Meteorological Extreme Events in Iran	Iran	2
PPEW 102/06 (MH)	Seismic Risk Assessment and Mitigation in the Antakya-Maras Region in Turkey	Turkey	5

PPEW 105/06 (MH)	Capacity Building in Mozambique: Using the Education Sector for Disaster Awareness Outreach	Mozambique	3
PPEW 108/06 (MH)	Managing Risks Related to Weather/Climate Extremes in Southern Africa	Angola	4
PPEW 118/06 (MH)	Seismic and Satellite Networks of Warning of Tsunami of Seismic and Volcanic Origin on the Atlantic and Mediterranean Coast in Morocco	Morocco	3
PPEW 119/06 (MH)	Installation of an Early Warning System of Rising in the Ouzoude Center	Morocco	4
PPEW 121/06 (MH)	Disaster Observatory Linked to Major Emergencies and Sanitary Risk	Morocco	3
PPEW 123/06 (MH)	Alert Africa - An African Early Warning System	Africa	3
PPEW 126/06 (MH)	Warning Analysis Network and Site for Iran	Iran	4
PPEW 127/06 (MH)	Climate Observation Network for Early Warning Systems in Western South America	Bolivia, Chile, Colombia, Ecuador, Perú and Venezuela	3
PPEW 128/06 (MH)	Hydrologic Warning and Information System for the Plata Basin	Argentina	1
PPEW 137/06 (MH)	Do We Know How to React to an Alert? Information and Sensitization of Populations in the Western Part of the Indian Ocean	Comores, Kenya, Madagascar, Maurice, Réunion, Seychelles, Tanzania	3
PPEW 138/06 (MH)	Short-term Forecasting of Extraordinary Geologic Events (Strong Earthquakes, Tsunamis, Volcanoe Eruptions)	Azerbaijan	2
PPEW 139/06 (MH)	Early Warning Communications System for Kingdom of Tonga	Tonga	4
PPEW 145/06 (MH)	Establishment of a Seychelles Early Warning and Mitigation System Based on a Multi-hazard Approach	Seychelles	3
PPEW 146/06 (MH)	Geographical Analysis of the Watershed of the Mocotés and Lineamientos Valley and Urban Local Plan for Sustainable Development for the Community of Santa Cruz de Merida	Venezuela	4
PPEW 147/06 (MH)	Programme: Strengthening Capacity in Dealing with Major Risks in the Caribbean Basin. Sub-Project No. 4: Establishment of an information chain to influence the behaviour of populations exposed to atmospheric and geological risks	The Caribbean	3

PPEW 149/06 (MH)	UNICEF Project Sentinelle: Early Warning with Focus on Children, Preventing Child Malnutrition in the Sahel	Burkina Faso, Chad, Mali, Mauritania, Niger, Senegal	3
PPEW 151/06 (MH)	Creating a Hydro Meteorological Disasters Database Management System within Central and South-West Asia	Asia	2
PPEW 47/06 (EN)	Enhancement of the National El Niño-Southern Oscillation (ENSO) and Drought Early Warning, Monitoring and Prediction System for Disaster Preparedness in the Philippines	Philippines	5
PPEW 103/06 (TO)	Building Tornado Warning System for Bangladesh - Coping with Neglected Disaster	Bangladesh	4
PPEW 16/06 (FL)	Flooding Early Warning System for the Cities of Artigas (Uruguay) and Quaraí (Brazil)	Brazil, Uruguay	4
PPEW 18/06 (FL)	People-Centered Area-Specific Flood Warning System: Improving Communication of and Community Responses to Flood Warnings in Bangladesh	Bangladesh	4
PPEW 25/06 (FL)	Strengthening of Early Warning System for Flood in Ulaanbaatar	Mongolia	4
PPEW 36/06 (FL)	Flood Hazard Monitoring and Flood Risk Mapping for Save Catchment - Zimbabwe	Zimbabwe	3
PPEW 42/06 (FL)	Early Warning System in Case of Flooding for the City of Coca—Orellana Province, Ecuador- South America	Ecuador	5
PPEW 51/06 (FL)	Early Warning and Flood Control Monitoring in the Eastern Mediterranean	Lebanon, Syrian Arab Republic and Jordan	3
PPEW 67/06 (FL)	Flood Warning System as a Sector of Flood Integrated Action Plan in Imamzade Davood Basin, Tehran Province	Iran	4
PPEW 84/06 (FL)	Central America Small Valleys Flood Alert	Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama	4
PPEW 85/06 (FL)	Integration of the Communications Systems of the Emergency Organizations in Honduras	Honduras	1
PPEW 87/06 (FL)	A Flood Forecasting Device in Quezon City, Philippines a Sound Practice for Flood Disasters Reduction Measure	Philippines	4
PPEW 93/06 (FL)	Implementing a Real-time Flood Forecasting System for East Black Sea Region In Turkey	Turkey	4
PPEW 117/06 (FL)	Implementing an Early Warning System Concerning the Floods in the Province of Ifrane	Morocco	3

PPEW 120/06 (FL)	Establishment of an Early Warning System for Floods in the Toudgha for the Rural Community Tourist Site: Toudgha Eloulia-Ouarzazate	Morocco	2
PPEW 132/06 (FL)	From Reconciliation to Knowledge of Response Actions for Emergencies in Riverside Communities of Gracias a Dios State, Honduras	Honduras	4
PPEW 135/06 (FL)	Flood Early Warning System Project	Morocco	3
PPEW 136/06 (FL)	The Loire Prevention Ambassadors	France	5
PPEW 140/06 (FL)	Flood Warning as part of a Multi-Hazard Warning System for Fiji	Fiji	3
PPEW 142/06 (FL)	Improving the Early Warning Efficiency of the Regional Flood Management and Mitigation Centre (RFMMC) of the Mekong River Commission in Phnom Penh	Cambodia, Lao People's Democratic Republic, Thailand and Vietnam	4
PPEW 156/06 (FL)	Early Flood Warning in Ecuador (EFIDOR)	Ecuador	3
PPEW 41/06 (TS)	Improving Disaster Resilience of Coastal Schools in Sri Lanka - IDRIS-SL	Sri Lanka	4
PPEW 43/06 (TS)	Improving Resilience in Rural Communities of Sri Lanka - IRRC	Sri Lanka	4
PPEW 58/06 (TS)	Mitigation of Tsunami Risks in the Philippines through the Establishment of a Tsunami Early Warning System	Philippines	4
PPEW 112/06 (TS)	Creation of "Safety Instruction Leaflet" for Foreign Tourists	Maldives	2
PPEW 113/06 (TS)	Formal Education Project	Indonesia	2
PPEW 114/06 (TS)	Installation of Evacuation Signboards	Indonesia	3
PPEW 122/06 (TS)	Tsunami Early Warning System for Morocco	Morocco	4
PPEW 130/06 (TS)	Disaster Management Systems and Operations Around the Indian Ocean Region (Tsunami Warning and Catastrophic Loss Reduction)	Indian Ocean Region	2
PPEW 94/06 (DR)	Agro-meteorological Warning in Disaster Condition in South-West and Central Asia	10 Countries of West and South-West Asia	3

PPEW 95/06 (DR)	Drought Assessment and Monitoring for the ECO Region Using Satellite Data	10 Countries of West and South-West Asia	4
PPEW 155/06 (DR)	Evaluation and Recommendation of Guidelines for Both Short-term and Long-term Desertification Early Warning Systems	Global	4
PPEW 17/06 (EQ)	Towards the Implementation of Early Warning for Megacities (Capital of Armenia)	Armenia	2
PPEW 46/06 (EQ)	South African National Seismograph Network to act as an Array for an Early Warning	South Africa	3
PPEW 56/06 (EQ)	Early Warning System of Padang City - Operation Center - Earthquake and Tsunami Disaster Mitigation Pilot Project	Pakistan	3
PPEW 66/06 (EQ)	A Tool and Data Base for Reliable Earthquake Loss and Risk Estimates in Iran	Iran	2
PPEW 90/06 (EQ)	Earthquake Early Warning System for Greece	Greece	4
PPEW 133/06 (EQ)	Earthquake Risk Knowledge and Public Awareness in Kabul - Afghanistan	Afghanistan	3
PPEW 134/06 (EQ)	Establishing a Regional/Global Earthquake Prediction and Pre-Warning System with the MDCB Electromagnetic Seismic Precursor Recording Instrument and Technology	Global/regional	2
PPEW 150/06 (EQ)	FINO-MED: Long-term Testing of Warning System Instruments at FINO (North Sea) for an Integrated Seafloor Observatory Network in the Mediterranean Sea	North Sea and Mediterranean Sea	5
PPEW 32/06 (VO)	Early Warning System Towards Hazards of the Tungurahua and Cotopaxi Volcanoes, Province of Tungurahua, Ecuador	Ecuador	4
PPEW 77/06 (VO)	Mitigation of Volcanic Risks in the Philippines Through the Improvement of Volcano Monitoring Systems and Preparedness Plans	Philippines	4
PPEW 79/06 (VO)	International Mobile Early-Warning System(s) for Volcanic Eruptions and Related Seismic Activities	Global	3
PPEW 49/06 (WF)	Global Early Warning System for Wildland Fire	Global	4
PPEW 106/06 (WF)	Early Alert, Monitoring and Impact Assessment System for Forest Fires in Mexico and Central America	Mexico	4

PPEW 152/06 (WF)	“Star & Caring Wings” - An Early Warning System for Forest Fire Smoke Impacts	Europe, South East Asia and Mediterranean Basin	3
PPEW 21/06 (SD)	Development of a Regional Sand and Dust Storm Early Warning System (SDS-EWS) in North East Asia	China	4
PPEW 33/06 (LO)	Early Warning Systems for Desert Locusts – A West Africa Pilot Project	Mauritania	4
PPEW 82/06 (FS)	Monitoring Weather-Related Threats to Food Security in Ecuador	Ecuador	5

**Annex IV**  
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## Annex V

### ASSESSMENT BY THE EWC III REVIEW ON PROJECT PROPOSALS

**PPEW 19/06 (MH)**                      **Flooding and Landslide Early Warning System in the City of La Paz, Bolivia**  
(Bolivia)

#### Assessment by the EWC III Review

##### A) Overall Assessment

The outlined level of risk and vulnerability is high for the city dwellers of La Paz, which has been confirmed by the historical records. Of a total population of 900,000 inhabitants, about 300,000 people are vulnerable (representing 33% of the total population) – a very high figure indeed. About 20,000 people are directly exposed to landslides, spread over several risk areas in the city. Overall, 16% of the city's total population is exposed to hazards, in particular flooding and landslides. The city of La Paz does not seem to have an operational EW system. Preliminary activities focused on integrated watershed management but not necessarily with an EW component. In 2004 the city initiated a pilot project aimed at establishing the feasibility of an EW system for sudden floods. The results were very promising and, if operational, an EWS could provide critical information within 20 minutes of impact. In 2002 the municipal government initiated, with the support of UNDP, a disaster risk management programme to strengthen preparedness and response. This initiative recommended the installation of a EWS. The needs, justification and risk assessment are sufficiently indicated.

The purpose of this project is to set up a functional and effective early warning system to alert vulnerable communities in advance of pending hazards and disasters. This early warning system will result in accurate alert information and reduction of the vulnerability most affected people, well informed citizens about natural disasters and response preparedness. The project proposal addresses quite well the four components of effective early warning systems. The need to convey correct and timely information of natural hazards in order to reduce the loss of human lives and damages in productive and social infrastructure has been well articulated in objectives/expected impacts. In general, the proposed [measurable] indicators to reliably assess the desired impact of the project are robust (each one in its own right), with a mixture of performance indicators for the EW system (once operational) and indicators of project impact. The La Paz population is the main beneficiary. The objectives are clear. The proposed goals and activities are achievable within the timeframe set. The proposal includes a detailed budget and explanation of activities. Project very well designed in particular the activities with clear budget. The municipality, main actor, has experience in this type of project.

The project seems to be well integrated in existing government and civil society structures: The Municipality of La Paz, through its Operational Emergencies Committee (Comité Operativo de Emergencias, COE) is institutionally well placed to co-ordinate the implementation of the project. The COE incorporates some 50 private and public institutions, NGOs and representatives of civil society. The proposal, however, does not seem to explore fully the benefit of extended partnerships to address certain aspects of the early warning process. The vulnerability of the affected population seems to have strong environmental and land-use planning elements that, in addressing them, could benefit from the participation of international organisations involved in environmental/planning issues, disaster preparedness, prevention and response (such as UNDP,

UN-HABITAT and specific city-level activities of UNEP's assessment processes). There is only one reference to the UN University under "other required contributions" section. The sustainability of the project seems to be ensured; the proposal provides clear indications of how such sustainability will be achieved; e.g. firm commitments from the Municipal Government of La Paz to budget annually for the maintenance and operation of the EW systems, a commitment from the Bolivian National Meteorology and Hydrology Service to maintain the hydro-meteorological equipment, and so on. The Municipal Government of La Paz has pledged cash and in-kind contributions to the project totaling US\$200,000.

The Review considered the project proposal worth submitting it for funding consideration. The proposal is very strong in the needs and risk assessment with a solid understanding of problems and potential solutions, as well as the institutional needs to ensure the sustainability of the project beyond its time-frame. It needs to elaborate on the proposed indicators and [to provide information] on the means of verification, as well as in the monitoring and evaluation. It also needs to elaborate on partnerships.

B) Specific Recommendations

1. The proposal should elaborate on how the monitoring and evaluation will be established. It describes the experience and capacity of partners, but it does not elaborate on the process to be followed to do the monitoring and evaluation. In this context, it would be advisable for the presenters to consider the role of donor representatives in the evaluation of the project outcomes.
2. The proposed indicators are stated differently in the original project proposal (in Spanish) than in the Project Summary (in English), the first version provides a lot more information. This should be corrected.
3. The proposal does not indicate what means of verification will be used for the indicators. Of the five indicators proposed (see Spanish version of Project Proposal, page 8, section 6 Monitoreo y Evaluación), the Review recommends the deletion of the 1st indicator (Número de simulaciones realizadas...) because is more related to training of personnel (although it could be argued that training of personnel is an integral part of the efficient running of an EWS).
4. The 2nd indicator (Número de simulacros de inundaciones) should be adjusted to reflect impact. A 'number' per se does not provide indication of impact.
5. The 3rd indicator (Pruebas de la robustez del funcionamiento) is a good indicator of performance of the EWS, but should be considered in the context of the impact of the system in terms of the 4th and 5th indicators proposed; otherwise it will be incomplete.
6. The 4th (Verificación en relación a los años anteriores) and 5th (Porcentaje de la población paceña informada sobre el SAT) indicators are excellent indicators of impact. But in all cases, the presenters need to provide information on the means of verification of the indicators. The proposal is lacking such information.
7. The impact of the EW system should be clarified with the expected situation after completion provided.

8. The municipality can ensure the sustainability, but more actors and the local population should be involved.
9. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 22/06 (MH)**

**Community Networks for the Prevention of Disasters and Attention of Emergencies with Application of Early Alert (Costa Rica)**

Assessment by the EWC III Review

A) Overall Assessment

The proposal provides for participatory hazard analysis but little is said of vulnerability and risk as such, although these are in some ways implicit in the document. Procedures and needs for integrating scientific knowledge with local knowledge are not covered explicitly. The numbers of persons to benefit from the schemes is laid out. No systematic development of early warning system stages ( hazard analysis, risk scenarios, alert mechanisms and preparedness and response planning)is provided such that it is difficult to know what has and has not been developed to date. Thus, various times EWSs are mentioned but there is no real information on what has and has not been done as regards the development of each stage or phase. The project document concentrates on the real and important problem of community involvement and networks but technical details and information are lacking such that it is difficult to know what is actually being built on what

The proposal identifies in a qualitative way the risks faced by many communities in Costa Rica, but does not express in a precise fashion the level of risk in the communities to be involved in the project. Nevertheless, the fact that the proposed project is a continuation of a previous project

probably can be used as a guide regarding the level of risk in these basins. The needs identified in the project are clearly addressed in the various activities proposed as part of the project.

Social and governance aspects are dealt with implicitly but not explicitly and much concern and emphasis is placed on such fundamental aspects as local participation and creation of social capital through networking and community collaboration. Technical aspects are only summarily dealt with. The four elements of effective warning systems are insinuated but only community organization and participation in response and preparedness are dealt with in any extensive fashion. Little quantification of desired results is presented and there are no indicators of impact. In general, although the project is attractive in its ends, the somewhat woolly or romantic way things are laid out does not allow precision and concrete notions and ideas on beneficiaries, impacts, achievements etc.

The strategy of the project in addressing the local population is clearly one which has an impact in mind: transferring the responsibility regarding risk management and early warning from the national institutions to local communities and its structures. While some of the results are expressed in a qualitative fashion, other results can be verified via the proposed indicators (number of communities addressed; risk maps and other documents). While no explicit address of the four elements for effective early warning are addressed, the document outlines activities and results that point in this direction without any reasonable doubt.

None of the points raised in the guidelines on project design can easily be applied to the project. Objectives, strategy, results, impacts are in essence repetitive, providing an overview of what is sought but providing little concrete information on and development of implementation methods and techniques, costs, monitoring measures and indicators etc. The project provides a series of very good intentions and a strong argument for local participation but little concrete ideas of how things will be implemented and achieved.

The project has a sound design incorporating different and complementary activities, as well as actors from different levels. As in the previous project and similar projects in Central America, the establishment of community networks to operate early warning systems within the framework of risk management is proving effective to promote communities to address this issue of disaster reduction in a more participatory fashion. The fact that the project is also being proposed by the National Disaster Management Agency of Costa Rica replicating successful projects in other areas of the country is an element giving sustenance to a sound design which is being improved over the years. The only concern at this time is the high budget allocated to the project when compared to other projects in the region which have the same targets. It is believed that the project could be executed with less funds than those proposed, due to the fact that the project is an extension of an earlier project and thus there is already a know-how regarding the agencies executing the project and the communities involved.

Sustainability aspects are developed to the extent that local participation and building on previous work are important aspects developed in the project. However, the way in which the project relates to existing local, regional and national structures is not dealt with, nor is the topic of partnerships incorporated in an explicit fashion. Mechanisms for guaranteeing post international financing at a national and local level are not dealt with. The project lays out advantages, capabilities and finally problems to be overcome in the national organisational and promotion level, but the project does not really tell us how it will overcome these in order to guarantee sustainability and replicability.

There is an concern regarding sustainability when it is targeted at local actors only. While positive experiences exist in Central America, it is important to recognize that the best examples throughout the region are those in which sustainability is shared among local and national actors. Furthermore, sustainability is expected to materialize via a change in mentality or culture of the population at risk, which may not necessarily be achieved within one or two projects as other experiences in Central America have demonstrated. Furthermore, while the partnership with Radio Netherlands and UNICEF may not be sustainable, the partnership has proven useful in the past through an initiative via projects which are executed jointly.

As developed, the project document deals essentially with local participation and training and the strengthening of networks. It talks of previous work but does not let us know what that consisted of. Therefore, as it is presented now we are left with uncertainty as to what is being built on what. ERW is mentioned as something to be implemented or improved on but how much is in place as regards each of the four recognised elements of EWS we can not be sure of. Thus, it is recommendable that more background information be given and that the general ideas presented be developed in a more concrete, measurable and implementable form. Links and relationships to existing local, regional and national organisational frameworks should be developed and the notion of sustainability widened from the aspects dealing with participation and networks, per se.

Given the amount of funding, it would be advisable to request a detail budget and then to analyze the financial feasibility of the project. In particular, it is believed that because the project is a continuation of a previous project, there might be overestimations of costs. This issue should be identified before proceeding with the project itself.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 23/06 (MH)**

**Community Empowerment for Effective Early Warning System  
(Philippines)**

Assessment by the EWC III Review

A) Overall Assessment

The increasing trend in tropical cyclone damage was based on only 3 years of statistics, which was too small a sample to be statistically significant. The trend could be the result of other short-term fluctuations in, for example, the number of tropical cyclones affecting the Philippines, the severity of these tropical cyclones, etc. Even given an increasing trend, there is no solid evidence to demonstrate in this case the different degrees of significance of the links between increasing damage and possible causative factors, including forecast accuracy, warning dissemination, communication with the public, public education and preparedness to act, emergency response of the public and the society as a whole, emergency management infrastructure of the local communities, etc. The impact of these possible causative factors has not been evaluated and compared. The proposal does not indicate a comprehensive and cost-effectiveness plan covering all causative factors with deficiencies. The need to conduct an information, education and

communication campaign is conceptual. There is no quantitative evidence to show that this is the most appropriate and effective way to proceed. It also appears that it is a piecemeal approach.

There was a sound understanding of current disaster risk and a survey has identified that in spite of current warnings, safe and adaptive behaviour by people did not occur. Would be useful to outline current early warning procedures and perhaps explore the relevance of the information to current behaviours.

The needs have not been clearly identified. The expected impact is doubtful. The development of survey questionnaires or the formation of a working group should not by itself be an objective of the project. The project has not addressed any of the four elements of effective early warning systems.

Sound objectives and methodology which will identify success indicators has indicated understanding of successful early warning system structure and process - current system to be further underpinned by community education and awareness. Probably needs to be more focus on the partnerships between the organisations and community (as distinct from the engagement of the community for the purpose of the survey and community education)

No clear needs and objectives. The effectiveness of planned activities is highly doubtful.

Very sound project design - Good research and project methodology - Perhaps the introduction of a multi-agency reference group to ensure that the research process continues to address all stakeholder issues would be useful. Appears to be cost-effective and incorporating in-kind and funding from other agencies which will maintain partnerships and ownership

It is not clear from the project proposal how the effectiveness of the work done can be sustained. The use of an information and education caravan for public education and service delivery is highly inefficient and the results short-lived. The project proposal also does not indicate any national commitment of recurrent financial resources for long-term operation.

There needs to be more thinking about how the results of this research project can be incorporated into the existing local government and agency systems related to early warning and disaster response. How will recommendations from the research be developed and incorporated into longer term plans. How can inter-agency partnerships be further strengthened.

I would recommend some minor modifications based on my comments which would strengthen this proposal. However the overall approach adopted in this research project could have benefits to the general knowledge about early warning as it is adopting an evidence based approach

## B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

Risks are identified based on historic events, and most of the needs are identified. The current levels of risk and vulnerability are not quantified, but are evident from historical events. The entire population of PNG is affected by earthquakes, while the coastal and island communities are effected by tsunamis. The equipment gaps in the existing early warnings system are clearly identified, however, shortfalls in communications from the warning center to the local user are not adequately addressed.

Papua New Guinea had been affected by recent tsunamis (1998) and in the past, due mostly by local and regional earthquakes. Most of the Papua New Guinea coasts can be affected by tsunami waves, at least several hundred of thousands of people are living in hazardous zones. A local tsunami warning system must be implemented in Papua New Guinea, connected as proposed in the project, to the regional systems as the Pacific Tsunami Warning System (Unesco/IOC).

The proposal clearly states the objectives of the project. One of the objectives is an effective communications system to disseminate warnings to the vulnerable population. However, a solution for the communications shortfall is not addressed. The proposal primarily concentrates on the needs of the warning center to develop warnings, but not on getting the warnings to the vulnerable population. There are no quantitative measurement indicators for success, and the evaluation process is rather informal and undetermined. The project would benefit regional and Pacific-basin tsunami programs. The proposal assumes support that is not yet available or committed. Governmental support is indirectly suggested in the form of a Draft national disaster plan. No formal Governmental commitment is identified.

This project only address the technical monitoring and alert system. There is no reference to other projects or current development of the 3 other elements (Risk assessment, Dissemination of understandable warnings to those at risk, Knowledge and preparedness to act). In Papua New Guinea the 4 elements must be improved to create an efficient national tsunami warning system. Consequently the 3 other elements must be added or the connection to other programs and proposals must be presented. Data sharing must also be added, including provision of real time data of the broad-band seismic stations (Activity 1) and of all the Tide gauge stations (Activity 2). Tide gage stations must be part of other international sea-level networks as GLOSS. Seismic stations must be part of seismic federation network.

The project design leaves several unanswered questions. The need for telemetry downloading hardware and analysis software for seismic and tide gauge equipment is identified, but is not included in the budget request. There is no explanation how the center will disseminate the earthquake and tsunami information to the vulnerable population. While potential regional partners are identified, there is no clear indication that formal partnerships have been established for this project. The project is compatible with existing practices, but does not improve on the communications shortfall. It deos improve on the data acquisition shortfall. The funding profile is confusing in that it states the need for \$3,167,000 dollars (US), but indicates that no funding is sought or requested from other agencies. Perhaps the entire amount is requested from EWC-III,

with no Governmental contributions, or the entire amount is being provided by the PNG Government.

1 Seismic Network The location of the seismic station is not included in the proposal. This network must cover most of the PNG territories. The stations will be located at several hundred kilometers far from PMGO. Telemetry transmission is not recommended for distance greater than 100 km, when repeater must be implemented. VSAT transmission is recommended considering that the annual cost of transmission is high. Secondly, the proposed spare stations are unacceptable: 1 spare seismometer, 3 spare digitizers are needed for at least 10 stations implemented. This must be modified in the proposal. The list of equipment must be detailed.

2 Seal level station network The location of the proposed network is not presented. A typical pressure sensor tide gage station cost is around 20 000 US\$, included free satellite transmission (GTS) and solar panel supply. 10 000 US\$ must be added for the installation (man power, infrastructure..). Spare parts must be estimated. 2 Units are probably needed. 10 stations and 2 spare units cost would be around 340 000 US\$ Local transmission can be added for the stations located close to PMGO. Sea-level data software must be implemented to read and display the data.

3 Backup Power supply One important item missing in the proposal is an independent and backup power supply system (in general solar panels). Where a large earthquake occur, most of the power supply are destroyed. Solar panels is one of the most robust backup for seismic and tide gauge stations. The satellite (VSAT..) transmissions must have its backup power supply system. Processing software: an automatic seismological processing software must be implemented to detect the seismic waves, locate the epicenter and compute the magnitude, and to alert the seismologist. Information about that matter must be provided.

Sustainability is in question. Maintenance and spare parts are not addressed for the new equipment. Technical training is also not addressed. There is no concrete plan for sustainability, and the terms "anticipating" and "hoping" with respect to sustainability suggest considerable risk for failure. A firm national commitment for sustainability is missing. Regional partnerships could be formalized and committed, but it does not appear that formal commitments have been pursued. If the PNG Government actually implements initiatives as spelled out in the Draft National Disaster Plan, sustainability could be high. However, any commitment from the Government appears premature.

There is no evidence of the long term support from the PNG government and other donors as Australia. Nevertheless, Australia has offered to several countries to enhance their monitoring networks. PNG will be one of those. Consequently, it is strongly recommended that most equipment requested in this project proposal must be the same as those of the Australia offer, or same as the other networks (PTWS, CTBTO, GLOSS) to contribute to the sustainability of the system.

The proposal needs to be rewritten to address the local communications concerns, the maintenance and spare parts concerns, training concerns, budget concerns, and sustainability concerns. More formal regional partnerships need to be identified. As written, the proposal has a high risk of failure.

I support that project if the proposal is modified in accordance with the recommendations : 1 The 3 other elements of a tsunami warning system must be added (Risk assessment, Dissemination of understandable warnings to those at risk, Knowledge and preparedness to act). Ministry of Civil Defence, Emergency managers and ministry of education must participate to the dissemination of Warning and awareness and preparedness activities. 2 Seismic Network Provision of real time

data of the broad-band seismic stations to the PTWS. Seismic stations must be part of seismic federation data network. This network must cover most of the PNG territories. Telemetry transmission is not recommended for distance greater than 100 km. VSAT transmission is recommended considering that the annual cost of transmission is high. The proposed spare stations are unacceptable : 1 spare seismometer, 3 spare digitizers are needed for at least 10 stations implemented. 3 Seal level station network The location of the proposed network must be presented. The tide gauge real time data must be transmitted to the PTWS. Tide gauge stations must be part of other international sea-level networks as GLOSS. Typical sea-level stations as those currently installed by PTWC or University of Hawaii are recommended : 10 stations and 2 spare units cost is about 340 000 US\$ Local transmission can be added for the stations located close to PMGO. Sea-level data software must be implemented to read and display the data. 4 Backup Power supply Independent and backup power supply system (solar panels) must be included in the proposal, for seismic and tide gauge stations. The satellite (VSAT..) transmissions must have its backup power supply system. 5 Implement similar equipment as the other networks (PTWS, CTBTO, GLOSS).

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 27/06 (MH)**

**Community Based Multi-Hazard Early Warning and  
Dissemination Systems Project  
(Bangladesh)**

Assessment by the EWC III Review

A) Overall Assessment

Risk-based on good hazard map Not clear why the two districts are selected

Objectives are well written A all-hazard approach or multi-hazard approach is a catchy word; however, the reality is that early warning system depends on each hazard as it is quite different in nature. An effort to effectively disseminate the various warning to community in a uniformed way is highly valuable.

Each activity is good. The problem is that there is no clear description of actual methods to achieve the goals. Without having a clear strategy, the project would not be successful. Exactly how to achieve the good objectives are missing.

A good partnership is observed. In this project, the role of Meteorological Agency is critical. More weight should be on their activity.

The proposal has good objectives, but these are not easy task. Unfortunately, there is a considerable weakness how to achieve them practically. More preparatory work should be applied. (For example, research on good dissemination system)

The proposal appears to be based on a thorough assessment of risk and vulnerability in the areas planned for a prototype all hazards warning system - a large and highly vulnerable population exposed to multiple potential risks. It appears existing warning systems are largely single hazard based, hence the need for an all hazards approach. There is not a lot of detail though on the existing warning systems and the feasibility of building on existing systems rather than what seems a "all new" approach.

The project, if successful, should have a positive impact, especially on disaster managers and key community groups. It will be a substantial challenge to effectively engage with the rural communities. The proposal recognises the importance of an "end to end" system and addresses quite well the need to address the four elements of effective early warning systems, though there is not much detail on the present state of development of the technical systems and plans to improve them, though I note that the supporting partners include agencies with technical capacity. Effective monitoring and predictive systems will be a key success factor. There is little detail on how the effectiveness would be measured.

The project appears to be well designed and the approach of a pilot scheme is cost efficient. It is not clear how the monitoring and evaluation will be done - it is mentioned but detail is light. Generally a sound approach though.

The strong engagement of government agencies, technical expertise, and international assistance from the Asian Disaster Preparedness Center indicates that the proposal has fairly high prospects of sustainability. I am not clear though about the extent of development required for the technical systems and possible ongoing maintenance costs.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 28/06 (MH)**

**Early Warning Dissemination Systems Project for Water  
Induced Hazards in Bangladesh  
(Bangladesh)**

Assessment by the EWC III Review

A) Overall Assessment

The project has identified the major hazards and also the areas and population at risk. The gaps in the current early warning system have also been identified and will be addressed. The area is one of obviously significant potential impact and addressing the issues in a multi-hazard manner appears sound. The study is focused on two "pilot" areas and the risks associated with these areas have been identified. The proposal suggests that the existing systems are uni-hazard centric and yet all have weather/rainfall as the key driver. The identified gaps are a multi-hazard approach, moving from a response driven situation to be more proactive with improvements in timeliness and communication of warnings.

The project is designed to cover all hazards and to instruct local communities on what to do in case of extreme floods. Exemplarily the project concentrates on two areas of Bangladesh. The contact to these communities has not yet been established, and it appears that it is a new project initiated by a group whose previous experience is mainly in general GIS applications. The actual forecast is not part of the study, the part of the early warning cycle considered is the preparedness stage. Apparently, the project will provide an input into the general procedures to be used by the FFWC of Bangladesh.

Known and developed risk maps for different types of hazard are to be combined into a multi-hazard map. The large scale maps are to be reduced to community level, and will be developed for two pilot communities. Such maps may be helpful for, and shall be part of, a general risk assessment. Output is a community level information package. The project is to be conducted by a CEDIS, which appears to be a government agency, in cooperation with the Forecasting and Warning Center for Bangladesh. The final results are to be transferred to local communities by the Asian Disaster Prevention Center (ADPC).

Technical issues are well covered and some elements of the social aspects (response), however other social aspects (cultural, life styles, existing industries, etc) are not addressed. The objectives are tailored to address the gaps, i.e. scientific and technical innovation to address system elements and stakeholder consultation to address communication and community involvement. However no effort appears to have been made to determine specifically why the existing systems are not working, that is, is it really scientific or technical capability or governance, or perhaps there are social and cultural issues that need to be addressed. It seems to still be a top down approach. The words are all there, but the processes to be used are not and the sustainability of these processes will be the key to success. No performance indicators or measurements are provided.

The stepwise approach appears adequate. One aspect requiring further information is how a multi-hazard centre may work. As indicated before the thoughts are there, but the operation of a multi-hazard centre with differing priorities and pressures and reporting linkages needs to be carefully developed and implemented. The project in its limited scope is feasible, and the outline of things to do is stated, although neither details of how the steps are to be taken, nor a work plan is given. However, a clear description of the work distribution for each of the agencies involved is given, and the outcomes expected for the different levels: community and national are stated without detail. Although the partners to the project apart from the principal investigator (CEDIS) are experienced, it seems that the CEDIS lacks the experience with projects of the proposed kind. The cost of the project is modest.

All of the relevant agencies appear to be involved and provided they all contribute and are involved in the follow-up activities, the project has a strong chance of success. However, locally based agencies also need to be involved if sustainability is to be achieved. Sustainability of the consultation mechanisms is addressed, but not sustainability of the technical solutions, nor the multi-hazard approach. Why are existing systems not sustainable?

The outcome of the project in terms of maps and tools for disaster mitigation in the communities is to be used by the Flood Forecasting and Warning Center (FFWC) of Bangladesh, and will also reside in the possession of the communities. Users are to be trained, and the GIS platform generated may also be useful for other purposes, both for the FFWC and the local communities. The results are to be disseminated by the ADPC, which has considerable experience. The knowledge improvement gained from the project may be useful also in the future of training activities by the ADPC.

Technical issues are well covered and some elements of the social aspects (response), however other social aspects (cultural, life styles, existing industries, etc) are not addressed and governance mechanisms to involve local and non-governmental groups need to be better described. The proposal needs to give more information on the methodology that will be employed to involve all stakeholders (especially those at the local level) in the system, planning, development and application phases. Social impacts need to be given a wider consideration. Details of existing and future monitoring, modeling and forecasting capabilities would also be helpful, in particular information on why current systems are not working or sustainable. There are three proposals all targeted at Bangladesh. These projects appear to be independent proposals (some with the same groups), but not with clearly identified linkages. Some coordination may be of advantage. The steps outlined in the project are given in terms of keywords, and need to be more detailed. A breakdown of the costs, in terms of a work plan, would be useful.

#### B) Specific Recommendations

1. Social-economic aspects (cultural, life styles, existing industries, etc) should be addressed in a separate section of the proposal.
2. Further details on why the existing systems are not working should be provided along with more clarification on the scientific, technical capability and governance factors.
3. The sustainability of the project should be addressed along with a description of performance indicators.
4. Details on how a multi-hazard centre would work should be provided as the operation of a multi-hazard centre with differing priorities and pressures and reporting linkages needs to be carefully developed and implemented.
5. A work plan should be developed which includes a description of the key community and national takeholders.
6. The proposal should include more information on the methodology that will be employed to involve all stakeholders (especially those at the local level) in the system, planning, development and application phases. Social impacts need to be given a wider consideration.
7. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 31/06 (MH)**

**Flood Disaster Preparedness for the Vulnerable Communities  
in the Province of Kampong Cham  
(Cambodia)**

Assessment by the EWC III Review

A) Overall Assessment

In reading the MOU document between the Government of Cambodia and the NGO Action Contre la Faim together with the Log Framework Matrix, there is a very well considered and usefully presented basis for the project needs based on an appropriate risk assessment. The needs and risk assessment provides a good rationale for added ews capacities as well as wisely relating it to a specific area for emphasis and impact.

While the overall needs to enhance ICPAC capacities and deliverables are well described in general terms, the actual risks are kept implicit, and not clearly spelled out. The description is more focused on general technical aspects of the project proposal, than on explaining the potential beneficial impact on people and their lives and livelihoods. Moreover, for an entity established in 1989, it would be very important to provide background information and ex-post reviews or lessons that could help validate the new proposal.

With two exceptions about indicators explained below, the focus and objectives of the project are well considered and presented in the Log Framework, as long as the case understood by the reviewer that the specific project forms a portion of the overall activities covered by the MOU. The objectives are appropriately concentrated and focused on the engagement of stakeholders and their specific INFORMATION responsibilities and activities. It is understood or assumed by the reviewer that the additional and requisite activities related to the capacity development to the stakeholders have in fact be pursued under the ACLF programme outlined in the MOU since its inception in the beginning of 2005. There is one inconsistency which should be corrected: While the project, as well as the larger MOU is dedicated to conditions and needs of Flood disaster preparedness and related ews, the expanded subject of "& drought" is introduced in four occasions in the Log framework under Objectively verifiable Indicators. This should be deleted as it is inconsistent with all other aspects of both the project submission and the MOU, and such an inclusion would invoke an entirely different cast of stakeholders, time frames, and relevant types of activities or information requirements than are otherwise addressed here. A second improvement would be the determination of more suited Objectively Verifiable Indicators for Results R.2, as the number of trainees who attended workshops alone do not constitute a success factor, and it is even less valid to cite the number of handbooks distributed. Neither of these

indicators is related to substantive accomplishments of "handing over capabilities" to local or national stakeholders.

Of the 3 objectives laid out in the proposal, objective 2 is probably the one that is the least convincing. The link between more tailored EW products and vulnerability reduction remains largely theoretical. Certain activities such as "develop climate EW risk management tools for use in conflict early warning systems and response" (activity 2.2) are very unclear and appear fragile from a methodological point of view. Objectives 1 and 3, on the contrary, which seem to be linked to enhancing the quality of on-going activities, seem to be generally acceptable. Measurable indicators are not clearly outlined.

Largely agreed that the project is well conceived and addressed AS LONG AS the specific activities outlined in the project are complemented or accompanied by evident and demonstrated progress on developing the capacities of the NCDM, PCDM, DCDM. It is also imperative that additional information be provided regarding budget and planned expenditures. It is understood by the reviewer that the proposal is additional to and complementary to the capacity-building activities proceeding apace by ACLF and the Government of Cambodia under the MOU during 2005. IF this is NOT the case, then there are real questions of an operational base through which the proposed activities can be carried out. Partnership basis is explicit and seems to be a core element of the proposal although it is important that this element be conveyed in more explicit tasks, roles and specified involvement and terms of capacity development rather than only suggesting the provision of more and better information access and use. Attention to monitoring and evaluation is explicit in references made throughout the Log framework There is a significant omission at the present stage of submission as there is no detailed reference or details about the budget and fund allocation other than that it totals \$180,000. It is unclear from any documentation provided if this is a portion of the Euro 262,000 referred to in the MOU (supposed to be for two years 2005 -06), or whether it is additional to that ? If additional, as it should be, there is no indication of intended use of budgeted funds. This must be elaborated before project can be accepted.

The project proposal does not seem to be organized as per the proposed format. Although a 10 pages format by itself poses some limits in terms of space and content, the proposal would benefit from a more critical examination of what is realistic to be achieved, and what are the priority activities, as opposed to laying out a multitude of activities which appear often de-linked from each other.

Sustainability is not specifically referred to beyond the possibility of expansion to "one other province by NCDM" (which the reviewer suggests should preferably be an adjacent rather than distant province so as to capitalize on neighbouring partnerships and/or river basin conditions, information, etc.), and that is a weakness. However it is noted too, that institutionalized Cambodian capacity-building is integral to the larger and accompanying MOU plan of actions. Clearly the proposal is grounded in the recognized importance of institutional capacity building. Much therefore depends on the demonstrated success of activities under the MOU. It is also a reasoned concern that "International aid continues to the Government of Cambodia" cited as a crucial precondition in the Log Frame.

A critical challenge in the implementation of this proposal seems to be ensuring the effectiveness and efficiency of the network of governmental partners. On this critical point there is very little evidence of any background analysis or lessons on potential constraints, limitations as well as opportunities. The sustainability of the project would be in the long term ensured by member

states contributions. However, the project has now been in existence for over 15 years and it is unclear why an additional 5 years would be required to transfer to member states at least part of the financial responsibility of the project.

The project is well conceived and presented, importantly grounded in using information and educational activities in developing capacities. There are some gaps that need to be filled in before approval is granted: i) clarification of programmatic relationship between the MOU described activities and time frames vs. those proposed here in the Log Framework, and ii) the need for budgetary specifics

This project addresses very important capacity building and systems development aspects of ICPAC. While in general terms the project seems to be acceptable, it lacks the level of details that would allow for an informed recommendation. Activities outlined in the project are kept fairly generic, there is no plan of action, nor it is understood what are the priorities among the range of activities that are being proposed, and what are the risk factors and key assumptions of the proposal. More importantly, the project would have benefited from any reference to any recent review or evaluation of ICPAC activities and plans. Considering that the institution has been in existence for over 15 years, the availability of such feedback from reviews, audits and lessons learned exercises would certainly allow corroborating and validating the proposal. Another aspect worth strengthening is the link with partners and other actors. While it is clearly understood that the project would be implemented through a network of partners at Governmental level, it is not entirely clear how this will be done in practice. Recommendation: Suspend final judgment pending availability of more details, review of proposal, and development of action plan. In view of the relatively high costs involved, it would be preferable that potential funding is made available for an initial two years period, with a possible extension, pending re-assessment and validation of results and achievements.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 34/06 (MH)                      Early Warning Systems for Natural Hazards in the Binational  
River Basin Catamayo-Chira  
(Ecuador, Peru)**

Assessment by the EWC III Review

A) Overall Assessment

The area selected for the project is one of the most affected in Ecuador and Peru by El Niño phenomenon, which causes floods, land and mud-slides. The current level of risk of the area is high, potentially affecting 585,000 people in 17,200 Km<sup>2</sup> of territory. The project proposes to establish an automatic hydro-meteorological network to be used to generate early warning information and alerts on mud slides and floods, which will complement with and strengthen existing early warning systems through provision of real time data that could be easily converted

into timely information for preventive actions and warnings. The needs, justification and risk assessment are sufficiently indicated.

Main objective and impact of the proposal are well established, with elaboration of potential secondary benefits, covering from impacts on human life to infrastructure, agriculture and management of the water and land resources. At the community level, the project is expected to benefit the entirety of the population leaving in the basin. In general, the proposed indicators and means of verification are sound; however, there is room for improvement.

The impact is clearly defined. The proposal addresses the four elements of effective early warning systems; it is realistic in terms of activities, with a strong partnership component both for participation and synergies, as well as international (bilateral) co-operation. The project is well designed with clear activities and institutional participation. The project has been formulated within the context of existing national and bi-national institutional frameworks where government departments from Peru and Ecuador will play the leading roles. This is a very good setup as, in general, ensures sustainability of projects and programmes. The proposal confirms the commitment of involved organisations responsible for the implementation and monitoring, to the continuation of the project beyond its time-frame. Currently, the proposal presents sustainability only in general terms.

The proposal is very strong in the needs and risk assessment with a solid understanding of problems and potential solutions. The project is designed with participation of actors that know the subject. This project is essential not only for the development of EW system, but for the sustainable development of this region between Ecuador and Peru. It can also contribute to maintain the peace between these countries and enhance their relationships.

#### B) Specific Recommendations

1. The indicators should be improved as follows: Objective 2 proposes three indicators; one of them refers to hydrological models for the basin—it is not clear if such models will be developed by the project or generated through synergy with other projects.
2. With reference to the indicator ‘a telemetry network for hydro-meteorological information’, the best mean of verification should be the telemetry network itself.
3. Means of verification for objective 4 should add reports of the meetings/workshops and list of courses.
4. The means of verification proposed for objective 5 should be better linked to the objective; i.e. number of projects for EWS or number of EWS installed [and operational] in other areas should make specific reference to the Catamayo-Chira Basin EWS.
5. The proposal should provide a more specific time-table (Gantt-chart) to better visualise the different activities through the year(s).
6. The proposal needs to better show (from a cost-benefit point of view) the links between the proposed activities and other existing and complementary initiatives carried out or being carried out by other organisations.

7. The proposal should incorporate the participation of relevant international organisations that could bring expertise and eventual resource support to the initiative.
8. The proposal should reflect better the links between hydro-meteorological and environmental data and information.
9. In terms of the monitoring and evaluation of the project, it is suggested that the proposal include a provision for the participation of representatives from the donors, to add to the transparency and governance of the project implementation process.
10. The proposal should be explicit on how sustainability will be achieved both in institutional (including competences) and financial terms, and indicate the involvement of the local actors.
11. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 35/06 (MH)**

**Sustainable Mitigation of Hydro Meteorological Disasters in  
Cities of Afghanistan  
(Afghanistan)**

Assessment by the EWC III Review

A) Overall Assessment

This very ambitious and costly project is designed for determination of most components - without forecasting - of the flood management cycle. The objective is to deliver a Flood

Mitigation Program - a blueprint for action, with general applicability, but exemplary application to the three target cities in Afghanistan. The background for the project is well documented, but it also becomes clear that the ambitious approach to be used is likely to suffer from the lack of data. The project involves modeling of typical floods for the cities, for which a hydraulic model is to be developed by a commercial firm (Danish Hydraulic Institute) which plans to apply a standard hydraulic model to determine flooded areas for the given floods. Because the forecasting part of the cycle is not covered, I rank the project at 4, although from the general concept it deserves to be ranked as excellent.

Should the project be finished successfully, it could be very useful for the three target cities. It results in disaster management plans for the target cities based on hazard maps. It is not clear how the target administrations are involved. It seems that the project outcome will be mainly of academic nature: dissertations by the two graduate students and papers by the (very many = 3!) professors. I also fear that the effort to be invested in the project is probably not well justified in view of the available data base - so that the project must rely on indirect observations, such as remote sensing information, and large scale maps, which usually are not sufficiently accurate or detailed for the development of a local disaster management plan.

The proposal should be more early warning oriented.

The project is organized with UNDP-AIMS basically acting as facilitating agency, which is responsible for establishing contacts and acting as intermediary between the project development team of the University of Oklahoma (UO) and the communities. It is difficult to assess the capability of the principal project partners, the professors from the UO. They are experienced geographers, with one partner (Prof. Meo) known for reports on flood management in Tulsa, Oklahoma. But there is no indication (apart from involvement with a small 3 month pilot project in Afghanistan, which was finished in October) of their experience in projects of the planned kind. The project work plan is excellent for a theoretical study and includes all the elements of a sociological vulnerability analysis in combination with modern GIS technology and internet capability. The project plan includes hydraulic calculations for determination of the flooded area. For this the project organizer intend to use DHI software, which shall be purchased, including advice. It seems that apart from this service DHI is not directly involved. The involvement of SEEDS is commended. The Indian organisation SEEDS has considerable experience, and will be a guarantee for passing on good results to the cities. The contacts to the cities and the implementing authorities will only be established in the course of the project - In view of the limited experience of the UO team, it seems to me a much too ambitious project. Although the plan looks interesting, it seems to be much too expensive. I think the project is top heavy: with many administrators, and professors traveling -at extremely high per diems (of 550\$ US!). It is for this reason that I rank this part of the project as 3

The project's scope is too wide (disaster mitigation). It should focus more on the establishment of early warning system for floods and flash-floods.

The sustainability depends on the transfer of the plans to city authorities that know how to use them and make it a point of continuously upgrading the plan. At this time, there is a need for planning disaster mitigation strategies for the cities of Afghanistan. Apparently UNDP-AIMS is to maintain the contacts with the city administrations. However, it is doubtful if the project output can be sustainable. Already use of the GIS platform ArcInfo requires purchase of licenses that may be too costly in the long run, and other elements of the extensive database (all the social

data!) may change continuously and involve constant maintenance of the plans. The project has a very high theoretical value, but it must be questioned if it can result in a realistic work plan.

I cannot see that the lack of experience of the UO project team justifies a project of this magnitude. On the other hand, the project proposal is well prepared and extensively researched - almost a textbook on disaster management, and an important aspect of the early warning component - namely the planning for disaster management - is well described. From a theoretical point of view, the project is excellent as a case study in vulnerability, and with conclusions derived from it for disaster management plans. However, it is unrealistic to believe that such an extensive theoretical study can lead to a sustainable plan. I recommend that the project be considered, but on a considerably reduced scale. I can imagine that a fact finding project could be initiated, which should find out what information is available for basing a risk management study on - for example, no risk assessment can be made without flood statistics, and there is no indication that these are available. The project team is aware of the gaps in information, and data gathering is supposed to be part of the project. However, I think that a preliminary effort in making a data availability study should be conducted before the ambitious project is initiated. In particular, the project should start from an analysis of needs from the point of view of the stakeholders - the present study is an academic top down approach.

The proposal is too long (30 pages); the structure does not follow the guidelines. It has to be re-drafted according to the guidelines and submitted again.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 37/06 (MH)**

**Capacity Building in Disaster Prevention and Preparedness**  
(United Republic of Tanzania)

Assessment by the EWC III Review

A) Overall Assessment

The project identifies drought, hurricanes, floods, tsunami, earthquakes and volcanic eruptions as the major causes of disasters. However, from the document it is not clear, which of the hazards constitutes the major cause of disaster. The document does not indicate whether there is a capability to forecast and disseminate warnings for these hazards. Awareness raising is a key for appropriate disaster risk reduction strategies. However, awareness raising activities should not be sporadic or isolated. It would be desirable that, the activities based on this project could be maintained and sustained.

The project is not accompanied by a formal risk assessment - nor does it refer to the vulnerability assessment undertaken a year or so ago by UCLAS. Tanzania is repeatedly drought-affected. This is not reflected in the description

The objectives of the project do not allow a clear assessment of the impacts of the project. One of the major activities of the project is related to the possibility of establishing an Emergency Operation Centre. From the document it is not clear whether the centre will have the adequate support (legislation and political) to operate once the project has ended. The production of a TV documentary, drama videos, posters and other material could be an effective way of raising awareness, if the initiative is integrated within an existing (or to establish) early warning system. The project lacks measurable indicators for most of the activities.

The objectives are not particularly closely linked to the focus on early warning - and there is no specification of the particular risks this initiative will address. The preparation of five documentary and drama videos is a great idea - also the undertaking of hazard and vulnerability assessment. However, these should be informed by research first...

Most of the project activities are achievable. However, the establishment of an Emergency Operation Centre does not appear to be feasible. The cost effectiveness of the project is not demonstrated. It would require further expansion.

There is no clear implementation plan or description of institutional arrangements provided. It is difficult to determine how this will be implemented, including the likely partners for implementation. Every one of the activities identified requires significant organisational and management capabilities.

The activities of the project seem partial. Although the project would produce material that could be used in future, it does not create mechanisms for the continuation of the activities in future. There is a strong dependence on the project funds. Participation by other agencies of government are not indicated.

It is also unclear how this would be sustained/updated - i.e. links with the media or teaching/learning partners for use of the videos, posters and other materials. Managing the materials, updating the vulnerability assessments and mainstreaming the materials into key institutions is a long-term and challenging undertaking.

The project should be reviewed to reflect the components that are not clearly articulated in the document. A better description of activities and their costs would be desirable.

This proposal has some really useful elements - I think getting support for establishing an EOC (or should it not be a 'Disaster Risk Management Centre?') is a good start - if there is no current centre that fulfils this function. At national level, there should be a focal operational centre for disseminating information on recurrent risks and hazard processes. The priority should rather be in establishing your basic institutional arrangements and conducting a coarse risk assessment to determine national priority risks - before progressing to video production - which should be based on identified priorities. I'd pull back on all but two of the proposed activities - the consultancy to determine needs for a national centre and the national disaster risk assessment.

## B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

- a: (Such a pre-project proposal could be commended for funding.)
  - b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)
- 2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 39/06 (MH)                      Disaster Awareness in Schools**  
**(Burundi)**

Assessment by the EWC-III Review

A) Overall Assessment

The project identifies local communities as the segment of society that needs to receive and understand warning so as to enable appropriate responses to be adopted. The project builds on a technical capacity for early warning at the expert level. Thus, the project will bridge the gap between existing capacity and a weak component of the early warning system

The project draws from past experience in the implementation of early warning project. It is also rooted in existing structures capable of contributing to the implementation of the project. A multidisciplinary approach is pursued in the project implementation, which is to be commended.

This project is focusing on education and public awareness only. No risk assessment is included. This aspect is very relevant to any early warning system but there is no mention of how it would be linked to early warning systems.

The objectives are quite clearly stated, "to increase public awareness to better understand risk and vulnerability reduction, to convince public authorities to engage in putting in place disaster reduction policy including early warning systems, stimulate interdisciplinary partnerships and networks, and to improve scientific knowledge". However these objectives are much more ambitious than the proposed activities and the scope of the project. The proposal does not address all the 4 elements for effective early warning systems.

The goals are much more ambitious than the proposed activities. Evaluation is proposed to be done by the national committee of the implementing organization (YSDR).

The sustainability relies totally on the capacities of the local leaders that would have been trained during the 12 moth project period, and thus depends on them.

If linked to a solid early warning program at the national level, this project could be a good complement to raise awareness on disaster reduction and to sensitize policy makers. The project seeks to build capacity which will be adopted and integrated by existing structures. A positive aspect of the project is the partnership it will establish, between the disaster management structure and training institutions.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 40/06 (MH)**

**Youth Contribution in Disaster Reduction  
(Burundi)**

Assessment by the EWC III Review

A) Overall Assessment

Apparently there is no structure for early warning in the country. While the project could raise public awareness on the major hazards in the two provinces proposed, the document does not indicate whether there are institutions issuing early warnings in the country that could then be disseminated at local level

This proposal adds to and expands on an already funded ProVention initiative. There is no formal risk assessment yet - although this is in process. Robust risk data are not to be expected in Burundi, due to the impacts of armed conflict. Moreover, Burundi is still introducing a basic institutional capacity in disaster risk management, so its governmental capabilities are limited.

The justification of this project is rather "total lack of public awareness", and the lack of national early warning system. The project document does not really answer to the questions below. The project aims at developing, updating and disseminating risk maps and related information to decision makers, general public and communities, it will also develop systems of indicators of disaster risk and vulnerability in two selected provinces. However the project document does not describe HOW these tools would be developed.

The project has the potential of making significant impact in local communities by raising public awareness and establishing a code of conduct on how to react when a warning is issued. The project does not build on past or existing initiatives. There is a risk that the project will be an isolated initiative that will not find the appropriate support in the existing structures.

In the absence of existing data on disaster risks, the project seeks to develop locally-relevant capabilities in early warning for locally-identified risks in two provinces. The project aims to establish the capabilities for effective warning systems - which currently do not exist. The project, however, is quite ambitious for the short time-span allocated.

The objective/expected impact as stated in the project document is: "Our objective is to increase the public awareness on disaster and the establishment of a national early warning system that people are centred beginning by the establishment of a local community structure of early warning system." Comments: Although the ultimate goal of the project is quite clear, the proposal does not define the expected impact, nor the measurable indicators. The project takes into account at least 3 of the 4 elements of effective early warning system, however, it is not clear how the technical monitoring and warning service would be included/linked to this project. Since such

service seems to be absent at the national level, it is unclear how the project can benefit of technical data.

The proposal shows an interest in addressing disaster management. However, it is based on a single initiative that does not include other players or stakeholders in its implementation. This could lead to reduced ownership, particularly of policy-makers.

One interesting element of this proposal is its emphasis on youth, and mobilising youth as a resource in disaster risk reduction. In this context, the project achieves an important objective in developing post-conflict human and social capital - which is an important element in reducing vulnerability. What is not clear in this proposal is how this initiative links to communities and local structures - especially in the absence of good communication networks. The project implementor is very energetic - and enthusiastic - and 'makes things happen'. The budget is very modest for this significant initiative ... but probably appropriate for a small organisation in Burundi.

In general, most of the aspects below are included, but most of them are described in a very general way. The monitoring and evaluation seems to be the weakest point (at least the project does not describe this aspect properly). It seems that the country/community is taking its first steps towards early warning and national risk reduction strategies, so therefore, it may not be possible to build on "experience and capacity of partners". The project proposal would need to be evaluated in the context (and compared to other possible submissions from Burundi or from Africa in general.)

From the project proposal it is not clear whether there are currently institutions providing early warning. The project seeks to develop an early warning system, which is not associated with an existing structure. This could lead to the fading of the initiative once the project funds are terminated.

It is not clear how sustainable these initiatives will be - but then, Burundi is only in the development phase for disaster risk management any way - and this initiative would be an important advocacy/capacity building component in establishing this nascent institutional capability. It is unrealistic to speak of 'sustainability' in conditions where institutional capability is only just being developed.

According to the project doc, the government of Burundi is currently establishing a national structure for disaster management. This project would be part of the current process. Other partners include Burundi Red Cross and the ISDR regional Unit, which has plans to support Burundi in the establishment of a national strategy. However, it is difficult to predict what would be the sustainability of the project after its completion, since it is 90% dependent on external project funding. The project has also received a grant from ProVention Consortium of 4,820 USD.

The project should be revised to include a better account of current initiatives and capabilities in early warning in the country. It should also include how the current project is going to feed into the current initiatives or future initiatives. A clear description of what is intended with the project would be helpful as it has a very wide scope.

This is a low-budget proposal by an enthusiastic disaster risk reduction advocate/promoter in a country with very limited institutional capability - and which can also enhance post-conflict risk

reduction by building social and human capital. It will also support the development of governmental structures and community awareness of risks. The proposal would be strengthened if he could outline the institutional relationships more clearly for using the outputs of the project - links with national, provincial and local government - methods of information dissemination, for instance.

As mentioned earlier, this proposal needs to be seen in the context of other proposals from Burundi or from Africa. It has some good elements but the project document would need to be redrafted and improved to include more details on the outcomes and methodologies to achieve the objectives. It's sustainability after the funding has been spent is also a concern. Most of the funding is foreseen for admin costs, transportation, hiring project personnel, etc.

B) Specific Recommendation

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 44/06 (MH)**

**Water Related Crisis Information Centre for the Mekong  
(Vietnam)**

Assessment by the EWC III Review

A) Overall Assessment

The project is important because its objective is to assist Vietnamese agencies to integrate the management (collection, processing, sharing) of hydromet, environmental and other data (both satellite-based and ground hydrometrics). The needs for the project have been convincingly identified and documented. As riverine floods in the lower Mekong have a very large spatial component extending over very large areas, the needs for a satellite - supported flood forecasting and crisis management information mechanism is highly relevant. The main gap in this area: namely the lack of geospatial information directly related to flood early warnings and community-based actions (preparedness, evacuation etc) has been correctly identified.

The needs/risks assessment looks satisfactory. However, the organisational and political dimensions of data management (choice of data collected, lack of public funding in hydrometric network, political reluctance to share data for strategic reasons, etc.) appear under estimated in the project. Objectives and expected outcomes are clearly stated, the project modules are logic and each provides a significant contribution towards the achievement of the project objective. The target population is directly addressed in the project and the target population is likely to be directly benefiting from the project approach. The objectives are clearly identified. However, the issue of how to identify end-users of hydromet data should be emphasized. In particular, different users induce different capacities to process information.

The four elements of effective early warning systems are adequately addressed with the exception of knowledge building at the local level on how to react to information provided by the Crisis

Management Centre. The governance aspects are weak, as no Vietnamese organization is included as partner that is directly involved in disaster risk management. This is a serious flaw in the project.

Technically, the project design is sound and realistic under the condition that the satellite missions are really going into orbit and that the sensors on board will effectively work and are calibrated to deliver the expected information. The time frame for commencing the project seems therefore too tight, especially when considering the time needed to develop useful products from the satellite information of sensors that are not yet in orbit. There is no cost estimate which makes it difficult to assess cost-effectiveness. If working, then, use of satellite information has been proven to be cost effective if Vietnam does not have to pay for the satellite services.

Institutionally, it cannot sufficiently demonstrate that the early warning and forecasting information reaches the end-users or the decision-makers efficiently: The National MRC is not a very strong institution and while this institution should be fully in the picture in terms of a strong coordinating function, it does not have as yet an operating function which is mandated to other institutions in Vietnamese governmental organizations. The project is largely embedded in academic structures and insufficiently in operational organizations with specific mandates.

More "social science" expertise needs to be included in the project team. In addition, there is no clear relation to past and present activities of the Mekong River Commission in the field of data management. The Review noted that the project is developed in close cooperation with the Vietnamese National Committee for the MRC. This is a must, in order to ensure consistency of the project with other activities undertaken on the Lower Mekong basin.

The transboundary dimension of data management remains largely unexplored. In practice, national hydrological and meteorological agencies of other Mekong riparian countries, as well as the World Meteorological Organisation and probably the Germany-based "Global Runoff Data Center" (GRDC, Koblenz), should be associated to this project. This partnership needs to be improved for the long-term operational management of the project. The project proposal needs to demonstrate how the long-term partnership between German Institutions and the relevant institutions in Vietnam will develop. The Crisis Management Centre needs to be embedded in a credible operational institution which has its own resource requirements and it needs commitment from Vietnam to do this. The project should be clearly linked to the Mekong River Commission Secretariat which has a mandate for the entire Mekong and has established an intergovernmentally endorsed Flood Management and Mitigation Strategy (FMMS) that includes forecasting and early warning and includes satellite information (rainfall prediction). If the MRC is more formally involved in the project the long-term sustainability of the project would be addressed. Changes in the way environmental data are administered, in all Mekong riparian countries, do condition the sustainability of the project.

The project needs to be amended in terms of monitoring and assessment, the demonstration of the cooperation between partners on a longer term basis, the capacity of institutions in Vietnam to carry out their responsibilities and the need to re-arrange partnerships both at the regional and national level. Technically, it needs to be shown, that the altimetric resolution of the chosen sensors is sufficient to be used in the creation of digital elevation models that need to be extremely accurate considering the very low relief differences in the lower Mekong Basin.

B) Specific Recommendation

1. Prior to project formulation or in combination with project design a risk assessment should be undertaken by a national Vietnamese agency which is directly responsible for disaster management.
2. The project proposal should consider possible long-term partnership between German Institutions and the relevant institutions (IMH in Hanoi) in Vietnam.
3. A Vietnamese partner organization that is directly involved in disaster risk management should be included in the project to provide more governance and support.
4. Past and present activities, as well as flood initiatives in the WMO and GRDC, in data management in the MRC should be referenced.
5. A full description of the organisational component should be included. Organisational aspects including funding; perception of risks related to sharing data with the public and with other riparian countries should be fully addressed the project.
6. The issue of how to identify end-users of hydromet data should be emphasized.
7. The "social science" dimensions of the project impact Mekong floods should be described in detail.
8. A description of knowledge building at the local level on how to react to information provided by the Crisis Management Centre should be included.
9. The project proposal should clearly identify verifiable indicators to measure project achievements.
10. Monitoring and evaluation aspects should be sufficiently addressed.
11. Cost estimates for satellite information should be provided in the budget.
12. The budget should be amended to include the duration of the German missions that are essential for the technical sustainability of the project.
13. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

(iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 48/06 (MH)**

**Development of an Advanced Tropical Cyclone Early Warning System for the Philippines**  
(Philippines)

Assessment by the EWC III Review

A) Overall Assessment

The Philippines is a developing nation that suffers from severe economic setbacks each year due to the damaging effects of typhoons. Large loss of life (especially those living in coastal communities) and property damage (loss is as much as 10% of the country's GDP) occurs in this country due to precipitation-induced flooding and landslides. Although the Philippine authorities are aware of this, the early warning system of the country still needs to be improved especially in terms of improving forecasts and quick dissemination of the warnings. Tropical cyclone experts from developed countries are in a position to assist Filipino forecasters in this aspect and also in the effective dissemination of the typhoon warnings. High-end forecasting equipment can also be provided to the nation's weather services which are in need of such forecasting tools.

The objectives are clearly identified and are realistic and achievable. The impacts of the proposed system are well-identified, and metrics/measurable indicators are identified for measurement of success. The early warning proposal is well-integrated into existing meteorological programs and infrastructure. Since the Philippines is a nation of 7000 islands, most of the population is at risk from typhoons. Only the most equator-ward locations are not at direct risk, but they are at risk from peripheral monsoonal rain bands. The proposal adequately addresses the four elements of an effective early warning system. The proposal has a potential to have a high impact on the Philippine population.

The Review noted that the proposal was well-presented. The identified needs are highly relevant to tropical cyclone early warning. The risk and vulnerability are clearly identified from historical events, but no formal risk/vulnerability assessment document is included. The project design is sound, and the goals are realistic and achievable. The proposal represents a cost-effective way to achieve the objective, since it relies on existing, proved technology and capabilities.

The proposal indicates the high cost suffered by the Philippines due to the passage of typhoons each year. It also demonstrates the meteorological and societal benefits to be derived from

improved understanding and enabling technologies. The only caution concerning the project is the impact of proliferation of different types of hardware and software that will have to be maintained. The identified partners are well-experienced. A big challenge will be the use of manual gauges and volunteer manning of those gauges for the early warning. Communications must be reliable. Measurement metrics for monitoring and evaluation of the early warning system are identified and sound. The biggest challenge will be educating the general public. One advantage that exists in the Philippines is that a large portion of the population speaks English. This will facilitate training and education.

Regarding the budget, the review noted that in-kind contribution, non-monetary in nature, will be provided by advanced warning centres in the region. The project is commendable in that it would involve regional and international cooperation in terms of new observational systems, advanced numerical model guidance, advanced forecaster workstations and training and a societal impacts demonstration.

The advanced tropical cyclone forecasting capabilities will have a high probability of sustainability as they will be centralized at the PAGASA headquarters building. The rain gauge and stream gauge portions of the early warning system will be more difficult to sustain. Sustainability will be the responsibility of PAGASA and other Philippine agencies. Strong partnerships are identified, and the lead scientist is high experienced in the field of tropical cyclone warning applications and management. The economic benefits of the improved tropical cyclone warning capabilities should ensure PAGASA and Governmental commitment to sustainability of the project. The current program has been sustained for several decades.

With the endorsement of the Philippine authorities the question of project sustainability is addressed. As Members of the Typhoon Committee (an intergovernmental regional body that is working on the reduction of damages due to tropical cyclones) will be collaborating on the project, the dissemination of results from the project will be facilitated. The proposed project builds on current capabilities, and does not attempt to start from scratch. It is compatible with existing practices.

B) Specific Recommendation

1. More information should be provided on whether activities under the project will be compatible with existing practices of early warning in the region.
2. Standardization of software and hardware should be considered.
3. A risk/vulnerability assessment document should be identified.
4. More information on the in-kind contribution should be provided.
5. The question of maintenance and provision of spare parts should be addressed.
6. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

- (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
- (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 53/06 (MH)**                      **Application of Information Communication Technology in  
Community Based Disaster Preparedness in Andhara Pradesh  
State, India**  
(India)

Assessment by the EWC III Review

A) Overall Assessment

The project description exhibits a broad understanding of necessary step to enable communities to manage disaster risk, but it shows little understanding of early warning and provides few details on what would be done to provide or strengthen early warning systems. It conveys the impression that this is a proposal that was meant for other purposes and clients and has been lightly adjusted to suit the present call for proposals. (This assessment is provided by PPEW in the absence of other reviewers.)

Needs Assessment and risk assessment has been accurately reflected as these are all grass root organisations , with field experiences based in the project areas. The current level of risk of cyclones in these areas is very high, as identified by the project. The early warning systems are inadequate. , particularly in relation to connecting meteorological warnings to community level actions.

The objectives are too many and are not tightly connected to each other. . disaster resistant shelter construction and early warning systems with IT may require entirely different skill sets and organisational capacities to be delivered in an integrated project. I would advise to reduce objectives to only those related to application of IT to early warning systems.

The project in its focus on volunteerism, gender focus, application of simple technologies to ensure last mile connectivity at village level, and strong partnerships with local government bodies at mandal level constitute an effective approach. However the outputs related to

restoration of livelihoods, shelter and plantation for windbreaks unnecessarily expand the scope of the project and may make it unmanageable. Strongly advise to focus only on the EWS component.

Its strong partnership with Mandals and Local Government bodies make the project sustainable.

The comments on pruning down the objectives and related outputs should be communicated to the organisation. After they revise the project, it may be submitted for acceptance.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 54/06 (MH)                      Early Warning System of Padang City - Operation Center -  
Earthquake and Tsunami Disaster Mitigation Pilot Project  
(Indonesia)**

Assessment by the EWC III Review

A) Overall Assessment

There is virtually no needs or risk assessment basis provided in the submission beyond the fact that earthquakes and tsunamis happen in this area. This is characteristic of the most general formulations found throughout the submission

The region of Padang is clearly in one of the major earthquake and tsunami hazardous zone. Since the 26 December 2004 and 28 March 2005 major earthquakes, the subduction zone close to Padang is prone to rupture. The last major earthquakes occurred in that region in 1797 and 1883 that generate large tsunami waves and run-up of more than 10m. Large earthquake and tsunami are expected in that region in the next coming years or decades. More than several hundred of thousands of people are exposed to the earthquake and tsunami hazards.

The proposal is prepared on the basis of generalised and often very simple expressions that indicate an absence of studied knowledge or serious analysis of the issues. The expected impacts are stated in the most general of terms, and multiple objectives are referred to in different parts of the proposal, ranging from information and educational purposes to more operational concerns such as search and rescue, etc. No measurable indicators are referred to in the proposal.

This communication system must be definitively implemented. The project is in relation with the National and regional warning center (BMG) who will provide the warning messages. The hazard and risk are well known (see Needs/Risks Assessment Chapter) The Awareness will be increased through a mitigation workshop, brochures, handbooks...

There is passing reference to the variety of interests involved in the many activities considered but with a seeming absence of detailed knowledge of their respective relationships, roles and responsibilities, For example there is a reference to the BMG (Met and Geophysics Institution)

"... announcing an evacuation decision", which one would imagine almost certainly rather to be a decision and a responsibility to be exercised by an administration authority, not a technical monitoring institution. This lack of knowledge is reflected in overly generalized objectives of "designing a tsunami early warning system at National level" ... especially for Padang City". Adjectives are added for impact but without substantive meaning nor process applications. The objectives become further confused in discussing variously both communications issues and operational responsibilities of a "Controlling Operational Centre" involving protection, search and rescue, etc. The purposes are really quite confused, and seem motivated largely by a desire to underwrite the capacities of the local level SATLAK PBP. The rationale is further confounded by 70 % of the budget being allocated for "communication system". There are no specific references to monitoring and evaluation, other than that the model programme should be at its conclusion.

The project is realistic and the goals can be achieved in the next 2 years. One important item missing in the proposal is an independent and backup power supply system (included generator and/or solar panels. Where a large earthquake occurs, most of the power supply are destroyed. 2 reports must be also provided (1 progress report and 1 final report).

Not substantively address in the proposal, and is dubious given that the references for funding are stated without elaboration as "foreign aid, private donation, self-generated income through programmes in private sector, and government."

This system will be sustainable because several active and main stakeholders are involved in the project (Government of Padang City, RAPI, Kogami..). In the project two Maintenance items are mentioned. Due to the low amount, spare parts are probably not included. Spare equipment must be added (at least 1 UHF and 1 VHF radio, 1 Handy). The mobile station (car) is the less sustainable item of that project. Details on the role of that mobile car must be provided and also on the origin of the resources that will provide sustainability.

Poorly developed with little substantive information or detailed analysis.

This is an excellent project I strongly support. 3 specific items must be added: 1 Backup power supply must be added in the proposal. 2 Spare equipment must be added (at least 1 UHF and 1 VHF radio, 1 Handy). 3 2 reports (Progress and final, included pictures, list of equipment and documents...) The Mobile station must be moved out of the project if there is no detailed presentation of the mechanism in place for the specific maintenance cost, for the short and medium term. Every document (handbook, brochure, posters...) published for that project must be provided to ISDR in paper and electronic forms.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III ReviewA) Overall Assessment

The project proposal identifies the underlying needs and the benefits of the proposed project. It is an extremely ambitious project and the proposal does not appear to fully explore the implementation risks inherent in attempting to integrate a diverse range of disaster management systems across multiple agencies and regimes.

The proposal contains little background information/ justification for the need of the 'integrated weather and hydrological system'. The risk assessment is only in the form of statistics of the Oct. 2005 flood in Bulgaria. The needs and risk assessments are not clearly documented.

Objectives are identified at a very high level and there are only very broad and unquantified indications of the expected impact of the project. The proposal aims to cover all hazards and has not provided any detailed information about how each of the early warning systems for each of the hazards might be impacted and improved. There are no measurable indicators given and the proposal focuses on the technical solution largely, with little feel given for the governance and implementation arrangements.

From the content of the proposal it seems that the objective of the project is to establish a unified, countrywide, hydrometeorological observation network. The envisioned impacts include landslide forecasting, forest fire detection, damage assessment and river flow forecasting, in addition to the standard hydrometeorological observations/forecasts. These themselves are not adequate to cover the essential four elements of the early warning systems: The proposal does not adequately describe the existing knowledge on the disasters faced by the country. Further it does not address the mechanism(s) for disseminating the warnings to the communities and making sure that the communities act upon them.

The proposal appears to treat the problem primarily as one of technical integration - that is, taking existing systems, with little evaluation of their individual capabilities and fitness, and integrating them. To achieve the objective described, there appears to be some major steps missing related to this evaluation - and any actions it might suggest. Arguably, it enables a multi-hazard system to be built on the basis of already existing components, which may well be the most expeditious approach, but only if it is feasible and robust. I would like to see a much more specific evaluation of the potential for integration, perhaps as the first phase of an overall project, and perhaps a scaled down project as a start.

The document indicates that there is an existing collection of monitoring services, although there is no comprehensive, integrated system. It is very important for the success of the proposal to explain the current nature of the systems and the steps that should be taken to unify these into a single system and what specific areas need upgrading (e.g. new monitoring equipment), where the coverage is not adequate, etc. The link(s) between real-time hydro-meteorological observations and the listed end results like landslide prediction, damage assessment, etc. are far from clear. These links consist of many intermediate steps that may involve numerical models, statistical methods, etc., that have not been addressed in the proposal. Besides the space research institute, neither a university nor a specialized research institute in disaster management is

involved in the project proposal. Who is going to do the research part of the project? Why NGOs are not involved in the planning and/or implementation stages of the project. NGOs are basically more knowledgeable of the needs in remote areas and poor class of the population. The budget needs a detailed break down and clear specification of the needs. What portion of the budget goes to what research activities. This is also apply to all other items. The objectives are very diversified and requires better description of the use of the budget. What are the justification of the budget allocated for software? Etc... As it is presented in the proposal the project does not appear to be well documented and realistic in term of achievable objectives.

As described, the project looks too big and broad. I note that there appear to be many partners across the various agencies involved in such a system, and together they may have the will and the capacity to make it succeed, but the proposal does not convey an understanding of the implementation challenge posed by the size of the project or of the dependence on the integrity and appropriateness of the component systems.

One of the project partners has experience in implementing turn-key communication projects and training personnel for managing it. They have completed two major projects for Bulgarian military, both falls into information technology area. While communication is a major and essential component of the proposed system, there are other areas like hydro-meteorological monitoring, real-time numerical simulations, etc., which needs highly specialized knowledge. It is not clear which of the project partners will provide this input and the background/experience of those project partners that underwrite the success of this aspect of the project. What type of agreement would the 'Election Progress' company have with the government partners to ensure the long-term success? Who will be responsible for the maintenance of the system and continued training of personnel? Are the proponents planning to use the existing European monitoring and modeling products (e.g. ECMWF) as stepping-stones to achieve the overall goals of the project?

The substantial modification required would be the addition of a more comprehensive project design phase - to establish if integration of existing systems is a feasible and sustainable approach, or if some or all of the existing component systems require substantial enhancement, revision or replacement before they can be part of a more integrated system. The proposal would have to quantify the benefits and impact of the integrated system on all of the component system users. The operational governance arrangements for the final integrated system need to be spelt out as well, and they need to convey a sense of ongoing commitment to support and maintain the integrated system, and to provide training in the use of the system and its products.

The documents do not provide adequate evidenced to judge the feasibility of the project. The justification (risk assessment) of the project is not adequate. - Objectives are too broad as judged vis-a-vis the descriptions provided. - As it is the project is not suitable for acceptance. However, these comments are solely based on the information provided in the project documents. - An improved version of the proposal in the light of the description above might be acceptable acknowledge the need of the region and the country for advanced EWS.

## B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 60/06 (MH)**

**Enhancing Early Warning and Preparedness of Natural Hazards  
(United Republic of Tanzania)**

Assessment by the EWC III Review

A) Overall Assessment

The needs for building a tsunami warning system and associated communication systems, capacity building and public education programmes have been identified. Although such needs were not given in quantitative terms, the outcome of the December 2004 Indian Ocean tsunami did demonstrate the existence of shortcomings of current systems and services.

The natural hazard in Tanzania is not presented in details in the project proposal. The project summary reports on the tsunami hazard in the Indian Ocean and in Tanzania. Concerning the tsunami risk, the coast of Tanzania was impacted by the 26 December 2004 tsunami. For all the other hazards, no documentation on risk assessment is provided. How many people are exposed to the hazard?

The objectives do not tally with the identified needs on tsunami warning. In particular, objectives to improve weather and climate monitoring, prediction and warning services should not be included. It is understood however that certain systems can be shared, and should be shared, between tsunami and weather-related warning services as part of a multi-hazard early warning system. These include telecommunication and data exchange systems, warning dissemination, public education and preparedness programmes, and emergency management infrastructure of the local communities. The desired results of the project were described in qualitative terms. No measurable indicators were given to assess the impact of the project. Quantitative impact indicators should be added in the proposal. The project proposal has addressed the risk of tsunami faced by the community and the technical monitoring and warning service for these risks. The proposal however has not addressed dissemination of understandable warnings to those at risk, and the knowledge and preparedness of those at risk to act.

The objectives of the project proposal are not clearly stated. The project report and the first part of the background and motivation chapter are dedicated on tsunami hazard and risk. On the other hand, the expected impact of the project (3.4) first refers on the accuracy and reliability improvements of the meteorological warning. This is incoherent. In addition, this project addresses only the technical monitoring and alert system. There is no reference of the status or current development of the other elements (Risk assessment, Dissemination of understandable warnings to those at risk, Knowledge and preparedness to act), and how this project is linked.

The planned activities do not have a clear timeline and implementation plan. The project proposal does not offer means for monitoring and evaluation of the implementation as well as the effectiveness of the project. The planned activities did not address the needs for dissemination of

the warnings to those at risk in a nationally and regionally coordinated approach, as well as for programmes on education, awareness and preparedness of those at risk. The planned activities should not include those unrelated to tsunami warning. In particular, in Section 8 of the Proposal: (1) Equipment for the WMO GTS system is for international data exchange and should be limited to one automatic message switching system at a central location in the country. There should be existing WMO GTS equipment in the Meteorological Agency. The condition of these equipment is not known from the proposal. These equipment should be renovated or upgraded as necessary to meet needs to be demonstrated for international exchange of tsunami data and warnings. Although not part of the WMO GTS, communication systems for tsunami warning dissemination within the country are needed for selected operation centres in the coastal region. These intra-country communication systems should share existing systems and infrastructure for dissemination of weather warnings for cost-effectiveness and should be upgraded as necessary to meet needs to be demonstrated. Appropriate GTS equipment could be used for this purpose. (2) Monitoring equipment should be limited to seismographs, seismometers and associated data processing equipment. Other equipment are weather-related and are not needed for tsunami warning. (3) Capacity building should include only seismology- or tsunami-related training. (4) Marine equipment required are conventional tide and surface sea-level gauges only at selected coastal locations. Deep-sea sensors are not recommended at this stage as the need has not been established and these sensors are both expensive and difficult to maintain to provide sustained quality performance. Fixed and drifting buoys are not needed for tsunami warning. (5) Weather forecasting system is not needed for tsunami warning.

The project proposal sets unrealistic goals. The list of requested equipment shows that the proposal was not prepared with clear objectives. Just several examples: - Several Items as Marine Equipment, Capacity building are not detailed (various??) - Seismograph are not used since a long time : the sensors are seismometers. No maps of the different networks requested are presented, what is the transmission

The project proposal does not have sufficient information to demonstrate long-term sustainability of the project. In order to have long term sustainability, national mechanisms should be put in place before the termination of international funding. In particular, the implementing agency and other institutions concerned should commit to provide adequate recurrent financial and staff resources for equipment maintenance, operation of the warning service, implementation of public education and emergency preparedness programmes, etc. The programmes for building local capacities and expertise should be properly carried out early in the project schedule. Partnership and detailed working arrangements should be established with international organizations such as WMO, UNESCO, ISDR, etc through which on-going assistance and support are obtained as necessary on the GTS, seismological and tsunami matters, and disaster prevention and preparedness. Furthermore, since tsunami is not a frequent occurrence, it is important to build tsunami warning into a single multi-hazard early warning framework with national and regional capabilities. The same framework and emergency management infrastructure should be used on a day-to-day basis for various natural hazards arising from weather, floods, earthquakes, tsunamis, etc. to ensure that responses to any infrequent hazards are equally timely and adequate. It is not clear from the proposal how the above would be done.

Lots of equipment are requested in that proposal, very expensive and with a high cost of operation and maintenance (Fixed buoys, Weather radars...). No spare part is presented. This project proposal is definitively not sustainable, comparing the request and national situation. On the other hand, the only agency involved is the TMA. This project proposal involved lots of people, with different expertise. TMA is not a geophysical and oceanographic institution. Other

institutions are involved as the Geological Survey Department and the Geology Department of University of Dar es salaam. The experience, role and capacities of both agencies is not presented and how they will be involved. No oceanographic institution is involved. Marine equipment must be implemented by such an institution. There is no description about the implementation of these equipments, as the fixed and drifting buoys.

The project proposal needs to be extensively re-structured and modified based on the above comments.

I strongly disagree that project proposal and do not accept it. First, the risk assessment is not provided for the different hazard. There are too many components missing (link with the Risk Assessment projects, Awareness and preparedness projects). This project proposal is just a list of requested equipment for all hazards. Only 1 agency presents this proposal who has no experience in tsunami, earthquake and marine hazard. The capacities and expertise of the geophysical partners is not presented. A strong partnership is definitively necessary to provide sustainability. The system is definitively not sustainable.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 61/06 (MH)**

**Strengthening the Coping Mechanisms and Monitoring Capacities of the Killer Lake Nyos Degassing Features by the Local People Themselves : Continuities and Discontinuities (Cameroon)**

Assessment by the EWC III Review

A) Overall Assessment

The Lake Nyos situation is complex; the surrounding population is highly vulnerable to possible rapid and largely unpredictable overturning of the lake layers that would release large volumes of toxic gases from deep levels of the lake. Unfortunately the project, while well motivated and with intentions to be well integrated to other development strategies, does not provide a sufficiently clear technical basis for an effective forecasting scheme that would allow early warning and public reaction before an event occurred. Given the unique situation, it is suggested that a feasibility study by early warning experts should precede any investment in an early warning system. (Assessment provided by PPEW in the absence of other reviewer.)

While there is no formal risk assessment mentioned in the project proposal, the historical episode described in such proposal is worth considering. In this respect, the project proposal could be better tailored to outline explicitly the number of communities or people to be benefited. From the documentation provided it is difficult to carry out this segment of the assessment.

The project proposal outlines far too many objectives which are not feasible with the proposed funding or project scheme. In addition, there is no clear description within the proposal regarding how the four elements of effective early warning are to be carried out within the proposed activities.

The proposal could be better drafted to make it possible for the project to be evaluated. Funding is requested for scientific monitoring equipment, and yet the proposal outlines many activities on preparedness, risk assessment, and capacity building which are not considered in the funding segment. The proposal lacks the framework to understand how the project is to be carried out.

Sustainability is at risk within this project, as the project is basically focusing on the acquisition of high-tech equipment to monitor the hazard, and if such equipment breaks down, there is no mention within the project proposal on how national or local agencies will go about this. In addition, there is no information on whether scientists have to visit the lake from neighboring cities, and how the costs of such frequent trips are to be covered. There is confusion about the requested amount of funding. It is not clear how much funding is really required to carry out the project.

While there is a recognized need to establish a community-operated early warning system with the support of universities and researchers of the country, the project proposal does not present an overall framework to address such a need. Therefore, I would recommend that the agency proposing the project be assisted in the technical formulation of the project so as to develop a better proposal which can then be reviewed with more satisfactory results.

## B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**Enhancing Hydroclimate Monitoring, Early Warning and Applications for the Reduction of Climate Related Risks in the Greater Horn of Africa**

(Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania and Uganda)

Assessment by the EWC III Review

A) Overall Assessment

The Review considered the project proposal as very ambitious and aims at the development of a wide spectrum of applications in the domain of EW. The proposal has a generalistic approach and most applications are not sufficiently described. However, the risk assessment is not sufficiently based on quantitative parameters. The identification of sector activities and the need of operational products could be better described

The impact assessment is not provided. Lack of a detailed definition of the proposed “early warning products” was noted. The implementation plan of the project is not clear. While there is value added in developing an EWS Handbook, it would appear that its main audience will be limited to NGO professionals and some government counterparts, with limited if any value added for local communities.

The linkage between different actors is not clear. The project has a centralistic approach, the training of personnel of national services is not mentioned in the proposal. Financial resources for the sustainability of the project are not described and seem uncertain. The proposal is unclear as regards when and how the transfer of responsibility to national institutions will be fully implemented.

B) Specific Recommendation

1. The risk assessment should be based on quantitative parameters.
2. The identification of sector activities and the need for operational products should be described in detail.
3. The implementation plan should be clarified.
4. The question of sustainability of the project should be addressed.
5. The institutional arrangements for the project should be clarified.
6. Training of personnel of national services should be addressed in the proposal.
7. Financial resources for the sustainability of the project should be clarified
8. The following standard project formulation recommendations will be added to the recommendations:

- (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
- (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
- (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 64/06 (MH)                      From Local Action to Regional Cooperation: People Centered  
Early Warning System in the South Caucasus  
(Georgia, Armenia)**

Assessment by the EWC III Review

A) Overall Assessment

There is no doubt that Armenia and Georgia are subject to several, significant natural hazard.

The proposal sets out the needs clearly and in detail. A sound risk assessment has been carried out and gaps identified

I do not believe this project is appropriate for this call. The authors have extended the notion of early warning system beyond the definition given in the documents attached to this call. This extension is assumed by the authors who state page 9 "... it [the proposed system] is understood as an information system designed to facilitate decision-making...". I do not agree.

While the project could have a significant impact on improving existing systems, it does not go far in changing the culture of the warning system to make it more locally meaningful. Although the ideas for this are expressed, there is little evidence of anything solid behind it. Local links seem to be minimal and refer to local administrations only. The danger is that this will reinforce external, expert, top down systems as there does not seem to be any indication of how local communities' needs and capacities might be included. So the impact is somewhat mixed

The planned activities (see p.9) are not sufficiently described to monitor the advance of the project.

It is a well thought out proposal and project design but with the weakest link being with local community involvement. The cost is quite high and this reflects the proposal to strengthen and enlarge existing expert/technology based systems. While there is nothing wrong in that, it must be balanced with an equally strong link with the communities at risk. There is no indication of how understandable warnings might be produced.

Sustainability measured by existing systems is likely to be good but a truly sustainable warning system would have more evidence of local commitment to engage with the process.

This is in many ways a strong proposal. It is well produced and contains a good level of detail. However, it is unconvincing in its attention to local community needs, experiences and capacities to engage with the project. If it could be shown that initiatives are already underway to identify suitable stakeholders and appropriate methods at the local level then this would significantly strengthen it.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 65/06 (MH)**

**From Local Action to National Cooperation: National and People Centred Early Warning System in Tajikistan- An Interagency Approach to Link Local and National in the Zerovshan Valley (Tajikistan)**

Assessment by the EWC III Review

A) Overall Assessment

The impact identified by the project is well linked to the needs assessment and deals with the elements of the EWS, i.e., risk identification, communication and community awareness and preparedness. It was noted that the Ministry of Emergency Situations was in a position to analyse and react on disaster related information received. All districts have been enabled to communicate with the regional levels in times of emergencies. The Regional Disaster Management Partnerships (REACT) have been established in Khujand, Khorog, and Khatlon, in addition to the national level REACT and the two regional REACTs in Rasht Valley and Zerofshan Valley. Early warning systems have been installed in three districts and have

capabilities and capacities in place. The project activities address the reduction of risks in implementation. A functional communications system is in place.

The Review noted that the needs assessment is based on the mapping of current hazards, and vulnerability of communities in the target area. The vulnerability is due to the weak communication infrastructure, the weak government capacities and the lack of sufficient awareness. The Review noted that a critical mass of technical staff trained was available. The local communities' disaster risk reduction capacity has increased in the project intervention zones and there is a noticeable decrease frequency of disaster cases. The Review noted that the project was based on people-centered approach to early warning but it was unclear how key activities related to this approach.

The project is well designed, its objectives are realistic and achievable. However, the cost requested needs to be justified in terms of more detailed cost breakdown. The sustainability of the project is well described with Government Ministry of Emergencies and is linked to other initiatives funded by SDC, UNDP and Government initiatives.

B) Specific Recommendation

1. As many agencies will be collaborating on implementation of project, an organization structure should be detailed with more information provided.
2. The detailed budget and costs by activities should be included and justified.
3. More information on the people-centered approach should be provided.
4. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

Assessment by the EWC III Review

A) Overall Assessment

The project addresses tsunami risk in the Mediterranean region. The risk is well known but has been neglected to a large extent in the past and hence needs to be addressed urgently. Most of the coastal population of the riparian countries of the Mediterranean is at risk. The project wants to investigate generation, propagation, and coastal amplification of tsunamis in three study areas (Rhodes, Santorini, Marmara). No link to or endorsement by a disaster-risk management agency is shown. Identified EW gaps are tsunami risk analysis, mitigation measures and preparedness.

The objective of the project is build an enhanced data based for historical earthquake and tsunami information and to model probable tsunami scenarios in three case study areas. The project outcomes are shall be a basis for following preparedness and mitigation studies. For the aspects of awareness and preparedness project task 4 intends to develop a workplan for achieving: effective EW, better preparedness and mitigation measures, experienced authorities, specific computational tools. All partners listed have a technical background though and the workplan is not intended to be implemented in the frame of this project. The outcome of the project can be measured on the basis of the tangible deliverables. But the impact on EW will not be measurable.

This is a 1-year project with a budget of 128,000 EURO. The costs seem high. The time frame quite short. The timeline, however tight, is well designed. The partners seem to have ample experience regarding the technical aspects of tsunamis (modelling). However, none of the mentioned partners seems to have much experience in the field of governance, preparedness, mitigation.

The project is not integrated into government and civil society structures. Potential users of the proposed administrative methodologies are not yet identified or involved. The project is limited to 3 local study areas and will need to be extended to the overall region at risk. That will involve high subsequent costs that are not yet secured.

The hazard assessment carried out in this project is based on historic earthquake and tsunami data. This would have to be implemented into a real-time seismic monitoring system and linked with the other components of EW (alert, governance, response, mitigation etc.). As a stand-alone project the impact on EW will be rather limited. The project would have to be fully redesigned to meet those requirements. Therefore, I suggest to authors a submission to more geologically/seismologically oriented group.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

Detailed description of needs and mapping of stakeholders or beneficiaries (end-users). However, the way how "expert" knowledge (e.g. satellite images and weather/drought forecasts) will be actually transferred to "non expert" end-users, could be explained in more detail. It is however appreciated that users' needs identification is considered as a first, critical step in the drought study & project process

A risk assessment has been carried out with respect to the frequency of droughts, but not in terms of flash floods. The proposal indicates that a user needs identification is the first step required. One could draw from this that the user needs have not been fully evaluated and the project proposal seems to reflect this. That is, the proposal covers a broad range of territory, but fails to show how the final products will be incorporated into the decision making process and thus make a difference. Drought obviously has a significant impact on the country and if the frequency of droughts is increasing a risk-based management approach is necessary to improve decision making and provide farmers with the tools they need to better manage for droughts. It is difficult to see how the proposal will address existing gaps by primarily being a monitoring tool. The proposal needs to address how the tool can be used to forecast 2-6 months ahead (not a climate change issue as is proposed, but a climate variability one) and how this can be presented so the various stakeholders can make informed decisions. The technology is identified, but the linkages and on ground application is not well presented. The topic of flash floods is not addressed at all.

Objectives are detailed clearly, as well as deliverables. However, it is unclear whether results presented under table and map formats would meet the expectations of the wide variety of stakeholders considered (farmers, reservoir managers, etc.). The reviewer suggests that project authorities have a look at the methodology used in the OSIRIS, EU-funded project (Loire river and Odra river, ca. 2000-2003).

Without a clear definition of the needs (that is in terms of what actions can be taken and what information is required to take these actions) and then the identification of products that will meet these needs, then the proposal lacks focus and good outcomes. Certainly, the hazard is a significant one and the community at risk is large, but again the linkage between available science (which is sound) and on the ground action is lacking. The importance of the on ground monitoring needs to be firmly stressed and the need to develop products that give an outlook component to enable time to make key decisions needs to be addressed. No measurable indicators of success are provided.

Satellite images and in situ data should be considered in a more complementary manner (e.g.: for model calibration and validation, I understand that only remote sensing data are expected to be utilised). Basically, it depends a lot on the kind of decision-making the project results are expected to provide support to. In particular: macro-scale, public-policy-type of decision could accommodate with broad grid satellite data - whereas this might not be the case any more if users are more local-level stakeholders. However, we can see that project authorities plan to have a

10km fine grid for adaptation of RCMs. This critical input could help meet local needs for drought-related data & information. Are vegetation indices a sufficient source of information to correlate and estimate crop yield? Likewise, drought is a process that includes soil/subsoil (incl. aquifers) characteristics. It is unclear to me how and to what extent geological features are expected to be integrated in the modelling/forecasting process.

The proposal is based on sound science and current capabilities and has realistic and achievable goals. However, the proposal lacks focus and sound outcomes interims of usable products. There are references to flash floods which are not addressed in the proposal, references to climate change and scenario building which is not related to a system for detecting and forecasting for drought, but rather determining if drought will be a problem in future years. In summary, it seems to me that the proposal has been put together very quickly and needs to be recompiled with a specific focus/outcome in mind. The use of satellite derived information, with adequate ground truthing to monitor an evolving drought situation is sound, the ability to forecast what will happen in the following months and tie this into the current monitoring situation to provide tools for a risk-based management approach to drought is also of great benefit. However, the system will only work if it is tied to existing practices and can feed into the current decision making framework. No effort appears to have been made to enable this.

Unless missed in the reading, it remains unclear how the system will function once the project is completed. In particular, is data collection secured (technically; in terms of human resources and skills; and financially), to ensure updating of weather and drought forecasting over the years? A clear budget outline would be appreciated, showing the level of technical, manpower and financial commitment of related authorities, ministries or professional organisations involved in drought-related (or drought-impacted) activities.

Once established the proposed modelling system will probably sustainable, but in order for the project to be successful and sustainable into the future, it must be tied to the users of the information. This linkage is yet to be established.

Unless missed while reading the project documents, the regional dimension of drought does not appear clearly. The Romanian initiative is an interesting, and needed one. It is however strongly suggested that the drought problem be addressed in a transboundary way in this project. For instance, a network of hydromet services and national agencies in Central Europe could be set up - possibly with technical support from WMO, and financial support from the EU. This regional drought initiative could enable countries share data and skills (manpower; training curricula; etc.). Besides, addressing drought in such a regional way would add visibility and technical credibility to the project.

This project shows a good understanding of the meteorological, hydrological and agricultural impacts of drought in Romania and a good technical knowledge on how to monitor and assess drought using ground and remote sensing. It is technically a worthwhile project. However, it appears to be rather isolated, with little engagement or even contact with institutions that are concerned with social and economic impacts and who are assumed will use the project results, at national or community level. There appears to be little consideration of the 4 elements of effective early warning systems. Without these linkages, the project cannot achieve its potential. (This limited assessment was provided by PPEW in the absence of other reviewers)

I have suggested that the project be accepted subject to modification, however, it will require significant modification and a re-write involving the appropriate stakeholders in agricultural management in the region.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 71/06 (MH)                      Enhancing Marine Multi-hazard Early Warning System in West African Countries for Improved Marine Safety**  
(Cape Verde, Guinea, Mauritania, Nigeria, and Senegal, WMO)

Assessment by the EWC III Review

A) Overall Assessment

Ocean adverse phenomena are really a strong concern for people living or working along the West African coastal areas, especially regarding thunderstorms, severe sea state and storm surges - associated with erosion. Severe weather and oceanic conditions have played a significant role in the Joola accident (with higher mortality than the Titanic event). As stated in the paper, a large part of the population and industries are located along the coastline. Except Morocco, none of the Western African countries have implemented national operational early warning systems for maritime hazards in the region. The lack of EW systems for marine phenomena, associated with the risk assessment (except for tsunami hazard), have been clearly identified and documented by WMO and the IOC/WMO Joint Commission for Oceanography and Marine Meteorology (JCOMM). In most Western African countries, the spectrum of needs is very large. EW systems are generally to be built from scratch, especially regarding the technical and training aspects. The proposal is mainly focused on warning services and human training. It is important for the project to be coordinated by WMO, with the support of JCOMM.

The main challenge for such a system is sustainability, especially in Africa. The coordination by WMO, with support of JCOMM and some European countries, should help in this matter. Anyway, on long term, concerned countries should demonstrate their abilities to maintain the appropriate government funding and human resources. Some countries already expressed such willingness. Additional cooperation with regional organizations or agencies (like ECOWAS Economic Community of Western African States for example) could be promoted to facilitate and mutualize the effort.

There is no doubt that Western Africa needs strong support to implement marine multi-hazard national or regional early warning systems. This project could be seen as a way to initiate the process, keeping in mind that in this region, the implementation of EWS has to start nearly from scratch.

However, the review noted that the scope of the project proposal goes beyond the establishment of an early warning system. It is more related to weather forecast and its applications for sea navigation.

B) Specific Recommendation

1. The WMO should be included as a collaborator on project activities.
2. Work related to the evaluation of the project activities should be focused on the quality of marine forecasts, as well as the final products (timeliness, accuracy, understanding) including the usefulness of the early warning system.
3. The risk assessment for tsunami hazard should be quantified and clarified within the scope of the project.
4. The proposal design should be improved by adding appropriate links with other projects, plans or programs, particularly on elements regarding observation networks (including data collection and exchange), telecommunication and dissemination networks and preparedness
5. Appropriate links with other projects, plans or programs should be described.
6. Elements needed for an effective warning system, such as observation and telecommunication, dissemination networks should be included in the project.
7. Population training and preparedness should also be strengthened in the project.
8. Among the large scope of needs, specific attention should be given to the details of the coastal marine observation network.
9. The project design should make use of common forecasting tools and associated training which facilitates the cooperation of efforts to maintain and upgrade materials and knowledge.
10. Countries should concentrate on the provision of products and warnings for national and regional users. For example, a contribution to the GMDSS, which is a system built for SOLAS vessels, should be considered.
11. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 72/06 (MH)**

**Local Action/Indigenous Knowledge: Pilot Projects and Peer Learning to Enhance Grassroots Women's Groups Capacity to Implement Early Warning Systems (Honduras)**

Assessment by the EWC-III Review

A) Overall Assessment

The proposal is more about the sponsoring organization than it is about the referred needs or risk assessments of the intended beneficiaries. It also casts a very wide net of hazard and risk exposure in five different countries. As such I believe that the proposal is greatly lacking in explicit focus of needs or risk assessment and instead advances a rationale based on the professional orientation and specific interests of the implementing NGO organization. Unfortunately the language chosen and assumptions represented are quite ideologically grounded and through repetition, border on the assertion of unexamined assumptions. Without disregarding the concerns of the social issues involved, the reviewer does not believe that such an approach in and of itself is sufficient justification to "support the wide range of activities in which the organization is engaged".

This project is developed from existing strong community based links. The risk is assumed rather than explicitly measured/assessed here but the locations are clearly needy and well defined. The fact that it grows out of locally identified needs and capacities is its strongest point.

The type of social issues to be pursued are both valid and worthy, although the presentation unfortunately concentrates on how it does its activities rather than what those specific objectives are. It is troubling that the proposals objectives are essentially to continue the same work that has already been done, in seemingly the same locations in a continuation of "fostering pilots". This is a problem of concentrating on continuing piloting rather than proceeding beyond the lessons of piloting for further acceptance and application of established practices. While the general objectives are expressed, the means or activities envisioned are quite generic in nature and presented in an indicative, rather than specific or targeted manner.

This project could have major impact if successful. Few early warning projects are explicitly gendered - or firmly based at the grassroots level - and this will make a major contribution to the field. The project is large but builds on existing links and organizations so the risk of failure is reduced. It is firmly grassroots based and yet it will also make use of expert technical support

where necessary and this also cuts down on the risk of failure. Good networks are already identified

The reviewer keeps asking, what recisely the project is, other than working to "address the current gap" and to recognize that often marginalized community do in fact ossess resources that are insufficiently utilized. Planned activities that are cited compose a menu of possibilities for pilot projects, which suggests a much too tentative approach to consuming a quarter of a million dollars. This highly general approach is also reflected in the sole budgetary reference of "5 countries @ \$50,000 each = \$ 250,000", which in this reviewers mind is insufficient justification. Monitoring and Evaluation commentary remains pending in available documentation, so is not referred to.

The proposal lacks detail on timing, monitoring and evaluation and should be encouraged to supply further details. The organizations involved and their track record are a strong indicator for success but more information is needed on the processes.

Without prejudice, but also without documentation, a mark of 3 is given (although a nil or null would be more appropriate), as the subject information remains pending in the documentation available. Note is made though of the prior accomplishment and the nature of the activities undertaken by the proposing entity and its affiliated implementation partners. Nonetheless, it is difficult to distinguish from that which has been accomplished previously to what is now being proposed here. It must be queried if simply "more of the same" is sufficient justification, especially if one is inclined to think that "continuing or perennial pilots" have inherent limitations in terms of sustainability.

The project is strongest in terms of its potential for sustainability. Firmly grassroots based and with known and experienced partners.

An M recommendation is made, but with some reservation. More serious consideration of the basic ideas proposed would really depend on a much more explicit presentation, and greater focus of comment on the specific proposed activities and those people intended to be directly involved. As it is, the proposal seems more about the proposing agency than the problems, works and means of the specific communities or populations involved. It may be useful to concentrate too, on a specific location or collaboration, presented in more detail, or alternately if a spread of various environments is considered, then each one of those be appropriately detailed. If pilots are indeed the intended value, then it is them that should be elaborated upon.

This is a very strong project which is deserving of support. However the proposal lacks some detail which should be requested for completeness. I do not believe the lack of this detail at this stage should count against it in any significant way but before funding can be confirmed more detail is required in most fields.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The project addresses a very important risk to large, vulnerable populations, and offers the prospect of applying rapidly improving capability in weather and climate prediction to make practical improvements in the health sector. Among the many problems besetting Africa, one of the positive developments over the past 10-15 years has been the development of early warning systems for food security. The review noted the being carried out towards wider application of this basic approach to the health sector, where there are millions of vulnerable people exposed to major risks. This proposal addresses those health risks that are climate/weather related. While this is a sub-set of the overall health risks, it is nevertheless a substantial proportion of the risks. The proposal addresses major gaps in the existing warning systems dealing with health.

In the section of the proposal entitled "Background and Motivation" the necessary considerations about needs, risk assessment, and opportunities are extensively presented. The significant increase in weather and climate forecast skills, in particular in seasonal forecasting are well developed.

The Review noted that the four elements of effective EWS are addressed. The proposal could have substantial impacts. The major challenges are in the last two elements of a successful early warning system. The difficulty of defining measurable indicators of success is acknowledged. The proposed "twin" agency evaluations is an acceptable solution in the circumstances.

The project design is very complex and builds on some existing international coordination mechanisms which appear to be very sound and strongly supported. While the plan acknowledges the vital importance of working through national institutions, most of the discussion is on how the climate and weather prediction systems will be coordinated internationally, and the role of international health groups.

The Review noted the importance of having a number of collaborating organisations involved in the project. It can be assumed that this network supports a successful development and implementation of the EWS. The proposal provides a sound idea of the operational procedures that will be run by national and communal institutions.

The Review noted the merit in linking the sustainability of this proposal with the existing regional bodies, though long term effectiveness will depend on effective engagement and action at the national and local level. While clearly a meritorious project, it is not clear how the multitude of high quality predictive inputs will translate into practical action at the national level in the health sector and gain the appropriate response from communities. The relevance of building on the success of the model of early warning for food security is mentioned, but requires some elaboration in the context of the health sector.

B) Specific Recommendation

1. More information should be provided on the context of food security models and the health sector.
2. More clarity is needed on the how inputs will produce the outputs at the local level.
3. It should be clarified whether the objectives are focused on malaria and meningitis.
4. In the list of expected impacts the term “weather sensitive diseases” should be specified.
5. More information on how the major international efforts intersect with a national health service should be provided and a description of how that will translate into community information and response should be included..
6. More details should be provided related to Tasks 4.3 and 4.4. The budget should be downsized as information is available from national, regional or WHO/WMO sources.
7. A literature survey should be included in the proposal.
8. Information on the capacity of the health sector to adequately respond to the early warnings should be included.
9. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

- 5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 75/06 (MH)**

**The Training of Leaders: A Way to Reduce the Vulnerability to Disasters**  
(Cuba)

Assessment by the EWC III Review

A) Overall Assessment

The main focus of this project proposal is capacity building on disaster risk reduction at the community level. It does not address early warning systems per se. Therefore I cannot assess the project according the four components (needs/risk assessment; impact/objectives, etc.)

This is an interesting project on disaster risk reduction. The principle objective of this project is capacity building of key persons (multipliers) through the development and realization of training courses concerning medical emergencies at the community level. The project does not focus the four elements of early warning and therefore can not be reviewed as such.

New policies and strategies are introduced, retraining those in authority in the public sector will be necessary, but with the financial state of many public sectors, it is not surprising that public money for training are wanting. It also points to why uniformed service institutions and other entities want to call "disaster management" their own and create/comprise a sector/program area/recipient for donations parallel to existing public sector entities.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 76/06 (MH)**

**Developing Data and Computational Tools for Assessment of Tsunamis Towards Effective Early Warning Systems**  
(Mediterranean Sea, Aegean Sea, Marmara Sea, Black Sea)

Assessment by the EWC III Review

A) Overall Assessment

This proposal has been well prepared and researched. It sets the needs assessment in clear terms.

The project addresses tsunami risk in the Mediterranean region. The risk is well known but has been neglected to a large extent in the past and hence needs to be addressed urgently. Most of the coastal population of the riparian countries of the Mediterranean is at risk. The project wants to investigate generation, propagation, and coastal amplification of tsunamis in three study areas (Rhodes, Santorini, Marmara). No link to or endorsement by a disaster-risk management agency is shown. Identified EW gaps are tsunami risk analysis, mitigation measures and preparedness.

I find the quantification of the measurable indicators of the added value of the output largely well stated.

The objective of the project is build an enhanced data based for historical earthquake and tsunami information and to model probable tsunami scenarios in three case study areas. The project outcomes are shall be a basis for following preparedness and mitigation studies. For the aspects of awareness and preparedness project task 4 intends to develop a workplan for achieving: effective EW, better preparedness and mitigation measures, experienced authorities, specific computational tools. All partners listed have a technical background though and the workplan is not intended to be implemented in the frame of this project. The outcome of the project can be measured on the basis of the tangible deliverables. But the impact on EW will not be measurable.

This is a 1-year project with a budget of 128,000 EURO. The costs seem high. The time frame quite short. The timeline, however tight, is well designed. The partners seem to have ample experience regarding the technical aspects of tsunamis (modelling). However, none of the mentioned partners seems to have much experience in the field of governance, preparedness, mitigation.

The project is not integrated into government and civil society structures. Potential users of the proposed administrative methodologies are not yet identified or involved. The project is limited to 3 local study areas and will need to be extended to the overall region at risk. That will involve high subsequent costs that are not yet secured.

The hazard assessment carried out in this project is based on historic earthquake and tsunami data. This would have to be implemented into a real-time seismic monitoring system and linked with the other components of EW (alert, governance, response, mitigation etc.). As a stand-alone project the impact on EW will be rather limited. The project would have to be fully redesigned to meet those requirements. Therefore, I suggest to authors a submission to more geologically/seismologically oriented group.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

I strongly agree that the countries of Cambodia and Lao PDR are in dire need of rejuvenated national weather services. However, the proposal does not clearly state their levels of risk and vulnerability, nor does it indicate how many people are exposed to any specific hazard. Clearly, a "needs assessment" and "vulnerability study" are needed for each of the two countries so that a comprehensive plan can be developed to rebuild the national weather services. These should be done separately, as there does not appear to be a direct link between the two distinct weather services. Once these studies are completed, assistance is needed in writing a comprehensive proposal. In my opinion, the proposal is grossly underfunded to meet the desired objectives--the total rehabilitation of the national weather services.

In my opinion, the proposal is grossly underfunded to meet the desired objectives--the total rehabilitation of the two national weather services. The objective to bring the two weather services up to international standards over a 5-year period is admirable, but probably not practical. Every aspect of meteorological support is identified as virtually non-existent: aviation, hydrology, marine, public, observations (surface and upper air), and communications. The expected impact is to provide timely tropical cyclone warning services to the populace, but the early warning objectives are not spelled out. The primary tropical cyclone hazard to these countries is hydrological (flooding and mudslides), as the countries are minimally affected by tropical cyclone-induced high winds and not affected at all by storm surge. The proposal does not address the four elements of early warning systems. The proposal has no quantitative metrics for the measurement of success.

There is no flow chart to describe how the requested systems will be integrated into a functioning network. And, the early warning aspects of the proposal are not identified. In my opinion, the goals are unrealistic and not achievable. There is no delineation of what equipment/initiatives is targeted for Cambodia and what is targeted for Laos PDR. Indications from the proposal are that existing infrastructure, power availability, communications, and expertise is virtually non-existent. Identified EWC III funds and funds from "other sources", which are not identified, together are severely low to meet the objectives.

There is no mention of commitment from either country to either support the necessary infrastructure or to sustain any new program. In fact, it appears that the responsibility for sustainability rests squarely on the shoulders of WMO.

Unfortunately, this initiative has a high risk of failure. Basic questions of facilities, infrastructure, and communications need to be addressed.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 80/06 (MH)**

**Enhanced Multi-hazard Alert and Response Mechanisms for  
Malaysia and Bangladesh  
(Bangladesh, Malaysia)**

Assessment by the EWC III Review

A) Overall Assessment

The objectives of the project are targeted at meeting the gaps identified in the existing systems, that is the proposal uses and builds on existing infrastructure and services. The objectives are very much focused on social issues and increased understanding at the community level and by decision makers. From this point of view the title of the project is a little miss-leading, as while it points to a multi-hazard approach, it is developing techniques that can be applied to different hazards which is slightly different. The objectives of the project are well defined and it addresses the major elements of an effective early warning system.

A measurable indicator is provided in terms of the overall outcome, but perhaps intermediate indicators could be developed, such as number of people aware of the risks and response actions; percentage of area covered by warning services, etc. The proposal suggests that surveys would be used to gauge impact.

The project addresses all of the elements of an early warning system, including social, technical and governance issues. Consultation mechanisms are well defined. The project is sound and achievable. However, a major concern is that while the public and decision makers have been identified as key stakeholders, no specific agencies or groups are identified as being involved in the project.

The project has a focus on the linkage between weather forecasting information and the enhancement of the understanding and response to this information. The project is emphasizing training and training materials and building on current capabilities. But the scope of the project may be too large and therefore difficult to measure success outputs. The various components should be put into a timeline or linked to each other so that the results of one phase will influence the development and facilitation of the next.

The project involves high level expertise from the international and national levels. It has identified a specific gap which is communication of information and focuses on approaches to address this gap. Additional information is required on what local groups will also participate in the activities and how their involvement will be enabled and maintained into the future.

There is a high level of risk associated with hazards in these regions area and these risks have been identified and stated. The gaps that have been identified include scientific knowledge and capabilities, communication between the meteorological services and decision-makers and the

public. The gaps have been identified and specific activities aimed at addressing these gaps proposed. The proposal addresses scientific and technical and governance issues, but also has a focus on social issues. The proposal provides background evidence of current systems, risks and disaster impacts. The activities will identify various levels of risk communication between agencies, media and the public. The detailed information has enabled measurable indicators - concerned about scope of program and achievability.

The project is extremely large and the evaluation strategies or governance mechanisms will be necessary to ensure the development or achievement of measurable indicators of the project outputs. Strategic alliances, especially at the local level will be essential to ensure sustainability. The project has the commitment and involvement of key international and national groups and therefore has a high potential for successful implementation and as it builds on existing systems should be able to be sustained. The project also has potential applications in other areas and as it is tightly focused has a higher expectancy of success. Some external funds have been provided and in-kind commitments should be sought.

B) Specific Recommendation

1. As measurable indicators have been provided, consideration should be given to intermediate indicators, such as number of people aware of the risks, response actions; percentage of area covered by warning services, etc.
2. A benchmarking survey should be developed.
3. The proposal should identify the key stakeholders and specific agencies or groups who will be involved in the project.
4. The project formulators should identify the relationship of this project with others for Bangladesh and consider forming elements of the one overall proposal.
5. A more detailed budget should be provided.
6. More detail is required on the involvement of local communities in the project.
7. The number of objectives and outputs should be reduced. A log frame and timeline should be included.
8. A needs analysis of current public perceptions, knowledge and behaviours of early warning information should be included.
9. More information should be provided on the local community involvement.
10. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

- (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
- (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 81/06 (MH)**

**Regional Multipurpose Information and Early Warning System for Tsunamis, Earthquakes and Storm Swells in Central America**

(Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama)

Assessment by the EWC III Review

A) Overall Assessment

A very impressive work on the risk assessment, especially regarding earthquakes & tsunamis, is described in the paper. The risk and vulnerability, the gaps in existing tsunami early warning systems are identified. But I do not believe that it is completely the case regarding the multi-hazards approach, with the inclusion of storm swells warnings. Even if institutions (generally National Meteorological Services) responsible for watch & forecasts of storms & hurricanes (with associated phenomena, like swells, floodings,...) had been put in the loop, no clear & explicit reference is provided regarding the cooperation & compatibility with national & regional operational systems already in place (WMO Tropical Cyclone Programme, Global Telecommunication System & Regional Association,...)

The project proposal recognizes from the start that there is so far no precise risk assessment regarding tsunamis, and thus promotes it as an activity within the project. However, the proposal does mention historical tsunamis which have devastated some coastal communities, and thus the risk does exist. The proposal does not present data on the number of exposed communities or people exposed, but does present a more technical discussion on the feasibility of implementing a regional system composed of national efforts. In this sense, the proposal would benefit from identifying pilot coastal communities to be included within the scope of the project.

Objectives & indicators are clearly identified, for earthquake detections and tsunami warnings only. Elements of effective early warning systems, for earthquakes and tsunamis only, are included in the project.

The proposal emanates from the technical/scientific agencies, and thus focuses more precisely on the issue of earthquake and oceanographic monitoring, rather than on the preparedness segment. Nevertheless, it does span some measures on the issue of preparedness, which include the incorporation to the national disaster management agencies of every country. Quantifiable indicators are indicated on issues related to the technical monitoring and forecasting aspects of the early warning system, as well as on risk mapping. However, it is not as precise when it comes to issues of preparedness and reaching down to the coastal communities, as it does not include a target based on a number of coastal communities. The proposal does indeed address the four elements of effective early warning, and thus is well suited for financing in this respect.

Regarding earthquakes & tsunamis, this is a strong proposal, prepared and supported by numerous institutional partners. The number of sea gauges could be seen as a bit large, but I am not in the position to argue about that. On the other aspects, especially on the 25 coastal meteorological stations, I do not believe that such a network is useful for the prediction of storm swells. In addition, it is unclear for me that such stations are supposed to be complementary observations to the existing operational meteorological stations already in place. There is no explicit coordination on this point. The need of such an additional network should be clarified & justified. Regarding data exchange, there is no reference to existing operational networks (like WMO GTS). It is not clear if the budget requested (task 3) for this purpose is only for filling gaps (especially regarding seismic information), upgrading bandwidth of existing network or duplicating existing facilities.

The project proposal sets realistic goals, which emanate from various regional workshops and meetings. As such, it can be stated that it emanates from long discussions. It is tailored in a similar fashion to the format in which the Indian Ocean Tsunami Warning System is being established, and thus can benefit greatly from experiences in the Indian Ocean. The funds allocated to the project reflect efforts which can be managed locally, and for example the project does not propose the implementation of DART type buoys which would require a large initial investment, as well as large maintenance costs over the years. Instead, it proposes to work within the limitations and capacities of the participating agencies. With respect to early warning, the project can benefit from experiences within Central America dealing with hurricanes. It is tailored to involve many of the agencies that operate this system, and thus it can be concluded that the project can strengthen early warning capacities within the region.

This project, at least on earthquakes & tsunamis aspects, seems to be clearly embedded in long term institutional, national & regional strategy & structures. It is not so obvious for the other multi-hazards aspects (no explicit co-ordination mechanisms with other plans, projects, or systems dealing with meteorological/hydrological early warning systems, regarding contingency plans, observation/monitoring networks, data exchange). The maintenance of the monitoring system (quite high regarding the number of stations) may be a problem in the long term.

Because the project will involve national level agencies which already operate national and sub-national early warning systems, there is no reason to think that it is not sustainable. However, it is important to recognize that the project focuses more on the technical aspects of early warning dealing with monitoring and forecasting components of the system that with the warning and

anticipated response segments. Nevertheless, it is expected that the project will also look into these issues and promote active participation of the disaster management agencies.

A very good mark of this project is the part dealing with earthquakes & tsunamis (with perhaps a little risk on sustainability for the - hugh - monitoring network). But it could be significantly improved on the multi-hazards approach : - identify connections/interactions with other early warnings systems dealing with hazards like hurricanes, floodings,... (or enhance this projects to additional hazards) - involve (or precise more clearly) cooperation with national & regional meteorological programs (EW for other hazards, observation networks,...)

The project should be considered as a well formulated one, tailored to the needs, capacities, and existing limitations, and builds on such capacities without making a request for the ultimate technology, but for reasonable technology which can be sustained within the region. Because of the amount of funding, it would be advisable to request a more detailed budget description. In addition, it would be advisable to complement the proposal with the identification a target cities in each country where the preparedness efforts will take place so as to complete the early warning chain from the national to the coastal levels.

#### B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

### **PPEW 83/06 (MH)                      Early Warning on Climate Related Natural Hazards to Save Lives, Properties and Livelihoods (Ecuador)**

#### Assessment by the EWC III Review

##### A) Overall Assessment

Public safety of people and goods, economy of Gambia (largely based on agriculture & natural resources) are highly sensitive to meteorological & climate hazards (rainfall, drought, flooding, dry spells,...) and the country really need infrastructure & expert training to implement early warning system(s), starty, at least for some of them, from scratch.

Needs and benefits well spelt out, but the extent of community training in use of the information is underestimated in the proposal. It is a lot more than sensitising, there is a need for real training in understanding and applying the information.

Need additional links with actions or plans regarding preparedness (both at government & stakeholders levels) and technical monitoring & warnings products (implementation/use of forecasting tools, regional cooperation, data exchange,...). Need improvement regarding associated indicators (data availability rate, timeliness/efficiency of warnings,...)

The project objectives capture the intent of the project and the potential benefits are identified. The proposal does not identify measurable indicators but the community is coming from a low

base and it is clear that there would be substantial benefits both for operational use of the information (noting the need for community training) and also in providing the data for research.

Implementing an observation network and training appropriate experts are basic actions when nearly starting from scratch. nevertheless, there are some weaknesses in the proposal : no or very little links are shown with other national, regional or global plans or programs (mostly important for all climate network and products, data exchange,...). No external partners seem to be already involved in the paper (neighbouring country, Regional Economic Community, international organization...), that could help for long term sustainability. The budget required for training seems to be high (except if people are formed from scratch...). No link with regional training centres (ACMAD, AEMAC,...) are included.

The design of the project builds on the strength of the partners and while the overall aim is reasonably ambitious, there is a logical approach to addressing it, with good outcomes from the successive steps. The project approach lends itself to support by experts from across the climate monitoring community, especially through WMO, and is soundly based.

According to Gambia situation, the lack of external partners (like neighbouring countries, ECOWAS Economic Community of Western African States,...) & of appropriate links with regional or global plans or programs may reduce the sustainability of the system on the long term.

The project is not pitched at state of the art systems but at robust workable systems with a good communications structure and well-trained personnel. As long as ongoing government support for the established system is provided, there is every chance that it can be sustained.

The main weaknesses of the project are : - the lack of external partners & appropriate connections & links with regional/global plans or programs, that may reduce sustainability on the long term & benefits from the observations network. - gaps in the proposed EW system, especially on preparedness & monitoring/forecasting tools

Accept as is, but need to emphasise the need for substantial community awareness and user training to ensure the information from the system is used effectively in the decision making process.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**Upgrade of the WMO Global Telecommunication System (GTS) to Serve as Backbone Communication Network for the Exchange of Warnings and Related Information in Support of Multi-hazard Early Warning Systems (South-East Asia and Pacific)**

Assessment by the EWC III Review

A) Overall Assessment

The WMO Global Telecommunication System (GTS) is an essential component of a multi-hazard early warning system. Its usefulness and significance have been well-proven in the past in the exchange of weather, water and climate-related data, forecasts and warnings, and in support of tsunami warning systems and environmental emergency response. Serious shortcomings of the GTS in some developing and less-developed countries have been well-identified for some time and have hampered the effectiveness of the early warning systems, putting millions of people in the region(s) concerned at risk of natural hazards. Upgrading of these segments of the GTS is necessary as a matter of urgency and high priority.

There are several critical elements to providing multi-hazard early warnings. In addition to the observational system, the prediction system, there is need for the communications system, to both bring the observational and other information to the prediction system and then to disseminate the warning and related information. A GTS is critical to this. There is also need for an information system to get the warnings beyond the NMHS to the people and critical organizations. The warnings need to be accompanied by information on how to respond. There is also need for an ongoing public education and information activity so that the warnings are understood and properly responded to. Without the GTS (or some similar system), an overall early warning system cannot work. The proposal has documented the gaps. The level of risk and vulnerability has been demonstrated and many people are exposed. To be useful and meet the needs, the GTS must be part of an integrated system described above.

The project is intended to meet the identified needs of upgrading and strengthening the GTS where needed. The project enhances the telecommunication capabilities of regions at risk for exchange of data and warnings. The other elements of effective early warning systems have been addressed in other existing WMO Programmes. End results of the project are operational telecommunication systems and are readily monitored and assessed quantitatively.

This proposal needs to be seen as a component of an EW system. While no measurable indicators were given in the document, it should be noted that the NMHS usually are very good at this. The planned activities are realistic. With knowledgeable expert teams from WMO Members to assess and define the requirements of national GTS components, resources may be utilised cost-effectively and efficiently. The planned activities as well as on-going WMO Programmes include on-going training and capacity building of national personnel who will operate and maintain the GTS components, monitoring and evaluation mechanisms, and regional and international coordination. These elements may ensure that the upgraded GTS meets the needs of multi-hazard early warning systems in a long-term day-to-day operational environment.

It should be noted that WMO has bodies within the Commission for Basic Systems and Regional Associations to review regularly the status of implementation and operation of the GTS, to monitor and evaluate project implementation, and to recommend corrective actions. WMO

regulations and internationally agreed recommended practices and procedures should be addressed to assure the timely implementation of the planned activities.

The project includes training, capacity building, and technology transfer for sustained operation and maintenance. WMO has proven mechanisms for monitoring, evaluation and recommending and taking corrective actions. The new generation GTS equipment are durable. The upgraded GTS thus would be durable with sustainable capabilities. WMO being a UN specialized agency has the capability to make maximum use of national and international expertise and recurrent resources to assure success of the project in the long-term. Since the GTS is implemented and operated by National Meteorological and Hydrological Services of respective countries with WMO playing a coordinating and planning role, the GTS has shared ownership. Respective countries and WMO are committed through the respective national budgets and regular WMO Programmes budget to sustain the long-term operation of the GTS.

The proposal would implement a system with the majority of the budget dedicated to the installation of equipment installation. There are also funds for capacity building and training. There will still be issues with sustainability within individual countries where the resources or priorities are not available for this system.

The NMHS are the obvious and appropriate organizations to be entrusted with this system - since they have been, in most cases, sustained and would make use of the multi-hazards and use aspects of the system. It is important that it be part of a multi-hazard system since that will provide it with enough exposure, use and justification to be sustainable. The project is important as an early warning system, no matter how sophisticated and scientifically advanced, could not operate without a reliable and effective global telecommunication system for exchange of data and warnings.

B) Specific Recommendation

1. More information should be provided on whether the work is part of a larger EW system.
2. As the proposal deals only with the technical aspects, it is unclear whether the activities are part of a larger overall system or stand alone activities. Measurable indicators should be provided.
3. More information is required on the issue of governance. Who will run the system within countries? Can these organizations ensure compliance with international protocols? Information on the social and governance aspects should be included.
4. A more complete description of the project strategy should be included which includes information on WMO regulations and recommended practices and procedures.
5. The proposal should include a defined timeline.
6. More information should be provided on the sustainability of the project within the countries.
7. The justification section of the project should clearly indicate that the project will be part of a multi-hazard system.

8. A clear description of how the project fits into an overall integrated EW system including issues of governances and long-term sustainability.
9. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 89/06 (MH)**

**Early Warning System for Provincial Park Pereyra Iraola  
(Argentina)**

Assessment by the EWC III Review

A) Overall Assessment

Risk assessment very poor (hazard impact and vulnerabilities not well documented) There is no reference to technical surveys/analysis undertaken by a disaster-risk management institution.

It does not address the four elements of effective EWS. The proposal does not identify expected impacts and lacks measurable indicators.

It is irrelevant as to the design since the subject area of this project only tangentially addresses early warning.

The proposal is very local in scope. It does not relate to a long-term institutional, national or regional strategy on EW.

Impacts of natural and population-induced events (including pollution and polluted flood waters) on ecosystems thus placing them in peril will become increasingly the subject of calls for action, and thus call for financial support.

The proposal is not appropriate for submission in the Early Warning Project Portfolio as it only tangentially relates to early warning.

The problem definition is developed to a point where one can appreciate that more than an early warning project, the proposed project is actually a request for budgetary support. The proposed project points out an emerging reality as at different levels, different entities are coming to the realization that the issue is not the "disaster" but the underlying vulnerability and the causes of the vulnerability. This is a true example of why natural hazard vulnerability is an environmental management issue, but not necessarily an environmental management problem if the underlying causes in the economic sector are not an integral part of the approach.

The project is presented as a small (US\$18,000) part of an integrated environmental management project for a multi-use provincial park. The project activities mainly involve holding workshops which would include some early warning training. This would be worthwhile, but it is not clear how the project expects to link to the national weather services, who would make use of the information and how they would use it, and what the end result would be in terms of an effective durable operational early warning system. More thought is needed to define the desired system and the practical means to achieve it . (Assessment provided by PPEW in the absence of other reviewer.)

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ .....) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 91/06 (MH)**

**Analysing Risk, Identifying Gaps, Preparing Communities for Developing and Operationalising Decentralised Information System Framework for Enabling Communities to Comprehend Early Warning in Disaster Prone Regions of India**  
(India)

Assessment by the EWC III Review

A) Overall Assessment

In a long proposal of 17 pages, the section on risk assessment is confined to just one paragraph. In this paragraph titled "Region, Risk and Population", there is no information on the hazard or the vulnerable population. The proposal mentions in the beginning that the project on EWS will be implemented in three out of seventeen multi-hazard prone states of India, though it is not clear which are these three states. It is much later in the report that one comes to know about the proposed implementation in Uttar Pradesh, Orissa, and Tamil Nadu. At one place, another state, Rajasthan, too has been mentioned. It is confusing. When these states have been discussed, there is no risk assessment in terms of hazards or the people likely to be affected by the hazards. There is no discussion of the need for developing an EWS on the basis of frequency of hazards and disaster losses. In fact, a major weakness of the proposal is that it is a very long, with little coherence and sharpness. The proposal in its meandering course tends to lose its focus.

While there is a strong need on the climate change adaptation and its community level application, the proposal does not reflect properly the background and need assessment in the three states mentioned in the proposal.

The applicant organisation and members of the consortium have identified hazard risk in the targeted geographical areas accurately. The vulnerability of coastal people of Tamil Nadu to storm surges and cyclones, and to floods in Eastern Uttar Pradesh is based on the field assessments of its partners NGOs and the national risk assessment atlas. These hazards and current low levels of preparedness and inadequate early warning systems make the populations living in these regions highly vulnerable.

Though the proposal mentions that communities would get access to information through the EWS, the discussion of the impact is presented in a jargon that is difficult to understand. For example, the expression "Identification of comprehensible interfaces for networking with identified community groups across three states" (page 7) is difficult to understand. Similarly, "mainstreamed access to early warning information to community groups as identified by the partners in the states of Tamil Nadu, Orissa and eastern U.P." is not clear. The proposal is replete with such expressions. Moreover, it is very sketchy. Actually, the impact of an effective EWS would mean better preparedness or building resilience at the local level, something which the proposal has not been able to articulate. Similarly, there is no discussion of technical, social and governance aspects of the EWS in the proposal.

The proposal is too optimistic. Within 2 years of time frame, the project proposes to cover all different areas of interventions from technical analysis, policy advocacy, community implementation, capacity building etc. Thus somehow diffuse the project impacts.

The objectives of the project are clear. The expected impact is credible in terms of the methodology of the project implementation spelled out. Vulnerable population will gain from receiving comprehensible warnings on hazards which have a degree of probability, and will be trained and capacitated to act on the warnings for saving life and property in Uttar Pradesh, Orissa and Tamil Nadu. Hence risk and gaps identified, information sharing framework established and communities prepared for accessing early warning information through identified communication tools will clearly benefit the vulnerable population exposed to hazards of floods, cyclones and storm surges. The project thereby integrates all 4 elements of effective early warning system, with greater emphasis on communication and community comprehension preparedness to receive early warnings.

The project activities have been identified through a bar chart (page 7-8). However, these activities are not well-defined and clear. Most of the activities relate to data collection and analysis. The purpose of the data collection and analysis is not very clear. How these activities relate to the outcome of the project and the impacts are also not clear. The proposal focuses on three states, each of them focusing on a different hazard. It would be very difficult to manage a project which seeks to develop EWS for three different hazards in different states. It would be much better if an EWS is developed on a pilot basis for one state, focusing on its hazards and vulnerabilities. The proposal sounds rather too ambitious in terms of the coverage of the area and hazards, more so when the risk assessment of these three states in the proposal is very inadequate.

Similar to impacts/ objectives, the project does not set realistic goals. The target should be narrow down to achieve the specific goals within 2 years of period.

The project is innovative and sets realistic and achievable goals over a two year time period. The project is innovative because it synergises the work of private technology and communication companies in computers, FM radios of Winrock India, Ekgaon Technologies with grass roots work at community level of NGOs like SWAD and ISET, GEAG and NWCF. The division of labour between technology application and grass roots community mobilisation is well planned. The project seeks to draw upon and build further Government initiatives on the disaster management plans in 160 district and newly created State disaster management authorities. For the resources it requests for (724,000 Euro) it is cost effective. It will be covering many million vulnerable people with effective and tested early warning systems.

The section on sustainability (p. no. 12) is unintelligible. For example, "the project seeks to innovate on technologies and systems for enabling access. While technology and system development would be the core focus of the activity, the same would be done." It is difficult to understand what the proposal intends to convey. The proposal claims that "it is a deliberate attempt in this project to establish a public-private linkage for evolving a framework for delivery of information." The hint at the public-private linkage has not been elaborated. The proposal also mentions a revenue model for the exchange of information, though this has not been explained further. In fact, there is no coherent argument in the proposal for building sustainability into the proposed EWS.

This is the most important element missing in the project. It is hard to visualize that the 2 year project from outside intervention can mainstream the risk reduction activities in the policies. Additional indication is required to specifically demonstrate how the early warning system will be used for daily events, and ensure its sustainability.

On sustainability its main focus is on generating a revenue model for private mobile phone companies. this will indeed make the project viable in the long run. However, greater linkages needs to build up with local government bodies and District and Vilalge panchayat level to make the project durable over the long run. Partnership with representative local government bodies and village and district level needs to be strengthened further.

The project targets a very crucial issue. However, the proposal, as it stands now, it more like covering many areas with shallow focus. This aims more as a research project, than implementation. To make it effective, and "to prepare communities for developing and operationalising decentralized information system" (as the title says), it needs more focused approach. Significant changes will be required before the project can be accepted.

The project proposal is an excellent initiative cross cutting application of communication technologies to rural areas with community mobilisation of rural poor, by grass roots NGOs. The project is based on sound risk assessments of the targeted areas. The capacities of the applying organisation and its consortium members is well established, in terms of their previous experiences in similar projects. The market verification of this approach is validated by the support being provided by US Environmental agency and some private corporation to project components. The experience of the recent tsunami in Tamil Nadu and Orissa has created the right political and community level demand and awareness to ensure that the projects receives high degree of Government and political support at the implementation stages. The project targets the poorest regions of India, in eastern Uttar Pradesh and in Orissa, whose populations are vulnerable to recurrent floods and cyclones.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 96/06 (MH)**

**Sub-Regional Natural Disaster Early Warning System**  
(10 Countries of West and South-West Asia )

Assessment by the EWC III Review

A) Overall Assessment

Although very detailed background information has been made available, a solid risk assessment demonstrating that identified project activities are clearly addressing the needs were not provided by the proposers. It is not known up to what degree the current risk and vulnerability of the various geographical regions of the ECO countries has been assessed and it has not been mentioned to what extent the population is exposed to hydro-meteorological hazards. From the information provided one could arrive at the conclusion that early warning capacities have not yet been established in the ECO Region and hydro-meteorological services require substantial operational improvements.

It is highly desirable to have a sub-regional hydro-meteorological and climatological monitoring and data processing network covering all countries in the ECO Region. The proposed objectives are clearly defined with regard to establish a regional natural disaster management center and its functions / tasks assigned to it, including the dissemination of information to the public and private sector. Risks in the target regions are briefly summarized. Unfortunately, no statistical data relating to the population exposed to risks and the degree to which communities affected, has not been elaborated. A quantification of possible results and defined measurable indicators to permit an assessment of the impact of the project were not included. The intention to include early warning capability has been stated but without giving any further details. The integration of the proposed project components into existing systems was not been made clear and existing links to ECO countries running similar systems or projects has not been addressed.

Although the project does not propose an innovative system it sets realistic and achievable goals. Arguments as discussed under 2 (Background and Motivation) are, unfortunately, not reflected by a comprehensive work plan. It has not been outlined how these goals can be achieved within a given time frame. Milestones, or any form of project quality control mechanisms or anticipated

results are not included. The financial plan lacks transparency and needs to be reviewed to ensure a more justified allocation of funds that is in coherence with the proposed activities. Only very limited information was provided on the capacity of the ECO countries to make own resources (in any form) available to support the project. It would have been desirable if further information had been included regarding already existing early warning systems and how the envisaged project would integrate these components.

It has only briefly been discussed, up to what extend the project will create a durable system and sustainable capacities are integrated into existing Government activities. It is the intension of the proposers to involve all ECO Region Member States but it is not clear, how the project partners will sustain the project beyond the project period of 5 years. Furthermore, it would have been helpful to attach a declaration signed by the ECO Region Member States to express their interest and support and that they are prepared to secure funding in the future. The question of partnership has not been clarified to the extend this project has been made a priority by all ECO countries. Uncertainty remains to what degree own resources will be made available to ensure the success of the project.

It is highly desirable to have a sub-regional hydro-meteorological and climatological monitoring and data processing network covering all countries in the ECO Region. It has not been outlined how these goals can be achieved within a given time frame. Milestones, or any form of project quality control mechanisms or anticipated results are not included. The financial plan lacks transparency and needs to be reviewed to ensure a more justified allocation of funding that is in coherence with the proposed activities. Only very limited information was provided on the capacity of the ECO countries to make own resources (in any form) available to support the project.

## B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

Assessment by the EWC III Review

A) Overall Assessment

No specific material is provided to show that a need has been identified and assessed. Reference has been made to increases in extremes, but no evidence has been provided to support this.

The project proposal focuses on regional climate modelling for long term predictions to develop national / regional climate change scenarios including the development of indices for weather and climate extremes. Inputs from such a project could serve as a basis for the future development of early warning systems for the Islamic Republic of Iran. Aspects of risk assessments carried out by IRIMO were not included nor any indication given, what current level of risk and vulnerability caused by climate extremes has been experienced in relation to a given geographical region. A case history, indicating the nature of the weather extreme, its impact on effected communities, loss of lives and economic losses would have been helpful to obtain a picture of disaster impact scenarios. No indication was made regarding existing early warning systems and how they would be integrated in such a project.

The objective is to establish a climatology and then use this to evaluate future impacts. Possible impacts are identified, but not quantified. There are no measurable indicators. The proposal is lacking in substance.

The objectives and expected impact of the project are briefly described and kept very generic. No indication was made on percentage of the population exposed to extreme weather would benefit from the project. Outputs or measurable indicators to quantify achievable results were not defined. No further details were given how the project would be integrated into other exiting projects or facilities at national or regional level to ensure a successful implementation.

The project design appears sound in that it starts from a very low knowledge base and attempts to derive a knowledge base on which to make future decisions. I believe that there is need for a considerable amount of work before the proposal can be implemented and unfortunately there is very little supporting information provided to substantiate the proposal. This may mean that this doesn't exist and the proposal is attempting to create it, however, this should be clearly spelt out.

The project proposal does not include a work plan. Except for a brief summary of planned activities no information has been provided on achievements, milestones or anticipated results. The financial plan is inadequate. No details, with exception of the total amount requested, have been given to arrive at a conclusion on how the budget will be spend.

The project should be sustainable, but no evidence is provided to indicate that this will be the case. There is no breakdown on how the funds will be used, that is, for technology or consultants. The commitment of the involved parties is not substantiated.

No information has been provided how to sustain the project beyond the project period of 3 years. A declaration of the ECO Member States would have been highly desirable stating that this

project has the Members support, is a priority project and that own resource would be made available to sustain and further develop the project in future.

I do not believe that the proposal can be accepted in its current form and the work required to better develop it is considerable.

The objectives and expected impact of the project are very generic. No information has been provided on how to sustain the project in the future, after the project period has ended. The proposal is lacking a work plan and does not give any details on expected achievements, milestones or results expected within the given project period of three years. Furthermore, no financial plan has been included.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 102/06 (MH)**

**Seismic Risk Assessment and Mitigation in the Antakya-  
Maras Region in Turkey  
(Turkey)**

Assessment by the EWC III Review

A) Overall Assessment

The Review noted that the data provided on the assessed risk is compelling and thorough. Relevant socio-economic data is provided. A very thorough needs assessment is to be based on hazard mapping and proposed discussions with stakeholders, including with senior political officials. Project objectives and intended outputs are appropriate and achievable. The fact that this project focuses on inhabited at-risk areas outside the mega-city environment of the Marmara region is an important aspect of the proposal. A challenge, however, will be to ensure there is adequate linkage between the megacity projects and this one. Much can be learnt from other studies including large inter-disciplinary studies similar in composition to this one. Hopefully the earlier studies can be re-evaluated with lessons from this one. Nevertheless, the deliberate alternative study choice raises the prospect that a greater portion of the Turkish built environment will be assessed.

The objectives are clear and practical. The project will result in micro-zonation of urban and rural areas, and identification of vulnerable people and housing stock based on socio and economic variables. The project addresses elements of risk assessment and also risk awareness.

As early warning is not possible for seismic risk, the project outputs are aimed at dissemination of vulnerability assessments for better preparedness.

The proposal provides clear evidence of diverse local support for the project as well as local involvement at public and private levels. Ensuring that the public is involved is an input, although it could be strengthened. For example, is there follow-up to the surveys so the citizens can learn of the results and contribute to any solutions. This is an area that is often overlooked. An earlier study in 2003 focused on Istanbul and lacked this component. The multi-disciplinary/international composition of the study group is good. The former gives it greater scope and application, as well as enabling it to be linked with an earlier study of Istanbul (released in July 2003) that seems to cover many similar areas. In this case, the potential duplication is a beneficial feature. The added focus of cultural conservation is laudable. Overall, the proposal is well-thought out.

The project design is sound, realistic and achievable. The project is cost efficient. It is based on an already completed seismic risk assessment. It will draw up a master Plan in consultation with local authorities, local people, scientist and sociologists, which could serve as an example to emulate for other earthquake prone zones.

The project seeks to link with other ongoing German collaboration projects. There is strong buy in and ownership from the local government as revealed by the letters of support from the provincial Governor. The project is based on participative design and scientific hazard assessment and socio-economic vulnerability analysis. The master plan resulting from the project should be achievable in the region due to prior buy-in of the stakeholders achieved in the consultative phase. Hence, the project has potential for sustainable. It will also serve as an example for other regions of Turkey with similar risks. Partnerships are possible with government and local municipal bodies. Universities in Turkey and Germany provide for maximising the use of local institutions and resources. The project has concrete outputs which will have multiplier impact on risk assessment, preparedness, awareness and mitigation in mid-sized urban areas of Turkey.

B) Specific Recommendation

1. Reference and linkage to the results of previous studies should be included.
2. The project activities should include involvement of the public and private sectors.
3. Direct linkage to the 'four elements of effective E-W needs to be clarified.
4. A detailed description of the workshop activities should be included. It is important to note the target audience of the workshops.
5. In terms of creating sustainable development, it is essential that not only local government officials are involved, but also local non-governmental leaders and other local citizens. A key question that needs to be answered is what local citizens want.
6. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

- (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
- (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 105/06 (MH)**

**Capacity Building in Mozambique: Using the Education Sector for Disaster Awareness Outreach**  
(Mozambique)

Assessment by the EWC III Review

A) Overall Assessment

Apparently there is need to introduce scientific knowledge about disasters in the country. Schools could be an effective means to reach this objective. However, it appears that the authors are suggesting an early warning system run by schools. Schools could be part of an early warning system, but can not be the originators of early warning information. From the document, the levels of vulnerability of people are not well identified. A more detailed explanation would be needed. The project document indicated the absence of a strategy with measures to be taken in disaster situations.

The project is informed by feedback from disaster awareness and risk reduction workshops across Mozambique that provide insight into locally relevant disaster risks. It would have been helpful if more detail had been given on the risks that have been prioritised ... drought, flooding, cyclones, fires? The warning processes for these are quite different

The objectives are too ambitious to achieve over a one year period. The project could improve the understanding about natural disasters. There are no clear indicators to assess the impact of the project.

If successfully implemented, the project would have a useful impact - although, without clarity on the specific risks being prioritised, it is difficult to assess.

The project seems too ambitious to be implemented without the support of an institutional framework. Linkages with government structures and or Civil society would need to be established in order to ensure the implementation of the project.

The project is well-designed. However, it is extremely ambitious in the short time-frame provided - to develop curricula for both learners and teachers, pilot this, and implement the programme. It is also of concern that there is no Mozambican national in a senior management position in the implementation of the project. This is important for capacity-building and for facilitating local ownership. It also imbalances the budget - with around 50% of the funds allocated being assigned to expatriate costs rather than to national professionals.

The project seeks to involve various stakeholders. It also seeks to create capacity by training trainers who could continue the sensitization process in schools. The weakness of the project resides on the fact that there are no existing structures that could integrate the lessons of the project.

The engagement of both INGC and UEM provides a strong measure of potential sustainability. However, for this to be truly sustained, the institutional arrangements need to specify the establishment of a permanent DRM focal point in both EUM's Teacher Training programme and at the Ministry of Education. Without this, ongoing advocacy is difficult to sustain institutionally. Ideally, links should also be specified with other supportive departments in the EUM (ie geography and economics), so these can be transformed as well.

The project should be reviewed. The review should focus on the deliverables of the project as well as sustainability elements. There is a need to expand on the early warning system in the country and the possibility of ensuring the early warning information reaches the targeted population.

This is an interesting proposal. However, it should be modified to include greater involvement of Mozambican professional personnel - who will enhance sustainability and ownership. Greater specification of the priority risks being discussed should also be provided. The time-frame is very ambitious, and may not allow for full pilot-testing of the curricula before finalising this. There should be clear links to other technically-relevant university departments at UEM besides Teacher Training to ensure cross-disciplinary interaction.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 108/06 (MH)**

**Managing Risks Related to Weather/Climate Extremes in  
Southern Africa  
(Angola)**

Assessment by the EWC III Review

A) Overall Assessment

It is clear that the SADC region needs better early warning and response mechanisms for hydromet hazards, particularly drought, floods and tropical cyclones. These are all phenomena that occur at the regional level, and must therefore be monitored and thus predicted through regional collaboration and expertise.

The Review noted that the objectives were too broad. The impacts could clearly be substantial but questioned whether the PPEW request for proposals was the appropriate vehicle for such an ambitious effort. The technical aspects of the proposals are well-covered. What is missing is the link to the people. One must assume that information dissemination to the people-at-risk is left to the NMHSs and DMCs, as it should be. However, if their capacity to issue early warnings and action-plans to local communities and individuals is not adequate, then this project will not be as effective. There should be some more provisions to enhance national capacity in public awareness, education and information.

Considering the enormous size of the SADC region and the many activities to be pursued, this proposal appears relatively cost-efficient. Much responsibility is placed on the national institutions, including provision of resources, which will enhance ownership (assuming they are able to provide the necessary resources). The 4 year timeline is realistic, and monitoring and evaluation is adequate.

The scope of the proposal is exceedingly broad and probably too much so for this PPEW call for proposals. There are some fundamental issues relating to the sustainability of meteorological services in general that will probably not be resolved through a contribution from this funding mechanism. With much of the responsibilities left to national institutions, there should be greater ownership and thus better drive for sustainability. The risk is, however, that the national governments will not be able to financially support the maintenance of facilities and networks on their own. Many times hydromet equipment maintenance loses out to more pressing needs in the national budget and political agenda. Hopefully SADC will be able to pursue this after the initial 4-years, but another question is just how binding is "regional legislation" and what powers would SADC have to ensure future support from member states?

The Review questioned the way in which this proposal is presented. The main objective appears to be the general enhancement of the meteorological services of SADC countries. While this objective is laudable and would in the longer term lead to better early warning systems in the region, I do not believe that it is appropriately focused on or targeted at the PPEW call. The information provided is too general to determine whether the funds will be appropriately targeted to the specific needs of each SADC country for EWS. There is also a considerable disparity between the budget in the summary document (EUR 2,300,000) and the larger submission (USD 4,027,000). It almost seems as though the larger document was originally prepared for submission elsewhere.

The technical aspects of the proposal are adequately described, however details are lacking in the link to the ultimate end-users: people-at-risk. While the technical structures for early warning are needed, dissemination, education, awareness and planning by and for communities and individuals are just as important. Both aspects are needed for sound early warning, so assuming that once the proposed network is in place and strengthened, national agencies will have the capacity to manage the dissemination and education aspect.

B) Specific Recommendation

1. More details should be provided on how the activities will link to the end-users: people-at-risk.
2. The risk section of the proposal should describe the financial sustainability of the project activities including equipment maintenance.
3. The proposal should describe the sustainability of the project activities.
4. The budget should be downsized and details for each SADC country provided.
5. Project activities should include enhancement of the national capacity in education and public awareness.
6. The objectives should be simplified and focused with a demonstrated link and dissemination activities to local communities.
7. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

Although the risk is well argued, the needs of the population are missing. What do people need to know, and to do?

The first two elements of effective early warning systems is covered, although it is not at all clear what "early" knowledge will be generated and how it will be used to benefit the at risk population. The third element is only vaguely touched upon, and the fourth element is missing completely. What is the size of the population to be benefitted? How many communities? How will they be reached?

The seismic networking aspect of the project is reasonably argued. However the justification for the very expensive items of the budget, and how it compares to other alternatives, is absent. The public awareness aspect is quite meaningless. Public awareness requires just as much expertise and specific methodology as does seismic monitoring. It is laudable that a significant part of the budget is dedicated to public sensitisation. Nevertheless, it is not evident that any social science expertise has been brought into the design of the project yet (e.g. professionals with experience in social mobilization, public education, public relations) What do you want people to learn? How will you reach consensus about those messages? What do you want people to do (ahead of time and during the event)? How will messages be made understandable and enable desired responses? How is this linked to the kind of warning that can be generated? Do people need to plan evacuation routes, establish high-ground safe havens? Is a system of early warning communication needed? Is coastal signage needed? Do you need to teach recognition of natural precursors? What will be the impact - just saving lives, or also livelihoods and homes? Does this have implications for land-use planning, or for earthquake and tsunami-resistant design and construction? Who will be involved in continued sensitization of the public and what criteria will be used to evaluate progress? Much more effort is needed to make the sensitisation program component believable.

The seismic network may be sustainable, but the public sensitisation aspect of the project is not sufficiently well-defined to be sustainable.

This need is very apparent. Nevertheless substantial involvement of social scientists, community-based non-governmental organizations, and local government partners is needed to develop a plan for the design and dissemination of public education messages, and the development of objectives in terms of disaster risk mitigation and response to long-term and short-term warnings. These are needed to justify the use of such substantial sums of money for both the network and sensitisation objectives.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 119/06 (MH)**

**Installation of an Early Warning System of Rising in the  
Ouzoude Center  
(Morocco)**

Assessment by the EWC III Review

A) Overall Assessment

Proposed activities respond to needs that have been identified by relevant institutions and based on past events and data.

Objectives are clearly stated, and all the 4 elements of effective early warning are somehow addressed, although the emphasis is clearly on technical monitoring aspects.

The goals are tangible and clearly stated, however the proposal does not give any detailed timetable for the activities (the duration of the entire project is 12 months), nor information is available on the implementing partners (the proposal has been presented by the ministry of interior, Province of Dázilal, Morocco)

The aspect of sustainability of the project is not described in the proposal. It is foreseen that the project will be implemented mainly by existing structures (local government).

The project is well justified and based on technical data. Some aspects are inexistant or not well developed, such as the sustainability of the project. The focus is on technical hazard monitoring and data analysis, while the community preparedness is the weakest component of the proposed project.

Though the objectives mention "installation of a local organization of intervention..." the Planned Activities do not contain any explanation to the effect. This needs to be included. Further, diffusion of alarm to the population also needs to be explained with specific reference to actions to be taken by various ministries/departments and the movement of people, sheltering people in safe havens etc. A break-up of estimated cost (Euros 160,000) would strengthen the proposal further. Activities phased over 12 months need to be detailed out too.

The proposal as it is cannot be accepted since it needs further detailing as mentioned against Impact/Objectives. Once, this is done the proposal could be accepted.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 121/06 (MH)                      Disaster Observatory Linked to Major Emergencies and  
Sanitary Risk  
(Morocco)**

Assessment by the EWC III Review

A) Overall Assessment

The needs and risk assessment of the project is its weakest point and may require some additional information on the vulnerability of medical facilities in Morocco and the need for more effective emergency capacities for sanitary components of disasters.

The project clearly outlines its objectives, activities. It is a little weak on the implementation mechanisms.

The dependence on outside resources for the project activities, raises questions on its sustainability.

Not directly related to early warning, rather a disaster risk reduction project. Prepared by the Moroccan Ministry of Health, this project proposal aims to provide a basis of information on health vulnerabilities related to disasters for use by public health managers. It takes a broad approach covering information systems and training of personnel. It envisages the participation of other ministries. While the project is worthwhile and is relevant to disaster risk reduction and to some extent to early warning, it does not meet the criteria for being an early warning project.

The brief project was edited in rather badly written English which may limit the effectiveness of the project proposal. Still a proposal of this nature is extremely pertinent as it addresses some fundamental weaknesses in the health reduction chain surrounding natural disasters. Although the actual mortality rate from crises has decreased in recent years despite the number of disasters increasing, the number of people affected has risen dramatically, especially in less developed countries where vulnerability, poverty and malnourishment are more prominent. For what it is worth (in as much as these factors may be included in the full project proposal) let me briefly set down what a pilot project of this nature should include using, inter alia WHO guidelines for crisis health management . Any data gathering pilot project in Morocco which seeks to reduce medical risks related to major urgencies (which is one of the project's main objectives ) should focus on the following : -ensure that disaster-affected areas have essential medicines and medical supplies available to those who need them. -Build scenarios for possible major incidents, including mobilization of major stakeholders to undertake evacuation and quarantine procedures. - Ability to rehabilitate health facilities, train health staff, repair damaged health systems and ensure routine immunisation. -Ensure strengthened disease surveillance systems and response to communicable disease outbreaks. -Encompass adequate environmental health and water/sanitation interventions. -Analyze women' s health needs, HIV/AIDS prevention and other vulnerable groups --- often areas that are neglected. (Note that threatened populations, particularly vulnerable groups face heightened risks to health due to common illnesses made

more dangerous by crisis conditions, disease outbreak , starvation, malnutrition, and increased HIV infection risk .The health of the vulnerable ( women, children, older people and the chronically ill and the pandemic HIV / AIDS epidemic have introduced a new complexity into humanitarian crises.) HIV AIDS (Morocco's incidence has not yet reached the levels of southern Africa but may do so in the not-too-distant future) is particularly effected by food security, food rations and other nutrition related act invites.( Several missions on HIV AIDS prevention in southern Africa which I have recently undertaken confirm these concerns ) -Health sector vulnerability reduction policy is essential in order to reduce risks. Public institutions such as hospitals and water systems should be made resistant to the effects of natural hazards. Improving hospital performance and preparedness during and after disasters is crucial. The work of the Government of Nepal, with assistance from WHO, which has carried out structural and non structural assessments of its hospitals over the last decade could be looked into by this pilot project... The state of Gujarat, India in the aftermath of the Gujarat Earthquake of 2001 is also another example.. In conclusion reducing the vulnerability of the health sector so that it is safe and remains functional not only saves lives the day a disaster strikes, it also has positive repercussions on daily operations. The benefit of making health systems more efficient, safer for communities and a contributing factor to national security extends (as WHO policy makers repeatedly tell us ) far beyond the ministry of health to all sectors of society. This pilot project can make an important contribution in this respect.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 123/06 (MH)**

**Alert Africa - An African Early Warning System  
(Africa))**

Assessment by the EWC III Review

A) Overall Assessment

The Review considered that if the Alert System is to do more than the existing material at the HEWS website, then it will need to function and operate within AU structures and be 'owned' and operated by the AU. The proposal as currently formulated provides sufficient information on the challenges and risks in trying to set up such a system within the AU framework. For example, where would the site(s) operate out of; to what extent would it/they be distributed (noting the distributed nature of the HEWS site); would it be multi-lingual? Would AU countries be expected to fund the ongoing costs?

As the AU takes on more and more responsibility, it certainly needs to enhance its early warning, preparedness and response capacities. However, many systems that are already available (for example HEWS web, FEWS Net, etc.) are possibly adequate for regional monitoring. The proposal does mention that existing early warning and data collection mechanisms will in a sense be harnessed and then centralised for AU usage in the proposed portal. As such the focus should be more on the response and preparedness aspect - what is mentioned about a SMS system for focal points is good, but then what? Once an alert is triggered, what happens next?

The Review questioned whether it might be more realistic to build the system gradually, i.e. by initially selecting a few countries with good existing infrastructure from which to obtain some leverage, and hence prove the concept and, as appropriate, refine the objectives? It would seem that the project is going to cover all 53 AU Member countries in two years, which is somewhat over ambitious, especially if it is going to rely on distributed, country-specific sources of information.

As a proposal, the objectives and indicators are well defined and explained. While the proposal mentions "Early Warning - Early Action", it appears to be limited to Early Warning. What is the Early Action, especially with regards to the people-at-risk? It is great that disaster focal points will get an SMS early warning, but then what? How will this impact the people-at-risk?

While strengthening the AU's response capacity is a needed goal, the project misses the ultimate objective of helping people prepare and respond to disaster. An alert system for the entire African continent, beyond a nice web portal like HEWS Web, may not be realistic, especially under this budget. A better focus would be regionally under the RECs, with AU coordination between RECs. An indicator of "number of contingency plans developed based on EW information" assumes the resources, know-how and political will for contingency plan development exists, which itself is an area needing support. An integrated risk management application would support all of these aspects together.

Developing another portal like HEWS Web, specifically for Africa, just creates another web site that certain people can access. Although there is some mention of linking this to action, it seems a bit superficial, at least the way it is written in the proposal. Will the AU and member states continue to support Alert Africa once it is established, with all the competing interests and funding needs? In the African context, early warning should be focused at the regional level (SADC, ECOWAS, etc.).

While an interesting proposal, an Africa-wide alert system can be more easily developed by using already developed and in-development early warning systems. International organizations, RECs and nations are implementing early warning systems, the alerts from which can be used at the continental-scale. While the AU should enhance its preparedness and response mechanisms, the focus should be on the actions, using the monitoring systems already developed by others at the regional or national levels.

#### B) Specific Recommendations

1. The submitting agency should give consideration to developing an alert system for a subset of the AU countries first and give greater weight to issues related to building in-country capacities that are more likely to lead to the system sustaining itself independently of ongoing external capital injection.
2. The project should consider targeting two distinct groups of countries, one with a relatively high level of existing infrastructure and the other with less developed infrastructure as pilot countries.
3. The project strategy which focuses on the role of the RECs should be carefully considered and the sustainability by the AU including use of indicators and risk management plans should be explained.

4. The proposal is too ambitious and should consider developing a pilot project which initially addresses one or two countries in order to test and refine the concept and target audience.
5. Key questions should be addressed in the justification, background and strategy sections of the proposal - to what extent would the Alert system expand on material already available at the HEWS site, and to what extent will the system rely on distributed in-country sources of information?
6. A more realistic timeframe should be placed on project activities.
7. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 126/06 (MH)**

**Warning Analysis Network and Site for Iran  
(Iran)**

Assessment by the EWC III Review

A) Overall Assessment

In seismic risk and other geological hazards in Iran are solid arguments for the development of early warning system. The needs have been identified but must be more precise. In the proposal we have no information concerning the vulnerability and the risk level on the basis of available studies. The proposal do not gave any information on the population exposed to different hazards (earthquakes, floods, Etc). According to the proposal there is no Early Warning system available in Iran.

The needs assessment is not clear. There is confusion between early warning by predicting floods and Iran's high degree of risk to earthquakes. The project needs to clarify its objectives with specific hazards clearly.

As the project is not fully formulated yet, it only indicates a process of identifying objectives. The 4 elements of early warning system are not addressed at all. The target population is not specified.

The project objectives consist in a preparation of the background for building an early warning program. The proposals give the way the project will be implemented. Considering the situation of Iran as a developing country this kind of project is of high importance. To know exactly what is the percentage of the population exposed to the different hazards they need to have detailed studies and expert judgement, and consultant participation.

The project proposes to build an early warning strategy to face natural hazard. This is the first experience in Iran. The cost of the project is not important at the actual phase of the project. All the funds will be used for research and consultancy. There is no other way to do in this case because Iran needs to have first a detailed study of the distribution of the hazard to be linked with the early warning strategy they may have.

The project is not fully designed yet. The document sketches the next steps in elaborating the project fully. These steps are adequate, yet the reviewer is unable to see the project design as it would look after the Ministry has completed the planning process.

The project proposed has the support of the government of Iran represented by its Ministry of the Interior.

The project is sustainable as it is from the Government of Iran, within in the Ministry of interior. It seeks small amount of resources (70,000 Euro), and it is expected that Government budgetary resources will also be leveraged by the project. Hence the project is well anchored in national institutions.

Some remarks have to be made: 1- The project must specify the hazards to be assess 2- In the project it is necessary to know what are the equipment to be acquired 3- The different steps must be more clear regarding the hazards 4- The percentage of the population exposed to each hazard must be given

Ask the submitting organisation spell the 4 components of EWS clearly and how the project will seek to address these. Thereafter the project may be reconsidered.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The CONEWSWSA project has stated the relationship between natural climatic events, the hazards they pose and general risks to the societies while specifically mentioning the ag sector. A more definite definition of what is to be considered as early warning is needed. This will help to detail the needs and risk assessment elements.

Hazard impact analysis and overall vulnerability assessment are very well documented by solid surveys and figures.

The COSEWSWSA project develops a general statement of impacts and objectives, but these should be strengthened by a more detailed statement regarding measurable indicators and addressing the four elements of effective early warning systems, particularly related to what is to be done inside the national meteorologic community and its relationship to others dealing with climate adaptation and economic development. Again, more detail should be payed to defining early warning as seen by the OCSEWSWSA project.

Impact and objectives are well formulated, but only address one of the four elements of EWS. In that sense, the proposal could be better articulated with other initiatives to ensure a concrete impact on the target sectors, such as water management, agriculture, health among others.

A basic understanding of impact and objectives is stated, but information addressing (1) realistic goals as integrating information with the users of climate information, (2) cost efficiency, (3) capacity of partners, and (4) monitoring and evaluation are needed. At the funding and time scale proposed by the CONEWSWSA project, it would be one of the largest projects of its kind in the region. Thus it needs to relate itself to the following ongoing programs: The UNESCO IHP Snow, Ice and Glaciers program, the IAI work on climate change, the GEF-funded Second National Communication on Climate Change projects (underway or about to get underway in most Andean countries) and the related national ministries/commissions on environment and their climate change/climate adaptation work, and the work of individual sectors with priority on the agriculture and energy sectors.

The proposal builds on existing structures and mechanisms for technical monitoring and warning service for ENOS, aiming to strengthen the current capacities that are in place in the region. Still is not clear as to how these improvements can have a significant impact in reducing the vulnerability to ENOS in the most affected populations and sectors.

Given the intended scope of the CONEWSWSA project in both time and requested funding, detailed information is needed as to how the activities of the project relate to ongoing activities of the participating organization (timelines, budgets, products) and as to the use of the CONEWSWSA project in development decision making by central governments and sectors contemplating mid- and long-range investments in economic and social programs and projects. Issues of durability and sustainability, and long term strategy are not sufficiently addressed.

The sustainability of this project is extremely likely since numerous global scale organizations are committed to this collaboration.

This proposal is well formulated, supported by solid documentation and technically sound within its own objectives. Nevertheless, it largely addresses one of the four elements of effective EWW (technical monitoring and warning service for these risks). It should provide more information on how the link with the last two elements of the EW chain is envisaged, especially how to convey understandable warnings to those at risk, which continues to be a major gap in reducing disaster risk related to ENOS in the targeted region.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 128/06 (MH)                      Hydrologic Warning and Information System for the Plata Basin**  
(Argentina)

Assessment by the EWC III Review

A) Overall Assessment

The attached document shows that there seems to be a need and that the needs exist to install a system. However, there is no systematic assessment available.

There is no relevant information available in order to assess how objectives and impact are to be conceived and measured. The information contained in the documents is too fragmented or general to assess.

There is no real project design in my view in the attached documents.

Can not be assessed on the basis of the documentation although the supporting letters of institutions do suggest some degree of institutional sustainability in theory.

On the basis of the documentation, I suggest to reject the project, as there is not enough information to speak of a real project (proposal). Much technical information is missing, no real assessment is included, and no logical framework in any format or form is really included either. Furthermore, the costing and other relevant information isn't available here either.

The information provided is partial and it is not prepared in project format, lacking essential information for the review, such as objectives, budget, timeframe, etc.

B) Conclusion

1 Strongly disagree. The Review concluded that there is insufficient information to assess the project proposal adequately.

**PPEW 137/06 (MH)**

**Do We Know How to React to an Alert? Information and Sensitization of Populations in the Western Part of the Indian Ocean**

(Comores, Kenya, Madagascar, Maurice, Réunion, Seychelles, Tanzania)

Assessment by the EWC III Review

A) Overall Assessment

The proposal responds to a common international consensus for the need to more accurate and understandable risk communication to reduce the potential threats to tsunami in the Indian Ocean. Comments: - The proposal needs to be completed by a clear assessment of the risk to tsunami and/or other targeted hazard (where multi-risk leaflet is projected) in each of the selected country. At this stage if national data are not available ITIC tsunami database and CRED data can be used. - It also suitable to discuss the current state of tsunami risk communication in the selected countries and why upgrading & translating ITIC pamphlet will fill the existing gaps, especially that the ITIC booklets were developed to respond to the need of the country members in the pacific ocean. This will help better understand why a target of 240,000 people and why 20,000 per country, especially that the population at risk in each of the selected countries are different from many aspects to be identified by this project

The project document does not clearly identify the vulnerable communities and the nature or level of risks they face. The project area is too large to be implemented in 12 months. It may potentially fail to make strong impact.

The overall objective and expected outcomes of the project are very clearly defined. The expected extent to the population at risk in the selected region is very promising and if successfully applied it will be a good practice to follow in risk communication. Comments: - Effective early warning systems are highly dependent on basic knowledge of tsunami patterns and preparedness. In the proposal Information, education, and communication (IEC) tools to be created loosely mentions the education part and mean to bring risk communication to the schools in the selected countries. - Referring to The Four Elements of Effective Early Warning Systems the proposal must put more emphasis to describe the current knowledge of the risks faced by the selected communities.

The project objectives and the needs are clear. However, the project document does not provide enough details to measure impacts.

Of identified partner were clearly defined. Comments: - The project identifies academic institution and NGOs as key players for project implementation. But, apart from the Red & Crescent Cross none of the Universities or NGOs from the selected countries seems to be involved in the preparation of the project activity. - If roles are better distributed between relevant stakeholders then the result can be more efficiently achieved. Positive response is, for example, in identifying the indicators to monitor and follow up the prospected KAP activity. - More incentive brake down of the budget is strongly recommended.

The project design is too sketchy. The proposing institution is not clear about the kind of tools and methods of dissemination. It appears difficult that the project objectives would be met in the manner envisaged in the summary.

The proposal is presented as a stand alone activity to be conducted and maintained by the Red Cross and Red Crescent Societies. - The integration of government institutions and other important civic entities is described with very general statements; such as - participation active des partenaires locaux-, - presence quotidienne de Meto-France, etc.... will increase the chances of "pérennité" - How this programme will lead to a change in the institutional mechanism to prioritize early warning activities? - What local or regional mechanism will be put in place to ensure sustainability in more concrete fashion?

For sustainability, it would be important to build capacity of local institutions involved in the project activities. However, this has not been given enough attention in the project document. Again, too many institutions are targeted under the project which would make the taks of building capacity very difficult.

The proposal contain little background information to justify the need of the selected countries. It is strongly recommended to enrich the proposal by: - giving more evidence to the need of each country to the risk communication programme proposed, - identifying civic entities, universities and local NGOs with clear scopes of contributions to the development, implementation, and sustainability of the project. - national or regional websites are likely to be not sustainable means of communication. Seeking government involvement to manage a special website for the project in each country is very important, - in most of identified countries illegal sludge and settlement are prevailing and needs to identified with the support of local NGOs.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 138/06 (MH)**

**Short-term Forecasting of Extraordinary Geologic Events  
(Strong Earthquakes, Tsunamis, Volcanoe Eruptions)  
(Azerbaijan)**

Assessment by the EWC III Review

A) Overall Assessment

Because of the extremely technical nature of this proposal I have had to consult with specialists to evaluate this report. A synthesis of their comments, and my decision about its appropriateness for the Early Warning Project can be found in the Overall Grade/Recommendation section.

Because of the extremely technical nature of this proposal I have had to consult with specialists to evaluate this report. The feedback I have received is that the proposal is very challenging, very large, and 'very optimistic'. Recent investigations between earthquake occurrence and geomagnetic behaviour have found some correlations, hence the proposed method is, to use the

phrase of one specialist, 'not suspicious'. Nevertheless, there were no peer-reviewed papers available to assess the specific technique. All the specialists I sought stated that this is not an early warning system for earthquake disaster but rather a study in earthquake prediction. Hence, the bottom line is that the proposal is not appropriate for this specific project portfolio.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 139/06 (MH)                      Early Warning Communications System for Kingdom of Tonga  
(Tonga)**

Assessment by the EWC III Review

A) Overall Assessment

While the need for establishing reliable warning/emergency communications capability with remote communities speaks for itself, no risk assessment was done or offered in the submission. A risk assessment should in particular deal with maintenance issues, considering the remoteness and scattering of installations, difficult access to them (once every two months), proneness of infrastructure damage (esp. antennae and solar panels) to wind/storm and corrosion. No consideration is given to maintenance costs.

Needs are well outlined. Risk and vulnerability is high, with clear gaps demonstrated in current EW systems.

The ultimate objective is a reliable alternate communications system to remote communities for warning and emergency communications. The objective is sound considering the unreliability of standard communications in this regard. It is not clear how the intended communications network fits and link with the wider emergency management and warning systems in Tonga. It would be desirable that the intended radio network can be seen complementing the wider systems (that should provide for formal standards, procedures and protocols for warning and emergency communications). The effectiveness of the system will be subject to this aspect. The four elements of effective warning systems are not addressed. It is noted that the system will be used daily (not only as an alternate communications system for weather forecasting/data transmission. The maintenance issues mentioned in Needs/Risk assessment apply in this regard. With these in mind, the question arises on how effective the system will be. On the other hand, in a functional state the solution appears to be the best option. It is not clear if the network will be staffed or accessible on 24/7 basis.

Very well outlined. All questions answered.

No project plan is offered. It is also felt that all issues have not been considered in the proposal. More detail is required on: Scope of installations- identification of suitable sites, what processes and criteria will be used in this regard? Priorities & time frames? What equipment is envisaged? No mention is made of costs for installation expert - travel, accommodation, professional fees. Warning procedures and links with wider (official/formal) systems in Tonga? Project oversight & evaluation (no mentioning of external oversight/monitoring is made in the submission). Who, how & costs? Proper project time frame- milestones etc required. Considering all it is the opinion of the evaluator that the completion of the project will take longer than the one year envisaged in the proposal. Note: There was not sufficient time to confirm the costing estimates for equipment as projected in the submission. This can still be done in early 2006 if required. (Our HF Radio contractor is currently on leave but will be well placed to advise on costs, suitable equipment and any further considerations).

Very realistic, cost-efficient and achievable goals which can be monitored and improved through use. However, whilst the basic premise of the proposal does not present any problems, certain simple additions to the approach may add value to the overall outcome. Although the project does not aim to take a holistic approach towards improving the total early warning process, concentrating instead upon the 'transfer' of the emergency message, the proposal should perhaps consider the end users and those at risk. Whilst I agree that this project should be funded, the applicants may wish to consider an appropriate community based survey and stakeholder involvement to improve the preparedness for, delivery of and response to emergency warnings, thereby significantly improving the quality of project outcomes.

The project has the potential to meet the requirements as stated below but the proposal does not describe how this will be achieved or ensured. Comments on the three preceding areas apply. The proposal makes a lot about the RANET initiative as it applies to other developing countries, but it does not mention how this project will link with RANET in terms of partnership. Such a link appears to be regarded as a possibility only, no links with RANET seems to be existing or any approaches made.

Durable and sustainable, aims will fit well and build on current systems and partnerships.

The intended outcomes of the project are sound and can not be questioned. More consideration and analysis is however required on especially the following prior to acceptance: A formal project plan addressing the issues/questions addressed in 'Sound Project Design' above will provide the basis for a final decision. It is recommended that a pre-project be established and funded at this stage with the objective to form such project plan. This project to include the necessary knowledge & skills to ensure all risks are covered.

Clearly defined needs and objectives, although some limitations in community involvement. However, as outlined above, the current aims are well justified and community participation and feedback should be a next step.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

This request is very much top down and responds a lot to the international drive for an urgent TWS for the Indian Ocean. It lacks the same depth of information on the vulnerable community nor an assessment of other measures that can be championed for a tsunami that may strike tomorrow. The proposal are all long term and gaps in the warning /instrumentation component are well assessed. However the risk is in overspending on this when the country clearly still has to develop a policy framework which is just as essential in underpinning effective community response to a warning system. The background document also highlights urgent need to establish an effective disaster risk reduction organisation reaching down to community level. It is not clear that some proper assessment of training needs and mapping of underlying risks have been undertaken to assist define better the human resource capacity building needs appearing in this request. IT seems at first site geared mostly to meeting technical skills training need of NMS staff to be able to maintain/operate the new sophisticated equipment to be considered

This project is long term and the expected good impacts also visioned as long term subject to NMS having strengthened its capability to effectively maintain and operate the new gear/equipment. It cannot reach the people quickly as the disaster management structure is still in infancy and is evolving. Technical capacity strengthening has not been clearly defined/presented. The country, in the assessment report, has set up national mechanisms and working groups and identified areas for immediate capacity building but the proposal does not draw the link clearly to these identified needs. It is maybe the reason why no indicator have been offered. It is preferable if the proposal separates short-term from long term request as then it could show clearly how the project aligns with the four elements of effective early warning systems. The concept is good but the write up poor.

Unfortunately what is being asked here is a capacity building and institutional strengthening programme, not a project. Sadly it reads more as a wish list rather than a project. Without an equivalent attention to the dissemination and response capacity element, this project is too costly for Seychelles. The needs are real but the route to addressing these needs may not be this one.

A whole new office and new high tech equipment never before installed in the country - these cannot be sustained without technical assistance. The role of the international partners are not clear. How NMS plan to operate and maintain these instruments are also not clear. How other national training providers link in and support capacity development countrywide has not been defined so a question mark on the sustainability of the training deliveries. The plus side is that it is towards the longer-term strengthening of early warning systems.

Perhaps it would be better to seek a technical assistance team to assist NMS put together a programme with prioritised projects.

The project is a comprehensive, multi-year effort involving Seychelles weather office and disaster management office and covering all hazards (essentially weather and oceanic hazards). The dominant focus is on providing needed infrastructure but it also covers some public awareness

and preparedness activities. The project has a sound basis but it needs to be strengthened to encompass all of the 4 elements of effective early warning systems, particularly to engage local authorities community organisations and NGOs and to increase public awareness and preparedness efforts. (This short assessment was provided by PPEW in the absence of another reviewer.)

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 146/06 (MH)**

**Geographical Analysis of the Watershed of the Mocotíes and Lineamientos Valley and Urban Local Plan for Sustainable Development for the Community of Santa Cruz de Merida (Venezuela)**

Assessment by the EWC III Review

A) Overall Assessment

Well documented and presented.

The assessment is well done in my view, and includes risk and vulnerability issues, as well as hazard probability analysis to a certain degree. Presentation is clear and has a logical order.

The objectives and goals of this project are clearly formulated.

Objectives are clearly stated and are part of a sound logical framework. Indicators are included but in my view lack a bit in clarity and practical means in some cases.

The financial request only addresses a small component of a much larger project, where the EWS is an integral component.

I find the general project well conceived but it is not always clear how all of the component interact in what should be a smooth mechanism. Also, the costing and resources are not well put into view and it is not easy to know what is needed to accomplish things in a practical scenario. With this in mind, it would be worth to request to add these parts to the project design/document(s).

The overall project fits very well in the new risk management perspective embraced by Venezuela in the last few years, as it is framed in land use planning, and particularly integrative watershed management at the national level.

Institutional sustainability is well defined. Measures are defined that will make it relatively easy to ensure that activities will be carried out in a sound way.

As said above, the general ideas and design in my view are good. Nevertheless, some issues such as use of resources, costing and indicators should be improved still, as things as they stand now would probably not yet permit the assignment of resources in order to guarantee good implementation and management.

This is a small (US\$15,000) project to prepare video material on early warning related information, as part of a larger funded project on risk reduction and sustainable development in a Venezuelan Andean flood- and landslide-affected area. The summary does not state how the early warning system works in respect to these risks, but the context seems strong and the request is small. Ideally, greater thought and more resources should be accorded to properly develop an effective early warning system.(Assessment provided by PPEW in the absence of other reviewer.)

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 147/06 (MH)**

**Programme: Strengthening Capacity in Dealing with Major Risks in the Caribbean Basin. Sub-Project No. 4: Establishment of an information chain to influence the behaviour of populations exposed to atmospheric and geological risks**  
(The Caribbean)

Assessment by the EWC III Review

A) Overall Assessment

The project addresses well established hazards of cyclones and tsunamis in the Caribbean region. The proposal includes risk mapping through hazard zoning and vulnerability assessment of the exposed population taking multiple dimensions into account (physical, social, cultural etc.). Gaps and weak links of early warning are identified: information need of decision makers to issue an alert taking into account the psychological aspect of such “heavy decisions”. Incomplete information in case of a disaster leads to mismanagement of resources. Risk and danger perception of the population is often unrealistic due to lack of information and awareness. Information needs are conveyed by community authorities/focal points. The right information, in the right form, transmitted to the right person at the right time is crucial for crises management and efficient coordination of the recovery phase. Overall, many shortcomings in the whole early warning chain are addressed by this proposal.

However, there is no specific risk assessment on which this proposal is based. However, the physical vulnerability of the built environment to earthquakes, which also goes back to socio-economic factors, can be considered a pressing issue for the Caribbean region. The study aims at quantifying the earthquake risk due to the above mentioned reasons and focuses on a few study sites but potentially addresses the whole Caribbean.

The need to raise awareness of earthquakes in the Caribbean can be accepted as a well established one. This project activities justify the approach of awareness raising based on an earlier study carried out in Guadeloupe. The project targets mainly Guadeloupe and two other Caribbean countries but potentially addresses the whole Caribbean. Generally, the tsunami risk for the Caribbean is well established and this sub-project addresses the coastal population of the Antilles. It looks exclusively at the tsunami hazard and not at the vulnerability of the population exposed.

Even though the project activities intend to answer to the need of the population for an evacuation plan and education programme for tsunami risk, relevant practitioners or stakeholders are not involved nor have they been consulted about their needs beforehand. However, from a purely scientific view the project addresses important needs. And it is a reasonable assumption that a tri-lingual website for the communication of information on risk, forecasting, and prevention measures addresses the risk related needs of the Caribbean region and accounts for the cultural context. It touches upon several aspects of the early warning chain addresses the public as well as practitioners but fails to cover the whole early warning chain. A previous pilot website had been set up by UNESCO in the 1990's and a multi-lingual website on risk management is also operated in Havana.

On the basis of study areas the project aims at the qualitative and quantitative classification of urban vulnerabilities which shall lead to a proposal of building codes. One of the objectives of the project is education and awareness raising (earthquake risk only) through school exercises involving the Civil Security Service of the Rectorat of Guadeloupe. This objective covers the social-psychological aspect of EW. The project does not seem to justify the high costs involved with a "shaking machine". A similar awareness raising effect could certainly be achieved through easier, simpler and more cost effective measures (video and drills for schools for example). The objectives of the activity is to increase the knowledge on the seismic/volcanic/tsunami hazard and the planned activities of the proposal can meet those objectives. Vulnerability and early warning as such are not addressed. The activity also identifies the socio-economic objectives, such as risk reduction through education and evacuation programmes. But none of the activities addresses those objectives. Indicators for the impact of the activities are qualitative in nature and do not allow a reliable assessment of the impact – especially since there is no link to any of the other components of early warning or the other sub-projects.

The objective of the project is to raise awareness and response capacity. But the impact will be very hard to quantify. It strongly depends on the internet connectivity of the population at risk and on how potential users are acquired and trained. However, the activity addresses mainly the design and content of the website. The project activities clearly state that one of its objective is to contribute to the improvement of increasing the security of the population in case of a cyclone or tsunami by increasing response capacity and reducing vulnerability. The project wants to meet those objectives through the improvement of the information chain: - quicker alert decision - more appropriate information and understandable messages - better chain of information, including the authorities and linking to existing strategies of the authorities and strengthening their capacities - providing information to the public so that individuals are aware of their risk and of appropriate response measures. The proposal addresses all components of the early warning chain.

The duration of this project is 2 years. The lack of information makes it difficult to assess the timeline for this sub-project. Therefore the costs amounting to 620K Euros seem highly unrealistic and remain unexplained. The costs listed on the "fiche projet" differs from the more

detailed cost listing in the “fiche étendue” by 9000€. The proposal could not make it plausible that the impact of the project would justify the high costs.

Scientifically the project is well designed. The scientific partners meet scientific standards and regional representation requirements. Unfortunately, the funding requirements remain unclear. The “fiche projet” lists 3 funding items amounting to 369.000€, but the sub-project proposal consists of only 2 parts. The funding items cannot be attributed to the components of the proposal. The project includes key partners and has a good regional spread. The proposal lists three different ways to implement the project. Costs are not fully determined for all three options. The time frame of the proposal covers 2 years but it is not clear how long it will take to create the website and what portion of the costs are to cover the maintenance of the websites. The option that is listed as the most feasible and supposedly most cost effective one is not budgeted at all. Some items in the budget covers a period of 5 years others only 2 years.

The project draws on experienced local as well as international partners. But the proposal does not outline how the project is to be embedded in local, national or regional support structures. The activities are focused on informing authorities and the public, but it remains unclear how this will be done. The activities depend strongly on availability and maintenance of the shaking machine. That machine would have to be moved around on a regular basis to offer the training in a larger number of schools. Future transport and maintenance costs are not secured.

The website fully depends on the available maintenance capacities. As a consequence the sustainability of the website is very vulnerable, particularly in an economically challenged region. To prevent this website from following the fate of UNESCO’s pilot website, financial and human capacities have to be secured. One way to assure sustainability of the website is to incorporate it into the early warning practice of the major stakeholders and thereby increasing the will and need for maintaining the website.

The structure of this cumulative proposal is very confusing and unclear. Errors in the headings/labeling and budget sheets should be clarified. Each project activity is a stand-alone project and does not really relate to any of the other activities. The quality of the activities varies strongly. Therefore the proposal is not very representative and cannot account for the variability of the project quality.

## B) Specific Recommendations

1. The project activities which address hazard assessment and monitoring should be linked to other parts of the early warning chain. Use and implementation of the potential research results should be addressed directly.
2. There should be a direct link from the website activities to the other project activities.
3. A risk assessment should be provided in the proposal.
4. A full cost justification and need for the activities related to the shaking machine is required.
5. The steps and methods of the vulnerability analysis should be sufficiently described so that it is clear how the objectives would be achieved.
6. The full chain of early warning should be taken into account.

6. Additional indicators should be mentioned in addition to the assessment of vulnerability.
7. The impact of the proposed change of building practice should be detailed as a part of the project.
8. As part of the project design, stakeholders should be involved.
9. The project timeline, duration and scope should be reconsidered.
10. The project should address the sustainability of the website.
11. The project activities relate to local governments, communities, the general public and creates a link to existing early warning practices. Follow-up costs and needs should be specified.
12. The budget should be greatly reduced. More generic approaches to raise awareness would probably have a very similar impact for a fraction of the costs.
13. Quantitative indicators for an impact assessment should be specified along with an impact assessment.
14. The strategy for the project should emphasize implementation in the communities and linking it to authorities and their existing practices.
15. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

This 3 year project, presented by UNICEF is well designed and draws on the experience of the national and local partners. The project is expected to be implemented in the 6 Sahel countries (Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal). The project is well documented and needs clearly identified. The overall objectives are quite general (strengthen the capacities of national governments to avoid and mitigate malnutrition of children), and no indicators to allow reliable assessment of impact are defined.

Any nutritional surveillance and EW system in the Sahel should comprise different aspects (health, water, nutrition, food security and access) so as to be able to properly reflect the complexity of the problems on the ground. The project puts emphasis on sensitizing the national level governments in order to influence their long term policies in order to prevent and mitigate child malnutrition.

The project will be implemented by national, local and regional authorities, and is expected to be well integrated into existing structures. Sensitization of local authorities along the project on the malnutrition problems is expected to allow them to implement adequate policies in a more sustainable manner in the futures as well.

However, the total budget is relatively high (10,725,000 Euros, for 3 years and for 6 countries). With almost 50% of the budget allocated to the emergency response stock, the proposal is geared towards early response rather than on early warning.

B) Specific Recommendations

1. The project proposal should be reevaluated and followed by more detailed technical discussions at the regional level to lead to a final project that would reflect agreement among key stakeholders and partner agencies.
2. Other existing systems and methodologies should be integrated in the proposal (for instance WFP's Vulnerability Analysis and Mapping - VAM). In order to add value, the project should have a clearer inter-agency dimension, bringing together UNICEF, WHO and WFP as key partners.
3. The EW component should be further developed and strengthened in the strategy section.
4. The budget should be reduced.
5. The objectives should be clearly defined and indicators provided.

6. The following standard project formulation recommendations will be added to the recommendations:
- (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 151/06 (MH)**

**Creating a Hydro Meteorological Disasters Database  
Management System within Central and South-West Asia  
(Central and South-West Asia)**

Assessment by the EWC III Review

A) Overall Assessment

The proposal is focussed on the creation of a Hydro-Meteorological Disaster Database Management System which is desirable and has to be seen as a first step to set up a regional unified meteorological data management system. However, the proposal does unfortunately, not include any details on risk assessment carried out so far by ECO Region Member States, although the proposal mentions that a number of studies and projects have been conducted in the past related to natural disaster mitigation. It would have been desirable if the proposers had been more specific on the objective of the studies and what categories of natural disasters have been investigated. A brief summary of the results obtained up to now and mitigation measures undertaken, would have been a valuable addition to identify how the proposed activities would respond to the need of the ECO Region, reflecting the level of risk and vulnerability, size of exposed communities and already existing monitoring stations contributing to early warning. It has to be noted that early warning aspects are not the main aim of this proposal.

The needs for early warning were described in very general terms without a specific and solid basis of risk assessment. Instead, the needs for a database system to investigate problems in disaster mitigation were described. Although the latter was described in slightly more detail, they were not substantiated by documented problems or studies related to natural disasters which had suffered from the lack of a database.

The project proposes the establishment of a hydro-meteorological disaster database management system in each country of the ECO Region that integrates all available relevant data at national level to become an interface to GEOSS by allowing access through a national Earth Observation Portal. Its design is aimed at a user-friendly, easy to manage and to administer information system, where data can be shared among Government organisations, research institutions and decision-makers. The desired outputs are briefly summarized. Main objectives of the proposal are saving historical data records, providing researchers with a comprehensive database on meteorological and hydrological data and to improve research in the agricultural and socio-economic fields. Unfortunately, the proposal only makes very global statements without giving further details to the issues raised and lacks on clarity what the expected impact such a project would be.

The objectives of establishing a database were to facilitate studies in problems related to disaster mitigation. The proposed activities do not seem to have any expected impacts on early warning systems which would benefit specific communities. The four elements of effective early warning systems were not addressed.

The project design and activity plan lacks clarity: •The length of the project period is uncertain, it is either 4 or 5 years •Missing is a declaration signed by the ECO Region member states where they agree to participate in such a project and are willing to sustain it in the future. •Missing is a work plan that reflects monthly activities, achievements, milestones. •It is not understood why the proposed project requires the implementation of a 'project study' as a first step and why the results may influence the order of planned activities. The financial schedule lacks transparency and is over-estimated. A single system, as described, is available for far less than the quoted estimate. The same applies to consultancy fees. It is not clear how many consultants will be engaged in the project, what their tasks will be and for how long their services will be required. No details are given on the number of workshops planned or how many participants are expected to take part. The estimated cost for the 'project study' is excessive.

There is very little substance to make a fair judgement on how the proposers and the participating ECO Region Member States are going to sustain the project in the future. No indication has been given if such a project has a regional priority or is part of a regional strategy plan to improve early warning capabilities.

No clear needs and objectives related to early warning systems. The effectiveness of the planned activities on enhancing early warning of natural disasters was highly doubtful.

The proposal did not indicate any national strategy or commitment on long term sustainability.

Although the idea to establish a Hydro-Meteorological Disaster Database Management System is desirable and could be seen as a first step to set up a regional unified data management system, the proposal shows significant weaknesses on all accounts. Most significantly, it leaves the question open if such a project would be supported by ECO Region member states. Furthermore, the proposal lacks a clear work plan, milestones to be achieved institutes and people to be

involved and a plan how such a project would be sustained in future. The financial plan is over-estimated.

This is an ambitious 5-year project to create and implement a national hydro-meteorological disaster database management system in each country in the South-west Asia region and a regional portal; and to promote information sharing among governments and users in support of early warning projects and mitigation activities. The intention is sound, the result would be very desirable, and the technical capacities to undertake the work appear to be present. However, the project does not address several of the criteria of the present call for proposals such as the need to consider four elements of effective early warning systems, and the need to engage the other relevant organisations such as disaster management offices, representatives of vulnerable communities, or other countries expected to benefit from the project. By itself it would not produce an effective early warning system. (This assessment has been provided by PPEW in the absence of other reviewer.)

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 47/06 (EN)**

**Enhancement of the National El Niño-Southern Oscillation (ENSO) and Drought Early Warning, Monitoring and Prediction System for Disaster Preparedness in the Philippines (Philippines)**

Assessment by the EWC III Review

A) Overall Assessment

The entire population of the Philippines is exposed to ENSO impacts, and a flow diagram categorizes the impacts. The needs are clearly identified as gaps in the existing ENSO Early Warning and Monitoring System. A diagram illustrates the flow of information for the current early warning system, and the gaps are systematically outlined and explicitly identified. The risks and vulnerabilities are quantified in terms of historical impacts.

The El Niño-induced drought has profound impacts on many countries in the western Pacific region, as highlighted by the transboundary haze caused by the forest fires in Indonesia during the El Niño event in 1997-1998. Thus, it is important for the affected countries to establish a national early warning system for such an event, the frequency of which seems to have been increasing in the past two decades. It is very encouraging to see that the Philippines has established the Drought Early Warning and Monitoring System (DEWMS) in 1987, and the National ENSO

Early Warning and Monitoring System (NEWMS), which has been operational during the 1997-1998 ENSO event.

The objectives are clearly defined, and the goals are realistic and attainable. The impacts of the improved program are indicated and are realistic. The expected impacts address the identified needs and risks, and they target the entire population and region. Both qualitative and quantitative measurement indicators are identified and are also realistic. The proposal addresses the four elements of an effective early warning system, and covers the technical, social and governance aspects of the initiative.

The proposed project seeks to “address the gaps in the existing initiatives, which include better and deeper understanding of the science and dynamics of ENSO, development and validation of forecast tools and climatological indices/indicators, enhanced capabilities of staff (especially on downscaling and translating global ENSO forecasts into local climate forecasts and preparing sector-specific forecasts) and in implementing an integrated ENSO impact assessment to serve as a basis for sector-specific climate forecasts, enhancement of community understanding of climate forecasts and strengthening of linkages with the national, regional provincial and local government units engaged in safeguarding well-being and safety of the general populace.” All the “gaps” to be addressed as given in Section 2.3 of the proposal are indeed essential and important in enhancing the understanding of the science and dynamics of ENSO in relation to the local climate.

The project design is sound, and sets realistic and achievable goals. It follows realistic timelines. It is extremely cost-efficient, and a simpler more cost-effective solution is probably not available. It draws from the experience of competent regional partners, and does not attempt to "reinvent the wheel". Monitoring and evaluation is well-thought-out and is realistic. The initiative innovatively builds on an existing system, and does not attempt to build a new system from scratch. The project is compatible with existing practices, and thus does not require a massive retraining of the population. This project has a high probability of success.

Much of the proposed research activities as mentioned in the “gaps” are likely to be mostly ongoing activities that have been undertaken by PAGASA, as evidenced by the US\$200,000 contributed by PAGASA and GOP for “PS” activities (presumably this “PS” refers to ongoing research activities). The initiative has a high probability of success. The fact that the existing system has been sustained since 1998 is proof of the sustainability of this initiative, especially since this initiative builds on the existing system. The strong government commitment to the initiative gives it a high probability of success. Identified training needs and a plan to address those needs will also help guarantee the initiative's success. Tools developed by the initiative will be used in national policy-making, which will help imbed an early warning culture into the national psyche.

This project is well-designed, cost-effective, has a large potential for payoff and sustainability, and has a high potential for success. Enhancement of the national ENSO early warning system is an important activity not only for the Philippines, but also for all ENSO-affected countries in the region. The UNESCAP, in partnership with other international agencies, including UN/ISDR, has been proposing a regional project on “Capacity-Building in Drought Preparedness and Reduction of Vulnerability to Climate Change in Asia and the Pacific”. This regional project proposes to assist the developing countries in Asia and the Pacific region in building or strengthening their human and institutional capacity in drought preparedness and management, including integrated water resources management and the establishment of national early warning systems, with a

view to facilitating the development of appropriate national policies and plans for drought preparedness, including appropriate responses to short, medium and long-term climate changes, based on the principles of risk management. The Phase 1 of this regional project would be participated by Afghanistan, Cambodia, China, India, Indonesia, Myanmar, Palau, Papua New Guinea, Lao PDR, Pakistan, Thailand, The Philippines and Vietnam. It seems that the present proposed project may complement to UNESCAP's regional project, which will seek funding from the GEF and other relevant sources in 2006.

B) Specific Recommendation

1. A formal risk assessment or vulnerability assessment should be identified.
2. The project design needs to be further clarified and improved in the proposal. The budget indicates that US\$228,000 will be used for "Honoraria/Consultancy" (\$20,000); "Supplies" (\$30,000); "Trainings/Fellowships/Attendance in international conference" (\$100,000); "Local trainings/forums" (\$20,000); "Travel" (\$18,000); and "Equipment Outlay" (\$40,000), rather than for the research activities as mentioned in the "gaps". Details, terms of reference, clarity on the term honoraria and details on the training forums should be provided.
3. The budget calculations should be carefully checked as there are errors in the tabulation of the last column of the budget table, as the figures do not add up to \$444,000.
4. It is unclear how each collaborating partner would contribute to the proposed project. Would a Project Steering Committee and/or a Project Scientific Committee be established to oversee and provide guidance on the implementation of the project? Organizational factors need to be presented clearly.
5. It is also unclear how the proposed project is going to be monitored and evaluated during its implementation, though the measurable indicators have been provided to assess the success of the proposed project.
6. It is unclear how the proposed project is going to ensure its sustainability after the project cycle, the duration of which is not stated.
7. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 103/06 (TO)                      Building Tornado Warning System for Bangladesh - Coping with Neglected Disaster**  
(Bangladesh – ADRC)

Assessment by the EWC III Review

A) Overall Assessment

The proposal identifies the need to improve the disaster statistics as a basis for a sound tornado risk assessment. While the main objective is clear, the proposal lacks a quantification of expected results of the project. That aspect could be further elaborated. The proposal is innovative, addresses a clear gap in existing EWS in the country (tornado risk), and is formulated in a realistic manner. Given the original nature of the proposal, the identified gap of the existing EWS in addressing the documented levels of tornado risk in Bangladesh, and the fact that the project covers largely the four elements of effective EWS

The project proposal addresses an important, but neglected problem in Bangladesh dealing with tornadoes. However, there is no figure related to the number of exposed people, nor vulnerability to support the proposal. While the proposal comments on several the elements for effective early warning, the proposal does not describe in detail the activities to be carried out. Nevertheless, the proposing organization does have sufficient capacity and experience to carry out the project.

The project addresses issues related to early warning such as monitoring, forecasting, and warning from a central agency to rural communities and the establishment of shelters where people can find safety in case of a tornado; but it is unclear whether the components of the project take into account capacities and limitations of rural people in Bangladesh, as well as the institutional capacities of the national meteorological agency.

It is not clear whether the forecasters have the proper monitoring equipment to forecast tornadoes, nor is it clear whether the shelters are for a single family, or for multiple families. In addition, there is no description of the communication system to be introduced as part of the system to reach rural communities. It is difficult to assess the sustainability of the project based on the information provided.

The proposal needs refinements in terms of more precision regarding how the project is to be carried out. This makes it impossible to determine whether the amount of funding is appropriate or not to execute the proposed project. Therefore, a refinement of the proposal would be required.

B) Specific Recommendations

1. Activities to facilitate the windstorm and tornado monitoring and the dissemination of warning information to the community (e.g., Activities 11 and 12) should be considered at an earlier stage.
2. The monitoring and evaluation component should be more developed.
3. A clearer statement on the long-term design of the proposed integrated tornado warning system is required.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

or

3 Partially agree. The Review concluded that a pre-project not exceeding US\$ 60,000 is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal. Such a pre-project proposal could be commended for funding.)

**PPEW 16/06 (FL)**

**Flooding Early Warning System for the Cities of Artigas  
(Uruguay) and Quaraí (Brazil)  
(Brazil, Uruguay)**

Assessment by the EWC III Review

A) Overall Assessment

The project proposal gives indications about the region, but it does not highlight the level of risk and vulnerability.

The needs have been identified and stated. Statistics indicate that only 10% of the total population (72 000) residing along the river banks on both Brazilian and Uruguay sides are affected by floods—low income sector. The proposal mentions the need to strengthen the existing primitive flood alert system by providing modern equipment and methodologies of rainfall forecasting and real time rainfall measurements, which seem to be the area where gaps exist. The proposal also mentions the existence of another project, a pilot project, for the integrated management of floods, which appears to be in its final stages of implementation. There is no mention of any early warning aspects in that project.

There is not enough information on the impact and objectives.

The principal objective has been stated as to set up an operative early warning system for floods; the expected impact of the project will be the mitigation of the negatives effects of floods on the population, reducing losses and optimising the use of scarce resources of the involved

institutions. However, the economic value in terms of benefits derived from setting up this system has not been clearly stated. The proposal does not explain fully what impact indicators would be monitored; only progress indicators, evaluating time spent on activities against proposed timeframes, have been presented. More substantive work will be required in order to quantify the desired results of the project and to define measurable indicators that allow reliable assessment of the impact of the project. Whilst the proposal mentions that it addresses the four elements of effective early warning systems, it fails to prove how that will be done.

Yes, the project is realistic. The activities are clearer defined. It could be possible to monitor progress even if they do not indicate how.

The planned activities indicated under risk knowledge are incompatible with the statement of needs, and other activities/projects mentioned for the area—e.g. one would think that a project for the integrated management of floods would have evaluated flooding areas, potential socioeconomic damages, and existing response capacities, amongst others. In terms of requested budget, the proposal is modest, but not necessarily commensurate with the proposed activities. The proposal needs to elaborate much more on the indicators and means of verification. There is an important number of national agencies willing to participate in the project. The WMO is mentioned in a coordination role.

Yes, since the project is presented and will be implemented by national organisations its sustainability could be ensured.

The project has been formulated within the context of existing government/national and bilateral institutional frameworks, with a good number of partner institutions and explicit commitments from them to ensure the sustainability of the project beyond its time-frame. Notable, funding secured from other sources amounts to 40% of the total budget, although most of it appears to be in-kind contributions.

Yes, I strongly recommend this project, its activities are clear. It is a bi-national project with participation and cost sharing with national organizations.

The proposal needs substantial review, it contains inconsistencies particularly in terms of proposed activities and budget for the implementation, it needs to reformulate indicators and means of verification, and better show how all the elements of effective EW systems are addressed. It is strong in partnerships and commitments—although these are a bit general and much based on promises. The risk assessment indicates a low percentage of people affected.

## B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The current status of the flood warning activities are described and areas where improvements can be made are identified. The level of risk is high and the proposed activities are aimed at meeting this risk. Detailed information on past events and people at risk are provided (area and population). Current practices are outlined. However, the focus is on a technical solution as opposed to a more holistic or multi-hazard approach. The gap identified relates to communication of information through established mechanisms. No information is provided as to why such an approach is not already being used, or if it is, what the weaknesses are.

The proposal includes a strong risk assessment of the current situation, strengths and weaknesses of current system. The design of the program has included a risk assessment of vulnerable locations and previous disaster impacts. The objectives are sound and are aimed at addressing the gaps. They include institutional mechanisms at the local level, institutional capacity in existing groups, development of action plans and capacity building. Indicators are provided, but some of these are not measurable and do not really indicate that the project has been successful. Some of the indicators are milestones or strategies for project implementation, not indicators of success, e.g. ten volunteers in each village/ward. The focus is on social and governance aspects, but the parties are primarily national groups.

The project may not be cost effective given the limited scope of testing the training and process with just two sites. Evaluation needs to reflect participative approach and involve more input from volunteers. The project is aimed at getting warning messages out from an existing system and having them responded to. It takes on a governance approach and unless it can show full stakeholder involvement and involvement of local groups it will not work. It is tied to the existing monitoring and early warning system, but needs to take a wider approach to be successful. Not a lot of detail is provided with respect to how the project will be achieved, apart from the establishment of working groups at national and local levels. There seems to be a lot of dependence on volunteers for undertaking key functions and I have some concerns with this approach. It is also of some concern that volunteers will be asked to make additional inputs to achieve local initiatives. This is an issue for sustainability. Training is a major component of the project design and courses will need to be designed to be "fit for purpose". I am also a little concerned at the number of links in the chain. Any system will only be as strong as its weakest link and too many link will provide too many opportunities for things not to work! The budget is well detailed but the allocation of funds to local levels needs some consideration.

Partnerships and established systems may be useful structure to sustain the achievement from this project. There is a need to establish the sustainability of local warden structure and community ownership. This is not clear in project plan. The major agencies have been involved in the development of the proposal and it is recognized that there needs to be involvement and ownership from the local groups for the project to be sustainable. The project will be implemented within existing structures and this should assist in sustainability. The issue regarding project design remains and that is the number of links in the chain being a lot and thus

the sustainability may be difficult to maintain. The budget allocates resources to the national level, but the flow through of this to the local level is not clear and volunteers appear to be relied upon. The use of volunteers in emergency situations needs to be evaluated as there are personal and other responsibilities involved. Again, this is one of three proposals for the Region and should be considered in association with the other proposals.

Not all related agencies have been involved in the development of the proposal and the key input, rainfall forecasting and what the capabilities are seem to have been missed. The proposal is focused on flood warning and does not take a multi-hazard approach, but the process may be transferable. A risk analysis of the flood warning system/approach is required if volunteers are to be employed and strategies put in place to address the risks of failure. There are three other proposals for Bangladesh and they need to be consolidated into one or two projects involving all players if possible. The current proposals indicate some institutional issues.

B) Specific Recommendations

1. The development objective of the project should be on a more holistic, multi-hazard approach. More information on the approach and strategy of the project should be provided as well as the risks of the project. The orientation of the project is toward social and governance aspects, but the stakeholders are primarily national groups. The involvement of local groups should be included.
2. Indicators should be measurable and related to success of the project.
3. More details on the cost effectiveness of training and process with just two sites should be provided. Evaluation should reflect participative approach and involve more input from volunteers
4. The budget allocation to local levels needs clarification.
5. The sustainability of local warden structure and community ownership should be described. This is not clear in project plan.
6. Relevant local agencies should be involved in the development of the proposal and a description of the capabilities of rainfall forecasting should be included.
7. More information on how the flood warning relates to a multi-hazard approach should be provided.
8. A risk analysis of the flood warning system/approach should be included if volunteers are to be employed and strategies put in place to address the risks of failure.
9. Social-economic impacts should be described.
10. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

(ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.

(iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

(iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 25/06 (FL)                      Strengthening of Early Warning System for Flood in Ulaanbaatar  
(Mongolia)**

Assessment by the EWC III Review

A) Overall Assessment

The need for improved flood warning in the areas of interest has been shown. The strengths of the project are the proactive nature and an articulated, robust method for selecting the area of interest. The focus on vulnerability is excellent and it is encouraging to see people's understanding of warnings being a key issue. These two elements should be retained and, if possible, enhanced.

It is note clear why p. 6 highlights German best practices rather than other countries' practices too? Additionally, a good selection of people, skills, and departments are included, but there appears to be limited input from the social sciences and community representatives. Some are mentioned and that should be encouraged, but would doctors, social workers, sociologists, human geographers, professional educators, ecologists, and mental health specialists be useful to include?

The proposal should address whether the focus will it be on river flooding or flash flooding from rainfall? Would waves be expected? Additionally, Figure 6 appears to show increased floods but decreased impacts from 1996-2000. How was that achieved? The proposal clearly states the needs of the target city for a sound flood hazard and risk assessment. From the proposal there is a clear tendency of a possible increase in population at risk to flooding due to the population explosion in the target city. From this view point, the need to strength existing EW to reduce potential vulnerability to flood is apparent.

The presented risk assessment is lacking of consistent analysis of real cases and what are the existing gaps of the existing EW. It is necessary to concretely clarify what are the flood patterns (e.g. based on recent flood event such as 2001 - 2005). Moreover, why the existing EWS has failed to save the life of the people died during these particular events. For instance, understanding the real cause of death during a real flood event will help the authors answer particular concerns: 1) to clarify the deficiency or gaps in the current warning system, and 2.) answer the question of how the implementation of this project will effectively help to reduce the loss life and may be more important to reduce the loss of livestock? May be the need is not only to strength the existing EW but to improve evacuation procedure. The proposal claims that the project will lead to concrete actions to reduce loss of assets. How specifically will the proposed EW system achieve this result for the target city?

The proposal has identified key participants to assure that the proposal rests on "solid" risk assessment. The list of participants includes actors from a wide variety of backgrounds, varying levels of government, and various important agencies. The proposal also reflects a keen understanding that the increased risks from climate change impacts are exacerbated by the growing city size and the potentially catastrophic effects of urbanization. The impact, objectives, and activities are clearly described, cover the wide range necessary for robust early warning systems, and provide a useful indication of how progress would be measured. Focusing on vulnerable areas and people is appropriate. Good initiatives, such as rescue units, are mentioned. It is not clear why p. 6 of the document highlights German best practices rather than other countries' practices too. Additionally, a good selection of people, skills, and departments are included, but there appears to be limited input from the social sciences and community representatives. Some are mentioned and that should be encouraged, but would doctors, social workers, sociologists, human geographers, professional educators, ecologists, and mental health specialists would be useful in this type of project.

The overall objective of the project is very clear for the target city. Nevertheless, the specified objectives are very diversified and are loosely linked to the ultimate goal that is "strengthening the existing flood EWS". The proposal should reference concrete adaptation policy to climate change: It is not clear why the submitters think that the climate scenarios developed for the country are not applicable to the target city (See the research of the Mongolian-USA climate research initiatives at Tree Ring Laboratory and the Mongolia government official report on climate change). To effectively improve the current EW specific flood risk scenarios is more appropriate and should be developed Activity 2.3 is related to this.

How and what are the concrete step-by-step actions to introduce the Hyogo framework for the target city? The statements is too general and more practical and specific actions should be emphasized. The proposal needs to develop a policy management framework (master plan) which is more related to the specific objective 2. The current description is too general and difficult to comprehend how this will lead to a comprehensive master plan or framework the city. The description of people centered EWS is too general. For instance what are the international resources expected/needed to mobilize? And to solve which specific problem for the target city? Why the German expertise or how foreign expertise will help solve the local problems should be explained? The first necessary step is to clearly enumerate the specific local problems.

The monitoring and evaluation section provides useful details and has some measurable indicators. Would any monitoring and evaluation be completed by personnel external to the project or external to the country, other than the donor? The plan of activities to achieve the goals and specific targets along the responsibility of each partner were clearly tabulated and well

defined. For cost efficiency of the project more careful consideration must be given to current climate change issues and research undertaken at country level. Some timeframes to achieve specific objective are arguable, for example objective 2.1 is a continuous process. Why do you need 6 month lag times? For objectives 2.5 and 3.6, this must be done at later stage to avoid early and inconsistent communication of results. It is not clear which among the objectives are compatible with the existing EWS. In fact the specifics of the existing EW have almost never been mentioned so it is been difficult to evaluate the cost effectiveness of the project. Some of the monitoring and evaluation arguments are too general, (e.g., 1, 2, 5, 7, 14 and 15). The submitters are strongly encouraged to give focused and specific evaluation indicators and actions on how strengthening the existing EWS will serve the target city.

The sustainability section says that the project and its activities will be sustainable, but does not explain how they will be made sustainable. For example, the last sentence states that "Sustainable funding sources...will be developed within the project." How will this be done? What sustainable funding will be sought? Also, why is the "German initiative" explicitly mentioned rather than initiatives from elsewhere around the world? The discussion of local, national, and regional support structures is reasonable and provides some direction regarding long-term institutional strategies. The proposal states that there is no clear government policy and that disaster risk reduction is not a priority, and there is no budget allocation for risk reduction for the target city. Under these facts, the sustainability statements of the project are questionable. The authors of the proposal are encouraged to reformulate their statements and give convincing evidence to donors that the implementation of this project will lead to change in policy and legislation and much to secure budget allocation and capacities that will ensure sustainability.

#### B) Specific Recommendations

1. A more complete description of the type of expected flood should be included. For example, does the water rise slowly or quickly? How much debris or contamination is expected to be in the water?
2. The presented risk assessment is lacking consistent analysis of real cases which indicate what are the existing gaps of the existing EW. It is necessary to concretely clarify what are the flood patterns (e.g. based on recent flood event such as 2001 - 2005).
3. More clarity should be given on the deficiency or gaps in the current warning system, and how the implementation of this project will effectively help to reduce the loss life and may be more important to reduce the loss of livestock.
4. A clear explanation and strategy of how the project will lead to concrete actions to reduce loss of assets should be included.. How specifically the proposed EW system will lead to achieve this result for the target city?
5. Information on how and what the concrete step-by-step actions are to introduce the Hyogo framework for the target city should be referenced.
6. The proposal should include reference to a policy management framework (master plan) which should be clearly related to the specific objective 2. The current description is too general and difficult to comprehend how this will lead to a comprehensive master plan or framework the city.

7. More information on the monitoring and evaluation of the project should be provided.
8. The description of people centered EWS should be more specific. For instance what are the international resources expected/needed to mobilize? And to solve which specific problem for the target city? Why the German expertise or how foreign expertise will help solve the local problems should be explained? The first necessary step should be to clearly enumerate the specific local problems.
9. More careful consideration should be given to current climate change issues and research undertaken at country level.
10. Objective 2.1 is a continuous process. why do you need 6 month lag times? Obj. 2.5 & 3.6 must be done at later stage to avoid early and inconsistent communication of results.
11. More clarity on which of the objectives are compatible with the existing EWS should be provided. The specifics of the existing EW should be mentioned and be related to the evaluation of the cost effectiveness of the project.
12. More focused and specific evaluation indicators and actions on how strengthening the existing EWS will serve the target city should be provided..
13. The sustainability section says that the project and its activities will be sustainable, but does not explain how they will be made sustainable This should be corrected.
14. The proposal states that there is no clear government policy and that disaster risk reduction is not a priority, and there is no budget allocation for risk reduction for the target city. Under these facts, the sustainability statements of the project are questionable. The section on sustainability should be reformulated to provide convincing evidence to donors that the implementation of this project will lead to change in policy and legislation and build capacity that will ensure sustainability.
15. Two additional overarching questions should be addressed (i) How would traditional knowledge of the people in the flood risk areas be incorporated into this project? (ii) A good cross-section of personnel is included, but both NGOs which are listed appear to be based in the physical and environmental scientists. Could NGOs based in the social sciences and community development be included?
16. The proposal includes too many general statements. Goals and objectives should be clearly stated. A f concrete plan to link current initiatives to identified issues to proposed actions should be provided.
17. References and explanation of existing EWS and why, and how its improvement will help reduce the vulnerability of people.
18. While the overall cost seems to be reasonable for the proposed activities and 5 years time frame. The capital brake down should be consistent and clear. The budget should downsize the following items: salaries, professional services, research expenses and international travel and the list of the equipment.

19. The following standard project formulation recommendations will be added to the recommendations:

(i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

(ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.

(iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

(iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 36/06 (FL)**

**Flood Hazard Monitoring and Flood Risk Mapping for Save  
Catchment - Zimbabwe  
(Zimbabwe)**

Assessment by the EWC III Review

A) Overall Assessment

The proposal identifies the needs and illustrates the real and potential risks to the community from the hazards concerned. The gaps in existing systems are identified and addressing these gaps is the principal driver of the project.

The need for improved flood warning in the areas of interest has been shown. Strengths of the project are the proactive nature and an articulated, robust method for selecting the area of interest. The proposal, though, seemed to imply that the only flood characteristic of interest would be flood depth. Are the proposers certain that flood velocity and any debris in the flood waters would not pose any risk to people or infrastructure? What about waves? If any non-depth factors are a concern, how would the warning system provide information on those characteristics? Would the only possible flooding come from rivers or is flash flooding from rainwater ponding possible too?

The objectives are identified in some detail and step through the different phases of the project. The proposal could be improved through more specific measurable indicators that will assess the

downline impact of the project. The overarching governance arrangements are not spelt out but the role of the various partners is identified - perhaps it would benefit by the establishment of a joint steering committee (or this might already be planned but not identified as such).

The guidelines for submission request that the project define measurable indicators. I could not find mention of measurable indicators in the proposal. The guidelines also request that the proposal address the four elements of effective early warning systems. The proposal does not do so. All four elements are present in the proposal to some degree, but the overwhelming bulk of the proposal focuses on of "Technical monitoring and warning service for these risks" with minimal discussion of the other three elements. Additionally, "integrated flood management" is mentioned, but is not discussed in any way.

The project design appears to have been well considered and to include all the key steps from the initial scoping phase through to implementation, with a monitoring and evaluation process also spelt out. The various partners are being used effectively to address their own responsibilities to the extent possible.

The monitoring and evaluation section is weak, with minimal details provided. For example, some people are mentioned that they "will monitor and evaluate the project". How will they monitor and evaluate the project? Real-time evaluation during floods is an excellent idea, but (a) other mechanisms are needed too and (b) how would personnel be spared for real-time evaluation during an emergency situation? Would any monitoring and evaluation be completed by personnel external to the project or external to the country? Additionally, the choice of partners is limited, with a heavy focus on technical skills and civil servants, but minimal input from the social and community side.

The project seems to be built on a sound basis - it is not overly ambitious and could well provide a model for similar systems in other basins. A critical need will be to ensure appropriate training both in the operation of the system and in the application of the products it delivers.

The sustainability section provides minimal details and does not address some of the questions in the guidelines. Sustainability issues include (i) The heavy reliance on hardware and software which needs to be purchased suggests that funds will be needed for upgrades every few years. How would those funds be obtained? (ii) How will the DEM be updated after a flood, since significant topographic changes can occur? (iii) Considering how much data, satellite images, and software are freely available online, what plans exist to upgrade and ensure fast and reliable internet access? (iv) What off-site backups of data and information will be made? On another issue, including the workshop, training, and manuals is a positive step towards sustainability, but further aspects of these activities must be considered to ensure that they do contribute to sustainability: (i) How will the workshop ensure that views of traditionally underrepresented sectors are heard? Examples are women, ethnic minorities, and children? (ii) Will the training material and manuals be in English only or will other languages be considered? (iii) Who will review the workshop method, training materials, and manuals before they are implemented?

The core of a useful project exists in the proposal, but a wider view of the challenges faced is absent, as noted in the points made in the other comments. Other issues to be addressed are: (i) How would traditional knowledge of the people in the flood risk areas be incorporated into this project? (ii) How would personnel other than engineers and physical scientists contribute to this project? Examples are social scientists, planners, social workers, community workers, ecologists, mental health specialists, and human geographers? These two points imply that this project is

strong on the technical aspects, but weak on the non-technical aspects. The proposal is much more focused on warning rather than on developing a comprehensive warning system. All the necessary elements are mentioned to some degree, but the detail is focused on technical aspects with limited information and thought for non-technical aspects.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 42/06 (FL) Early Warning System in Case of Flooding for the City of Coca  
- Orellana Province, Ecuador- South America  
(Ecuador)**

Assessment by the EWC III Review

A) Overall Assessment

The project is based in clear needs and risk assessment activities. The project incorporates extensive treatment of the hazard flooding and landslides and mapping and registration techniques. There are gaps in the information in the document presented. Needs in the distinct phases of a EWS are identified and gaps pointed out. Impacts and beneficiaries are clearly laid out and criteria for measuring impact and monitoring progress are provided.

The project is soundly developed from a technical perspective but is relatively weak on incorporating social and social participation aspects. Emphasis is placed on risk reducing mechanisms that require high investments in relocation and rebuilding, whilst non structural mechanisms of low cost are only insinuated--land use planning for example. Overall, the project design is comprehensive in that it does incorporate considerations of diverse type and character, but would benefit from closer and more explicit attention being given to social and non structural aspects

The nature of the participating institutions and the partnerships are outlined, including the active participation of the local municipality, and suggest that the scheme would have a good opportunity to be sustainable. The scheme is embedded in existing institutional frameworks at the local and national levels. Moreover success of the scheme is highly important given the key strategic and economic role of the city and the area.

Overall the project deals with a relevant problem, poses and integral solution and may be seen to be sustainable. It would however be wise to take a closer look at the social and governance dimensions and compliment what is essentially a technical-structural approach with more consideration of how the project can be appropriated by local population and how these can more clearly and actively be made participants in the process and project.

B) Specific Recommendation

1. The vulnerability and risk scenario aspects should be developed in the background and justification section of the proposal. The human vulnerability and risk components should be more fully developed.
2. The project design is very strong on technical aspects but weak when dealing with social and governance criteria.
3. The impacts are considered as part of the objectives. This should be clarified.
4. More information should be provided as data is missing on areas at hazard and consequently at risk at some level.
5. More activities/mechanisms should be described to ensure sustainability.
6. Cost-effective measures should be directed at monitoring progress.
7. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 51/06 (FL)**

**Early Warning and Flood Control Monitoring in the Eastern Mediterranean**  
(Lebanon, Syrian Arab Republic and Jordan)

Assessment by the EWC III Review

A) Overall Assessment

The hazard is clearly described and defined: sudden onset floods and flash floods in the Eastern Mediterranean due to torrential rains and is considered in a multi-national perspective (Lebanon, Syria, Jordan). The number of people exposed to this hazard is relatively small though (in 27 years 9 fatalities/year). Major objective of the project is to carry out an detailed hazard assessment - flood hazard mapping. However risk assessment, i.e. vulnerability and exposure components are not dealt with. Needs identified are the necessity to reduce losses (human and economic). The proposal is endorsed by the Lebanese National Council for Scientific Research - National Center for Remote Sensing (but not a disaster-risk management institution. The project claims the intention to set up a regionally linked flood early warning system but none of the 5 project stages include activities beyond hazard mapping and modelling (see figure 1 of the proposal).

There is a clear description of the need to the proposed project. - However, unlike indicated by the title the proposal seems more about mapping of flood-prone area. - Risk Assessment: Reference is made to some earlier study of hazard, but most important is to present the current trends of flood impacts in each country. The stated average of 9p/year is not at all informative of the number of people exposed to the hazard. - the existing gaps in current systems is loosely described as matter of mismanagement approaches.

The project addresses the monitoring/hazard (technical) component of EW. The project is well designed for that purpose; it is multi-national and wants to apply participatory approaches on the local level. However, it missed to link with the other essential components of EW (social and governance aspects). Without wanting to belittle the flood hazard in the Eastern Mediterranean, the number of affected people is rather small. The impact of the project will be hard to quantify. Indicators are not defined.

The selection of site in page 8, paragraph 2: Does it mean that the target site are not defined. What is the probability of extreme events expected to be used as reference for in situ assessment. The paragraph in whole is not easily understandable. - Unlike expected from the title, early warning is loosely mentioned in the proposal and there are no references to any of the four elements of effective early warning. Stage 2 of activities in the proposal refers to warning system requirement, but most of planned activities are on GIS and other mapping requirements. - the proposed indicators page 8 such as land indicator, water and climate indicators are too general. More specific and practically measurable indicators to assess the effectiveness and reliability of the proposed system are required. Their applicability to each country must also be carefully considered.

The project is innovative since similar systems do not exist in the targeted geographic region. The project goals are realistic and achievable and the project partners are experienced and appropriate to reach the project goals. The consecutive tangible outputs in combination with steps of “corrective feedback” and reporting will allow the evaluation and monitoring of the project progress. For it’s objectives the project is well designed. The only setback is that it does limit itself to the monitoring/mapping stage of EW and does not show a link to any other EW component.

The requirements for this section are not well documented. Most of the discussion in page 7 and 8 of the proposal is about the satellite to use in monitoring the data for the project.

The project is endorsed by the Lebanese National Council for Scientific Research, National Center for Remote Sensing. 3 of the 4 project partners are from academia, two of them local, one

from the US. One partner is a scientific/governmental institution Center for Remote Sensing. The partners are considered highly capable of carrying out the project tasks. The approach is based on technology and the financial sustainability of the project outcomes is not clear. There are no specific users targeted with the project outcomes. Landuse planners or disaster managers should be more closely involved.

The requirement for this section is not answered properly. What is the mechanism that will be put in place to ensure sustainability of the project. The authors must avoid general statements such as normally concerned government agencies are..., participatory approach of inhabitant..., etc. The expected here is what are the arrangements made by each related stockholders to ensure sustainability

The quality of the project is good. Negative criteria are: --> relatively small number of directly affected people --> the project deals exclusively with the monitoring component of EW and does not seem to be linked to any other component of the EW chain. If the project partners can link the project to local or national decision makers - such as disaster managers, landuse planners – in order to assure the use of the project outcomes, it would be a recommendable project.

The project is more about flood mapping. Though it is an important data for effective early communication, early warning issues are loosely mentioned in the proposal. - many statements are too general, and more specifics about the patterns and trend of hazard and risk/vulnerability in the three countries must be brought forward. - there is a mixing of statements between the requirements for flood hazard mapping and mapping flood-prone. The authors must clear their understanding as applied to their proposal. For instance in Japan, the mentioned two types of maps while they are inter-dependent they are basically developed to fulfill different objectives. - Using TRMM data is very encouraging, but the current prospected use is not very well documented and requires more focused explanation within the planned activities and not monitoring and evaluation section. - In general the proposal needs a fundamental review and focused answers to each section of the proposal.

B) Specific Recommendation

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III ReviewA) Overall Assessment

The introductory description of needs is very well done. However, the project document could be improved based on a detailed assessment of needs. Such assessment can be performed on the basis of contributions from end-users - provided that these stakeholders have been selected in a representative way. The Davood is a good basin for a case study. However, for a big country such as this, the project would have been improved if several basins could be selected, and then their results compared. For instance, the Davood shows "good" features: level of education and co-operation; quality of road network; etc.). How can we be sure that what works in the Davood (in terms of flood warning and flood maps) will actually work in another basin (poorer, or less developed). In addition, involving several basins can support co-operation among basins and sharing of "best practices" and lessons learned. This contributes to the national-level integration of flood management.

The needs and requirements for the proposed integrated flood action plan are based on a sound perspective and have been clearly identified and documented. The chosen basin indicates that the chosen approach is feasible in the basin. Obviously, the gaps in the present system where available (this is not fully documented) point to a lack of integration of both, policies and coordinated actions which the project intends to address. While the criteria for the selection of the project basin are sound, the description of the basin (number of people affected etc is not fully sufficient.

Objectives are identified clearly. The expected outcomes of the project are clearly defined and the outcomes would form the basis for application in the pilot basin with the expectation that the results obtained from the pilot basin integrated flood management plan can be transferred to many other basins in Iran. This seems to be a viable objective with a quantifiable impact in flood management. However, the assessment of the project via measurable indicators is not documented. In part due to the nature of the project, the four elements of effective warning systems are likewise insufficiently documented in particular with regard to the dissemination of warnings and local knowledge building.

The project design is good. However, several elements could be added, or presented in more details: - a "lessons learned" module could improve the quality of the project. The role of such a module is to develop methodologies and tools for post-flood collection of data related to the flood warning process. It is a kind of debriefing that involves all decision-makers, technical staff and end-users committed in making flood warning a success. Possible questions to be raised include: what did work? what did not work? Such a feedback process can take place, if needed, both at national level and at local level - what are the skills of project staff ? It is suggested that professional profiles include not only engineers and water science experts, but also social sciences experts (risk sociologists; geographers; etc.). This will add to the quality and comprehensiveness of the project - the project is designed as a national one. This is not a problem. However, it is suggested that an additional, transboundary river basin is integrated in the project. Possibly even a simple, not expensive "showcase" basin. This would contribute to

regional spirit of co-operation, and help show the country's expertise in managing flood risks. A detailed budget would add to the technical credibility of the project

The project design is innovative with achievable, relevant goals and cost effective if measured against the expected results and the use of the results nationwide. The chosen partners are adequate. There is monitoring and evaluation mechanism built into the project design and this needs to be amended. In addition to the "macro-scale", public-policy-type of sustainability described above, project authorities pay particular attention to local-level sustainability of the warning system. For instance: all newly appointed authorities at local level should be trained in flood warning, so that this know-how can pass from a generation of authorities to the next one. It is also suggested that IRI authorities at high level see to maintaining close co-operation among State services in charge of: data management for flood warning; warning dissemination; emergency management; etc.

The project activities will result in more durable systems and sustainable capabilities when viewed by the proposed activities and the governmental partners involved in the project. The project design is also open enough to allow adaptation to local conditions and as such has a low risk of not being sustainable. As the project aims to apply the results from the basin approach nationwide, the strategic approach is commendable and could result in a strengthened flood management in Iran including improved early warning. However, the specific aspect of early warning is underrepresented in the context of the project which is much focused on the general aspects of flood management. In this aspect however the development of flood hazard maps is an important aspect in an early warning framework.

Unless missed in reading project document, it is not clear to what extent IRI and project authorities plan to consider existing research, best practices and lessons learned from other countries. A lot exists already in the field of flood warning. Taking stock of this wealth of knowledge would help project authorities save time and money (and help avoid not satisfactory results). The fact that only one river basin is selected is considered by the reviewer as a possible source of weakness to the project.

#### B) Specific Recommendation

1. The project document should include a detailed assessment of needs. The Davood is a good basin for a case study. However, for a big country such as this, the project could have been improved if several basins could be selected, and then their results compared.
2. The gaps in the present system should be documented. A description of the basin (number of people affected etc) should be included.
3. The executing agency should include end-users in the needs assessment phase of the project.
4. The project proposal should be amended to reflect more clearly the verifiable indicators and the four elements of effective early warning systems and their interlinkages.
5. A "lessons learned" module could improve the quality of the project
6. It is suggested that an additional, transboundary river basin is integrated in the project.

7. A detailed budget should add to the technical credibility of the project.
8. Information on whether the executing agency is including existing research into the design of the project should be provided.
9. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 84/06 (FL)**

**Central America Small Valleys Flood Alert**

(Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama)

Assessment by the EWC III Review

A) Overall Assessment

An existing SVP is to be transferred from the communities for which it was developed to a group of other communities. This is done under the auspices of the OAS, and by means of workshops designed for training persons to establish an efficient flood disaster management system. A regional platform is to be installed for information dissemination.

The problem identified in the project proposal is correct in the context of Central America, but it is identified in a very general fashion. Risks are recognized as existing, but the proposal only outlines them in very general terms. The development of local early warning systems is proposed, but the context of the term "development" is not clear. Based on the existing Central

American experience, it is unlikely that systems will be implemented in each of the 36 proposed basins, as very little funding is allocated to each basin to complete a community-operated system.

The project is not of a high scientific or technical level, as it is designed for protecting people against flash floods by teaching them how to react. A platform for this is to be established. A direct relation to flood risk forecasting is not given. The proposal does is exclusively directed at transferring management knowledge to responsible persons. The objectives have been clearly stated, but not in a quantifiable way. While the proposed ways in which the project is to be executed are targeting the problem, there are no quantitative figures to assess the impact. For example, the strategy of focusing on the local level to carry out the activities has proven useful in the past, but there are no figures on the number of people expected to be trained to assess the impact.

There are no details given of the procedure to be used. However, the concepts are straightforward and the scientific level is low -requiring practically no research. It is a continuation of an ongoing project, whose results will be transferred to other communities in similar environments. It is definitely responding to the needs of the communities, as it reflects existing practice of the region, and it is supported by the agencies in charge.

The project proposal outlines two strategies towards disaster reduction, but does not focus explicitly on early warning. The strategies draw on previous experiences of the agency proposing the project, and the region where the project is to be implemented. Each agency has ample experience on local early warning systems, but the project does not address this issue. The proposal of the establishment of a new regional platform which may be parallel to the existing regional platforms such as CEPREDENAC and CRRH could lead to future complications. There is no mention of a potential role for such existing regional platforms. There is no mention of a monitoring and evaluation system or procedure in the proposal.

The project is to be initiated by the OAS but conducted in large measure by NGOs which shall be selected. The creation of a platform for disaster mitigation is planned, although there is no indication on how this will be operated in the future. The platform collects experiences and supplies technical assistance. It is likely that regional countries will take up the experience and continue such platforms.

Experiences in local efforts by international agencies lead to the following conclusions: (i) the establishment of a cadre of people dealing with disaster management is sustainable only if projects have a follow-up effort; and (ii) local early warning systems which are to be operated only with local resources are not sustainable. Experiences in the region lead to the fact that long-term sustainability is achieved when the national disaster management agency is involved in the project. However, this project does not attempt this strategy. Sustainability of the proposed regional platform may be difficult as proposed because the region has not allocated annual resources to this task. In addition, sustainability may be compromised due to the fact that the proposed platform will compete with existing regional platforms which have already a legal mandate recognized officially by the regional organization and by the national governments of the region (CEPREDENAC, CRRH, CCAD).

The budget is very high and can be recued by starting with fewer workshop, and thus also reduce the administrative level. The Review questioned what would be taught at the workshops? A task plan outlining the functions of the many administrators would be helpful. It is important to know

whether the proposed activities will collide with existing platforms or not which already have mandates and budgets allocated to them for the issue of disaster management and preparedness.

The involvement of national-level agencies should be incorporated taking into consideration the fact that in the past four years many efforts have been carried out by GTZ and other agencies to promote the topic of local risk management and local early warning with very successful results. Also, given the amount of funding requested, it would be advisable to request a detailed budget and then to analyze the financial feasibility of the project. In this respect, it would be advisable to do an analysis of costs versus tasks proposed. Important issues to consider are the expected results from the 36 proposed towns, and determine the feasibility of the project in this respect.

B) Specific Recommendation

1. The project proposal should explicitly address the four elements of effective early warning systems. It is not clear whether the project will lead to the establishment of local early warning systems as mentioned in the proposal.
2. Detailed information on the target communities should be served provided. The project covers only the preparedness stage of risk management and should include a forecasting component.
3. The budget should be reduced and including detailed costs related to the workshops as well as a budget by activities.
4. The issue of the SVA regional platform should be analyzed precisely before proceeding with the project.
5. The proposal should provide a strategy on how to tie the efforts of the project with ongoing efforts of the national disaster reduction agencies in each country of the region.
6. Indicators of the success and impact should be identified.
7. The different degrees of risk within basins should be mentioned, with examples of possible basins to work in.
8. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 85/06 (FL)**

**Integration of the Communications Systems of the Emergency Organizations in Honduras**  
(Honduras)

Assessment by the EWC III Review

A) Overall Assessment

The proposal focuses on the perceived institutional weakness regarding the lack of a system which can integrate different communication systems already operated by several Honduran government agencies. However, a difference must be made between the institutional weakness of agencies working in a coordinated fashion, and whether there is a need for communication systems to be integrated, which is a different issue. In the proposal there is no mention of the current situation of risk which Honduras is facing. Therefore, from the proposal it is not clear the number of people to be benefitted from the project. Also, the project is by no means targeting conditions of risk. In addition, the proposal does not really address early warning, but disaster preparedness and response! The outputs of the project are to be used after a disaster, rather than before.

The project is not on early warning systems as such. It deals with information and communication systems for emergency management and as such the evaluation and criteria are not relevant.

The project does address the need identified. The impact is limited to COPECO (Honduras's national contingency commission) and the related disaster-response agencies like the Honduran Red Cross, which need to address the issue of coordination. However, the project does not have an impact on the population at risk per-se. The only measurable indicator in terms of completing the setup in four cities of Honduras is realistic if agencies cooperate. However, the project does not target early warning systems. And while it is connected to another project, the other project also does not address early warning issues.

The project does not take into account COPECO's current strategy on inter-institutional coordination via Emergency Operation Centers. It is in these centers where all relevant organizations are integrated to exchange information and coordinate response efforts. While there is a need for coordination of information, there is no explicit need to integrate communication networks in any institution at this time. Thus, the project may be rejected by COPECO if it does not follow COPECO's strategy. The project proposes the integration of communication networks from agencies that clearly will not agree due to strategic reasons (ARMY, Police).

The project does not address sustainability of the efforts. At this time it is difficult to foresee whether such a system will be sustained.

The project does not fall into the category of early warning! The project fails to address the proper problem of lack of inter-institutional coordination and the current efforts towards improving such coordination efforts, in particular the Emergency Operation Centers being promoted by the National Disaster Management Agency of Honduras, COPECO. It proposes a solution that is not viable from the point of view of several institutions.

Evaluation not applicable as the project is not on early warning systems as such although parts may be relevant

B) Conclusion

1 Strongly disagree. The Review concluded that there is insufficient information to assess the project proposal adequately.

**PPEW 87/06 (FL)                      A Flood Forecasting Device in Quezon City, Philippines a  
Sound Practice for Flood Disasters Reduction Measure  
(Philippines)**

Assessment by the EWC III Review

A) Overall Assessment

Risk assessment has not been done by a disaster-risk management institution and the description of current risk level and vulnerability is not well documented. Nevertheless, the communities at risk are clearly identified in terms of people and physical infrastructure exposed, as well as the gap to be bridged by implementing the project in terms of EWS. The documentation provided is complete enough to endorse the risk scenario depicted by the submitting organization.

Some assessment has been presented in the attached documents but it is done in such a way as to say it warrants planning actions to do something concrete enough to be of use yet. Real vulnerability has not been assessed nor is there a real (statistical or other) type of hazard (periodicity etc) analysis that could throw light on the type of (hazard) behavior that can be expected. On the other hand, the number of people and houses have been identified, and also it is more or less (empirically) implied what the danger or flood level is in most cases.

Objectives and impacts are too generally stated and no measurable indicators are identified in the project. Even though small in scope, the project considers the four aspects elements of effective EWS. Logical framework has the basic elements but in my view is still a bit too general even if the basic presumption seems to make good sense. Impact and related issues is not easily assessed yet. The use and methodology of measuring rainfall is not clear (are probability distributions used, cut-off measures, time-series, etc).

The project proposal is very brief and does not provide details to properly assess the soundness of the project design. But keeping in mind the limited scope of the project, it seems that the goals set by the submitting organization are realistic/achievable. Considering what the intended scope and

complexity of the project will be (limited), basic assumptions are fine although some methodological issues seem not be addressed sufficiently yet (regarding where and how to measure rainfall, cut-off scores, false positive alarms etc). Nevertheless, the logical train of thought is good enough to incorporate these needed additional elements quite easily. Project is simple, modest and cost-effective. Its engagement of local officials and other groups is excellent. Also it has a recognition of the interaction with land use policies. These elements provide a good basis for further discussion, evaluation and development. Further development is needed to achieve two key missing elements - the linking to the official weather forecasting system, and procedures for evacuation.

The affected communities are identified and amount to a few thousand people. The early warning system elements - the rain gauge and noticeboards - are very basic and while having impact on public awareness, will not provide a scientifically adequate basis for predicting the level of water in the flash flood, as the rainfall varies greatly in space in convective storms. Active participation of local authorities and community leaders and community participation in general, is one of the strong aspects of this proposal, and therefore, a good indicator of the potential sustainability of this project. Institutional sustainability seems good and considering the type and scope of project, should not pose too many problems if attached documents are to be considered.

The project as designed is likely to be sustainable, owing to its low cost (US\$620) and its wide engagement of officials and others. More work is required on the technical side of the project, to ensure that the rain gauge(s) are well sited, are automatically monitored and communicated, and are linked to standard forecasting methods. The project needs to be better documented with a proper risk assessment. The project design can be improved as it is very poor in its current version. Nonetheless, provided that the description of the risk scenario described by the project is fair, the benefits involved in implementing the project seem worth the rather small investment required. The project stands as a good, low-cost, community-based, community-initiated project. It has some technical shortcomings, but these should be seen as opportunities for growth and development, building upon the strong local motivation and organisation. The project could develop into a well integrated capacity for risk reduction.

#### B) Specific Recommendation

1. Risk assessment should be more clearly documented out by a disaster-risk management institution and the description of current risk level and vulnerability included in the project. Real vulnerability should be assessed and statistical or other type of hazard analysis included.
2. The objectives and impacts should be clearly stated with measurable indicators identified in the project.
3. Logical framework has the basic elements but is still too general even if the basic presumption seems to make good sense. Impact and related issues should be assessed.
4. The use and methodology of measuring rainfall should be clarified (are probability distributions used, cut-off measures, time-series, etc). Methodological issues should be addressed such as where and how to measure rainfall, cut-off scores, false positive alarms, etc.

5. Further development is needed to achieve two key missing elements - the linking to the official weather forecasting system, and procedures for evacuation.

6. The following standard project formulation recommendations will be added to the recommendations:

(i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

(ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.

(iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

(iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 93/06 (FL)**

**Implementing a Real-time Flood Forecasting System for  
East Black Sea Region In Turkey  
(Turkey)**

Assessment by the EWC III Review

A) Overall Assessment

The risk assessment is based on a single large flood event, which according to the report is a rare event. This 'rareness' of the event alone should not be a reason not to develop this project, however, the proponents should provide more substantial, scientific evidence (statistical or otherwise) to support the justification of the project. One of the strong points of the proposal is that it is intend to expand an existing system to a different geographical area.

The project aims at reducing the vulnerability to flood hazards by providing early warning by means of hydrological monitoring and hydrologic/hydrodynamic forecasting. The technical service issues of this action have been well-covered. However, the mechanism(s) that will be used to convey this information to the target communities have not been adequately addressed. ("...DSI will coordinate with local governmental and non-governmental organizations..."). The

abilities/experience of the partners involved in these latter components should be clarified, and when/if those are inadequate, means for improvement should be listed.

The project has been well-designed and is based on already existing capacities of the proponent. The project is proposed as an extension of an existing system (TERFER) which is already in operation. According to the descriptions the proposing organization is capable of handling the project and its long-term goals. In spite of several issues listed in above sections; overall this proposal is a practical and sustainable one with a good project design. The large part of the overall funding is to be provided by the Turkish government (approx: 60%) and only the rest is applied for. In addition to the issues stated in the above sections, the proposal would definitely benefit from a careful editing.

B) Specific Recommendation

1- The proponents should provide more substantial, scientific evidence (statistical or otherwise) to support the justification of the project.

2. The mechanism(s) that will be used to convey EW information to the target communities should be adequately addressed

3. The abilities/experience of the partners involved in these latter components should be clarified, and when/if those are inadequate, means for improvement should be listed.

4. The proposal presentation should be improved through careful editing.

5. The following standard project formulation recommendations will be added to the recommendations:

(i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

(ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.

(iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

(iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The population at risk (4,000 homes) is quite small. Are there not lower-tech solutions for villagers to monitor rising water? How will early warning prevent economic losses? What are the kinds of measures that can be taken as a result of this knowledge? What are the links between possible mitigation measures and environmental impacts?

The impacts are not specific enough. The authors need help in formulating measurable indicators, such as the number of villages prepared to evacuate, or the feasibility of diversion projects.

4-1 La prévention Axe de développement N°1 OK Axe 2 : Aspect organisationnel - details needed. Axe de développement N° - who and how? 4-2 La prévision, anticipation et alerte Axe de développement N°1 : for example, what kinds of systems could be considered? 4- Renforcement de la formation et de l'expertise dans le domaine de la prévention contre les inondations. Whose expertise? How? Something important is missing here. What must people learn before hand? What preventative measures must they take? Evacuation routes? High-ground safe havens? Go-bags? Protection of assets? Strategic land use? etc. This part needs inputs, involvement from experienced non-governmental organization and community-based organizations. See the third and fourth elements of effective early warning systems. <http://www.unisdr.org/ppew/whats-ew/basics-ew.htm> 4-3 La crise: Actually putting in place communications and testing them is a "pre-crisis" function too. 5 - How will the interface between scientific/technical experts, local authorities, and local people work? Any evidence of successfully bridging knowledge gap? 6- Suivi et Evaluation : missing - how will it be done? How will we know it has been done? 7- Soutien : missing 8-Budget : missing 9-Financement : missing 10-Autres sources de financement et bailleurs des fonds : missing Sustainability Missing.

There seems to be a risk, concerned stakeholders, and some real merit to the intentions. The first two elements of an effective early warning system seem reasonably approached. However, the proposal itself is quite incomplete. It seems worthwhile to try to offer applicants such as this some assistance in program design and proposal-writing, as well as training in the elements of effective early warning systems, as well as how this fits into development of an overall culture of safety, so that they can be successful in such applications.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The risk is not substantiated. the current level of risk and vulnerability, nor the people exposed to the hazard at different times of the year.

No risk assessment conducted. the project is justified by the lack of early warning system in an area prone to flash floods and visited by approximately 240,000 tourists every year.

The expected impact is not clear. The reasons for this particular type of warning system, who would benefit, and measurable indicators are not provided. the four elements of effective early warning systems are not addressed.

The project does not describe the expected impact, not does it address the four elements of effective early warning systems.

The project design addresses only one of the four elements of early warning systems.

The objectives of the project are realistic and tangible: installation of sirens and monitoring systems as well as improving the evacuation routes. However, it is difficult to evaluate the cost effectiveness since the costs are expressed in local currency only ( Dhs). No information on the evaluation of the project is provided.

Sustainability is only alluded to. However, there is no system or partnership indicated that addresses all four elements of an effective early warning system.

The sustainability element is not elaborated in the project proposal. However, the project would be executed by local authorities, and would be linked to an already operational real time alert devise at a hydroelectric power station located some 40 km upstream.

The concept may have merit and those who submitted should be encouraged to think this through, using the basics of early warning systems as their guide. (see <http://www.unisdr.org/ppew/whats-ew/basics-ew.htm>). In writing a proposal for international funding, the applicants should be prepared to explain the setting and the picture in sufficient detail for someone unfamiliar with the location and it's risks to understand and be convinced of the need. They should also be prepared to follow through with local partnerships to carry out all four steps of early warning systems, and think through and explain all of these steps.

The main element of this project proposal is the establishment of some technical elements such as sirens and improvement of the evacuation routes. It does not take into consideration all the 4 elements of effective early warning system. The proposal is not very well written and lacks many important elements, such as the risk assessment and sustainability.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 132/06 (FL)**

**From Reconciliation to Knowledge of Response Actions for  
Emergencies in Riverside Communities of Gracias a Dios State,  
Honduras  
(Honduras)**

Assessment by the EWC III Review

A) Overall Assessment

The proposal has a very good assessment of the needs and risk that the communities are exposed to, in the area of the project. The assessment indicate that the communities are exposed to several hydro meteorological and environmental risks, including floods, hurricanes, land degradation, lack of access to safe drinking water and electricity, as well as diseases. That, coupled with a low capacity for disaster prevention and response, makes the communities highly vulnerable to natural disasters. The proposed project area covers about 20,000 Km<sup>2</sup>, with a population of some 76,000 inhabitants, of which approximately 60,000 belong to the Miskitos ethnic group (there are four ethnic groups in the region). The communities are sceptical of any outside assistance in times of disasters, which partially explains their lack of commitment to disaster preparation, prevention and response measures. However, that attitude seems to be changing.

DBDH project adequately describes the needs and risks at a local level, reflecting a knowledge of the project impact area.

The proposed impact objectives are in line with the risk assessments. The project aims at contributing to a change of attitude of the communities in terms of response to natural disasters and emergencies. Strengthening early warning systems is seen as the first step to reinforce the response capacity of institutions and, therefore, the copying capacity of the communities, whilst helping to develop a culture of disaster prevention. Some 76,000 people are expected to benefit from this project. Acquisition of data in real time has been identified as a critical part of an effective EW system. The proposed indicators are sound and measurable; the verification sources have been identified.

The focus of the GDH project on local actors and emphasis reveals an understanding of the need to deal directly with local inhabitants while involving subnational and national groups.

The project has been properly formulated and is accompanied by a detailed budget that corresponds well with the activities and expected results indicated in the proposal. The project aims at creating early warning systems and capacity (disaster response) within the local communities that, it is hoped, will continue beyond the timeline of the proposal. However, some questions could be raised about the expectations of the results in terms of achieving goals in the time-frame proposed (12 months) and the sustainability of the project (for the later, see next section). The proposed time frame appears a bit optimistic given the large number of activities proposed and the degree of difficulty indicated for some of them. On the other hand the proposal clearly indicates that ALISEI and partners are aware of it. It would be convenient to add a chart (Gantt-chart) to show the distribution of tasks and milestones over time. It might also be necessary to revise the time-frame. The proposal is compatible with existing early warning practices –this project will strengthen an existing EW system, therefore it will build on existing activities.

The GDH project can be reinforced by including as partners the association of municipalities in the project area as well as the national and regional emergency management entities.

The sustainability of this project rests on the assumption that municipal governments will be motivated to invest in the project through a common fund. Negotiations are underway to secure that participation. However, the proposal also indicates that potential funding from municipalities is very limited. Although the proposed approach to deal with this matter appears correct, it does not guarantee that funding will be forthcoming. The proposal takes into account partnerships with a number of internal and external organisations (including external private companies), governmental and non-governmental, as well as a very important participation of the local communities. The proposed approach to incorporate the project into local and national support structures is very logical and realistic. The involvement of local authorities and communities will allow for the social and institutional sustainability of the EW system, without necessarily addressing the financial aspect. The weakest aspect of this part of the proposal is the involvement of external service providers and ‘expatriates’ in the execution and supervision of some of the activities. It probably needs some clarification, particularly with regard to the selection process that would eventually be followed (tender).

Efforts by the named partners to show sustainability by the local beneficiaries as well as the subnational and national emergency management is lacking and should be reinforced.

This is a very good proposal, it fits very well into the disaster risk reduction and vulnerability initiatives and goals expressed in the call for proposals. The proposal is recommended with the caveats mentioned above. The limitations to raise funding beyond the life time of the project to ensure its sustainability need to be taken into account and understood in the context of the institutional realities the local government offices and officials are facing. The region is very poor and the local communities need the kind of support that a project like this may bring in order to better cope with the consequences of the extreme events and disasters they are exposed to. NOTE: the title of this project should read in English: "From resignation to knowledge: strengthening the emergency response capacity of riparian communities in the Gracias a Dios Department, Honduras." The review of this proposal was done on the Spanish version because is more detailed and better articulated than the English version.

The GDH project should explain the role beyond coordination by the subnational and national groups and demonstrate the involvement of these entities as well as the municipal entities.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 135/06 (FL)                      Flood Early Warning System Project**  
(Morocco)

Assessment by the EWC III Review

A) Overall Assessment

Needs are clearly outlined by the proposal but need to be re-paraphrased. With reference to major disasters in 1995, 1997, 2002 and 2003 the proposal attempts to highlight the frequency of recurrence of disasters in the country however associated risks and vulnerabilities remain to be detailed out.

Although there is a large tourist population, and small local population it is not at all clear under what circumstances they are at risk. Is it during specific times of the year? Are there not natural warning signs? Has anyone ever lost their life as a result of these floods?

Impact of the project activities against the objectives is clearly stated and needs no further elaboration.

What is the evidence that a siren system would work? Who would hear it? Would tourists know what it means or what to do about it? How would people learn what to do when hearing the siren. This proposal addresses only the first two elements of effective early warning systems. The second two are not explained. See <http://www.unisdr.org/ppew/whats-ew/basics-ew.htm>

As it is, the project design appears to be scattered a bit. The proposal could be reorganized to detail out phased activities against actors involved and impact desired.

The use of the sirens is not explained. There is no plan for education of the public so that they will recognize and respect the warning service and know how to react.

Given the presence of detection, observation, forecasting and monitoring mechanisms in Morocco it is expected that the project would certainly make the desired dent in terms advancing the EWS.

Sustainability - missing.

With suggested the modifications, the proposal will be worth accepting.

The idea may indeed have merit. However, it is not a complete proposal. The applicants need to look at all four elements of ineffective early warning system and partner with social science/community mobilization or public relations experts to consider how they can deliver their message and have it acted upon effectively. This should be done in consultation with the tourism

industry which can be a strong source of support if consulted, or contention if ignored. Applicants would also benefit from support in how to design and argue for the legitimacy of their plan.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 136/06 (FL)**

**The Loire Prevention Ambassadors**

(France)

Assessment by the EWC III Review

A) Overall Assessment

La Loire is one of most hazardous river in France and experienced several flooding periods in the nineteenth and twentieth centuries. The risk assessment of the Loire river is clearly identified. The North-South dimension of the project is not detailed enough. The impact and objectives are clearly explained for the French part of the project. On the contrary, the impact for the foreign countries participants is difficult to assess. The current situation of the four elements of the warning systems must be presented for each region and river (risk assessment, technical monitoring and warning service for these risks, dissemination of understandable warnings to those at risk, knowledge and preparedness to act), to provide information of the objective for each country.

How does this project interface with the scientific/technical community and how do the children learn about the scientific basis for knowledge about these risks? Moreover, how will the international participants learn about and participate in this kind of research? What role do the teachers play, and isn't there an objective about support and sustained involvement of key teachers? What form will the risk communications take (brochures, public speaking, media kits, media outreach of all sorts envisioned)? What will it be suggested that people "DO" about their risks, and how will consensus be reached about the core messages for the public? How many school children and the public will be reached along the Loire (directly and indirectly)? For the international participants - objectives should relate to the process by which they will learn to apply the whole methodology to their own region. What is expected of each national group upon its return? How will the international participants own mayors and local press be involved?

This French part of the project is realistic. For the foreign participants, there is no specific action item described in the action sheet, before the visit of the Loire river. Several actions must be added and specified for 2006. For example: - preliminary inundation map of the floods - topographic and geologic map - dates of main flood The project manager must be provided guidance in that matter. We need to know more about the project design as far as the international participants go. Everything depends on this. How does this fit into other parts of international outreach? (e.g. is there a web-site? will local participants also translate and localize the Ambassadors Network materials to their own circumstances? etc.) As far as the international partners, who are they and what is their commitment (just one teacher and two students, or are they representing a program at a whole school and on behalf of a whole community). Do they

attend with the Mayor's blessing as well? Who is responsible on the French side to promote international participation, and how is that conceptualized and implemented?

First, participation of foreign emergency manager, environmental ministry, or other stakeholders is recommended (at least 1 for each country), to enhance the sustainability in short and medium term. Second, generic flooding river publications, posters, brochures must be realized (not only the specific Loire posters). Additional support can be provided for these 3 issues. It seems sustainable in France, but the connections are not yet clear as far as the international participants to be invited. How will the project be promoted in other parts of the world? Will you have a website? Any ongoing dialogue between students before/after the tour? How will Ambassadors Network be promoted among the many children who may not be able to attend? (For example the Virtual March concept used against child labor in Europe, and for peace in the U.S.) Can others join the virtual tour, and can the international students design their own tours to be implemented in their home region?

I will support the North-South dimension of the project if several missing items are added : 1 The risk assessment of the Burkina-Faso, Niger, Togo and Haiti rivers - where the elected schools are located - must be presented. In particular, the information missing is the comparison of the morphology of the river, precipitation variation, geology. 2 The current situation of the four elements of the warning systems must be presented for each region and river (Risk assessment, Technical monitoring and warning service for these risks, Dissemination of understandable warnings to those at risk, Knowledge and preparedness to act ), to provide information of the objective for each country. 3 Several actions must be added and specified for 2006. For example: - preliminary inundation map of the floods - topographic and geologic map - dates of main flood 4 Participation of foreign emergency manager, environmental ministry, or other stakeholders is recommended (at least 1 for each country), to enhance the sustainability in short and medium term. 5 Generic flooding river publications, posters, brochures must be realized (not only the specific Loire posters). 6 One poster on the comparison of the different rivers must be prepared and published (for each river: maps - remote sensing pictures... , flooding dates)

The project concept is exceptionally strong. Nevertheless, since the funds are specifically being sought to support participation of 18 students and 9 teachers from francophone schools in regions at risk in other countries, objectives, methods and evaluation for this component of the project should be fully thought out and explained.

B) Specific Recommendation

1. The risk assessment of the Burkina-Faso, Niger, Togo and Haiti rivers - where the elected schools are located – should be presented.
2. Participation of foreign emergency manager, environmental ministry, or other stakeholders is recommended.
3. *The current situation of the four elements of the warning systems should be presented for each region and river (risk assessment, technical monitoring and warning service for these risks, dissemination of understandable warnings to those at risk, knowledge and preparedness to act), to provide information of the objective for each country*

4. Information on comparison of the morphology of the rivers, precipitation variation, geology should be presented in the background section.
5. *A more scientific statement of the risk would be valuable, as well as reference to the flood or other natural disaster risks faced by the Network school populations from other countries that may participate, so that a comparison can be made.*
6. The French part of the project is sustainable. *At the same time, it is difficult to assess if the foreign part is sustainable or not, due to the lack of information. The sustainability internationally needs explanation.*
7. *While the objectives are laudable they need fuller linkage to four elements of effective early warning systems, and some clear quantification of the indicator.*
8. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

- 6 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 140/06 (FL)**

**Flood Warning as part of a Multi-Hazard Warning System for Fiji (Fiji)**

Assessment by the EWC III Review

A) Overall Assessment

Clearly demonstrated a need for an upgrade of the flood EWS in high risk catchments. The project aims to upgrade flood warning systems in two main catchments (Nadi & Rewa), affecting more concentrated communities. These two are prioritised among 6 major catchments

for piloting. The current capability has been used to positive effect in the past but is 20 years old and requires upgrading and appears to be core of the project. There is therefore existing experience in respect of river level monitoring that limits risk. The project however aims at improvements in respect of hazard assessment, warning procedures and response arrangements. While these objectives are commendable, they also make for a very large project scope which in turn puts a risk on measuring effective outcomes from a project management and oversight point of view. One could also argue that if the project aims to reach that wide, it lacks one critical component of emergency management- the component of risk reduction (that should be an outcome of the intended hazard assessment). A risk assessment is offered in the proposal, yet still provokes some questions. It goes from the premise that SOPAC and regional partners will be involved, yet it can not be concluded from the proposal that their involvement is guaranteed or what the extent of their involvement will be.

No outline of how the project will be measured for its success i.e. no measurable indicators that allow reliable assessment of impact during its implementation or once completed. Needs a clear methodology for evaluation and feedback during the project implementation stage and also for the longer term.

As stated above, it is felt that the objectives of this project are too wide, making it difficult to judge impact. Ideally it should be broken down into more manageable chunks: Flood hazard assessment and risk reduction Upgrade of river level monitoring capability Upgrade/development of warning systems & procedures (based on flood but flexible towards other hazards) Review of flood response arrangements The above projects to be combined into a Flood Hazard Management Development Programme.

Although it is specified that the project will be completed in two years there is no detailed timeline for each of the different aspects of the project. It is unclear which aspects will be running alongside each other and which will need to be completed before another aspect can begin. The project does however draw on the capacity and experience of many partners who can monitor and evaluate, although it is not clear what levels of experience and expertise in community involvement and stakeholder inclusion in management plans the partners possess. Problems 1) A community campaign should also run alongside this project to help reduce the flood risk rather than only concentrating on emergency technological response i.e. change in farming practices or risk reduction e.g. storage of medical supplies in flood safe areas not simply their removal in a time of flood. 2) Proposal mentions key words e.g. 'holistic people focused design' but does not describe the methodologies which will be employed to bring the community in as partners. How will the informal networks be utilised and improved for spreading the risk message? How will the overall project design take on board the lay public's views? The project also does not look beyond message reception by the public to the complicated behavioural response of a socio-economically diverse group of individuals. These complex factors need to be understood to develop a system which will be effective and trusted. The project proposal would be improved with the incorporation of a clear methodology for incorporating public stakeholders so that communities can develop their own response plans to a warning system they feel they 'own' and trust. How will feedback be collected and incorporated to improve and adapt the system? Who will do this? What expertise do they possess?

The comments on project size apply. Dealing with the respective parts/objectives under a development Programme concept, with several projects under it seems a better approach. Detailed project plans of the respective components will be required. For instance, the hazard assessment should be the basis for a risk reduction review, providing for legislative issues (e.g. building

restrictions or standards with hazard areas etc) as well as public education. Under such an approach it may be found that the funding estimates as given are under scoped.

If modified to address the comments outlined under 'impact/objectives' and 'sound project design' the proposal will be a strong application and should be funded.

Commendable objectives but it is recommended that the project be broken down into smaller manageable chunks and that each be scoped properly for further review. If all parts remain, they be under the umbrella of a Programme with authoritative and representative steering/leadership. Project plans to be clear on the role of partners.

It will be necessary to test the sustainability of the project against the involvement and sustained support of the international/foreign agencies claimed or mentioned in the proposal. They are: SOPAC WMO UNESCO NZAID 'Regional partners' are not defined or identified. No provision is made for independent project oversight/monitoring.

If carried out in an effective manner (as outlined in sound project design above), the proposal to incorporate the community in the project is a positive aim which will increase its sustainability. Continued feedback and adaptation will act to strengthen the early warning system further. The need for integration of local, national and international support structures has been adequately recognised within the proposal.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 142/06 (FL)**                      **Improving the Early Warning Efficiency of the Regional Flood Management and Mitigation Centre (RFMMC) of the Mekong River Commission in Phnom Penh**  
(Cambodia, Lao People's Democratic Republic, Thailand and Vietnam)

Assessment by the EWC III Review

A) Overall Assessment

The subject of the proposal, early warning in the lower Mekong, is a well-known and accepted issue. The proponents have provided justification for the improvement of the existing system as an interim solution, until the new flood warning system is in place which probably will take from four to seven years. The co-proponent MRCS (via RFMMC) is mandated to act on the issue and has the expertise to address the operational aspects of the early warning.

The risk assessment part is very clear. The project proposal has nicely outlined the need of the project and its background. The recent focus on Mekong river flood damage reduction is mainly on the issues of non-structural measures, including effective early warning. The present project

fits in to this framework. If the flood warning accuracy of the lower reach of Mekong can be substantially improved it will be beneficial for the downstream community.

The impact section of the proposal contains clear objectives. While the goal of the project may be realistic, sufficient information has not been provided in the project proposal to judge the feasibility of the approach, namely the development of transfer-functions to modify the input (upstream run-off and rainfall).

Based on the limited details provided, the approach appears to be premature for application in an early warning project. Such an approach can be tested using only the model component, without the complexities of all the four elements of early-warning chain. The approach should be used for a project of this nature only after such a basic validation for basic feasibility of the approach. The difference of the development of a 'quality criteria', as explained in section 2 (Background) from the typical comparison of modeled and observed run-off curves in standard hydrological model evaluation practice is not adequately clarified.

The project has been designed to fit-in with the existing flood warning system of the lower Mekong and the mandate of MRC. Particularly, the fact that MRC is a co-proponent (via RFMMC) provides potential for the long-term sustainability of the project. The proposal is for an interim solution until the new flood warning system is in place. However, the proposal indicates that some of the results of the project may be useful in development/evaluation of the latter system also. This section of the proposal needs additional information. There is a need to focus on the sustainability issue, and utilization of early warning system after the completion of the project. The major obstacles for accepting the proposal are the lack of clarity in the methodology and the lack of evidence of the success of the proposed technical approach in the total paradigm of the early warning of floods.

B) Specific Recommendation

1. More information should be included related to the feasibility of the approach including information on transfer-functions.
2. More details should be provided on the sustainability of the project and the utilization of the system after completion of the project.
3. Additional explanation and information is required on how the system will be helpful to MRC. This should be included in the justification section of the proposal.
4. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 156/06 (FL)**

**Early Flood Warning in Ecuador (EFIDOR)**  
(Ecuador)

Assessment by the EWC III Review

A) Overall Assessment

Information on the impacts of flooding in Ecuador have been provided and the need in this catchment identified. A risk assessment is still to be undertaken, but the proposal for a flood forecasting system appears sound. The existing gap has been identified, however, linkages with other groups have not been adequately covered. No analysis has been undertaken in regard to what losses can be avoided through early warning. That is, the technology can be applied and a model developed, but what additional lead time will be available and how will this be made use of. The project addresses one component of the Total Flood Warning System, the monitoring and modeling, and not the rest. No measurable indicators are suggested, apart from possible reductions in the loss of life.

Social aspects have been addressed to some extent, but more information is required on the "awareness" program and message dissemination and public response. Governance aspects also need additional consideration. No details are provided in regard to the model proposed and if there is sufficient data available to calibrate the model. The proposal as far as it goes is sound, but needs additional work in defining key operational elements and how the total system will operate. This is a key issue. Setting up a system is the easy part, continuing to operate it in a sustainable fashion is much more difficult. Who will own, maintain and operate the equipment that is installed? Do they have the expertise and is there a commitment to its on going operation. Who will monitor the system and provide the forecasts and who will distribute them and follow-up on public awareness etc? What are the connections to the meteorological agency and how will satellite data and other weather information be incorporated. More stakeholders need to be consulted and the overall operation of the system considered, not so much in its development, but for its on-going operations.

B) Specific Recommendation

1. Information on risk assessment should be provided, or if unavailable, a risk assessment activity should be carried out in advance of the project implementation.

2. More details on the model, key operational components and the sustainability of the system should be included.
3. Additional information should be included on what losses can be avoided through early warning.
4. More information should be included on the social and governance aspects of the proposal.
5. Information on how the project will address the four components of an early warning system should be included along with measurable indicators.
6. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 41/06 (TS)**

**Improving Disaster Resilience of Coastal Schools in Sri Lanka  
- IDRIS-SL  
(Sri Lanka)**

Assessment by the EWC III Review

A) Overall Assessment

Risk is based on actual damages caused by the last tsunami event in 2004 - very clear. previous experiences mentioned well.

While the proposal does not quantify the risk of children in schools in Sri Lanka, it does recognize the larger vulnerability of children to tsunamis, and identifies a target population composed of children and teachers in schools located in coastal areas.

A focused, well-written objectives with clear expected results. Gaps exist in early warning communication to the rural communities - good objectives.

The proposal clearly identifies the target groups (schools, teachers, and children), and proposes measures typical of early warning and disaster preparedness to contribute to the strengthening of early warning capacities within Sri Lanka. It also considers the two elements of early warning: warning and response. The other components are carried out at the national and international level, and the proposed project is a complement to these international and national efforts.

Realistic goals set while building a good partner relationship.

The project spans activities which are tailored to the capacities and limitations of the institutions which are responsible to carry them out. Activities span the strengthening of capacities at local levels in schools, in conjunction with other agencies responsible for early warning. In addition, the project is tailored using lessons learned from two previous projects with a similar approach.

Not easy task usually but good partnership mentioned in the proposal would maintain the sustainability.

While the sustainability is mentioned explicitly and is expected to reside within the the Technical Advisory Committee on Early Warning, it would be better if the sustainability would also be shared with the Ministry of Education, or the District level education branches of such a ministry.

A compact, well focused project proposal here. an established good partnership is highly evaluated here. A good project!

The project addresses a clearly identified need with activities which are tailored to the capacities and limitations of the country, and is strengthening the early warning chain from the national to the local levels as a complement to the international efforts carried out by countries of the Indian Ocean and IOC-UNESCO in relation to the establishment of the Indian Ocean Tsunami Warning System.

#### B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

Probably there is high needs, but... Little information on damage to local fishermen caused by last tsunami. No information on targetted population.

The recent Dec. 26, 2004 tsunami demonstrated the high vulnerability of coastal communities in this and other countries of the region. The project will span a coastal region, but it is unclear from the proposal the number of communities to be benefited. Nevertheless, the proposal stems from the continuation of work already started by the national agencies in charge of developing and implementing early warning in Sri Lanka in case of tsunamis and other hazards.

A good goal, but needs to elaborate further.

The proposal, while targeting coastal communities, will also contribute to the strengthening of early warning chain from the national to the local level spanning different levels. In addition, it is considered as a complement to the efforts of IOC-UNESCO regarding the establishment of the Indian Ocean Tsunami Warning System. It also addresses the issues of effective early warning. However only few results are stated via measurable indicators.

Cost for activities are not clear as well as timeframe of the activities. The activities need to be expanded.

The project is well structured in a realistic manner, as a replication of two projects already carried out by the agencies in charge of the early warning system for tsunamis. The proposal includes activities to implement the early warning system, to identify vulnerabilities, and to carry out disaster preparedness in these communities. The proposed activities seem to be well adapted to the capacities and limitations of the institutions, and are to be carried in an inter-institutional manner.

A good partnership has been built for the follow up.

Sustainability of such a project is considered explicitly in the proposal, and will be the responsibility of the newly formed Disaster Management Center.

A good project but needs to be more detailed in planned activities.

The project, as proposed, will contribute to strengthen early warning capacities in Sri Lanka in a sustainable fashion, as it promotes the establishment of a chain from the national to the local level. It is based on simple, robust activities targeting coastal, rural populations, and its local authorities. In addition, it contributes to the efforts carried out by the Early Warning Committee and the Disaster Management Centre.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 58/06 (TS)**

**Mitigation of Tsunami Risks in the Philippines through the Establishment of a Tsunami Early Warning System (Philippines)**

Assessment by the EWC III Review

A) Overall Assessment

Philippines had been affected by recent tsunamis (1976, 1994) and in the past, due mostly by local and regional earthquakes. Most of the Philippines islands coasts can be affected by tsunami waves, at least several hundred of thousands of people are living in hazardous zones. A local tsunami warning system must be implemented in Philippines.

Appears to be significant population at risk and two major events in the past 30 years. Seismic monitoring is well established but tsunami system is not. I assume the ISDR project has further information on the risks and needs for the Philippines.

The four elements of early warning are included in the project. In Philippines the 4 elements must be improved to create an efficient national tsunami warning system. Risk assessment, Technical monitoring and warning service for these risks, Dissemination of understandable warnings to those at risk, Knowledge and preparedness to act. The warning system must be part of the Pacific Tsunami warning system. Data sharing must be added, including provision of real time data of the broad-band seismic stations ( Activity 1) and of all the Local Tsunami wave detection stations (Activity 2). Emergency managers, ministry of education, ministry of civil defence must be responsible of the Campaign of awareness and preparedness (Activity 4), Philvolcs providing the scientific part. One main activity is missing : the development of a tsunami emergency plan, in relation with the emergency managers; Philvolcs must provide the warning criteria, considering the results of the Tsunamis Hazards and risk mapping and the historical tsunami observations.

If successful, this project would complement the improvements in the seismic monitoring system and could have considerable impact in the event of a tsunami. I have some queries on the technical element of this planned early warning system (see Project design). Measurable indicators of impact would need to include some assessment of community awareness on a "before" and "after" basis.

The activity 2 of the project (Tsunami wave detection station)is innovative and the results must be presented during next international tsunami symposiums and meetings. The activities 1, 3, 4 and 5 are compatible with the practice of tsunami warning systems in the Pacific. One important item missing in the proposal is an independent and backup power supply system (in general solar panels). Where a large earthquake occurs, most of the power supply are destroyed. Solar panels is one of the most robust backup for seismic station. The satellite (VSAT..) transmissions must have its backup power supply system. The Tsunami detection stations must also have their own power

supply (waterproof) Processing software : an automatic seismological processing software must be used to detect the waves, locate the epicenter and compute the magnitude, and to alert the seismologist. There is no reference on that activity. The activity 6 is not recommended : R&D for mass alerting and quick dissemination must be developed at international level.

The overall project structure is acceptable. It addresses the four elements of an early warning system. The plans for a cost effective network of tsunami wave detectors is admirable, though if this is the main way that waves will be detected and they are coastal based (albeit on some off shore islands), I am not sure of their effectiveness as an adequate early warning system. What are the lead times? Are these realistic for effective early warning? It seems to be an omission in the plan that it does not address how this system would link with other national or international warning tsunami systems. Perhaps it is an obvious given, but the plan should identify the likely linkages that would enhance the Philippines system. The project design does not adequately address linkages with other national warning systems (e.g. tropical cyclone) and how an "all hazards" approach would apply.

The Philippines government is providing around 14 % of the funding support. Nevertheless, the partnerships must be developed with other national institutions who must participate in the tsunami warning and mitigation program. On the other hand, there is no indication on the Philvolcs capabilities to support the warning system in medium and long term, in particular the maintenance of the monitoring systems. This must be considered for the activities 1 and 2. There is no spare part planned for the Activities 1 and 2. Activity 1 : 1 VSAT setup, and backup power supply (solar panels..) Activity 2 : 1 station

The project appears to be modest in scope and well linked with existing national institutions. The relatively simple technology enhances the prospects of sustainability. Linkages with other international warning systems would add further strength.

I support the project of the establishment of the tsunami warning system in the Philippines. Several modifications are recommended : 1 Provision of real time data of the broad-band seismic stations ( Activity 1) and of all the Local Tsunami wave detection stations (Activity 2) to the Pacific Tsunami Warning System. 2 Emergency managers, ministry of education, ministry of civil defence must be responsible of the Campaign of awareness and preparedness (Activity 4), Philvolcs providing the scientific part. 3 development of a tsunami emergency plan, in relation with the emergency manager; Philvolcs must provide the warning criteria, considering the result of the Tsunamis Hazards and risk mapping and the historical tsunami observations 4 The satellite (VSAT..) transmissions must have its backup power supply system. The Tsunami detection stations must also have their own power supply (waterproof) 5 Spare part must be added Activity 1 : 1 VSAT setup, and backup power supply (solar panels..) Activity 2 : 1 station 6 The activity 6 must be removed. 7 Every document (handbook, brochure, posters...) published for that project must be provided to ISDR in paper and electronic forms.

Would benefit from elaboration on how the simple coastal based tsunami wave network would provide enough lead time. Explanation of how this would sit with an "all hazards" warning system approach would assist, as would linkages to other international systems.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 112/06 (TS)                      Creation of "Safety Instruction Leaflet" for Foreign Tourists  
(Maldives – ADRC)**

Assessment by the EWC-III Review

A) Overall Assessment

The Review noted that Information should be available to tourists. But while the tourist industry is the main concern of the proposal, there is no clear demand by the sector. This is not a proposal for an Early Warning System, but for communication on possible hazards. There is no information on quantity needs for safety instruction leaflet (e.g., number of tourist/year; languages needs based on tourists numbers). There is no needs assessment for people working in the hotels, and their potential needs to understand hazards, vulnerability, risks and disasters.

No impact of the project is available. The objectives are too ambitious ("to create tourist friendly environment in which tourist are able to visit resorts without any concerns even if they are not familiar with local languages, disaster trend, etc") in regard of what is really going to be produced ("creating and distributing "Safety Instruction Leaflet" "). It does not address the four elements of effective EWS, but only 1 (Dissemination of understandable warnings to those at risk). Other elements should be done by other actors, but no clear linkages are given.

The timeline seems highly unrealistic: information regarding risks profiles and historical disaster trends for the Maldives are not fully available yet at the island level: 15 days for "Information collecting" is insufficient. No partners identified, no monitoring and evaluation process established to assess the impacts. As no partners have been foreseen, particularly in the private sector, sustainability for Safety Instruction Leaflet printing is uncertain.

There is certainly a need to inform tourists on potential disasters. But, in the Maldives context, there are certainly other potential process that could be started with the tourism sector to address this issue. Many people need to be involve in the first steps a this process, tourism professionals at government and private level, and at both managerial and low end professional level being the essential ones. Producing a safety instruction leaflet is largely insufficient to address the issue.

At this time there is no information on the level of risk of the Maldives concerning tsunamis, but the 2004 tsunami provoked many fatalities in this nation. In addition, considering that tourism plays an important role in the national economy, such a project would yield initial measures to minimize losses to this productive sector.

There is no mention of the following issues: - number of expected tourists to be reached - how this effort is tied to other national efforts within the Maldives also targeting tourists Therefore, there is not enough data to assess the impact of the project. In addition, the proposal does not

mention how this project can fit into an overall early warning strategy currently being developed by the national or international agencies to determine its complementarity to such efforts.

The proposal lacks information on how it is to be linked with government efforts on early warning. Also, there is no mention regarding the involvement of national authorities or national agencies related to early warning or tourism in the project, and thus seems to be a project to be carried out exclusively by Japanese personnel. The project, as it is drafted, will develop products (posters). However, it is unknown whether such products will be approved by government agencies considering an overall plan, and thus might run into complications with national authorities regarding such outputs and their use. The cost of the project is considered as too costly for the proposed outcomes.

As the project fails to mention explicitly the participation of national tourism agencies and agencies devoted to early warning in the country, there is a risk that there will be no sustainability to this project at all. In addition, the proposal fails to describe how this project will complement ongoing activities in the country at the national and local levels, specifically within the tourism sector, so as to be able to evaluate its sustainability in the long term.

While the focus of the project is well conceived, and the project may be considered as necessary in this nation, but based on the evaluation of the documents related to the project, at this time the the project runs the risk of being conducted by a foreign agency in a country, and thus results and spin-offs might be minimal in this respect to such a country, and other countries in the region.

B) Conclusion

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 113/06 (TS)                      Formal Education Project**  
(Indonesia – ADRC)

Assessment by the EWC III Review

A) Overall Assessment

While the project addresses an important issue within the realm of disaster preparedness at the local level (school children), there is no mention of the degree of risk within Indonesia in the document. The proposal proposes a target audience of 1000 teachers and 10,000 children, who may multiply this result. However, the proposal seems to be separated from national efforts coordinated by RISTEK, the national agency in charge of the development and implementation of the early warning system within Indonesia. In addition, it does not address efforts in this sector already addressed by UNESCO, UNICEF, and the national ministry of education. While the proposal mentions the establishment of an ad hoc, consultative committee involving experts, the proposal does not mention the involvement of BAKORNAS (the government agency in charge of disaster management), nor the system of similar agencies at the provincial and district level, nor the ministry of education to participate in this committee. Therefore, the impact might be jeopardized by the lack of involvement of such agencies considering the assumptions of their involvement to mobilize institutional resources. In addition, the proposal only spans a segment of

the four elements of early warning, and does not mention parallel efforts by this or other projects to complement it on this issue of the four elements.

The proposal aims at strengthening disaster preparedness, but fails to mention explicitly where such efforts are to be conducted (coastal areas, urban or rural settings, public or private education institutions). In addition, it promotes an active participation of the ministry of education in mobilizing resources and changing the education system. However, there is no clear strategy on how to really involve the ministry, and it assumes that the school system will adopt the proposed changes. Experience in similar developing countries shows that for the ministry of education to change some traditional norms requires several years, and therefore it is unrealistic for the project to state this goal. The design could benefit from a broader and deeper knowledge of institutions and efforts on this issue, so as to design a precise strategy that will ensure that the goals are reached as proposed.

Assessment relates to data and surveys conducted in Sri Lanka and Maldives, but the project is to be implemented in Indonesia. A more in-depth assessment of Indonesian primary school educational needs on disaster related issues is crucial in order to determine what kind of actions are needed. More details on the agency's experience in educational projects and specific work in Indonesia is necessary too.

The objectives are too broad to be realistic in 4 months, in a pilot project. Impact measurements are not included. There is a relation with only one of the 4 elements of an effective EWS ("Knowledge and preparedness to act" and particularly the first one: "Do communities understand their risks?").

The project includes a good proposal for creating a consultative committee, but a timeline to conduct an in-depth needs assessment by the committee is not included. Linkages with official partners is not clearly defined. There is no explanation on how the pilot project will be integrated permanently into the school curricula. Policy issues related to it the process to permanently modify scholar curricula, how to include topics into the scholar curricula, what high level educational committee should review the proposed materials, etc...are not addressed.

Because there is only one foreign agency explicitly mentioned in the project, it is difficult to determine the sustainability of the efforts. The proposal also fails to describe responsibilities of national and sub-national education agencies in promoting the sustained use of the material developed, and thus the sustainability is an issue of concern for this project.

While the project addresses an important issue regarding preparedness of vulnerable groups and a strategy on how to reach this group, the proposal fails to present a clear strategy regarding the mobilization of the ministry of education as proposed. The proposal also promotes the establishment of an ad-hoc committee, but there is no mention on how the ministry of education and the disaster management agency BAKORNAS are to participate and contribute with this committee. In addition, the time considered for the completion needs to be addressed more carefully. Elaboration and printing of the material might require at least two months, which is equivalent to half of the time proposed to execute the project. Therefore, the allocation of time to execute the project is deficient. Finally, the funding proposed might be too high for the desired outputs considering how the proposal is drafted. If the project is to be funded, a major revision of the proposal should be the initial step. A reformulation should be done in order to accept the proposal, mainly in the assessment part, and in the implementation part, to make sure a priority is being addressed.

B) Conclusion

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 114/06 (TS)                      Installation of Evacuation Signboards**  
(Indonesia – ADRC)

Assessment by the EWC-III Review

A) Overall Assessment

The project has the practical aim of producing signposted evacuation routes for tsunamis in parts of Sri Lanka, using the "town-watching" method in which communities assess their own risks and identify appropriate solutions. The submitter (ADRC) has direct experience and institutional linkages in the target country, and in other settings concerning tsunami warning and preparedness systems, education and risk management, but this is not made clear in the submitted documentation. The project is a very worthwhile one but needs further development to elaborate the project partners and the activity details.

The project proposal suggests to cover the whole of Indonesia which maybe too ambitious to target the whole country in one workshop and cover the whole country in four months. Indonesia has a wealth of hazard knowledge and great pools of community experience so the project has potential to be incorporated into routine disaster management programmes.

No empirical evidence is provided about the actual level of risk. Moreover, evacuation routes and signage need to be developed on an all-hazards basis or else confusion could be created if a single-hazard approach is adopted. There is no evidence that the applicant has discussed this proposal with the wider emergency services/disaster management community in Sri Lanka. How does this proposal link, for example, with evacuation routes for severe storm impact; what elevation is 'safe'; will town-watching by itself adequately identify safe sites? This proposal needs to be better linked.

Involvement of local governments and tourist operators with the community leaders is a feature of the proposal, but only a very superficial explanation is provided. No information provided that covers the 'four elements of effective E-W systems'. No evidence of how many workshops are anticipated to cover the population-at-risk (indeed no evidence given of what the population-at-risk is) - it looks as though 3 days are being devoted to this (a thorough town-watch workshop would take at least 1.5 - 2 days). Is the workshop going to be linked to appropriately delivered talks about the hazardousness of place (not just tsunami - this has to be undertaken within an all-hazards perspective). No evidence that the population-at-risk might comprise distinct groups that require different approaches (while the proposal suggests it will deliver a system for tourists as well as local citizens, the workshops are clearly aimed at local citizens - how does the project propose to ensure it is linked effectively into tourist needs?). No evidence how this proposal links with other hazard management activities to provide a comprehensive approach to citizen disaster risk management.

The goals may be achievable, but the approach is questionable: No evidence of partnering - is it proposed that Japanese posters will simply be transposed to Sri Lanka? There is no evidence to suggest that having an 'outside' group undertake this type of work would be effective - why isn't a

local group doing this (town watching is not a highly technical tool, and it can be learnt relatively easily so that local disaster managers can do it, with their own local partners) No evidence of a monitoring or evaluation component. No evidence that this project is building on prior studies in the EW field in Sri Lanka. Tourists are different from local people - the workshops seem to focus on local citizens. There is no information about how signage might need to be different for different groups (indeed, the proposal does not mention anything about previous research that has looked at how particular social groups have different risk perceptions and different needs in terms of risk information including delivery source). While the annexes provide some evidence in support of the proposal, there is no information provided about the survey population (were they all government officials?), and if the actual population-at-risk has the same perception of the risk and the same ideas about what the solutions are as the survey population.

There is no evidence that the criteria for sustainability have been applied. There is no evidence of local groups being invited to participate, or how the outside group will transfer the project to local groups. No information about what will happen after the first signs have been erected and/or the first evacuation routes identified (e.g. how the signs will be monitored for maintenance purposes; how roads that are evacuation routes will be monitored for use-change over time that may affect their suitability; no evidence that the applicant has taken into consideration the needs of emergency services and their requirements for designated emergency routes, etc.).

At face value, this project looks good, but more issues are raised than answered - this project could create more problems than it solves unless it is completely revised, worked through with local authorities as the primary personnel, analyses the composition of the population-at-risk (both tourist and local citizens) so as to get relevant insights into their risk-shaping processes, and is more solidly based in existing literature as a basis for framing the workshops, especially the town watching component.

B) Specific Recommendations

The executing agency should mention the specific target areas. The budget is not clear on the level of funding for ADRC.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 122/06 (TS)**

**Tsunami Early Warning System for Morocco  
(Morocco)**

Assessment by the EWC III Review

A) Overall Assessment

Needs have been clearly identified. The project will address a major gap in early warning systems: the transfer of information by the scientific and information community promptly to the most vulnerable populations. To the extent possible the level of risk and vulnerability, broken down by countries would also be useful.

Effective outline of potential tsunamigenic triggering events in the region and their impacts.

This is a feasible objective which can be obtained using the important technical capacities of Météo France, the Croix Rouge Française, Co Risks etc. However given the geographic scope of the project ( two of the largest recipients, Kenya and Tanzania are anglophone and have somewhat different approaches to early warning systems ) there will be a need to effectively tie these different infrastructures together. Project activities which must be achieved if the overall objectives are to be reached i.e. ( a ) setting up of information support early warning systems, b) utilisation of the media -- developing internet, TV and television and c) awareness campaigns-- should be broken down into achievable phases ( see next section ) One year is not much time. Internet sites, for instance differ from country to country, being relatively weak in the Comoros Islands (where I was UN Resident Coordinator ) to Mayotte and Réunion which are more advanced. Different approaches will be needed.

The objectives are clear with regard to the detection of seismic events and the coordination of seismic networks, although not so clear on the dissemination of the warnings and the strengthening of communities' capacities to act upon those warnings.

The proposal outlines steps( activities ) required in order to set up an effective awareness program. A full project proposal will need to break these activities down with time schedules ( which currently are lacking )and establish what financial earmarkings will be assigned to each activity. Activity 3 ( awareness campaigns ) is likely to require the most effort by project personnel. One important area that should be addressed under this heading is the role of schools as effective institutions for disaster awareness and preparedness. These can be extremely cost effective. Students of all ages, working closely with their teachers can become aware and then pass this knowledge on to others in the school and community, demonstrating an important multiplier effect. The proposal needs to set out a more detailed monitoring mechanism for ensuring that objectives are met and are sustainable. Effective partnerships between target countries is crucial, especially with anglophone areas of Africa ( Tanzania and Kenya )A number of development projects with similar geographical scope have failed because this partnership has not been taken seriously.

Clear project, seemingly feasible.

Proposal should emphasize steps needed to link up with different partners: technical ministries, NGOs, teaching corps etc. A capacity building program for the duration and following the termination of the project should also be inserted The budget earmarkings need to be broken down especially "The awareness campaign " component for which E 300,000 has been allocated.

The proposed process does not appear through the proposal to be sufficiently integrated into the regions ongoing efforts such as the Intergovernmental Coordination Group for the Mediterranean.

Recommendation: The project proposal has considerable merit. More work on the project design may have to be undertaken, however, before funding is secured. Link ups between the island

nations and the two anglophone African countries involved in the project (Tanzania and Kenya) should not be under emphasized.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 130/06 (TS)                      Disaster Management Systems and Operations Around the  
Indian Ocean Region (Tsunami Warning and Catastrophic  
Loss Reduction)  
(Indian Ocean Region)**

Assessment by the EWC III Review

A) Overall Assessment

Although the few paragraphs on the "current situation" cannot be regarded as a solid assessment on existing gaps, the submitters correctly states that an end-to-end hazard warning system is needs to become fully operational. As international activities and funding seems to concentrate on the technical instrumentation and data transmission on the "upstream" side, there is an urgent need to work on a sustainable "downstream" part of the warning system.

The project design does not include any risk assessment. The proposal cursorily refers to the absence of an early warning system and the need to inform the population of the coastal regions of a potential disaster situation. However, the proposal does not provide any specific information upon the seismicity in the Indian Ocean region, the area likely to be affected, and the human and economic loss estimation. In fact, none of the questions as mentioned in the guideline for submission is answered. The proposal does not even refer to the shortcomings in the existing early warning network or the technology used for the network. There is no analysis of the need for an early warning system for the Indian Ocean region, except that the non-existence of early warning system led to enormous losses in the recent tsunami. Lack of technical assessment of the early warning needs in the region makes the proposal very weak.

Given the sparse and quite generic information in the proposal this can hardly be assessed properly. The authors reiterate the four elements of an effective EWS given by ISDR but fail to give detailed information on how they want to implement and reach these goals. An early warning system is more than an emergency alert system which the proposal is all about. An EWS needs to focus on hazard analysis, means and mode of communication, and various recipients, and the likely course of action. There is no discussion of these elements of an early warning system in the proposal, nor do we know about the impact of the emergency alert system on the target region / population. The information on the technology of communication is very inadequate. Further, the proposal does not recognize the importance of content or message in the early warning.

It has not presented any measurable indicator for the impact of the emergency alert system, nor does it discuss the technical, social or governance aspects. It actually focuses on response

structure consisting of the NDMC, RDMC, and the LRT, with no discussion as to how these structures deal with different stakeholders: affected population, NGOs, media, etc. The proposal is more about a disaster management rather than an early warning system.

By only referring to the German TWS project, lead by GFZ, the submitter has drafted a rather stand alone and isolated proposal obviously ignoring ongoing projects on tsunami and other hazards warning systems as well as international coordination activities. Especially the results and decisions of the Intergovernmental Coordination Group for the Establishment of a Tsunami Warning System in the Indian Ocean (ICG/IOTWS) and the according working groups on risk assessment and public awareness and preparedness are not taken into account or even mentioned.

This also leads to several inconsistencies on internationally agreed definitions (e.g. provincial breakdown is called 'regional') and decisions (like the general use of WMO's GTS for data transmission to the warning centers). It is strongly recommended to thoroughly redraft the project design and give detailed information on tasks and milestones. Without a detailed breakdown and prove of the proposed project costs a proper evaluation of bulk budgeting needs is not possible.

Though the proposal mentions setting up a secure and redundant communication structure between different levels of emergency response, it does not present any innovative idea. Nor does it present any realistic goal with a defined timeline. The proposal introduces the partners with their respective competencies, but it does not mention how they would go about implementing the project. The proposal is also silent about the cost of the early warning system. There is no analysis of its cost-effectiveness, nor a comparison with the other early warning systems. Actually, there is very little in the proposal by way of project design.

A 'top-down' structure of hazard warnings is implicitly necessary and nations are generally interested in implementing appropriate centralized structures. Nevertheless, the usual 'bottom-up' approach of GTZ to ensure sustainable local structures, e.g. in maintenance or training on the job is completely missing. It is strongly recommended to incorporate an integrated approach. The proposal mentions that the Local Response Teams (LRT) must guarantee the sustainability, i.e. maintenance and readiness of local warning systems, and should conduct continuous awareness-raising measures among the population. It is difficult to appreciate how the responsibility in respect to sustainability has been assigned to the LRT, and not to the other tiers of the disaster management system: NDMC and RDMC. The sustainability should flow from the robustness of the national disaster management system. Unless there is a commitment at all levels to the sustainability of the early warning system, it would not be a workable system. The project does not show how the proposal would be integrated with the institutions and support structures at different levels. There is no mention of how the capabilities would be maintained after the international funding for the project is terminated, or how the new national mechanisms would be created to maintain the early warning system.

Although addressing an urgent need to fill the 'downstream gap' in existing projects and systems the actual proposal needs a major revision including detailed tasks descriptions and workplan. The close cooperation of a governmental organisation with the private sector is highly appreciated, nonetheless roles and in kind contributions of partners have to be clarified. It is not based on a scientific risk assessment. It does not follow the essential components of an early warning system. Further, the proposal does not present a project design. Almost all the essential elements of a project-- cost, technology, implementation methodology, time-line, and post-installation maintenance-- are missing in the proposal. It tends to confuse the early warning

system with the disaster management system. The applicability to a real situation thus looks a remote possibility.

B) Specific Recommendation

1. The role of the private sector in the project should be explained. The role of the LRTs should also be clarified as to how these local teams will provide sustainability to the project.
2. The strategy section of the proposal should discuss and provide clarity on how the response agencies will deal with the different stakeholders communities.
3. The proposal should provide additional information and take into account projects related to ongoing projects on tsunami and other hazard warning systems in the Indian Ocean.
4. A justification and needs section of the proposal should describe the shortcomings of current EW technology in the region.
5. Details on the sociology or content of the early warning message should be included along with measurable impact indicators.
6. A detailed workplan should be provided.
7. A logframe matrix should be included that guides the project design. An integrated approach to hazard warnings should be incorporated in the proposal design.
8. A detailed budget presentation should be provided.
9. More information on how the proposal will implement activities related to the four elements of an EWS should be provided.
10. A risk assessment should be included in the proposal.
11. More details on seismocity and the human and economic loss in the Indian Ocean should be included.
12. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

2 Largely disagree. The Review concluded that a pre-project is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

- a: Such a pre-project proposal could be commended for funding.

**PPEW 94/06 (DR)**

**Agrometeorological Warning in Disaster Condition in South-West and Central Asia**

(10 Countries of West and South-West Asia)

Assessment by the EWC III Review

A) Overall Assessment

The development of agrometeorological observational practises is recognized as an important tool to improve agricultural production in countries suffering of extreme weather and climate conditions. Equally important is the timely dissemination of meteorological information to national and regional farming communities which is critical and needs to be addressed. The problem appears to be two fold: the gathering of relevant meteorological information with special focus on agrometeorological aspects as needed by the agricultural sector, and the timely dissemination of information bulletins. A detailed flow chart visualizing the entire process from meteorological data acquisition to data dissemination would have been helpful to fully understand the concept of the project. This would also have permitted to identify elements of this process that are already available and components that need to be developed, in particular with regard to data dissemination. A firm commitment of the project proposers to integrate a future agrometeorological information service by combining the capacity of all ECO Member States to develop a regional network would have been desirable.

The objectives and expected impacts are summarized in more detail. The project aims to identify agrometeorological risks in the ECO Region and to develop appropriate strategies to improve the knowledge of timely information on weather and climate risks. To reduce vulnerability of different agro-ecosystems technological advances can be made that lead to refined preparedness and response strategies. Unfortunately, the proposal does not quantify measurable indicators that would allow a more reliable assessment of the impact. Also, methodology and a detailed strategic approach how to achieve the set goals is not included.

A commented list of project activities has been provided which contains mostly general remarks / explanations, rather than a structured activity plan. Unfortunately, a detailed work schedule was not included which would indicate expected project progress, achievements, milestones and

results within a given time frame. No overall financial plan explaining the break-up of cost for equipment, goods, technical assistance or training activities has been provided. It has been indicated that contributions of the host country or the ECO Secretariat / Member States as well as donors of international and regional organizations will be thought. However, no clarification on possible contributions is envisaged. It remains unclear if the amount requested is only a part of the funding required to carry out the project or if funding needs to be supplemented by other donors.

It would have been recommended to enclose a declaration of the 10 ECO Member States in support of the project including a statement to financially secure long-term sustainability after the project period has expired.

The development of comprehensive agrometeorological observational practises is important to improve agricultural production in countries suffering of extreme weather and climate conditions. The aim to identify agrometeorological risks in the ECO Region and to develop appropriate strategies to improve the knowledge of timely dissemination of information on weather and climate risks to the farming community could mitigate the loss of agricultural production. Unfortunately, the proposal does not quantify measurable indicators that would allow a more reliable assessment of the impact. Furthermore, the lack of a detailed work plan and financial schedule were seen as the main deficiencies of the proposal.

The project addresses an important problem but it is not yet well developed. It is oriented toward supporting better agricultural management in 10 central Asian countries through agrometeorological studies and systems. In due course it might provide a basis for an agronomic early warning system. However, at this point the proposer has not engaged or identified the necessary project partners from the other countries, from the relevant dependent sectors such as agriculture and water management, or from the intended benefiting communities. (This assessment provided by PPEW in the absence of other reviewer.)

#### B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 95/06 (DR)**

**Drought Assessment and Monitoring for the ECO Region Using  
Satellite Data**  
(10 Countries of West and South-West Asia)

#### Assessment by the EWC III Review

##### A) Overall Assessment

The proposed methodology is modelled on a research effort by the IWMI and applied in a research mode with apparent success to a subset of ECO countries; the methodology, as the proposal asserts, appears well suited to this area where conventional land-based data are limited. There is a clear need for the leadership that IRIMO, a well-developed meteorological service, can provide as several ECO countries have only rudimentary meteorological services. The countries

of ECO also have significant percentages of their respective land areas within marginally productive climate zones and hence would benefit from a common, reliable and robust drought monitoring system.

The proposed methodology is modelled on a research effort by the IWMI and applied in a research mode with apparent success to a subset of ECO countries; the methodology, as the proposal asserts, appears well suited to this area where conventional land-based data are limited. There is a clear need for the leadership that IRIMO, a well-developed meteorological service, can provide as several ECO countries have only rudimentary meteorological services. The countries of ECO also have significant percentages of their respective land areas within marginally productive climate zones and hence would benefit from a common, reliable and robust drought monitoring system.

While drought is recognized as an issue in the region, the project proposal does not identify the regions where the project is to be implemented, not their level of risk with respect to drought. However, the need has been addressed in a regional workshop as stated in the proposal.

The project objective is straightforward and well posed. If successfully implemented, the system should have significant benefits in forewarning of incipient drought conditions, as well as for monitoring ongoing drought. Once in place, the system could with further development be coupled to predictive systems for seasonal climate conditions, water availability and crop production. While somewhat 'frugally' articulated, the proposal does touch upon the four elements of effective EWSs. I would recommend, however, that IRIMO consider a more proactive methodology for disseminating warnings than simply establishing a passive website. There are many ways of doing this and could be most effectively carried out by establishing protocols with their respective meteorological service counterparts in each ECO country.

The project objective is straightforward and well posed. If successfully implemented, the system should have significant benefits in forewarning of incipient drought conditions, as well as for monitoring ongoing drought. Once in place, the system could with further development be coupled to predictive systems for seasonal climate conditions, water availability and crop production. While somewhat 'frugally' articulated, the proposal does touch upon the four elements of effective EWSs. I would recommend, however, that IRIMO consider a more proactive methodology for disseminating warnings than simply establishing a passive website. There are many ways of doing this and could be most effectively carried out by establishing protocols with their respective meteorological service counterparts in each ECO country.

The project is addressing a regional need, as well as the monitoring and forecasting segments regarding early warning. However, two issues are not addressed in the proposal: - The links between government agencies and the regional agency in the routine operation of this component of early warning. - How the information and the warnings are to reach rural communities affected by droughts. - The training of rural communities in conjunction with government agencies to carry out some kind of anticipated response once a warning is issued.

This is very focussed project with a clearly defined and proven methodology. Once the infrastructure for operating the system is in place, the ongoing overheads should not be high. While IRIMO clearly has the expertise to implement this project, it would be helpful for the project to incorporate a regime for evaluation and review, for example by calling on the expertise of the International Water Management Institute. Apart from costs of the (essential) satellite

receiving equipment, the budget is modest. The satellite receiving equipment should more than pay for itself over time through a successful implementation of the project.

This is very focussed project with a clearly defined and proven methodology. Once the infrastructure for operating the system is in place, the ongoing overheads should not be high. While IRIMO clearly has the expertise to implement this project, it would be helpful for the project to incorporate a regime for evaluation and review, for example by calling on the expertise of the International Water Management Institute. Apart from costs of the (essential) satellite receiving equipment, the budget is modest. The satellite receiving equipment should more than pay for itself over time through a successful implementation of the project.

The project targets the issue of drought forecasting in an innovative fashion in relation to the region, and benefits from experiences in the United States and other countries. However, the proposal does not identify the tasks to be carried out by the individual countries. In addition, the project would benefit from the inclusion of national agencies devoted to agriculture and natural resources, which have to react in case of droughts. It is also uncertain how the information provided will reach rural communities which are created the need for such a system.

The sustainability issue was not explicitly addressed in the proposal. However, as noted in an earlier section, once implemented this EWS for Drought should not have high overheads and thus should be readily sustainable by IRIMO in the longer term. It would be desirable, however, for IRIMO to consider this 'service' to its fellow ECO countries as part of a larger effort of regional assistance in coping with the vagaries climate. The development of a cooperative framework on climate-related matters for ECO countries that draws, for example, on the Regional Climate Centre concept of the World Meteorological Organization might be especially beneficial for ensuring the sustainability of the Drought EWS in the longer term.

The sustainability issue was not explicitly addressed in the proposal. However, as noted in an earlier section, once implemented this EWS for Drought should not have high overheads and thus should be readily sustainable by IRIMO in the longer term. It would be desirable, however, for IRIMO to consider this 'service' to its fellow ECO countries as part of a larger effort of regional assistance in coping with the vagaries climate. The development of a cooperative framework on climate-related matters for ECO countries that draws, for example, on the Regional Climate Centre concept of the World Meteorological Organization might be especially beneficial for ensuring the sustainability of the Drought EWS in the longer term.

No information provided on this issue. A major issue of concern would be the cost of remote sensing images if they need to be purchased, as the expected area of coverage spans several countries. However, there is also no mention regarding the need for such images.

Successful implementation of this project will fill a clearly identified need in the ECO countries for a reliable, effective and robust drought watch monitoring system. Once established, the system could form the basis for other monitoring and predictive systems that would help social and economic development of the region. I would recommend that the project proposers give a little more consideration to what will be needed to sustain the effectiveness of the drought alert 'service' once it has been established. This will largely depend on the recognition by other ECO countries of its value, and it may require more than the establishment of a 'passive' website to achieve this outcome.

Successful implementation of this project will fill a clearly identified need in the ECO countries for a reliable, effective and robust drought watch monitoring system. Once established, the system could form the basis for other monitoring and predictive systems that would help social and economic development of the region. I would recommend that the project proposers give a little more consideration to what will be needed to sustain the effectiveness of the drought alert 'service' once it has been established. This will largely depend on the recognition by other ECO countries of its value, and it may require more than the establishment of a 'passive' website to achieve this outcome.

The proposal could benefit from: - a more precise description of the role of the regional agency in Teheran, and the role of national meteorological agencies in each country. - the insertion of national agencies devoted to agriculture, natural resources, and disasters, which have to carry out an anticipated response in case a drought forecast is issued. - the insertion of regional and national workshops to ensure that forecasts are used, and to identify potential response measures to be implemented. - the insertion of links to rural communities which have to make use of this information.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 155/06 (DR)**                      **Evaluation and Recommendation of Guidelines for Both  
Short-term and Long-term Desertification Early Warning  
Systems  
(Global)**

Assessment by the EWC III Review

A) Overall Assessment

The objective of the project is the provision of guidelines and this seems a practical outcome. How these guidelines will be promulgated and promoted has not been fully documented. The establishment of case studies will also be an outcome. No performance measures have been provided and it would be good to get some indication of just what impact the guidance and case studies will have on the current problem. That is, how will this assist in reversing the trends towards desertification. The primary focus is technical in nature and limited attention is paid to social and governance aspects. There are no other linkages identified.

The proposal as far as it goes is sound/logical. It seems to be very cost efficient in that the overall cost is not high for the activities proposed. My concern would be to ensure that the full range of stakeholders are involved and this may not be possible with the resources requested. This issue has not been addressed. A product (guidelines) and case studies will be identified, but no process is provided for continuing to monitor the application of the guidelines nor funding sought to promote/allow access to the documentation. No partnerships have been identified with other relevant agencies.

The proposal is sound as far as it goes, but could do with further partnerships with key groups in other technical areas of desertification, e.g. vegetation, meteorology, land use and social aspects. While the need has been identified in qualitative terms, there is no quantitative information provided to support the need. That is not to say that the need doesn't exist, just that it has not been fully documented. Certainly, an evaluation on the gaps in current activities has been undertaken and is a good starting point.

B) Specific Recommendation

1. More information should be provided on how the guidelines would be used and which performance measures will be used.
2. More clarity is required on the role of case studies in the project. How will results and lessons learnt from the case studies be utilized.
3. The proposal should address how the stakeholders will be engaged in the development of the guidelines.
4. Quantification information and specific numerical data is required in the justification section of the proposal.
5. Additional technical partnerships and collaborators should be identified.
6. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 17/06 (EQ)**

**Towards the Implementation of Early Warning for Megacities  
(Capital of Armenia)  
(Armenia))**

Assessment by the EWC III Review

A) Overall Assessment

It is a well prepared and rational project. The objectives and the studies that need to be conducted are expertly prepared. I suggest its consideration for acceptance.

The risk assessment is convincing and the Spitak earthquake is a demonstration of the acuity of the difficulties faced Armenia. Nevertheless the need to establish (or finalise?) an earthquake early warning system is not well presented. The authors stress that the theoretical warning time will be extremely short, and it's unclear whether such a system can possibly have an impact.

The authors have extended the meaning of "Early warning system" far beyond the description provided to the candidates <http://www.unisdr.org/ppew/whats-ew/basics-ew.htm> and extend it to prediction, rapid information, scenarios. The main objectives of the project are not in line with the call

The proposed objectives are broad and will be difficult to monitor.

Do not accept because the proposal is not in line with the call

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 46/06 (EQ)**

**South African National Seismograph Network to act as an  
Array for an Early Warning  
(South Africa)**

Assessment by the EWC III Review

A) Overall Assessment

Evidently, high quality rapid data dissemination from the South Africa National Seismograph Network (SANSN) will have an important impact on the capabilities of a planned Tsunami Early

Warning System for the Indian Ocean. This, in addition to the important contribution to monitor the natural and mining induced seismicity in and around South Africa.

The importance of real time data from seismic stations located in South Africa for the Indian Ocean Tsunami Warning system is obvious and is the main rationale for this project. Nevertheless, the author mentioned that “the NDMC has already sponsored R2 million to upgrade five stations of the SASN and the transmission of data [...] to the IOTWS”. In this project the authors proposed to upgrade 5 new stations leading to a total of 10 stations to contribute to the IOWTS. The only potential benefit for 5 additional stations is (as mentioned by the author) to act as a “potential seismic array”, but it is not explained.

There are no doubts about the expected contribution of the SANSN to assess earthquake hazard and risk in South Africa and in neighbouring countries, provide essential rapid information about earthquakes and rockbursts in South Africa and its surroundings and significantly contribute to a Tsunami Warning system for the Indian Ocean. These objectives are thought to be met by the 22 already operating stations out of which 5 have been upgraded to meet Early Warning requirements. It is not obvious, from the proposal, that the upgrade of additional 5 stations will have a significant impact on meeting those objectives.

A seismic array is not designed as a seismic network then, upgrading 5 existing stations cannot constitute a seismic array. Furthermore, data processing for seismic arrays and for seismological networks are totally different and this aspect is not at all mentioned in the proposal.

The proposed project of upgrading 5 seismic stations of the SANSN is realistic and cost effective. The partners involved are competent to carry out the tasks set forth. Since it is basically a technical project, there are ample ways of monitoring and evaluating the performance of the upgraded stations in terms of data quality and rapid availability.

THE SANSN is funded through the Department Mineral and Energy (DME) which has an obligation to the South African community to monitor the seismicity of South Africa, therefore it is a statutory funded project.

It is clear that upgrading of a seismic network will improve its performance and help meeting the objectives for which the network was deployed. However, this proposal claims that upgrading 5 additional seismic stations will have a significant impact on Early Warning. Realizing that the current SANSN consists of 22 stations out of which 5 are already upgraded and realizing that the tsunamigenic zones are relatively far from South Africa, this claim/statement is not obvious from the information provided in the proposal. In order to "strongly agree" and upgrade the overall grade it would be good to have additional information and more specific arguments to support the claim/statement made by the propose.

N. If the upgrade of 5 stations had not been already funded, I would have firmly supported the proposal. This project is in my view primarily the partial upgrade of the national network and is not in line with the call.

## B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The proposed project focus on designing a GIS and improve geological data for better hazard assessments. Risk assessment requires far more elaborated studies in the field of Seismology and Engineering. After all, it is not the earthquakes that kill people but rather the unsafe houses in which the people live and work. I agree that improved knowledge about the geology and geomorphology has a great potential for improving earthquake risk assessment. If it will not be followed by extensive seismological and engineering studies it will only be of academic value.

I strongly agree that reliable hazard and risk assessment should lead to saving life and property. However, unless the authorities make a commitment to consider those assessments and act accordingly, there will be very little impact. The proposed project emphasises on geological hazard assessments. I do not know how can we estimate what would be the actual impact. However, I foresee that the main impact will be on increasing awareness and it will generate expertise.

The objective of the proposed project involve: the preparation of reliable and current geological and geomorphological maps; demographic maps; hazard maps in terms of peak ground acceleration; assessment of potential risks for important structures, bridges and population centers; determination of the potential of earthquake loss in selected regions and preparation of rehabilitation plans.

The project is well designed to acquire additional geological and geomorphological and demographic information on GIS platforms. It is definitely an important project. I have doubts about how much progress can be made in 2 years about vulnerability and risk analysis. The budget is very modest with respect to the expected tasks. The proposed project is planed to be executed by qualified personnel and reputable institutions. It will no doubt enhance knowledge and expertise among the participants and improve awareness of the society.

The project aims at improving knowledge and capabilities regarding earthquake hazard and risk assessments in northern Pakistan. The proposal lacks information about the vulnerability studies and the methodologies to be used for risk assessments.

Although these are good objectives that would assist Pakistan greatly, they have only minimal overlap with the “Early Warning”. The proposal should not be considered under your program.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The needs are general statements, and can not be argued.

The crucial link between project activities and planning authorities in Iran have not been addressed.

The objective of the proposal deals with the preparation of advanced risk mapping and development of reliable tools for accurate earthquake loss estimation. In this connection the specific issues covered are: mitigation of the earthquake risk, assessment of building performance in urban regions and their retrofit, estimation human casualties from scenario earthquakes, development of rapid information systems for emergency management, microzonation for several towns in Iran and assessment of area for emergency housing.

Use of photographic images to assess the vulnerability of the building stock in a given city is a tenuous way of building urban models. Does the team have the necessary resources to do at least spot checks from detailed analyses?

The critical partnership that must be sustained is between enforcing and receiving authorities in Iran.

The proposal text should explain how sustainability might be guaranteed in the context of Iran

This project addresses an important issue - the reduction of earthquake losses - and brings a solid team to bear on this problem. Risk assessment and mitigation, and post-event are essential tasks for reducing losses. However these activities do not constitute an early warning project as conventionally defined (where an impending event is forecasted and warnings are issued to enable responses by those at risk) and hence it cannot be highly graded in the present context. (This assessment made by PPEW.)

The proposal does not include any clear objective for early warning, the budget is too high and more that half is for personnel expenses. The proposal should not be considered under your program.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

- b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)
- 2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 90/06 (EQ) Earthquake Early Warning System for Greece  
(Greece)**

Assessment by the EWC III Review

A) Overall Assessment

Considering the position of the Greece and especially the Gulf of Corinth the seismic risk have to be taken into account seriously. The seismicity and the tectonic setting of the area justify the need of such project. According to different studies, the region is one of the most seismic active area in the Mediterranean basin. The level of the seismic risk and the vulnerability at very high according the the European-mediterranean seismic hazard map (IGCP, project no. 382: SESAME, by Giardini et al. 2003). Athenes Capital city of Greece and its vicinity have been selected as a pilot site to develop an EW system regarding to the dense population present in the city and also the vital and industrial installations and facilities. 65% of the Greek population and about 80% of the financial activities are directly affected by the seismic risk in the area selected in the project, this can also motivate the support the such project. The project proposed, can enhance the performances of the existing EEWS.

The needs are clearly identified, although it is mentioned that there are current research activities leading to a good seismic assessment in the proposed project area. The proposal would benefit a lot in explaining more clearly how the new initiative will work together with existing research such as geodetic studies carried out to detect tectonic movements.

The proposal has clearly state the objectives of the projects with 4 main elements as given in the attached document. The percentage of the population exposed to the hazard is well identified about 65% of the total population of Greece is concerned. The deserted results are well defined in the proposal.

It is not clearly explained which are the expected impacts of the project. Although the major objectives are well-established, the most important impacts should be related to: 1.- Generate a coordinated system of EW in seismic risk, involving the most important local institutions and authorities; 2.- Strong education to local communities in the affected region. Although it is considered, it has a very secondary level in the proposal. This point is as important as the first one. If a strong, permanent and supported (by authorities) educational programme is not well-developed, then the EW system could be almost useless, as people will not know how to react. I would strongly recommend to give a much higher importance to the educational aspect of the project in order to have a strong relationship between scientists-authorities and people, this is the only way the project will achieve its goals.

The project is not innovative, such project have been developed in Japan before another experience have been also made in Taiwan and Mexico. The cost is very important and must be

reduced. In the existing EEWs TRISAR array project they have 18 seismological stations and 8 accelerographs and they have had problems to deal with according to the document given by the chief of the project. Why they have proposed to install 30 6-channels seismological stations just for an area around Athens? Satellite communications are very expensive why they don't use internet via IP addresses? The costs in the budget part concerning the dissemination means ... and response capability are too much.

1.- The working timetable is definitely not clear on the project proposal. There should be a much better programme of activities to be conducted during the project. 2.- I have serious doubts in terms of costs. It is not clear how much of the costs will be covered by other institutions as suggested in the proposal, and if approved all the current proposals for getting partial funding of the project (see Finding Sought section), how much will be asked to EW3. 3.- It is not well explained how funding will be spent for each one of the activities, so it is not possible to evaluate how realistic the goals are according the applied funds. 4.- It is not clear what the "pilot deployment" is. What actions will be taken if the pilot deployment does not work effectively? What new activities will be included to change it? How much time will it take to improve the pilot deployment if it does not work initially?

The project seems to have the endorsements of official institutions, at national regional and also at local level. The project seems to be embedded in the local and national structures. If well conducted it will help in early warning strategy.

1.-Although the two main institutions presenting the proposal have large experience focusing on seismic research and seismic risk mitigation, and that they have obtained government endorsement for this particular 5-years project, a longer-term based commitment from local authorities both governmental and from the civil society is absolutely essential and should be addressed in order to secure the sustainability of the seismic EW system in the future after spending the funds from this project, if approved. 2.- A point that seems to be missing too, is training of new technical specialists to work on the new seismic network to be installed. The project aims to increase in almost 200% the seismic stations, and in almost 400% the accelerographs, but no new technicians have been mentioned to be trained and hired in order to install, maintain and run such networks. This point needs to be clarified, the cost of hiring-training new technicians/professionals is going to be included in the project costs or is it going to be included in the proponent institutions budgets?

1- We have no information about the results obtained by TRISAR array. 2- Why they have proposed to install 30 6-channels seismological stations just for an area around Athens? I suppose that there is actually seismological instruments deployed in the area, is there any cooperation with other institutions (seismological labs in Greece)? 3- Satellite communications are very expensive why they don't use internet via IP addresses? 4-The costs in the budget (the part concerning the dissemination means and response capability are too much). I recommend to reevaluate the part relative to the budget, especially the part concerning the technical monitoring, I don't think that 30 stations is too much for such objective. Using 3G-GPRS will not change any thing in the results they expected to have. Also the part relative to response capability have to be revised.

The proposal is very interesting and could be of direct benefit of a large number of inhabitants in Greece, and therefore decrease the number of casualties and economic loss in a future seismic event. However, in order to secure that the goals of the proposal will be achieved it is necessary to modify and clarify a few key issues: 1.- The educational aspects of the project should have a much higher relevance, in order to be sure that local authorities and communities are not

informed of what does the seismic EW system, but also that they agree with it and that they'll follow the emergency plans. Otherwise, the whole project could fail. 2.- In order to secure a long-term sustainability of the project, longer-term agreements should be signed with both governmental institutions and Civil authorities, especially in terms of budget after this project funds are spent. 3.- It should be stated clearly in the proposal if more technical/professional people are required in order to run the new (or increased) network. As it seems they would need more people to work, it should be stated who will be responsible of hiring them, with what funds, who and how will train these people, and how they will secure their working places in the future in order to keep the network working after the end of the project. 4.- A precise project timetable should be included (Gantt chart better), as it is definitely not clear in the current proposal. Special emphasis should be addressed in explaining how the project will react after the results of the "pilot deployment" will come. What would be the reaction if the pilot deployment does not work effectively at the beginning. 5.- A more precise budget description is needed in order to be able to evaluate if the costs are realistic or not.

B) Specific Recommendation

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 133/06 (EQ)**

**Earthquake Risk Knowledge and Public Awareness in Kabul -  
Afghanistan  
(Afghanistan)**

Assessment by the EWC III Review

A) Overall Assessment

The proposal lacks the full and comprehensive understanding of the risk assessment of the Afghanistan. It only provides a general concept of the risk and general issues which can be anywhere in the world. This is due to the lack of understanding and full consideration of socio-economic-cultural and religious issues relating to risk management. The expected final recommendations and the educational materials will not be effective.

The seismic risks in Afghanistan and more specifically in Kabul were described in detail. The assessment was accepted by various international organisations as described in the proposal. In particular, InWent implemented projects on training and capacity building with funding support from the German Ministry of Foreign Affairs and United Nations Assistance Mission to Afghanistan. The gaps of existing projects were identified clearly. These gaps are to be addressed in this project proposal.

The Review does not expect an effective and a very useful impact from the implementation of this project. A long-term program in the educational process of Afghanistan in order to build a safety culture should be established. This cannot be done with conventional educational process. The objectives and related outputs and impacts were clearly defined in the proposal. Measurable

output indicators were described in detail. Successful implementation of the project should meet the project objective. Existing projects by InWent have addressed to some extent the first element of effective early warning systems - prior knowledge of the risks faced by communities. The current proposal continues to address this element. The project would also begin the preparation of public education and awareness materials which would address the fourth element of effective early warning systems - knowledge and preparedness to act. Based on the outcome of this project, plans to address the other elements of effective early warning systems can be formulated.

The goals are realistic and cost effective. The main partner will be InWent who would implement the project. InWent has experience and expertise in capacity building. InWent is also implementing the current project, thus assuring continuity and making use of existing resources and infrastructure. The proposal does not provide information on the timeline, and the detailed mechanism for monitoring and evaluation. The project will not have the long term effect and it would not have sustainability due to the lack of strong building capacity components. The project has national commitment to maintain long term capabilities as project activities will be integrated into existing government structure. How effective the integration would be done was not clear from the information provided in the project proposal. With InWent as a major partner, the project would have a good chance of achieving the expected outputs during the duration of the project. Long term sustainability of these outputs would depend very much on how the project activities would be integrated into the existing government structure to become on-going activities.

The project concept is good, but its design and definition and budgeting is not appropriate. If the project is modified substantially and maximum use is made of the expertise and the experience that has been developed in Iran by IIEES, specially in the area of risk assessment and management; public awareness and earthquake safety program in Iranian schools; the project can have a good results. Thus the modification of the project description and budgeting is highly needed. The project budget is too expensive. Too much expense has been allocated to the outside experts and traveling. We should make the use of maximum local and regional expertise in order to reduce the travel and operation costs. The project can be done with the maximum use of the regional experts with one-third the cost.

B) Specific Recommendations

1. The overall design and methodology of the project should be revised to capitalize on regional expertise.
2. More information on sustainability and capacity-building should be provided.
3. More information on monitoring and evaluation should be provided as well as a workplan and timeline.
4. The budget should be reduced and the number of international experts should be limited.
5. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

- (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
- (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
- (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
- (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 134/06 (EQ)                      Establishing a Regional/Global Earthquake Prediction and Pre-Warning System with the MDCB Electromagnetic Seismic Precursor Recording Instrument and Technology (Regional/Global)**

Assessment by the EWC III Review

A) Overall Assessment

1.-From the proposal it is definitely not clear which is the main project area. It starts with two large areas close to China, but then "could" extend worldwide. The project area should be clearly defined, and restricted initially to just one geographic area. 2.-As this essential point is not well-defined, then it is definitely not clear which is the population under risk that will be helped with the project. One can guess there will be millions of people, but it is not defined on the project, how many and exactly where. 3.- Finally it is not explained which are the gaps in the currents systems that want to be addressed by the project in order to improve them.

The project proposal did not identify any risk and vulnerability affecting human communities which required early warning systems to mitigate. The proposal however identified requirements for further scientific work to improve the accuracy of the MDCB network. These requirements did not have any objective basis as the project proposal did not have any information on the results of objective assessments on the spatial and temporal accuracy of the earthquake predictions made.

1.- The final impact of the project could be excellent if the final proposal is largely modified, restricting it regionally and focusing the efforts and funds to one specific area, but working on all aspects of an effective early warning system. 2.- In the current proposal the main goals and expected results are not well-defined, with the exception of expanding the current MDCB Chinese network to surrounding areas. For the same reason there are no measurable indicators of

the expected results of the project. 3.- Two of the four elements for effective warning systems (Dissemination of understandable warnings to those at risk, and Knowledge and preparedness to act) are not addressed at all in the proposal. There is not much sense in deploying such network for predicting earthquakes if those at risk do not receive information about it and are thought how to face the hazard. Education of people under risk is one of the basis of an effective early warning system.

The project objective given in the proposal to expand the MDCB network has not addressed the four elements of effective warning systems, given that the capability of the MDCB network to predict earthquakes is yet unproven and does not yet have a firm scientific basis.

1.- The project seems to be innovative, as such network is not developed in other countries under risk. 2.- It is impossible to state if the goals are realistic or not and related to the funds applied for. For the same reason it is not possible to evaluate if its cost-efficient or not. 3.- The decision about the feasibility of the project (included as first step in the proposal) should be taken before applying for the funds. What would happen then if the Expert Group decides after their month work that the project is not feasible? It is not explained what direction would take the project under these circumstances. 3.- Although it is stated that the project would involve other EQ prediction systems in the areas, currently working, it is not explained how this coordination will take place.

No clear needs and objectives related to early warning. The effectiveness of the planned activities is highly doubtful in enhancing early warning systems. Phase I of the planned activities highlighted the fact that the effectiveness of the MDCB network to predict earthquakes had yet to be investigated and evaluated.

This is , unfortunately, one of the weakest points of the proposal. It is not explained who will hire, and with what funds, the new staff necessary to run the Xian station because of the increased number of stations to be installed in other countries (15 initially). It is not explained either which institutions in the proposed countries will hire and send professionals to be trained in running the network. An initial project should focus in a much smaller area and develop strong agreements with local authorities in order to secure that people will be hired to run the system and funds will be devoted after the end of this project. Otherwise there is a high risk of installing a network that will stop working after the end of the EW3 project.

No mention was made on durability and sustainable capabilities or on national commitment on the project.

The main foundation of the project is very interesting and could be extremely relevant if the proposal is largely modified in several aspects, the main of which are: 1.- A smaller initial geographic area should be chosen in order to focus both the funds and the professional efforts to generate an effective EW system network. 2.- International agreements with local authorities of the countries chosen for this initial project should be signed in order to secure the sustainability of the project after the international funds are finished. 3.- A strong educational programme should be undertaken in order to teach to local authorities-civil society and people what are the goals of the project, how to react to face the seismic hazard, and how to be prepared. Emergency plans should be developed in terms of that authorities and civil society will know what to do if the system works and sends an EQ prediction. 4.- The initial feasibility of the project should be studied prior to submission of the final proposal.

The proposal is essentially for further scientific investigations of a yet-to-be-proven technology on earthquake prediction.

B) Conclusion

2 Largely disagree. The Review concluded that a pre-project (not exceeding US\$ ..... ) is necessary in order to assess the situation and the viability of the proposed work and the possible formulation of a project proposal.

a: (Such a pre-project proposal could be commended for funding.)

b: (The (IEWP) will need to assess the pre-project proposal before it can commend it for funding.)

2 Largely disagree. The Review concluded that it could not commend the project proposal.

**PPEW 150/06 (EQ)**

**FINO-MED: Long-term Testing of Warning System  
Instruments at FINO (North Sea) for an Integrated Seafloor  
Observatory Network in the Mediterranean Sea  
(North Sea and Mediterranean Sea)**

Assessment by the EWC III Review

A) Overall Assessment

The FINO-MED project proposes a shallow water FINO research platform to be installed in the North Sea for testing of state-of-the-art technology. It is intended to monitor temporal pore water pressure variations that are associated with crustal deformation. The idea behind this concept is that crustal deformation changes can be interpreted as an indicator directly related to earthquake activity. On the short term, the installation of the FIN observatory in the North Sea only serves as a test bed for instrument design and in situ testing. On the long-term the concept foresees the installation of the seafloor observatory in the Mediterranean Sea. It is the final goal to develop an intelligent monitoring system to improve environmental parameter observations including submarine landslides, earthquakes and tsunamis and to become the integral part of an amphibic early warning system.

The main objective is to develop a prototype low-cost high resolution probe to be integrated into a seafloor early warning system to continuously monitor pore pressure changes with high-resolution differential sensors in areas of fluid seepage and earthquake activity. Earthquake faulting mechanisms associated with the deformation of the crust can be measured in form of transient variations of pore pressure (as already been shown by other researchers). The project, if successful, will have an impact on technical aspects of early warning system design as it covers the development of the sensor, detection algorithms, data evaluation and handling. Data evaluation and management will be carried out in real-time. Appropriate protocols and software need to be developed.

FINO-MED is a technical and innovative project aimed at extending early warning capacity in the marine environment. The core activity of the project is to develop a sensor and additional

components that detect deformation induced pore pressure changes. The set project goals are realistic and can be accomplished in the requested project period of 2 years. The financial schedule is very detailed and reflects the actual costs for the listed items and services. The plan is cost-efficient and acceptable. Project evaluation and monitoring as outlined in the proposal has been satisfactorily set out. However, it would have been helpful for the evaluation process to include a work flow chart, set milestones and indicators that permit to measure progress and success.

The FINO-MED ocean observatory warning system will become an integral part of the already existing FINO research platform that has been set up in the North Sea. This research system is being funded and sustained by the German Government (Federal Ministry of Environment), the German Research Foundation (DFG) and the European Union (EU). Additional financing may be sought by the German Ministry of Education and Technology (BMBF). Partnerships with other institutions will be expanded including various disciplines, from natural sciences to social sciences. There appears to be a good coherence between the research groups already. Additional resources will be made available through the University of Bremen, Germany, and will be complementary to the projects.

FINO-MED is a sound low-cost technical development of a seafloor observatory system with early warning capability. The financial plan is adequate and acceptable. German Government funding to sustain the project beyond the project period of 2 years is most likely as it is already financially involved supporting a number of integrated FINO components. A letter of support was provided by the Research Centre in Julich. The work plan should have been more detailed, in particular including milestones to measure progress and success.

B) Specific Recommendation

1. The proposal should a detailed work plan, monitoring and evaluation milestones that include a work flow chart and indicators that permit measurements of progress and success.
2. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

5 Strongly agree. The Review concluded that, with the incorporation of any minor amendments noted, the project proposal could be commended for funding.

**PPEW 32/06 (VO)**

**Early Warning System Towards Hazards of the Tungurahua and Cotopaxi Volcanoes, Province of Tungurahua, Ecuador**  
(Ecuador)

Assessment by the EWC III Review

A) Overall Assessment

1.- The proposal lacks of precise information (available) on the hazards related to Tungurahua and Cotopaxi volcanoes, and also lacks of recent references to many scientific-technical studies carried out in the area. 2.- The proposal mixes several volcanological/hazard/vulnerability concepts, making difficult to know which is the real risk level and vulnerability of surrounding areas, and therefore how they will be addressed. 3.- Although it is stated that the main current gaps are the inefficient coordination between local institutions (monitoring, civil protection and authorities) and the lack of alert systems, mainly the latter is addressed in the proposal. Other important institutions, doing monitoring such as the Instituto Geofísico should be contacted prior to the submission of the proposal to include them in it. This will certainly improve from the beginning the coordination between different important organizations in Ecuador.

Well considered

This will depend on specifics of the warning system.

1.- The expected impact is clearly defined and is directly related to the needs of the threaten population surrounding the volcanoes. However, measurable indicators are not defined in the proposal, so it is hard to establish how the expected impact will be achieved and measured. 2.- One of the four essential elements in EW systems is currently run by an institution in Ecuador (IG) which is not part of the proposal. Although an agreement with IG at the beginning of the project is planned, the participation of IG as a co-institution is essential for a good result of the proposal. 3.- According to the several geological-volcanological conceptual errors in the proposal it is clear that scientific advise is necessary within the project, especially thinking in the Educational programme to be followed in order to teach local people and authorities about volcanic hazards and related risks, as well as in the new alert system to be developed. 4.- Although in the proposal it is stated that the alert system is designed for lahar-monitoring, then in the budget it is written that it is meant for pyroclastic fallout, lava flows, pyroclastic flows, etc... This leads to a big confusion, as it is definitely not the same (and a very different cost too) running a lahar monitoring system than a whole volcano monitoring network.

Having the involvement of many concerned municipalities contributes to sustainability. However, don't underestimate the maintenance requirements of the system. They will be considerable, and the system will have to be tested regularly.

The proposal sounds innovative in the area, and seems to have proposed realistic goals. There is one major contradictory point, which is that IG is the institution in Ecuador in charge of monitoring volcanic activity, and the project proposes to install a lahar monitoring system, independently from IG. That could lead to a misunderstanding, when two official institutions run simultaneously a monitoring system in the same area. The main way to solve this situation is incorporating IG in the original proposal as a co-institution and then, IG can have the role of running the proposed lahar monitoring system, together with their currently active seismic and other networks. If the proposal includes formally, from the submission point, IG then the project will be compatible with existing volcanic monitoring in the area.

It is not clear at this point how the sustainability of the project will be secured, as no permanent agreement with some of the institutions that are working on this subject currently in Ecuador, have been set. On another matter, a new lahar monitoring system will require anyway some people to be hired and trained to run it, and it is not specifically stated which institution will cover these costs, during and after the international project.

The proposed project could be of direct benefit of several thousands people living in the surroundings of the two active volcanoes included in the proposal. However, in order to be sure that the project will achieve its main goals and be sustainable in time, the proposal should be modified including at least the following main points: 1.- A strong agreement with Instituto Geofísico should be working from the beginning, prior to the submission of the proposal. IG should be in charge of running the monitoring system (the new lahar-monitoring and alert system), and included in their whole volcano monitoring system, in order to improve the basic knowledge of volcanic risk in the area. 2.- Scientists-technicians from IG should be directly involved in writing-up the proposal in order to improve it and solve several geological/volcanological misunderstandings included in the current proposal. 3.- Scientists/technicians should also be involved in the design and content of the educational programme/material that will be produced for teaching local authorities and people, in order to be sure that correct volcanological information will be given to them. 4.- The project should only focus on one main volcanic hazard, which is in this case Lahars. Other important volcanic hazards, such as pyroclastic flows, fallout, lava flows, should be disregarded (see budget section), because of two reasons: costs and because IG runs currently a volcano monitoring network focused on them. 5.- The proposal should clearly state how many new professional/technician or other staff will be required and which institutions will hire them, where the money will come from, and how sustainable the final EW system will be in time. 6.- The proposal should state clearly how the achievement of the proposed goals will be measured.

Fund this, with the conditions that (a) full integration with the work of Instituto Geofísico be established/maintained, and (b) adequate provision is made for frequent testing and practice of the system, e.g., like annual disaster drills held in Japan. This proposal seems to be based on a good discussion and coordination of local communities. It also alludes to the need for close coordination with the Instituto Geofísico (Observatorio Guadalupe), which is good, because (a) lahars don't occur by themselves, but, rather, as a result of eruptions that will be monitored by the Instituto (and subsequent rains), (b) the Instituto Geofísico has a wealth of experience in the field of volcano monitoring, lahar monitoring, and maintenance of remote field stations such as will be required for anticipating and detecting lahars, including existing stations on Cotopaxi and perhaps some on Tungurahua, (c) there should be just one integrated warning system, because any parallel, separate warning system beyond that already operated by the Instituto could lead to serious confusion unless the messages are very strictly coordinated, and (d) it would be a waste of scarce resources if there was to be duplicated effort. None of the 4 scenarios for Tungurahua

really captures what seems to me to be the most likely outcome, namely that degassing of the present magma will lead to more viscous magmas, slightly impeded degassing, and thus slightly more explosive behavior including small to moderate scale pyroclastic flows. Maybe this scenario is included in “erupcion mayor” even though it really wouldn’t be much larger than the present ones. Having good communications, including loudspeaker communication with villages is good. But be careful of automatic triggering of sirens. Many electronic glitches can cause triggering even without lahars, and, especially in the Banos area that has already experienced one “false alarm,” you don’t want to have more. Make sure that the final triggering of the sirens is done by a person, not by a computer, and that it is done only after some second indication confirms that there really is a lahar. It is not true that an electronic siren system will require minimal maintenance... actually, there’s a lot of maintenance to be done... especially if these are at higher elevations that would give adequate lead time for warnings. Don’t underestimate the amount of technical maintenance that will be required. I didn’t see any mention of technical details of the warning system... specifically, of whether it would include rain gages and thus give advance warning of rain-induced lahars, and/or integration with volcano monitoring to also warn of impending eruptions (which for Cotopaxi would be the precursor of lahars). Or only of lahar detectors themselves? These questions need to be addressed. Finally, there appears to be good potential linkage/ potential funding from GFZ. If GFZ is already prepared to support this effort, good! Summary: Needs/ risk assessment: Seems realistic, though I recommend added study to see whether short lead times will really help. There wouldn’t be any sense in making an expensive system if people wouldn’t have time to move out of the way. And, indeed, Col Rodriguez and colleagues should be careful to not promote a false sense of security, inducing people to think they are protected if there really wouldn’t be time for safe evacuation after the siren sounds.

B) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 77/06 (VO)**

**Mitigation of Volcanic Risks in the Philippines Through the Improvement of Volcano Monitoring Systems and Preparedness Plans  
(Philippines)**

Assessment by the EWC III Review

A) Overall Assessment

Frankly, not convincing.

The Institution is one of the best in the developing world for volcano studies and they have identified a modest and well thought out project with clear objectives. I have some reservations about the use of gravimetry in volcano monitoring and would not personally have put this at the top priority; gas measurements and tilt for example are more effective instruments. its also not clear how one gravimeter can be used over so many volcanoes. The monitoring of the lahars is a specific and key task and is an excellent project in terms of need. The other projects to involve

locals and to make good preparation plans are high priority and the costs very modest. I rate all but the gravimeter as 5 and have reduced my score to 4 because I would have liked to have seen either a stronger case or some indication of why they chose this equipment above alternatives.

The proposed activities would probably help, but synergy not well defined.

The objectives are clearly stated. The impact would be high for the lahar monitoring, involvement of local observers and preparedness plans. The impact of the gravimeter is less clear; this is a good instrument to have but I would have put it much lower than developing the seismic network, systematic gas monitoring (have Phil Volcs got a DOAS system for example?), and installing tilt stations.

Can't really tell. A more comprehensive statement of needs would guide project design.

The project design is sound. I am surprised at the very low budget. I would like to have had more information on the use of the geophysical equipment.

The project is sustainable because it involves relatively modest acquisition and installation of geophysical or acoustic equipment, the training of local observers and preparation of plans. All these activities are most on scope and therefore sustainable.

This 4-part proposal from PHIVOLCS has several components of what could be a useful addition to any volcano monitoring system. But, as noted above, it also has the appearance of being thrown together hastily, without attention to specifics of what would be done, exactly why, how the various parts could/should relate to each other, etc. Perhaps part of this could be funded in this cycle, and PHIVOLCS could be encouraged to develop a more thorough proposal for the next round of EW funding? This could be through workshops that also include community leaders, civil defense, university scientists, perhaps a few foreign resource persons. PHIVOLCS is a good group and deserves support, but it would be easier to support a proposal that reflects a careful, deliberative assessment of needs and potential synergy between the proposed parts. This proposal appears to have been written in haste, and suffers from thinking in terms of small pieces rather than a more comprehensive whole. Activity 1: Volcano monitoring Volcano monitoring benefits from monitoring of multiple parameters, not only seismic but also other geophysical and geochemical methods. However, these other parts are only useful if they are fully integrated with each other. One can't realistically get much information from a gravimeter without a network of precise GPS stations and gas monitoring, or from a resistivity meter or magnetometer divorced from all the rest of the monitoring. For each of the proposed instruments, what would you be looking for? What kinds of changes do you expect? Do you have specific foreign collaborators/countries with whom you would like to work? This kind of monitoring is not widely used, though there are a few workers in France and Japan who have detected some geomagnetic changes before eruptions, though not consistently enough to be the basis for public warnings. A 12 V battery? Surely the Govt of the Philippines can buy a 12 V battery pack! It might make sense to add all of these components to one volcano, though this was not specified. Activity 2: Pinatubo caldera lake/ flood monitoring This was a concern several years ago. Didn't the problem largely disappear when the lake broke out in 2002(?) Haven't lahars from Pinatubo virtually stopped? Activity 3: Volunteer observers. This sounds like a good idea and should actually be implemented at a larger scale than proposed here! But one thing seems to be missing: A focus on obtaining specific, consistent observations ... not just occasional, anecdotal observations. What changes are historically reliable? Consistent? Why? What changes can be theoretically anticipated and then checked? There would need to be thorough discussions with local people so that both they and

scientists alike understand exactly what is being observed, and why. There's good potential here for raising anecdotal observations to a higher, more reliable level. Without doing so, anecdotal observations aren't worth very much. Activity 4: Updating "Operation Bulkan" plans. It sounds as if this needs to be done. I don't know why PHIVOLCS would need extra EW funding to do this, but there would be good return on a small expenditure. I recommend that you try to integrate the updating of operational plans with discussion with local people about how each volcano works. Not just anecdotal miscellany, but an integrated program of study/ research (PHIVOLCS and universities), community observer networks, public education. This is a bigger activity than the budget indicates. You need to think bigger. Not to pad the budget, but to make the project bigger, more integrated with geophysical, community, and other observations.

This is an excellent low cost project. I rate three of the activities (lahar monitoring, local observer programme and the preparedness programme) as excellent. The need for extra geophysical equipment is needed. However I would like to have satisfactory answers to two questions before making a decision here. Why do they place a gravimeter above other kinds of geophysical equipment given that it is less proven and more developmental than other kinds of equipment? Given that there are lots of volcanoes to monitor how will one gravimeter be used. given that gravity surveys are labour intensive and time consuming?

B) Specific Recommendation

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 79/06 (VO)**

**International Mobile Early-Warning System(s) for Volcanic Eruptions and Related Seismic Activities**  
(Global)

Assessment by the EWC III Review

A) Overall Assessment

The concept behind this project is very good. A similar idea has been operated by the US VDAP Team and occasionally by some national Governments in the Developed World helping in developing world countries (such as Italy and France). There is a lot of experience already in how these schemes can work. In principle an international equivalent could be excellent. However, this needs to be planned carefully and must take account of the existing mechanisms and experience. Putting together credible IMEWS Teams will be a formidable task and much more thought needs to go into planning a scheme that looks convincing.

Most developing countries have more capability now than they had when IMEWS was first proposed, and there are also bilateral assistance teams already functioning. The ability of national organisations to deal with major volcanic crises provides the need. Some developing world institutions have problems such as lack of equipment and staff. The Volcano Disaster Assistance Programme (VDAP) of the US Geological Survey has been playing this role for many years and

have indeed participated in a number of crises. This is of the order 1 crisis every 2 years considerably less than indicated here. No mention of the VDAP work is mentioned in the proposal. A key question however is whether an additional programme beyond VDAP is really needed? No evidence is provided in the proposal.

Over the last 20 years VDAP has provided a service to the world funded by USAID that is very similar to that proposed here. However no mention is made of VDAP and how this programme would fit in with their ongoing work. The proposed teams will need to be in organisations that will allow their scientists to leave at a moments notice. Without more specific details it is very hard to know if this is practical. VDAP works because it has a mandate from the US Government. How will the International teams be put together?

Although WOVO is a suitable body to deal with it has been very inactive over the years and the current leaders of WOVO may not be in a position to form Teams. Does it make sense in particular to form a IMEWS Team for the Americas when VDAP has provided assistance to every crisis in this region? One of the best features of VDAP is that they commonly leave their equipment in the country after a crisis. Why is this not the case here? Not enough planning and consultation appears to have gone into designing the project.

UNESCO's traditional role of education is a long-lasting one. The benefits of training, regional workshops, etc. will be felt long after a particular instrument has been installed or a particular crisis has been weathered. If UNESCO would invest in WOVO, this would be a long-lasting contribution. Sustainability is an important issue. Many volcanic crises go on for much more than a month and it is no good going in with equipment for a short period and then taking it away. That is why VDAP for example commonly leaves equipment behind. Training of local staff is also vital. In principle the scheme could work well but needs a lot of flexibility.

The IMEWS proposal is actually quite an old one, dating even back to the mid 1980's when there were two or three regional workshops held. The concept of a UN-based capability for assisting developing nations in their responses to volcanic crises has potential. International assistance can be very helpful for any individual country when faced with a crisis. However, the Review noted several problems in the summary. Since the original IMEWS proposal, several potential donor countries have set up their own bilateral volcano assistance programs. The best organized of these is the USGS/USAID Volcano Disaster Assistance Program (VDAP), which works well. At various times, France, Italy, Japan, Germany, New Zealand, Spain, and perhaps other countries have dispatched teams of scientists to countries experiencing (or concerned about potential) volcanic crises. Bilateral assistance programs are easier to organize and fund, but, they also lack mechanisms for full coordination when two or more donor countries wish to help during a single volcanic crisis. This can lead to lost opportunities to involve scientists with special expertise drawn from a variety of countries, and can also lead to unproductive and sometimes distinctly counterproductive competition between national teams. Examples of competition and lack of coordination abound. In principle the host country can and should demand coordination, but in practice they don't always do so.

On the other hand, UN sponsored, multinational responses can be difficult to manage, for at least two reasons: (a) UN bureaucracies are not well suited to getting scientists from various countries, and donated equipment, out to the field quickly, and (b) coordination of scientists who have not previously worked together, who use different and often incompatible equipment and computer programs, who might or might not trust each other, is a very time-consuming and inefficient process that is not well suited for crisis responses. The other traditional and very useful role of

UNESCO could be in the organization of training for scientists from various countries in a region. This is a never-ending process, and one in which money is almost always well-spent. The training function can be coordinated also with crisis responses, because there is much to be learned during crisis response but the lessons tend to

A related activity that would be very appropriate for donor support through UNESCO is development of WOVOdat, a proposed Web-accessible database of volcanic unrest worldwide. The uses of WOVOdat will be (a) reference during volcanic crisis, to quickly see where else similar unrest has been observed and what happened, i.e., as a forecasting tool, and (b) “volcano epidemiological” research into the origins of different patterns of volcanic unrests, to improve the interpretation of unrest in general. Preliminary discussions with WOVO observatories (including two international workshops) have led to a preliminary design and reasonable indications of willingness to participate, but the project has been hampered by lack of serious funding to hire a small staff to finish the database design and start populating the database. Several potential donor countries have expressed interest to help (US, Italy, Japan) and several more could be approached.

B) Specific Recommendation

1. The general idea is good, as well as the concept of an international umbrella, but the objectives should emphasize the potential coordination role of UNESCO perhaps operating through WOVO.
2. The design of the programme appears too ambitious. The review questioned whether three teams over three years were needed.
3. More information on the organizational aspects of the project should be provided.
4. The objectives should emphasize the potential coordination role of UNESCO operating through WOVO. In the background and justification section, VDAP work and experiences should be documented.
5. Evidence should be provided to show that IMEWS is needed such as data that indicates there are more volcanic crises than current arrangements can cope with.
6. There are few specifics about what would actually be done, where, and by whom. All of this would presumably be decided by new workshops and negotiations with recipient countries. Specifics on workshops should be included in the main proposal.
7. More information and justification on the design of the project is required. A logframe with well defined indicators should be developed as a first step in the design.
8. The overall size, scope and staffing of the proposal should be reduced.
9. More details on the training of the local staff should be included as well as information on the sustainability of the project.
10. A series of regional workshops for updating the IMEWS concept, and reassessing what roles IMEWS could best play, would be useful. The budget for the workshops would be

much less than \$2M. A proposal for major funding could be submitted to the next round of EW projects.

11. The budget should be presented in a clear and detailed format.
12. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 49/06 (WF)                      Global Early Warning System for Wildland Fire  
(Global)**

Assessment by the EWC-III Review

A) Overall Assessment

The Review noted that no measurable impact indicators were defined.

B) Specific Recommendations

The Review recommended that training for development of technical capacities should be provided to developing countries vulnerable to wildland fires where an early warning system might be required.

C) Conclusion

Category: 4. Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III Review

A) Overall Assessment

The project adequately describes a risk management issue. It is noted that the proposal indicates endorsement letters from government / related organizations will be provided - this is a good verifier of national need and priority - the government / related organizations are formally making claim of need and priority. Proposal targets a 'need niche' - that of improved systems for early warning for wildland fires (forest fires) for Mexico and the transboundary countries in Central America Recent Mexican losses from forest fires are specified and are significant Specified losses are also global, as Mexico is one of the richest nations world-wide in terms of its spectrum of biodiversity in both ecosystems and species numbers. Losses in biodiversity are especially important as they represent losses of potential opportunities, with yet undiscovered features of, or species of flora and fauna, and can never be recovered in their pre-disturbed form. Proposal will also meet needs of other transboundary countries in region

The objectives of the project are adequately stated for a specific type of natural hazard event. The impacts need more definition as to how they will be used to actually address forest fire prevention, preparedness and response. The project does not develop the necessary detail to describe the realistic/achievable goals, nor the cost-efficient aspects. Nor do they address aspects of the internal Mexico partners experience and capacity, nor the application to Central America. There is no discussion of application with Central American partners, who are absent, nor does it describe how this approach would be applied to other types of natural hazard as proposed.

The main objective / impact of this project is the sustainable establishment and operation of a "comprehensive fire combatting system". This far reaching and highly ambitious proposal goes far to mainstream early warning into an overall comprehensive forest fires mitigation programme, for Mexico and neighbouring Central American countries. The four elements of effective early warning are: \* Prior knowledge of the risks faced by communities; \* Technical monitoring and warning service for these risks; \* Dissemination of understandable warnings to those at risk; and \* Knowledge and preparedness to act. The five main elements of this proposal, which are: early warning / prevention, monitoring of risks / fires, rapid response, impact assessment and post-fire analysis, data dissemination, are most certainly directly associated with, and relevant to, the four elements of effective early warning, as listed above. With reference to both the dissemination of warnings to those at risk and knowledge and preparedness to act, it should be noted that the proposal intends to place priority on, and distinguish data related to human settlements including the quantification and analysis of human impact. The scope of the project refers to both populated and unpopulated land areas. For unpopulated areas the target end users for this proposal are all authorities and stakeholder groups of the relevant land areas. The proposal is technically very sound and most detailed in its envisaged use of tools / practices. It also very well defines the respective roles of related authoritative bodies. In terms of social aspects, due to the nature of the project, the social aspects are not hugely prolific, seeing as much of the scope of the area in question is unpopulated. However, the proposal importantly notes its priority focus on human settlements.

The project does not develop the necessary detail to describe the realistic/achievable goals, nor the cost-efficient aspects. Nor do they address aspects of the internal Mexico partners experience and capacity, nor the application to Central America. There is no discussion of application with Central American partners, who are absent, nor does it describe how this approach would be applied to other types of natural hazard as proposed.

The proposal sets forth a well thought out and researched strategy to establish a comprehensive forest fire combating system in Mexico that positively affects other fire-prone Central American countries. A three year time frame is realistic. The experience and capacity of partners is well stated. While understanding that a fully-costed budget may be premature, a ball-park figure of the project total and some attempt to put the approximated costs under respective budget lines would have allowed a more tailored assessment of this section. The internal monitoring and assessment planned is most thorough and allowances are made for ongoing end user feedback and project adjustment which is commendable. One evaluation, externally conducted, perhaps at the end of year two, would also provide important perspectives and could be considered. The proposal states that it will dovetail effectively into existing national and regional mechanisms and a high degree of collaboration is apparent. It would also be most important for one of the primary activities at the outset of the project to be an investigation and analytical review of related initiatives world-wide.

It is obvious from the proposal that excellent national authority collaboration exists and that key partners are already working together. The only suggestion which is small, yet critical, is to at the outset of the project ascertain and confirm from the relevant (finance and economics / planning) authorities that, if the system functions as is envisaged, they will contribute financially to its continued operation and maintenance once the project had ended. The proposal currently states that operational costs will be sought towards the final stages of the project. The idea is to ensure that all targeted for sustaining the necessary operational costs need to be at least "agreed in principle" at the outset of the project.

Project designers are urged to include an approximated budget, and note reference to initial project tasks including a review of related on-going initiatives world-wide (beyond national and regional). Letters of endorsement, when presented, will also add tremendous support for the critical need and priority of this proposed work. This proposal focuses, in part, on the importance of transboundary scope work which is urgently needed in risk reduction activities. A North and Central American partnership network including the Caribbean, Canada and the USA, could also be deliberated during the latter course of the project as one idea for follow-up.

B) Specific Recommendation

1. The project impacts need more definition as to how they will be used to actually address forest fire prevention, preparedness and response.
2. A fully-costed budget should be included.
3. One evaluation, externally conducted, perhaps at the end of year two, should be included which could provide important perspectives.
4. A literature review should be included as one of the primary activities at the outset of the project to be an investigation and analytical review of related initiatives world-wide. Particularly the role of the Meso-American Fire Network within the Global Wildland Fire Monitoring Center

and the previous project work and training activities carried out in Mexico in collaboration with the USDA Forest Service.

5. More information on the sustainability of the project should be provided..

6. The project should ascertain and confirm from the relevant (finance and economics / planning) authorities that the counterpart financial contribution to the continued operation and maintenance once the project had ended. The proposal currently states that operational costs will be sought towards the final stages of the project. The idea is to ensure that all targeted for sustaining the necessary operational costs need to be at least "agreed in principle" at the outset of the project.

7. The following standard project formulation recommendations will be added to the recommendations:

(i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.

(ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.

(iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.

(iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 152/06 (WF)**

**“Star & Caring Wings” - An Early Warning System for Forest  
Fire Smoke Impacts**  
(Europe, South East Asia and Mediterranean Basin)

Assessment by the EWC III Review

A) Overall Assessment

It is very clear that forest fire (or wildland fire) smoke has enormous effects every year in different regions on population and economy. There is a need for a good system for warning

populations of smoke. The project proposal mainly concentrates on the amounts of chemical components emitted and areas burned, not so much on the (quantified) impact of those chemical components to the population's health, flora/fauna, or economy. - It is suggested in the project to establish exposure limits to different sets of population, including fire fighters, and review-enhance evacuation indexes and criteria regarding air quality. This is good and would support an EWS. - They suggest developing new instruments and techniques for measurements in fire situation and improvement of facial masks etc equipment. Fire front expansion will also be taken into consideration (not only forest is burned). All this is fine and needed, however, is it needed for an easily applicable EWS?

In item 3.4 in the proposal the four elements of an effective early warning system are addressed. Also, the objectives are defined. However, it is not so clear how these will be achieved and how some of these will be part of putting up an EWS for forest fire smoke. Are they the relevant ones for an EWS? There is some quantification and measurable indicators listed, however, not for the impacts, the project submitters should list indicators for the part in 3.3 (Expected impact). None-the-less, should an effective EWS be put up, it would be clear that there would be benefits.

The project goals are achievable. However, for the purpose of EWS for forest fire smoke, they are too scientific and complicated. It seems that the proposal is largely based on the detailed chemical analysis of smoke components. This detail is not needed for an EWS but there should be chemical indicators, or indexes, chosen that can be analyzed in near-real time. The detailed information would be interesting for health effect studies. - The project is less well planned for the dissemination of information, which is really the critical part of an EWS. The connection to users of information is not very clear (always the stumbling block for scientists making operational plans). How will the connection really be achieved? How will a system be put to use? An EWS should be something that does not need scientifically highly trained personnel to run it (the instruments).

This is rather unclear and lacking from the proposal. It is already unclear how a real, operational EWS for smoke will be established. Partnerships are in existence, if these would be exploited properly, there should be a possibility for this. There really is no outline on how the project is embedded in local, national or regional support structures and how it will help to advance the longer-term institutional, national or regional strategy on early warning.

The project proposal highly exceeds (53 p) the suggested length (10 p) for a proposal and thus the intent, objectives, implementation, etc. have become diffused. There is too much text and detail in the Background and motivation (17 p) and in the part with the general description of the Collaborating institutes (15 p). The proposal is scientifically detailed when it comes to the chemical measurements that are suggested to be made. However, this type of detail can be too complicated as part of a speedy early warning system. The Table, road map, at the end of the proposal has again to do with the chemical components, it is likely to pose problems as a decision making tool for crisis-managers (who are not scientists). Workshops and conferences are a means, not an end, they are listed as deliverables. Even in T4.2 a conference is planned aiming at the implementation of the EWS and a demonstration of the prototype operation (T4.3). This is not the way to make an EWS be adopted for use. What will be the measure that the system has been implemented? Where are the plans for training of the different parts of the chain (chemical measurements, EWS, dissemination)? A lot of effort has been put into this proposal. It is very detailed in chemistry, but lacks in the parts for the collaborating partners. The proposal needs to be redone to be more concise and clear on its early warning components, dissemination, and links to users.

B) Conclusion

3 Partially agree. The Review concluded that a re-formulation of the project proposal is essential and the (IEWP) will need to assess the re-formulated proposal before it can commend it for funding.

**PPEW 21/06 (SD)                      Development of a Regional Sand and Dust Storm Early Warning System (SDS-EWS) in North East Asia (China)**

Assessment by the EWC III Review

A) Overall Assessment

Dust and sandstorms are increasingly frequent events during the spring time in Northeast Asia that have caused profound impacts on the air quality, public health, lives and properties, and transport, and hence they have enormous social and economic implications in the affected countries (i.e., China, Mongolia, Japan, Republic of Korea and DPR Korea). There is an urgent need to address the issue collectively in all affected countries, although this urgent need can be better highlighted in the proposal. One missing element is the linkage of disaster preparedness to the regional early warning system for the dust and sandstorms events in each affected country.

The objectives and the proposed activities of the proposed project are clearly stated. If properly designed and implemented, the proposed project is expected to have significant impacts in reducing the damages or disaster risks in future dust and sandstorm events.

The proposed budget for the 10-year project is 5,100,000 euros. It is stated that the China Meteorological Administration (CMA) and other partner countries and institutions will pay 3,000,000 euros for this project”, while 2,100,000 euros will need to be sought from other sources. The proposed budget is broadly broken down as follows: SDS observation network upgrading (3,000,000 euros); “SDS pilot project (1,000,000 euros); Modeling work (500,000 euros); Data processing (300,000 euros); and Early warning services (300,000 euros).

CMA supported by WMO with partners would make this initiative sustainable. A GEF-ADB project, which was participated by China, Mongolia, Republic of Korea and Japan, and executed by ADB in collaboration with UNESCAP, UNEP and UNCCD Secretariat, has, in the past three years, produced a Master Plan for assessing and addressing the dust and sandstorms issue in Northeast Asia. Currently, another GEF-ADB project, with a total proposed budget of US\$3,400,000 (including GEF funding of US\$1 million, and ADB/China contribution of US\$400,000 and bilateral contribution of US\$1,800,000 from JICA), has been proposed to implement a phased programme that includes the establishment of a regional monitoring network for dust and sandstorms, with a view to developing a regional early warning system. The programme has identified 25 existing DSS monitoring stations in China and 6 in Mongolia as the first group of designated network stations for the proposed regional network that need technical upgrading and capacity strengthening. The core monitoring indicators include visibility (instrumented), PM10, and LIDAR-based observation data (vertical profile of dust cloud by light detection and ranging).

No reference is made in the present proposal regarding up-coming GEF-ADB project. It would be useful to elaborate how the present proposal would be complementary to the GEF-ADB proposal? One of the proposed activities in the present proposal is to “Develop a regional monitoring network for early warning and forecasting of SDS”, which includes “design an organizational structure and a regional observation network”. It seems that this aspect has also been largely covered under the proposed GEF-ADB project, except that Kazakhstan, which is located in Central Asia rather than in North East Asia, is not included in the GEF-ADB project. Similarly, a regional mechanism that involves China, Mongolia, Republic of Korea and Japan has also been established for coordinating the dust and sandstorms monitoring network in Northeast Asia through the previous and the current GEF-ADB project. For completeness in the region coverage, it would be useful to include DPR Korea in the regional monitoring network – this has not been addressed by the previous and the current GEF-ADB project. Like the current GEF-ADB project, disaster preparedness for the dust and sandstorm events has not been included as one of the proposed activities. It would be useful for the proposed project to go one step further: How to link the regional early warning system to the disaster preparedness for the dust and sandstorm events in each affected country? Overall, this is a good project. The proposal is based on solid scientific basis. The project would contribute to other countries too.

B) Specific Recommendations

1. More information should be provided in the needs assessment section of the proposal.
2. Information of the linkage of disaster preparedness to the regional early warning system for the dust and sandstorms events in each affected country should be included.
3. Statistical information on sand and dust storm with its damage data should be provided.
4. The proposal should reference on-going projects being implemented by GEF-ADB and other regional mechanism in place.
5. What will become better by implementing this project is not clear. More information on the intended situation after completion of the project should be provided.
6. The project design as described in the proposal can be further elaborated and improved. The organizational structure of the proposed project needs to be further elaborated.
7. More clarity on how each participating country or agency would contribute to the proposed project should be included.
8. More information on how much funding will be allocated for each of the three stages of the proposed activities should be provided.
9. More clarity on how the proposed project is going to be monitored and evaluated during its implementation should be included. More information on the project steering committee should be provided which will oversee and provide guidance on the implementation of the project.
10. Details should be provided on how the cost for each proposed component was estimated. For example, how many SDS observation stations would need to be upgraded, and where and in which country (i.e., China or Mongolia) are these stations located? What is the

“SDS pilot project” and where and in which country (i.e., China or Mongolia) is this “pilot project” going to be implemented? Without further details on each of the proposed activities, it would be difficult to assess if the proposed budget for each proposed component is appropriate (i.e., over-estimated or under-estimated?).

11. The duration of the project is not clear. 10 years seems too long. The sustainability of the proposed project after the 10-year project cycle should be clearly spelt out.
12. Information on how the project is linked to people at the local/community level should be provided.
13. The budget presentation needs more details and explanation.
14. Collaboration with WMO should be considered because of the involvement of several countries around the deserts.
15. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

Assessment by the EWC III ReviewA) Overall Assessment

There is a need for better early warning, preparedness and mitigation for locust invasions in West Africa. Although Senegal and Mauritania certainly suffer from this hazard, even the proposal itself mentions that Mali and Niger were most impacted by locusts in 2005. It would therefore appear logical to include Mali and Niger in this project from the outset. Damage caused by locust in West Africa is indeed very high, the project should come out with early warning system based on life cycle builder of locust in that region. While the technical early warning and monitoring aspects are well covered, the "people-centred" aspect is a bit lacking. Although mentioned as an important objective, there is no explanation how the project will "build the capacity in planning control operations." Plus the direct beneficiaries appear to be different National Services - how will this impact the people? Almost the entire population is affected by this event.

Once established, it appears that the technical system will be left in the hands of the national services (after training). This is a good thing. Who, however, will maintain these systems? Do the national services have the means? There is no timeline. The budget of 100,000 EUR for a regional workshop appears excessive, depending on how many people will participate. This seems expensive. The goals appear realistic but again while the technical objectives are well addressed, the proposal lacks a clear vision for the more non-technical aspects.

The ultimate objective of the project is certainly a good one and is clearly needed. Some of the details are a bit unclear, particularly when it comes to connecting the early warning and monitoring system to action, and eventually to the people at risk. The "control operations", particularly at the local level, need to be better defined along with a timeline, a reduced budget for travel and a realistic budget for the regional workshop.

B) Specific Recommendations

1. Mali and Niger should be included in the proposal as target countries.
2. The aspect of people-centered warning system should be clarified and the role of the local communities explained. The social benefits and non-technical activities should be emphasized.
3. The EW system should be based on the life cycle of the locusts in the region.
4. The sustainability of the project should be addressed along with maintenance of the system.
5. A strong GIS database should help be considered as an important key to sustainability.
6. The budget for travel and workshops should be reduced.

7. The following standard project formulation recommendations will be added to the recommendations:
- (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.
  - (v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.

**PPEW 82/06 (FS)**

**Monitoring Weather-Related Threats to Food Security in Ecuador  
(Ecuador)**

Assessment by the EWC III Review

A) Overall Assessment

The project addresses weather related threats to food security (mainly droughts and floods) in the agricultural sector. The population at risk of malnutrition mainly due to floods and droughts is well documented. A substantial portion of the Ecuadorian population is affected (one fifth of total population is malnourished). The project is designed to create an information system (rainfall, temperature, crop modeling) for farmers and agricultural and food security professionals to improve agricultural decision making. The project is endorsed by WFP and REDPESA (Ecuadorian Network of Food Security Projects). The latter expressed the need diagnoses of meteorological conditions during the growing season, harvest forecasts and information on production and prices. The project directly addresses those needs. It links monitoring, warning and decision makers (response).

Needs have been identified and are well explained in the "background and motivation" section. The proposed project aims to improve the understanding of weather-related hazards and their impact to food security.

The project links monitoring/technical aspects of EW with its social/governance aspects and addresses decision makers in agriculture, food security in household nutrition. Access to the project's information system is provided via 56K modem. That will reduce the number of users to those who can gain access to the internet. The project builds on a recent project on "improved mapping and spatial analysis of food security and poverty in Ecuador". The project partners include academia, NGOs and the research arm of the Ecuadorian Ministry of Agriculture.

The objectives and direct outcomes are clearly stated. It is expected that the information generated through this project will improve decision making, such as farmers will improve their operations, and food security officials can help vulnerable populations overcome food shortage. The main focus of the project is in technical monitoring and information generation to be used by decision makers. Communities are not directly involved, except the farmers to some extent.

The project duration is 3 years and the budget plan is build on donor contribution (~US\$363K) and in-kind contributions from the project partners (~US\$193K). Goals and time frame are realistic and achievable. External evaluation of the project is requested by the project partners from the Ecuadorian Ministry of Agriculture, WFP, and food security professionals associated with REDPESA. Once the system is running, NOAA and NASA will also be requested to evaluate the system. The project activities seem to be well integrated into ongoing activities regarding food security in Ecuador.

Over, the project is well designed and draws on the capacity of several established partners. The project was also recommended by REDPESA, The executive committee of the Ecuadorian Network of Food security projects. Monitoring and evaluation will be done by using widely accepted mechanisms. The project links player from academia, NGOs, farmers, Ministry of Agriculture and UN agencies (FAO, WFP). It explicitly plans to train the users of the system that is supposed to be developed in this project. Elements for sustainability are there and the project will be well integrated in existing structures. The implementation organization is the International Center for Tropical Agriculture, but several national governmental and non governmental entities will be involved as implementing partners.

B) Specific Recommendation

1. More information on the local community involvement should be provided.
2. The following standard project formulation recommendations will be added to the recommendations:
  - (i) A short CV (not to exceed one page) of the principal investigator or project administrator should be included as an annex to the proposal.
  - (ii) A short description (not to exceed one page) of the executing agency or organization implementing the project should be included as an annex to the proposal.
  - (iii) A logistical framework matrix (log frame) should be included in the project proposal as an annex. The matrix should include verifiable indicators.
  - (iv) A simple time line or work plan (not to exceed one page/table or graph) covering the duration of the project should be included as an annex.

(v) The budget presentation should provide sufficient detail, be based on standard UN or international formats, and include unit costs when applicable and note possible monitoring and evaluation costs.

C) Conclusion

4 Largely agree. The Review concluded that the project proposal requires some essential modifications (which are necessary for the project to succeed) before it can commend it for funding.