

Resolution XXIII-12

**INTERGOVERNMENTAL COORDINATION GROUP FOR THE INDIAN OCEAN
TSUNAMI WARNING AND MITIGATION SYSTEM**

The Intergovernmental Oceanographic Commission,

Extending its deepest sympathies and condolences to the victims of the Indian Ocean tsunami of 26 December 2004, their families, the people and governments of the countries affected, and **expressing** its deepest concern over the negative economic, social, psychological, environmental and other consequences and impacts of the tsunami disaster,

Recalling: the many directions and guidance provided by: the Special ASEAN Leaders' meeting adopted in Jakarta on 6 January 2005; the UN Conference on Small Island Developing States held in Port Louis, Mauritius, from 10 to 14 January 2005; the UNGA Resolution 59/279 adopted in New York on 19 January 2005; the Common Statement of the Special Session on Indian Ocean Disaster and the Hyogo Framework for Action 2005–2015, both adopted at the World Conference on Disaster Reduction in Kobe on 22 January 2005; the Ministerial Declaration in Phuket adopted on 29 January 2005; the GEO Communiqué adopted in Brussels on 16 February 2005; and the technical meetings held in India, China and Indonesia,

Recognizing the unique tectonic plate structure of the Indian Ocean and that there are primarily two tsunamigenic sources that could affect the coastlines of the Indian Ocean, namely the Indonesian seismic zone and its extensions, about 4000 km in length, and the Makran source,

Reaffirming that the Indian Ocean Tsunami Warning and Mitigation System (IOTWS) will be a coordinated network of national systems and capacities, and will be part of a global network of early-warning systems for all ocean-related hazards,

Reaffirming further that each Member State should have the responsibility to issue warnings within their respective territories,

Recalling its commitment to an open, free and unrestricted sharing of tsunami-relevant real-time observational data in accordance with the UNESCO/IOC Oceanographic Data Exchange Policy and without prejudice to the sovereignty of Member States,

Welcoming:

- (i) the plans and intentions of Australia, India, Indonesia, Malaysia and Thailand to develop their national capability to detect, analyse and provide timely warning of tsunamis generated along the Indonesian seismic zone and its extensions as well as the plans of India, Iran and Pakistan to cover the Makran source,
- (ii) the plans and intentions of all countries of the Indian Ocean to enhance their abilities to receive tsunami advisory information and warnings and issue appropriate warnings within their respective territories on a twenty-four-hour/seven-day-a-week basis,

- (iii) the many generous offers of financial and technical assistance made by countries across the globe to help establish an IOTWS, particularly the contributions of Australia, Belgium, Canada, China, Finland, France, Germany, India, Italy, Japan, Norway, Sweden, United States of America and the European Union,
- (iv) the continuing support of the IOC/ITIC (International Tsunami Information Centre) to assist the ICG/IOTWS and its Secretariat in development of communications and capacity-building activities,
- (v) the fact that the Pacific Tsunami Warning Centre (PTWC) and the Japan Meteorological Agency (JMA) have started to provide interim tsunami advisory information to authorized contacts in the Indian Ocean States within and bordering the Indian Ocean,

Emphasizing the importance of the media in avoiding panic by responsibly reporting this information,

Endorses the Paris Communiqué (attached as Annex 2 to this Resolution) adopted on 8 March 2005 by the International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean within a Global Framework, held in UNESCO headquarters, and the Mauritius Declaration (attached as Annex 3 to this Resolution) adopted on 16 April 2005 by the Second International Coordination Meeting for the Development of an Indian Ocean Tsunami Warning and Mitigation System, held in Grand Baie;

Decides:

- (i) to create an IOTWS and establish an Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), as a subsidiary body of IOC, with the final Terms of Reference attached as Annex 1 to this Resolution;
- (ii) that the IOC shall provide the Secretariat of the ICG/IOTWS;
- (iii) that the IOC shall develop a comprehensive programme of capacity-building on tsunami protection for the Indian Ocean, in order to assist all countries of the region, including the coastal African countries and Middle-Eastern countries, to have the capacity to protect their populations;

Invites Member States in the Indian Ocean region to submit to the IOC Executive Secretary, in writing and as early as possible, the name of the institution acting as the National Tsunami Warning Centre, or responsible for its development, and thus having responsibilities to officially receive tsunami-related information bulletins and warnings;

Welcomes and accepts the generous offer of Australia to (i) support the Secretariat of the ICG/IOTWS, which will be located within the IOC Perth Regional Programme Office; and (ii) provide ongoing and dedicated financial and other support for the Secretariat of the ICG/IOTWS;

Invites all Member States and other countries, international and regional organizations to provide financial, technical and other kinds of assistance for the establishment of the IOTWS,

including voluntary contributions to the IOC Trust Fund in order to assist the Commission in the effective provision of secretariat services for the ICG/IOTWS.

Identified funding (2006–2007): US\$ 50,000 from extra-budgetary resources to be identified

Annex 1 to Resolution XXIII-12

**Terms of Reference of the Intergovernmental Coordination Group
for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS)**

The ICG will be established as a subsidiary body of the IOC and will report to, and seek guidance from, the IOC Assembly.

Objectives:

1. To coordinate the activities of the IOTWS;
2. To organize and facilitate as appropriate the exchange of seismic, sea level and other data at or near real-time and information required for the interoperability of the IOTWS;
3. To promote the sharing of experience and expertise related to tsunami warning and mitigation for the Indian Ocean basin;
4. To promote tsunami research;
5. To promote the establishment and further development of national tsunami warning and mitigation capacities in accordance with standard protocols and methods;
6. To develop, adopt and monitor implementation of work plans of the IOTWS, and to identify required resources;
7. To promote implementation of relevant capacity-building;
8. To liaise and coordinate with other tsunami warning systems;
9. To liaise with other relevant organizations, programmes and projects;
10. To promote the implementation of the IOTWS within a multi-hazard framework;
11. To keep under constant scrutiny the status of the system and how it satisfies the needs.

The secretariat for the ICG/IOTWS shall:

1. Support meetings of the ICG;
2. Facilitate the liaison among the various national contact points and national tsunami warning centres;
3. Maintain a current list of operational national contact points and facilities and make it available on request to all Member States;

4. Organize the liaison between ICG/IOTWS and the ICG/ITSU, with the PTWC and with other tsunami warning centres to facilitate best practices in tsunami warning;
5. Initiate and support training activities and enhance and enrich tsunami warning in the Indian Ocean.

Membership of the ICG/IOTWS:

- Member States of the IOC within and bordering the Indian Ocean
- Observers from other IOC Member States
- Invited observers from other organizations (including NGOs), programmes and projects, in accordance with the IOC rules and procedures.

Annex 2 to Resolution XXIII-12

Communiqué of the First International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean within a Global Framework and Draft Terms of Reference of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS)

UNESCO, Paris, 3–8 March 2005

We, the participants at the International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean within a Global Framework held in Paris on 3–8 March 2005:

Recognizing that the recent Indian Ocean tsunami of 26 December 2004, considered to be one of the strongest in the world, resulted in devastations amounting to national calamities in the Indian Ocean. This has been the deadliest tsunami of all time by an order of magnitude, and has led to a call for action for the entire global community;

Recalling the direction and guidance provided by the Special ASEAN Leaders' meeting in Jakarta on 6 January 2005, the UN Conference on Small Island Developing States held at Port Louis on 14 January 2005, the UNGA Resolution 59/279 in New York on 19 January 2005, the *Common Statement of the Special Session on Indian Ocean Disaster* and the *Hyogo Framework for Action 2005–2015* both adopted at the World Conference on Disaster Reduction in Kobe on 22 January 2005, the Ministerial Declaration in Phuket on 29 January 2005, the GEO Communiqué in Brussels on 16 February 2005, and the technical meetings held in Indian and China;

Recognizing the need to develop a tsunami warning and mitigation system in the Indian Ocean with the purpose of enhancing all aspects of tsunami disaster mitigation, including hazard assessment, detection and warnings, preparedness, and research through international cooperation and coordination of activities;

Noting that, despite the infrequent occurrence of tsunamis in the Indian Ocean, tsunamis could occur at any time and can be very devastating as was the case on 26 December 2004. Therefore, to be effective, a tsunami warning and mitigation system for the Indian Ocean must be durable;

Noting it is important to improve the science of issuing tsunami warnings to reduce false alarms given the inordinate inconvenience and disruptions to normal life caused by false alarms, especially given the high population densities and intensive operations in coastal areas in the Indian Ocean, and also to continuously improve forecasting;

Recognizing that the impact of tsunamis can be substantially reduced through institutional and legislative frameworks as well as community participation, and that this requires that tsunami warnings must reach local communities by various means and be understood at all levels, so that people are well informed and motivated towards safety measures and actions;

Recognizing that national tsunami disaster mitigation programmes will benefit from partnerships between governmental institutions, the private sector and civil society organizations;

Recommend that the IOC Assembly establish, in accordance with its rules of procedures, an Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), which will govern the system. Such a group will be composed of interested IOC Member States from the Indian Ocean region. All the other Members of the IOC, as well as relevant concerned international and regional organizations, will be welcome to participate as observers;

Recommend that the IOC Secretariat act as the secretariat to the Intergovernmental Coordination Group for the IOTWS;

Agree that the IOTWS should consist of a coordinated network of national systems and capacities, and that all associated assets should be owned and operated by the Member States hosting or otherwise taking responsibilities for them;

Agree that the Member States should have the responsibility to have control over the issuance of warning within their respective territories;

Agree that the Member States build public awareness through education and capacity-building to ensure effective community awareness of the risks posed by tsunamis, so that their population is prepared for, and knows how to act in the event of a tsunami warning;

Recommend that, to facilitate durability, the IOTWS should utilize or build on, where possible, existing organizations and institutions and complement existing warning frameworks, including within a multi-hazard approach where appropriate;

Recommend that each Member State in the Indian Ocean quickly identify and establish a National Tsunami Warning Centre or operational contact point in the relevant responsible agency, along with a response plan, to be able to receive and react to warnings on a 24×7 basis and further rapidly disseminate warning information;

Recommend that each Member State in the Indian Ocean identify a disaster management national focal point for increasing public awareness of tsunamis, within a multi-hazard approach as appropriate;

Recommend that all Member States make every endeavour to share seismic, sea-level and other data relevant to tsunamigenic events at or near real-time with interested Member States;

Recommend that all Member States make every endeavour to share national assessments and warnings of tsunamigenic events and tsunamis with interested Member States in a timely manner;

Welcome the various intentions and plans of Member States in the Indian Ocean to establish effective and durable national systems for tsunami early warning;

Welcome the intentions and plans of Australia, India, Indonesia, Malaysia and Thailand to establish systems and capacities to detect potential tsunamigenic events, detect and measure tsunamis, and issue appropriate warning to forecast their impacts and to provide such information and warnings to other interested Member States;

Welcome that other centres may be established to act as dissemination points for the relay of information and for technical support and training, such as the one proposed by France for the southwest Indian Ocean;

Recommend that efforts to establish an IOTWS be appropriately consistent with efforts to implement the International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action;

Welcome the many generous offers of financial, technical and other kinds of assistance made by key countries across the globe to help establish an IOTWS;

Encourage all Member States to provide financial, technical and other kinds of assistance in order to promote national capacity and cooperation as well as preparedness, mitigation and prevention, if so requested by the Member States in the Indian Ocean;

Welcome that, in addition to the steps taken, or to be taken, by countries of the Indian Ocean, the UNESCO/IOC and ISDR for interim tsunami warning, the Pacific Tsunami Warning Centre and the Japan Meteorological Agency have agreed to provide, if requested, reliable interim tsunami advisory information to authorized contacts in the Indian Ocean States. Member States are requested to provide to UNESCO/IOC their official 24×7 contact information (prime and alternate) for receiving this information by 1 April 2005;

Welcome also the attention and intention to address tsunami disaster mitigation in other oceans and seas, such as South-East Asia and the South China Sea, within the global framework;

Note the need to develop mechanisms for effective coordination of tsunami warning systems for all at-risk regions on a global basis;

Appreciate the financial contribution made by Japan through the UN Flash Appeal to help make the first meeting possible;

Agree to consider, *inter alia*, at the Second International Coordination Meeting for the Development of an IOTWS the following issues: (a) keep under constant scrutiny the status of the system and its performance (b) the coordination of donor activities and other tsunami-related activities;

Recommend that the IOC Secretariat enter into consultation with Member States with the view to addressing the feasibility of constituting *ad hoc* technical working groups on: (a) measurement systems, including data management, standards and interoperability; (b) risk management, including assessment and modelling; and (c) warning systems, including

dissemination and communications. The IOC Secretariat will report to the April meeting on the progress of this recommendation.

Welcome and accept the generous offer of the Republic of Mauritius to host the second International Coordination Meeting for the Development of an Indian Ocean Tsunami Warning and Mitigation System at high level to be held at Port Louis on 14–16 April 2005.

Paris, 8 March 2005

Annex 3 to Resolution XXIII-12

**Declaration of the Second International Coordination Meeting
for the Development of a Tsunami Warning and Mitigation System
for the Indian Ocean**

Grand Baie, Mauritius, 14–16 April 2005

We, the participants of the Second International Coordination Meeting for the Development of an Indian Ocean Tsunami Warning and Mitigation System held in Grand Baie on 14–16 April 2005:

1. Recall the many directions and guidance provided by the Special ASEAN Leaders' meeting in Jakarta on 6 January 2005, the UN Conference on Small Island Developing States held in Port Louis on 14 January 2005, the UNGA Resolution 59/279 in New York on 19 January 2005, the Common Statement of the Special Session on Indian Ocean Disaster and the Hyogo Framework for Action 2005–2015, both adopted at the World Conference on Disaster Reduction in Kobe on 22 January 2005, the Ministerial Declaration in Phuket on 29 January 2005, the GEO Communiqué in Brussels on 16 February 2005, and the technical meetings held in India, China and Indonesia;
2. Endorse the communiqué adopted by the International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean within a global framework held in Paris at UNESCO Headquarters on 3–8 March 2005;
3. Reaffirm that the Indian Ocean Tsunami Warning System (IOTWS) will be a coordinated network of national systems and capacities;
4. Reaffirm also the need for the establishment of an Intergovernmental Coordination Group (ICG) by the Intergovernmental Oceanographic Commission (IOC) Assembly to govern the IOTWS;
5. Recognize the unique tectonic plate structure of the Indian Ocean, and that there are primarily two tsunamigenic sources that could affect the coastlines of the Indian Ocean, namely the Indonesian seismic zone and its extensions, about 4000 km in length, and the Makran source;
6. Welcome the plans and intentions of Australia, India, Indonesia, Malaysia and Thailand to develop their national capability to detect, analyse and provide timely warning of tsunami generated along the Indonesian seismic zone and its extensions, as well as the plans of India, Iran and Pakistan to cover the Makran source;

7. Encourage these countries to continue to cooperate closely in developing their national systems to ensure effective coverage of the above-mentioned tsunamigenic zones;
8. Reaffirm that each Member State should have the responsibility to issue warnings within their respective territories;
9. Urge the ICG, as the governing body of the IOTWS, to develop and coordinate appropriate arrangements for the effective and timely dissemination of tsunami advisory information and warnings;
10. Reaffirm that all regional efforts should serve the purpose of strengthening international cooperation aimed at the creation of a global multi-hazards warning system;
11. Welcome the plans and intentions of all countries of the Indian Ocean to enhance their abilities to receive tsunami advisory information and warnings and issue appropriate warnings within their respective territories on a 24x7 basis;
12. Welcome the efforts by countries of the Indian Ocean to, jointly or individually, enhance their capacity to build knowledge, public awareness, preparedness, including through the use of traditional knowledge, and exchange good practices globally;
13. Recognize the many generous offers of financial, technical and other kinds of assistance made by countries across the globe to help establish the IOTWS, including the further generous pledges of assistance made at the Mauritius meeting;
14. Invite the countries of the Indian Ocean to complete by July 2005, where necessary with the support of UNESCO/IOC, an assessment of their requirements and capacity needs for an effective and durable national tsunami warning and mitigation system, to be followed by the development of appropriate national strategic plans;
15. Welcome the readiness of Member States and other donors to provide further financial, technical and other kinds of assistance to promote national capacity, and in this context request UNESCO/IOC to develop a mechanism to coordinate donor assistance in relation to assessed needs;
16. Note with appreciation that the Pacific Tsunami Warning Centre (PTWC) and Japan Meteorological Agency (JMA) have started to provide interim tsunami advisory information to authorized contacts in the Indian Ocean States, that many Member States have already provided information on their designated contact points and that the remaining Member States will provide this information as soon as possible;
17. Express our determination to enhance regional and national capacities for tsunami detection, including through further upgrading of existing observation facilities;
18. Reaffirm our commitment to an open, free and unrestricted sharing of tsunami-relevant real-time observational data in accordance with the UNESCO/IOC Oceanographic Data Exchange Policy and without prejudice of the sovereignty of Member States;
19. Call for the formal creation of the IOTWS and the Intergovernmental Coordination Group for the IOTWS by a resolution at the Assembly of the Intergovernmental Oceanographic Commission (IOC) to be held in Paris on 21-30 June 2005;

20. Request Indian Ocean Member States to report to the forthcoming IOC Assembly on national progress made in establishing IOTWS;
21. Recommend that the first meeting of the Intergovernmental Coordination Group of the IOTWS be held in the second half of 2005 and, among other matters, develop a strategic plan to implement the IOTWS;
22. Request the UNESCO/IOC Secretariat to finalize the technical plans for the detection systems of the IOTWS through the convening of the technical working groups identified at the Paris meeting, for consideration by the first meeting of ICG/IOTWS;
23. Appreciate the financial contribution made by Japan to make the Second International Coordination Meeting for the Development of an Indian Ocean Tsunami Warning and Mitigation System possible;
24. Express appreciation to UNESCO's Intergovernmental Oceanographic Commission for its strong coordination role, the UN International Strategy for Disaster Reduction Secretariat for its guidance and support, and the World Meteorological Organization for its infrastructure and technical support;
25. Also express appreciation to the Government of Mauritius for hosting the Second International Coordination Meeting for the Development of an Indian Ocean Tsunami Warning and Mitigation System.

Grand-Baie, Mauritius, 16 April 2005

Resolution XXIII-13

ESTABLISHMENT OF AN INTERGOVERNMENTAL COORDINATION GROUP FOR TSUNAMI AND OTHER COASTAL HAZARDS WARNING SYSTEM FOR THE CARIBBEAN AND ADJACENT REGIONS

The Intergovernmental Oceanographic Commission,

Extending our solidarity with, and support to, the people affected by the devastating tsunami that occurred on 26 December 2004 in the Indian Ocean, and recognizing the urgent need to develop a Global Tsunami Warning and Mitigation System as an integral part of a multi-hazard approach,

Recalling IOC Resolutions XX-14, July 1999, EC-XXXV.1, EC-XXXV.5 (recommendation SC-IOCARIBE-VII.2) June 2002, and EC-XXXVII.7, approving and supporting the establishment of a Tsunami Warning System for the Caribbean and Adjacent Regions and IOCARIBE-GOOS,

Noting directions and guidance provided by the Mauritius International Meeting on Small Island Developing States held at Port Louis from 10 to 14 January 2005; UNGA Resolution 59/279 adopted in New York on 19 January 2005; the Hyogo Framework for Action 2005-2015 adopted at the World Conference on Disaster Reduction in Kobe on 22 January 2005; the Communiqué of the 3rd Earth Observations Summit (GEO) adopted in Brussels on 16

February 2005; the Paris Communiqué adopted on 8 March 2005; and the contributions from several regional technical meetings,

Noting further the Communiqué of the International Conference for the Establishment of a Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions adopted in Mexico City on 3 June 2005, as annex 1 to this Resolution,

Acknowledging the important role that the International Tsunami Information Centre (ITIC) has played, particularly in capacity-building,

Recalling the long experience of the Pacific Tsunami Warning Centre (PTWC) as the operational centre for ITSU, and that PTWC is already providing tsunami warning guidance to some Central American countries, Puerto Rico and the US Virgin Islands, with the Atlantic Tsunami Warning Centre (ATWC) providing back-up and warning guidance for Atlantic regions, and noting existing facilities and capabilities in Puerto Rico and in other countries of the region,

Further recalling that the Assembly through Resolution XXII-6 approved the IOC Oceanographic Data Exchange Policy, which states that the timely, free and unrestricted international exchange of oceanographic data is essential, among others, for the preservation of life,

Acknowledging the role of GLOSS and GOOS, as an essential component of GEOSS, and particularly the contribution of IOCARIBE-GOOS to the development of a Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions,

Invites the PTWC to extend its warning guidance to the Caribbean and Adjacent Regions on an interim basis until such time as this capability can be managed independently within the region, developing the regional concept by strengthening and integrating existing capacities and capabilities;

Decides:

- (i) to establish an Intergovernmental Coordination Group (ICG) for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions with the Terms of Reference as Annex 2 to this Resolution;
- (ii) that the IOC shall provide the Secretariat of the ICG for the Caribbean and Adjacent Regions;
- (iii) to support through its ITIC the development of communications and capacity-building activities to assist communities to be resilient in the region;

Instructs the IOC Executive Secretary to provide support as needed for this urgent and critical activity;

Urges Member States of the Caribbean and Adjacent Regions to submit to the IOC Executive Secretary in writing the name of the designated authority acting as National Tsunami and Other Coastal Hazards Focal Point, with responsibilities to officially receive tsunami and other coastal hazard-related information bulletins and warning guidance, and the name of the institution or organization acting as National Tsunami and Other Coastal Hazards Warning Centre to issue warnings and related products, or responsible for the development of such capabilities;

Further urges Member States and international and regional organizations to provide voluntary contributions to the IOC in order to assist the Commission in the effective provision of secretariat services for the assessment, planning and implementation of the regional early-warning and mitigation system.

Identified funding (2006–2007): US\$ 20,000 from MLA3
 US\$ 360,000 from Extra-budgetary resources to be identified

Annex 1 to Resolution XXIII-13

**International Conference for the Development of a Tsunami and Coastal Hazards
Warning System for the Caribbean Sea and Adjacent Regions**

Hotel Sevilla Palace, Mexico DF, 1–3 June 2005

The participants of the International Conference for the Development of a Tsunami and Coastal Hazards Warning System for the Caribbean Sea and Adjacent Regions, after an intensive three days of work and reflection and being aware of the immediate need to create and implement a tsunami warning system which facilitates the application of adequate and effective measures for the protection of the population and the economies of our countries to cope with the hazards and effects of the tsunamis and other natural phenomena, decided to issue the following:

COMMUNIQUÉ

Express our solidarity and support to the people affected by the devastating tsunami that occurred on 26 December 2004 in the Indian Ocean, as well as recognize the need to urgently develop a Global Tsunami Warning and Mitigation System.

Noting the results of the meetings recently held in Paris, Barbados, Managua and Jamaica where initiatives and ideas were sought towards the implementation of a global system and other sub- regional systems respectively.

Recognizing the leadership of the Intergovernmental Oceanographic Commission of UNESCO in the historical development of the International Tsunami Warning System in the Pacific (ITSU) and its status as a coordination mechanism for international cooperation, development, and implementation of a Global Tsunami Warning and Mitigation System and its respective regional components, among them the Caribbean system.

Further recognizing the long experience of the Richard H. Hagemeyer Pacific Tsunami Warning Centre (PTWC) in Hawaii as the operational centre for ITSU, and the fact that PTWC is already providing limited tsunami warning guidance to Puerto Rico and the US Virgin Islands;

Considering that, besides ongoing sub-regional and regional initiatives, it is necessary to address the mandate of all our Member States for the development of a technical and political process facilitating the implementation of an integrated, coordinated, and sustainable regional system, which guarantees an adequate programme for detection and alert, mitigation, risk-

evaluation, training, education and capacity-building for all levels of society, as well as for scientific research.

Acknowledging that, despite present gaps of knowledge about tsunami risks and other natural hazards in our region, we have the obligation to act accordingly, bearing in mind that the essential problem is not a matter of “if” such natural phenomena will occur but “when” they will occur, considering that “when” could be any time in the future.

Acknowledging further that the impacts of tsunamis and other natural hazards can be drastically reduced through the development of adequate legal, policy, and institutional mechanisms, including the strengthening of education and community involvement.

AGREE TO

Recognize and support the creation of an integrated, and sustained regional system for the detection, forecasting, warning, and mitigation of tsunami and other coastal hazards, that could contribute adequately to other international programmes such as GOOS of IOC (UNESCO) and through this, to GEOSS.

Approve and support the preliminary IOCARIBE Action Plan prepared by this meeting.

Submit for consideration by the Intergovernmental Oceanographic Commission of UNESCO, the IOCARIBE Integrated Regional Programme as a contribution to the ongoing Global Tsunami Warning and Mitigation System.

Recommend that the IOC Assembly establish, in accordance with its rules of procedure, an Intergovernmental Coordination Group for the Caribbean Tsunami and Coastal Hazards Warning System, which will govern the system. Such a group will be composed of IOC Member States and regional organizations from the Wider Caribbean Region (WCR). All the other Members of the IOC, as well as concerned international and regional public and private sector organizations, will be welcome to participate.

Request the Secretariats of the Intergovernmental Oceanographic Commission of UNESCO and the IOCARIBE Sub-Commission to allocate and search for necessary resources to implement the Action Plan as outlined at this meeting.

Recommend to expand the IOCARIBE Tsunami Steering Group of Experts into an interdisciplinary Tsunami and Coastal Hazards Group of Experts, and to organize a meeting of this group before the end of this year.

Further request that the Group of Experts present to the IOCARIBE Sub-Commission the Action Plan mentioned before, with the special instruction to identify those actions that can be executed in the short term with the available resources at national and regional level including the support of possible donors.

Recognize that Member States have the responsibility to issue warnings within their respective territories.

Request PTWC to extend its warning guidance to the WCR on an interim basis until such time as this capability can be managed independently within the region, and request IOC (UNESCO) to provide support as needed for this urgent and critical activity.

Request IOCARIBE to ask Member States to provide by July 1, 2005 their contact points and contact methods for receiving the interim tsunami warning guidance bulletins.

Mexico City, 6 p.m., 3 June 2005

Annex 2 to Resolution XXIII-13

Terms of Reference for the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions

Will be established as a subsidiary body of the IOC and will report to, and seek guidance from, the IOC Assembly.

Objectives:

1. To coordinate the activities of the tsunami and other coastal hazards system;
2. To organize and facilitate as appropriate the exchange of seismic, sea level and other data at or near real-time and information required for the interoperability of the tsunami and other coastal hazards system;
3. To promote the sharing of experience and expertise related to tsunami warning and mitigation for the Caribbean and Adjacent Regions Basin;
4. To promote tsunami and other coastal hazards research;
5. To promote the establishment and further development of national tsunami and other coastal hazards warning and mitigation capacities in accordance with standard protocols and methods;
6. To develop, adopt and monitor implementation of work plans of the tsunami and other coastal hazards warning system in the Caribbean and Adjacent Regions, and to identify required resources;
7. To promote implementation of relevant capacity-building;
8. To liaise and coordinate with other tsunami and other coastal hazards warning systems;
9. To liaise with other relevant organizations, programmes and projects;
10. To promote the implementation of the ICG within a multi-hazard framework;
11. To keep under constant scrutiny the status of the system and how it satisfies the needs.

The secretariat for the ICG shall:

1. Support meetings of the ICG in the region;
2. Facilitate the liaison among the various national contact points and national tsunami warning centres;

3. Maintain a current list of operational national contact points and facilities and make it available on request to all Member States;
4. Organize the liaison between ICG and the ICG/ITSU, with the PTWC, ATWC and with other tsunami warning centres to facilitate best practices in tsunami warning;
5. Initiate and support, in coordination with ITIC, training activities and enhance and enrich tsunami and other coastal hazards warning in the Caribbean and Adjacent Regions.

Membership:

- Member States of the IOC from the Caribbean and Adjacent Regions
- Observers from other IOC Member States
- Invited observers from other organizations (including NGOs), programmes and projects in accordance with the IOC rules and procedures.

Resolution XXIII-14

INTERGOVERNMENTAL COORDINATION GROUP FOR THE TSUNAMI EARLY WARNING AND MITIGATION SYSTEM IN THE NORTH-EASTERN ATLANTIC, THE MEDITERRANEAN AND CONNECTED SEAS

The Intergovernmental Oceanographic Commission,

Following the guidance of the World Conference on Disaster Reduction held in Kobe, Hyogo, Japan, 18–22 January 2005, and of the Hyogo Framework for Action 2005–2015 adopted by that World Conference,

Considering the 26 December 2004 event in the Indian Ocean that showed the devastating power of the tsunami and that its disastrous consequences could have been reduced if a tsunami early-warning system had been in place,

Being aware that tsunamis pose threats in all ocean basins of the world, and that the protection of the coastal populations and mitigation of tsunami effects is a high priority,

Recognizing that the north-eastern Atlantic, the Mediterranean and connected seas are regions with identified potential for catastrophic tsunamis and with a long known history of tsunami events,

Noting that:

- (i) no effective regional tsunami early-warning system is in place in the north-eastern Atlantic, in the Mediterranean and connected seas, and that the effects of a large tsunami in the area would be more disastrous than in the case of historical events, given the huge increase in coastal development and use in modern times,

- (ii) these areas include countries with different levels of resources and development and that assistance to disaster-prone developing countries to set up national strategies and plans of actions and programmes for disaster risk reduction is one of the identified priorities of the Hyogo Framework,
- (iii) a project for building up a European monitoring and alert system on tsunamis covering the European waters in the Atlantic, Mediterranean and connected seas is under consideration by the European Commission,

Decides:

- (i) to establish an Intergovernmental Coordination Group for a Tsunami Early Warning System in the North-eastern Atlantic and the Mediterranean and Connected Seas (ICG/NEAMTWS) with the Terms of Reference annexed to this Resolution, and that such a Tsunami Warning and Mitigation System be developed within the global framework of IOC;
- (ii) that the IOC shall provide the Secretariat of the ICG/NEAMTWS;

Invites Member States and other international and regional organizations to provide voluntary contributions to the IOC Trust Fund in order to assist the IOC in the effective provision of secretariat services for the ICG/NEAMTWS;

Instructs the IOC Executive Secretary to initiate consultations with the European Commission on cooperation and mobilization of support for the establishment of the ICG/NEAMTWS;

Welcomes and **accepts** the offer of Italy to host the first meeting of the ICG/NEAMTWS in Rome before the end of 2005.

Identified funding: US\$ 30,000 from extra-budgetary resources to be identified.

Annex to Resolution XXIII-14

**Terms of Reference for the Intergovernmental Coordination Group
for the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic,
the Mediterranean and Connected Seas**

The ICG will be established as an intergovernmental subsidiary body of the IOC and will report to, and seek guidance from, the IOC Assembly.

Objectives:

1. To coordinate the activities of the ICG/NEAMTWS;
2. To organize and facilitate, as appropriate, the exchange of seismic, geodetic, sea-level and other data in or near real-time and information required for interoperability of the ICG/NEAMTWS;
3. To promote the sharing of experience and expertise related to tsunami warning and mitigation for the north-eastern Atlantic, the Mediterranean and connected seas;

4. To promote tsunami research;
5. To promote the establishment and further development of national tsunami warning and mitigation capacities in accordance with standard protocols and methods;
6. To develop, adopt and monitor implementation of work plans of the ICG/NEAMTWS, and to identify required resources;
7. To promote implementation of relevant capacity-building;
8. To liaise and coordinate with other tsunami warning systems;
9. To liaise with other relevant organizations, programmes and projects;
10. To promote the implementation of the ICG/NEAMTWS within a multi-hazard framework;
11. To develop a comprehensive programme of capacity-building on tsunami protection for the north-eastern Atlantic, the Mediterranean and connected seas, including the Black Sea;
12. To keep under constant scrutiny the status of the system and how it satisfies the needs.

The Secretariat for the ICG/NEAMTWS shall:

1. Support meetings of the Intergovernmental Coordination Group;
2. Facilitate the liaison among the various national contact points and national tsunami warning centres;
3. Maintain a current list of operational national contact points and facilities and make it available on request to all Member States;
4. Organize the liaison of the ICG/NEAMTWS with the PTWC and with other tsunami warning centres to facilitate best practices in tsunami warning;
5. Initiate and support, in consultation with ITIC, training activities and enhance and enrich warning in the north-eastern Atlantic and the Mediterranean and connected seas.

Membership:

- Member States of the IOC bordering the north-eastern Atlantic and those bordering and within the Mediterranean Sea and connected seas.
- Observers from other IOC Member States.
- Invited observers from other organizations (including NGO's), programmes and projects in accordance with the IOC rules and procedures.