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EUROPEAN AND MEDITERRANEAN MAJOR HAZARDS AGREEMENT (EUR-OPA)

Compilation of EUR-OPA Recommendations

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Recommendation 2002 concerning the International Strategy for Disaster Reduction (ISDR)

adopted at the 9th Ministerial session of the EUR-OPA Major Hazards Agreement, Isle of Bendor, Bandol, France on 3 – 4 October 2002

THE MINISTERS CONSIDERING THAT:

1. Societies are increasingly vulnerable to natural and other related technological and environmental hazards, whose impact is made more acute by the consequences of demographic, economic and social changes including urbanisation and development processes, as recently recognised by the World Summit on Sustainable Development;
2. The Euro-Mediterranean (Euro-Med) region is not exempted from the adverse consequences of this trend, manifested also as a transboundary problem, such as in the case of the recent catastrophic floods in Western and Central Europe. The tens of thousands of victims of the two last earthquakes in Turkey, the 800 or more victims caused by the disastrous floods and mudslides in Algeria in 2001, and the devastation brought about by floods in the Gard region in France this summer are but a few reminders of this dramatic situation;
3. Disaster reduction is one central element of sustainable development and the associated risk management is a primary responsibility of governments. Such risk management should be based on an integrative decision-making process linking scientific knowledge, vulnerability assessment and authority structures at all levels. The civil society, the private sector, including insurance companies, experts and academia must be fully involved.

RECALLING THAT :

In 1996, a meeting of experts from the entire Euro-Med basin was convened in Italy (International Workshop on Natural Disaster Reduction in the Mediterranean Region, Castelnuovo di Porto) to review the state of the regional cooperation in this domain and which made recommendations for the adoption of a common strategy. In a subsequent meeting held in 1998 in Spain (IDNDR Regional Conference for the Mediterranean, Valencia), similar recommendations were made. The same recommendations were reaffirmed in December 2001 (Conference on Urban Safety and Sustainable Development, Naples) and May 2002 in Italy.

RECOMMEND THAT:

1. National disaster reduction platforms linked to the International Strategy for Disaster Reduction (ISDR) in the Euro-Med region be established, consolidated and developed through recognition and support by national governments. The positive experience they represent should be capitalised upon and should serve to support the goals underpinning the ISDR.
2. In pursuit of these goals, it is essential that risk management be integrated into planning and land use policy in the Euro-Med region. Initiative in this sense should be taken in co-operation with the Council of Europe and the European Commission where appropriate.

3. Furthermore, a stronger and more substantive collaboration between the Council of Europe (EUR-OPA Major Hazards Agreement in particular) and the European Commission should be encouraged in the area of disaster reduction. This collaboration could include support for developing countries and should be developed with the support of the ISDR Secretariat, which constitutes a link with the United Nations and other international and regional organizations.
4. A Euro-Med conference on disaster reduction should be organised jointly by the EUR-OPA Major Hazards Agreement of the Council of Europe and the ISDR Secretariat in 2003 or early 2004, hosted by the government of Spain at the National School of Civil Protection in Madrid. This conference would be aimed at reviewing and consolidating the work done in the past few years and make specific proposals for the improvement of risk management in the Euro-Med region. The conference would also prepare a concerted input for the review of the Yokohama Strategy and Action Plan to be undertaken by the ISDR Secretariat at international level. Such a conference should include amongst other topics:
 - i. the specific problems of sub regions within the Euro-Med area
 - ii. aspects of international co-operation within and outside the Euro-Med area
 - iii. the transboundary aspects of risk management
 - iv. the contribution of science and technology to disaster management.

INSTRUCT the Executive Secretariat of the EUR-OPA Major Hazards Agreement to contribute to the implementation of those Recommendations.

WELCOME the initiative of the German ISDR Committee for Disaster Reduction (DKKV) for convening a meeting of the national platforms for ISDR of the European Union countries in order to establish a network for enhanced cooperation and information exchange.

Recommendation 2003 on risk prevention

adopted at the 10th Ministerial Session of the EUR-OPA Major Hazards Agreement
Valdragone, Republic of San Marino, 12 December 2003

The Ministers,

1. Having regard to the absolute priority accorded by the 9th Ministerial Session of the Agreement held in Bagnol (3 and 4 October 2002) to the contribution by the Agreement to encouraging reinforcement of risk reduction policies in the member States of the Agreement and to facilitating the implementation of the relevant Euro-Mediterranean programmes;
2. Welcoming the holding in Madrid (6-8 October 2003), at the invitation of the Spanish Authorities, of the Euro-Mediterranean Forum on Disaster Reduction, organised with the cooperation of the International Strategy for Disaster Reduction (ISDR) Secretariat and the Executive Secretariat of the Agreement, and the *Declaration of Madrid* adopted on this occasion, which stressed that:

“Disaster reduction is one central element of sustainable development and the associated integrated disaster risk management is a primary responsibility of governments. Such risk management should be based on a holistic approach to risk prevention and reduction combining scientific knowledge, vulnerability assessment and the competencies of disaster managers”;

3. In the light of:

- the lessons drawn from comparative analysis of legislation on risk management carried out under the Agreement,
- the results obtained in alerting children to risk reduction and ensuring safety at school,
- the setting up of the Euro-Mediterranean Master's Network in the field of Risk Sciences in a number of universities,

Request:

- reinforcement in member States of the interdepartmental approach to implementing risk reduction policies,
- widespread implementation of programmes for alerting children to risk reduction by introducing compulsory civic education classes in schools incorporating the principles of:
 3. education in citizenship,
 4. human rights,
 5. solidarity,
 6. sustainable development
 7. risk reduction
- the development of programmes to ensure safety in schools,
- encouragement for the setting up of school and university safety observatories in member States,

- reinforcement of the Network of Universities participating in the Master Programmes on “Risk Sciences”, leading to the Euro-Mediterranean Doctorate in Risk Sciences,
 - promotion of the implementation of Research and Development programmes on decision-making assistance mechanisms in the field of risk management, such as:
 - the use of the EUR-OPA Extremum Disaster Management Programme for real time assessment of consequences of disastrous earthquakes as well as elements for prevention and preparedness planning coordinated by an international experts panel from the EUR-OPA Major Hazards Agreement,
 - the research programme for evaluation and benchmarking of existing software and exchange of information procedures for forecasting of health and environmental effects of industrial accidents;
4. Welcome the implementation of:
 - the pilot projects in Casablanca (Morocco) and Seine-Saint-Denis, (France) on contributing to making schools safe and children aware of risk prevention,
 - the project for the training of inspectors for industrial security and the environment in Morocco and other countries as well as the organisation of a seminar on this issue in Bucharest at the beginning of 2004,
 - the proposal following the comparative analysis of legislations on risk prevention concerning an in-depth study on the importance of an interministerial approach in the field of risk prevention policy and the creation of a data base grouping the existing national legislations including bilateral and transfrontier agreements;
 5. Request that the network of 26 Euro-Mediterranean Centres of the Agreement help to implement these programmes;
 6. Request that the assessment of these above initiatives be presented in collaboration with the ISDR Secretariat as a contribution of the Agreement to the United Nations World Conference on Disaster Prevention planned for 18 –22 January 2005 in Kobe-Hyogo, Japan, under the patronage of ISDR;
 7. Welcome the increasing climate of co-operation between the Agreement, the European Commission, ISDR and UNESCO and encourage the continued search for articulation and co-operation between the four entities and other international partners looking for the development of euro-mediterranean programmes concerning risk prevention.

Recommendations 2006 on disaster risk reduction through education at school, and on the role of local and regional authorities in preventing disasters and facing emergencies

adopted at the 11th Ministerial Session of the European and Mediterranean Major Hazards Agreement (EUR-OPA) in Marrakech, Morocco on 31st October 2006

RECOMMENDATION on Disaster risk reduction through education at school

The Ministers,

- A. Note that the effect of disasters can be reduced if people are aware of disaster risks, prepare for them and know how to act in emergency situations.
- B. Are aware that the school and other educational structures are a very appropriate environment to promote citizens' education on disaster reduction given its role in people's education. They recognise that children and adolescents are more receptive to this type of learning than other population segments and that they can thus convey messages of safety and good practice to their parents and family.
- C. Believe that education to risk reduction should be an important part of national strategies and campaigns on education for sustainable development carried out in the framework of the United Nations Decade of Education for Sustainable Development.
- D. Note that the European and Mediterranean Major Hazards Agreement (EUROPA) has always given priority to initiatives for the development of programmes on awareness and education to risk, which are fundamental elements of a culture on risk that lead to prevention and to the resilience of communities. In this context they note with satisfaction the progress made in the construction of the Agreement's website on education to risks (Be-Safe-Net) and the pilot projects and experiences on this topic carried out in several States which may be extended to all the member States of the Agreement.
- E. Wish to contribute, with regard to the Agreement, to the implementation of chapter 3 of the Hyogo Framework for Action 2005-2015 "*Use knowledge, innovation and education to build a culture of safety and resilience at all levels*", and with regard to European States, to the implementation of the Strategy for Education for Sustainable Development of the United Nations Economic Commission for Europe.
- F. Welcome the World Disaster Reduction Campaign (2006-2007) of the United Nations International Strategy for Disaster Reduction (ISDR) launched in co-operation with UNESCO under the theme "*Disaster Risk Reduction Begins at School*" and express their support for a firm involvement of the Agreement and its activities in the campaign. In this context they take note of the conclusions of the International Congress on Education and Training on Disaster Prevention (Madrid, 26-28 September 2006).

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

- I. Examine in detail at national level their programmes on risk education at school level to assess whether they provide the knowledge and practice needed by children to be safe from disaster risks.

- II. Consider drafting and implementing a national strategy on education for disaster reduction through the collaborative effort of different Ministers and experts in a multistakeholders platform, taking into account as appropriate, international recommendations, experiences and standards.

In the drafting and implementation of national strategies, member States are in particular recommended to:

1. Integrate disaster risk reduction into all relevant subjects, programmes and courses at school and provide specific subject programmes, courses and practical activities on risk reduction, both in formal school curricula and in vocational or extracurricula activities.
2. Promote that knowledge transmitted on disaster risk reduction covers all risks possibly incurred by children and in particular:
 - the causes, the origin and the effects of disasters (both natural and technological hazards)
 - the methods of protecting people by planning, preparedness and prevention
 - the type of life-saving behaviour in case of emergency.

Ensure that such knowledge does not remain purely theoretical but that it also involves preparedness, action and appropriate practical exercises.

3. Encourage the whole school community to participate actively, at all levels, in disaster reduction, focusing on the particular risks of each school and its surrounding community and fostering dialogue, collaboration and involvement of professionals (i.e. firemen or civil protection personnel), local authorities and risk experts. In this context, encourage in particular parents to be involved in education for disaster risk reduction so as to raise their own awareness of risk and to keep themselves informed on the correct behaviour to adopt in an emergency situation.
4. Promote teacher training in disaster risk reduction by putting at their disposal the necessary information, courses and incentives.
5. Promote the elaboration and exchange of relevant educational materials such as films and other visual aids, pedagogic and didactic publications, manuals and brochures, case studies and other suitable educational tools, using as appropriate new information technology and experiences from other schools or countries.
6. Promote research and innovation on education for disaster reduction, supporting pilot projects in schools and publishing and extending positive experiences.
7. Support international co-operation on education for disaster reduction, in particular through the work of the European and Mediterranean Major Hazards Agreement (EUR-OPA), UNESCO, ISDR and other fora.
8. Encourage educational experiences on disaster reduction at schools to also be used to assess the safety of school buildings against major hazards, drawing the attention of authorities to the need for making, where necessary, the school safer for children and the school community.
9. Encourage the appropriate bodies to provide adequate financial means to implement the above measures by the development or reinforcement of appropriate mechanisms.

Furthermore the Ministers RECOMMEND that member States and observer States inform the Committee of Permanent Correspondents of the Agreement by the end of 2007 of the measures taken to implement the above recommendations.

Recommendation on Local and regional authorities preventing disasters and facing emergencies

The Ministers,

- A. Note that disaster risk reduction is a responsibility of all societies which requires the commitment and joint effort of national, regional and local authorities.
- B. Recognise that many of the competencies of regional and local authorities in the following fields:
 - spatial planning
 - licensing and monitoring of potential hazardous industrial activities
 - building of public facilities and housing
 - fire-fighting
 - transport
 - health
 - environment
 - water management
 - education, etc.

are of fundamental importance in risk management, in providing early warning and in effective rapid response in case of emergencies.

- C. Note that local authorities, because of their proximity to the citizen, are often the first to be confronted with disasters and emergency situations so that the preventive measures taken previous to an event and their response during the first hours of an emergency are crucial to minimise loss of lives and property.
- D. Are aware that, in spite of this important role, local authorities often lack financial resources, are not always provided with the necessary information and in some cases, do not have sufficient technical capacity to confront emergency situations of a certain dimension and consequently they may not be well prepared to face major disasters.
- E. Welcome:
 - i. the renewed interest of local and regional authorities to become more actively involved in risk prevention and management, as illustrated by the work of the Congress of Local and Regional Authorities of the Council of Europe (CLRAE):
 - the “Slavutych Appeal” launched in March 2006 as a conclusion of the Conference “Chernobyl: Twenty years after. Local and regional authorities facing catastrophes”
 - Recommendation 169 (2005) on major oil spills: the role of local authorities
 - Recommendation 168 (2005) on natural and industrial disasters: local authorities facing emergencies
 - Recommendation 108 (2002) on local authorities confronting natural disasters and emergencies
 - Recommendation 42 (1998) on nuclear safety and local regional democracy

- ii. the creation, under the aegis of the CLRAE, of the European Forum on Local and Regional Disaster Management.
- F. Express their wish and commitment to closely cooperate and coordinate as befitting with local and regional authorities in all relevant fields of risk prevention and management, including institutional and legal reinforcement, information exchange, school education and citizens' awareness, risk and vulnerability assessment and monitoring, early warning, public information in emergency situations, making public buildings, housing and infrastructures more resistant to disasters, elaboration and implementation of contingency plans, as well as emergency management, response and recovery operations, reconstruction financing and any other key issue that may contribute to making communities more resilient to natural disasters and technological accidents.

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. Examine at national level appropriate legal and administrative procedures relative to disaster risk reduction and management of emergency situations to assess whether the role of local and regional authorities is adequately considered, with a view to improving if necessary, the coordination of national, regional and local authorities in their respective fields of competence.
2. Encourage and facilitate the implication of local and regional authorities in disaster reduction, in particular by involving them where appropriate in risk assessment and monitoring, elaboration of contingency plans and development and maintenance of early warning systems; in this sense adopt a multi-authority approach in preventive action and in emergency management.
3. Provide local and regional authorities with all the necessary information they require to make their communities safe and able to respond to natural and industrial disasters, both as a matter of routine and in a time of crisis.
4. Promote community-based risk education and awareness in co-operation and partnership with local and regional authorities.
5. Provide appropriate financial support and incentives to local and regional authorities to carry out the necessary disaster risk reduction activities on matters within their competence.

Furthermore, the Ministers RECOMMEND local and regional authorities to:

6. be attentive to risk aspects in spatial planning decisions, particularly in the location of infrastructures and houses, services and industry in areas prone to flooding, landslides, avalanches, marine risks, industrial risks, seismic risks or other major hazards, also ensuring that new infrastructures do not increase the vulnerability to existing risks;
7. ensure, in areas of seismic risk, that safe building codes are implemented and that the safety of old buildings is improved, particularly those used for schools, hospitals or other public services, taking into account as appropriate the local risk cultures;
8. re-evaluate, as necessary, the industrial risks of activities under their responsibility, especially when operation permits were granted a long time ago when risk awareness was far more limited or wherever subsequent development decisions have resulted in causing industries which were once isolated to now be surrounded by residential areas;

9. prepare risk maps of areas under their responsibility in collaboration as necessary with governmental authorities, scientists and risk experts, also identifying historical records of disasters or major events caused by natural hazards;
10. reinforce, where appropriate, human resource capacities at local or regional levels in the field of risk assessment and effective response to disasters developing the appropriate capacity building programmes which would target elected officials and professionals as well as community-based volunteers;
11. protect vulnerable cultural and environmental assets, inter alia by assessing the vulnerability of built cultural heritage and historical settings to major risks, taking appropriate prevention measures and by ensuring that valuable environmental areas including water courses are safe from industrial pollution that may be caused by industrial or mining accidents;
12. participate, as appropriate, in the development of early warning systems, establishing the necessary surveillance of hazards likely to affect the territory under their responsibility and reinforcing alarm systems and other means of alert and information aimed at the local population;
13. prepare local contingency plans and programmes, in coordination with national and regional authorities, and carry out the necessary exercises while executing these plans, involving in particular schools and vulnerable population groups;
14. promote risk education in schools and higher education institutions, paying special attention to local risk and the conduct to be observed in emergency situations; promote the training in schools of teachers with special responsibility in risk management; enhance local knowledge in risk and favour its transmission;
15. promote citizen participation and involvement in risk issues, with special emphasis on local risks, enhance community-based volunteering in risk related activities;
16. engage in making schools, hospitals and other appropriate public buildings “safe from disaster”, also including the strengthening of their capacity to work and host people in emergency situations;
17. promote sustainable forestry and sound water course management so as to minimise risks associated to floods or landslides which might have more damaging effects due to environmental degradation; restore, where appropriate, deforested areas;
18. set up efficient response mechanisms and well trained teams to cope with disaster emergencies, coordinating as appropriate with other local and regional authorities, with government civil protection authorities and with community based organisations engaged in disaster management;
19. promote the collaboration and sharing of resources in risk management issues with other neighbouring communities (i.e. pooling of services and know-how, joint education programmes, coordinated emergency and response means, etc.);
20. promote that appropriate information is provided to the public on risks, particularly in emergency situations, taking into account the citizens’ right to be informed on their safety.

The Ministers invite the member States of the Council of Europe which are not party to the European and Mediterranean Major Hazards Agreement (EUR-OPA), to examine the above recommendations and to use them as a source of inspiration for their policy and practice.

Recommendation 2007 – 1 on risks in coastal areas

adopted by the Committee of Permanent Correspondents at its meeting in Bucharest, Romania, on 27-28 September 2007

The Committee of Permanent Correspondents

- A. points out that most of the world's inhabitants live in coastal areas and that many human activities in Europe and the Mediterranean area are to some extent influenced by the proximity of the seas and oceans;
- B. recognises the prominent social and economic role played by coastal areas in interaction between land and sea, particularly in the case of estuaries, deltas and lagoons, which have their own special features;
- C. emphasises the extreme vulnerability of coastal areas, linked to the large number of stresses to which they may be subjected, from the sea or the land and on a regular or occasional basis;
- D. expresses its concern at the possible increase in coastal risks caused by climate change;
- E. notes that, through the natural intermediaries of rivers, coastal areas ultimately suffer the effects of any disruptive action on land, whether of natural or human origin;
- F. recognises the importance of geophysical changes, particularly those linked to the dynamics of the underlying structure of the earth's crust, which can cause huge disasters in these particularly vulnerable areas;
- G. states, with regard to the assessment of the scale of coastal risks, that the time factor has to be taken into account in the emergence of certain damages, although it may be impossible to determine their exact cause or at what point they will be triggered;
- H. notes the serious risk of accident in coastal areas due to marine pollution and in particular where the transport of oil and chemical products is concerned;
- I. regrets the impact of certain human installations whose immediate consequence has been to destabilise still further areas that are already unstable or even to destroy them, frequently forever;
- J. expresses its concern at the limited know-how of those in charge of managing coastal areas regarding their natural development, which may be disrupted by human activity;
- K. emphasises the clear lack of co-ordination, despite all the efforts that have been made, between often hastily-devised protective measures and the practical know-how made available to all those involved;
- L. notes the limited effectiveness of many of the measures taken by local or regional authorities to offset certain natural processes such as coastal erosion or accretion;
- M. notes the interest shown by the European and Mediterranean Major Hazards Agreement in coastal risks in recent years and the desire expressed at the 11th Ministerial Session of the Agreement to include measures to reduce the vulnerability of areas exposed to these risks in its Medium-Term Plan 2007-2011.

Recommends that the member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. ensure, in so far as possible, that integrated management of coastal areas and the associated risks is co-ordinated at regional level, according to the natural features of the areas concerned and regardless of local or national administrative boundaries;
2. encourage local and regional authorities to devise adequate joint policy instruments to take increasingly fuller account of the risks facing coastal areas in terms of their natural development, which is impeded to differing degrees by the excesses of human activities. In this context, it is of major importance that natural and technological risks be taken into account in town and spatial planning policies in order to avoid or limit building in vulnerable areas;
3. carry out simulations designed to gauge the possibility of disruptions in coastal areas caused by unwanted inflows following the flooding of drainage basins, whether natural in origin or the result of problems triggered by damage to engineering structures; to also carry out simulations designed to gauge the possibility of accidental marine pollution;
4. study the requisite conditions for the establishment of warning networks for tsunamis, linked more or less directly to mechanical stresses on the earth's crust and occurring in coastal areas;
5. promote the development, in Europe and the Mediterranean area, of new scientific and technical co-operation networks intended to foster a multidisciplinary approach to interventions, co-ordinated methods for the analysis and interpretation of phenomena and intercalibration of results;
6. make the necessary arrangements for existing information to be collected with a view to setting up networked databases making for increased exchange;
7. encourage a policy of reviewing know-how at given times in the coastal protection decision-making process so as to eliminate duplication or superfluous items from activity programmes and be able to make the best use of past experience;
8. establish models for the evaluation of marine and coastal risks in the light of climate change;
9. promote the establishment of a higher education course on coastal risks, intended to train future managers of coastal areas on problems associated with the vulnerability of these areas which will form part of planned or existing Masters programmes on risks;
10. take account of the differences between the disruptive events likely to affect the coastal areas of northern Europe or the Atlantic coasts and those on the eastern and western shores of the Mediterranean, which are subject to highly active plate tectonics;
11. bear in mind the highly variable nature of the temporal and spatial processes affecting coastal areas so as to take account of the differences in the development of those on the mainland and those on islands and archipelagos;
12. regard, in the light of previous successful operations, coastal risks as a potential vehicle for international co-operation as coastal processes often have disastrous consequences for countries' economies and inhabitants.

Furthermore, bearing in mind both the diversity of European coasts and their hinterlands and also the distinctive features of the seas and oceans on whose shores they lie, the Committee of Permanent Correspondents recommends that in future the Agreement should:

- plan to set up research, training and development activities having as focal points:
 - the Euro-Mediterranean Centre on Insular Coastal Dynamics, Valletta-Gozo (Malta), which specialises in coastal problems and risks in the Mediterranean;
 - the Biarritz Oceanography Centre (France), which specialises in the study of coastal risks and their consequences on Europe's Atlantic coast and could be included in due course in the Agreement's Network of Specialised Centres.

Recommendation 2007 – 2 on psychosocial support and services for victims of disasters

adopted by the Committee of Permanent Correspondents at its meeting in Bucharest, Romania, 27-28 September 2007

The Committee of Permanent Correspondents:

- A. recognising that adequate psychosocial intervention following disasters can reduce ill health and foster resilience if handled appropriately;
- B. noting that its Medium Term Plan 2007-2011 encourages the Agreement to promote, in co-operation with professional associations, the establishment of networks of specialists with the capacity to act in emergency situations or to train local psychologists in dealing with disaster victims, in particular children and other vulnerable groups;
- C. conscious that it is desirable that each member State of the Agreement incorporates psychosocial support in its provisions for emergency planning, promoting proper training of volunteers and professionals and setting standards as to the minimum level of care to be received by victims of disasters;
- D. thanking the Standing Committee on Disaster Crisis and Trauma Psychology of the European Federation of Psychologists' Associations (EFPA) for their ideas and their wish to collaborate with the Agreement in promoting an improved psychosocial attention to victims of disasters;
- E. **recommends** that governments of member States:
 - 1. ensure that, following disasters, survivors, bereaved and rescue personnel have appropriate access to psychosocial help and services free of charge;
 - 2. integrate as appropriate, psychosocial support into national laws and regulations and ensure that such support be part of emergency plans;
 - 3. ensure that psychosocial support and services include the following elements:
 - i. psychological first aid is available for all survivors and bereaved immediately after disaster. Adequate information systems that secure early identification of those involved, embedded in a caring environment, reduce the mental strain of individuals and families, and should be prioritized in the early help efforts;
 - ii. out-reach early interventions are actively offered to bereaved families and survivors;
 - iii. screening is undertaken (1-3 months after the disaster) to ensure that effective treatment is available for people at risk;
 - iv. culturally sensitive long term follow-up is offered to individuals, families and communities that experience significant mental distress over time as a result of the disaster;
 - v. special efforts are taken to ensure that children get appropriate services and assistance;
 - vi. Specific concern and approach are adopted for vulnerable or highly exposed group.
 - 4. promote the elaboration of action plans on psychosocial support at national, regional and local levels, as appropriate, including the following elements:

- i. coordination of psychosocial resources and activation plans from the federal to the local level;
 - ii. mapping the trauma risks within a country with its possible psychosocial consequences;
 - iii. mapping resources available for psychosocial support;
 - iv. designate parties responsible for organising and delivering psychosocial support;
 - v. inclusion of psychosocial resources in emergency drills and exercises;
 - vi. description of the services that survivors and bereaved have the right to access including community support, and the duration of services;
5. promote appropriate training of professionals and volunteers who work with victims of disasters;
6. collaborate with other European and Mediterranean States in exchanging experiences and good practices in the field of psychosocial assistance, ensuring mutual help and support in case of transboundary disaster;
7. keep the Committee of Permanent Correspondents of the Agreement informed of measures taken to implement this Recommendation.

Recommendation 2008 on radiological protection of local communities: improving preparedness and response

adopted at the 55th Meeting of the Committee of Permanent Correspondents on 30 - 31 October 2008 - Conclusions

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

Taking into account the need for local populations to be aware of the risks to their safety and environment of radiological installations and in particular of Nuclear Power Plants (NPP) and other nuclear facilities;

Recognising the role played by local authorities, given their proximity to the citizen, in the transmission of information on risks and their fundamental importance in risk prevention and management;

Subscribing the principles recognised in the “*Convention on access to information, public participation in decision making and access to justice on environmental matters*” (Aarhus, 1998) and wishing that local communities improve their information and preparedness for possible emergency situations due to radiological accidents in NPP;

Desirous to spread the lessons learned from the Chernobyl legacy so as to improve European nuclear safety, further involving citizens and local authorities;

Noting the conclusions of the international workshop on “*Public authorities and civil society together for a safe European nuclear future*”. Learning from the Chernobyl legacy to make European nuclear energy safer: the role of local communities, authorities and central governments in emergency preparedness and management», Kiev, Ukraine 22-23 September 2008, (document AP/CAT (2008) 24);

Recommend that Governments:

1. promote the dissemination of information on safety of NPP and on procedures for better emergency management, carrying out specific campaigns and exercises in the neighbourhood of NPP; promote regular community-based risk education in these areas;
2. facilitate the procedures for local and regional authorities to access radiological and safety information necessary for better preparedness and emergency management, promoting regular contacts between NPP managers and local authorities;
3. actively involve local and regional authorities in the elaboration of emergency plans and early warning systems concerning possible radiological or nuclear accidents;
4. in emergency situations, provide local and regional authorities with precise, reliable and updated information and include them as appropriate in “emergency management”;
5. provide as appropriate financial support to local and regional authorities to embark on the tasks above;
6. promote co-operation and exchange of experiences among local authorities of different countries in nuclear safety and radiation protection, supporting appropriate mechanisms such as those proposed in the conclusions of the workshop “Public authorities and civil society together for a safe European nuclear future”, Kiev, Ukraine 22-23 September 2008, (document AP/CAT (2008) 24).

Recommendation 2009 - 1 on vulnerability of cultural heritage to climate change

adopted at the 57th meeting of the Committee of Permanent Correspondents in Dubrovnik, Croatia on 15-16 October 2009

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

Noting that extreme weather events are expected to increase in frequency and intensity in the next decades as a result of climate change;

Recognising that climate change is an important threat to cultural heritage, likely to increase in the coming years;

Conscious that the foreseen changes in temperature and rainfall in Europe and the whole Mediterranean Region will affect the conservation of the cultural heritage, and that rising temperatures, increased or decreased humidity and the frequency of floods, forest fires, coastal erosion, landslides, heat waves, droughts, sea level rise and change in groundwater patterns will have consequences on the stability of historical buildings, integrity of archaeological sites and conservation of materials and collections that may result if their further deterioration or ageing;

Conscious that the deterioration and, in some cases, loss, of cultural heritage would have negative consequences for European and Mediterranean societies, in particular because of its value as a source of identity and livelihood;

Noting that the preservation of existing heritage structures and traditional building materials and methods have advantages in terms of carbon footprint over building new structures and producing new materials;

Mindful of the global dimension of this problem and of the responsibilities of European and Mediterranean states at the world scale, as signatories of numerous international treaties, agreements and strategies within the United Nations system and the Council of Europe;

Recognising that landscapes form part of cultural heritage, but conscious that the effect of climate change on landscapes requires a more specific approach, given the relevance of their biological, environmental and agricultural components;

Recommend member States to:

1. assess the risk to cultural heritage from climate change, including sites, building and objects that may be affected both by climate-related events and/or by gradual change in environmental conditions;
2. identify those cultural assets at higher risk and evaluate necessary preventive and adaptation measures;
3. promote the adoption of emergency planning for those sites most vulnerable to events such as floods, landslides, coastal erosion and extreme weather-related events;
4. assess the potential impact of mitigation measures, such as renovation of buildings for improved heating efficiency, on cultural heritage;
5. promote at the national level inter-agency cooperation on climate change and cultural heritage, integrating heritage concerns into disaster risk-reduction policies;

6. encourage international cooperation on vulnerability of cultural heritage to climate change, favouring research, action and synergies among international organisations in this field and promoting exchanges of knowledge and experiences within member states and also with other non-member states;
7. integrate as appropriate cultural heritage into the adaptation policies to be promoted at international climate change negotiations;
8. promote training among heritage professionals aimed to recognise and deal with climate change impacts of cultural heritage;
9. foster the inclusion of the appropriate courses within education institutions on the science and management of cultural heritage in a context of climate change;
10. promote and support research on the effects of climate change on cultural heritage, including adaptation and prediction strategies, in particular on :
 - a. vulnerability of materials to climate change;
 - b. development of tools to monitor and manage change;
 - c. effects of lowering water tables and coastal erosion on archaeological sites and built heritage;
 - d. increase in bio-deterioration risk for cultural assets;
 - e. economic evaluation of heritage loss and degradation as a result of climate change
11. encourage local and regional authorities and people with responsibility on managing cultural heritage to be aware of the risks to sites, buildings and objects from a changing climate.

Recommendation 2009 - 2 on the promotion and strengthening of national platforms for disaster risk reduction

adopted at the 57th meeting of the Committee of Permanent Correspondents, in Dubrovnik, Croatia on 15-16 October 2009

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

Taking into account the Hyogo Framework for Action which sets among its 2005-2015 priorities for action support for the creation and strengthening of national platforms for disaster risk reduction and recalling that the priorities for action adopted in 2006 at the Marrakech Ministerial Session of the European and Mediterranean Major Hazards Agreement also include the promotion of national platforms for disaster risk reduction;

Aware that national platforms on disaster risk reduction as multi-stakeholder and multi-sectoral for a are effective mechanisms to facilitate and support coordination across sectors and disciplines, to promote exchange of information and dialogue at national, regional and local level and to inter-link science and the operational sector in order to raise awareness for risk reduction;

Aware also that only a few of the 26 member States of the EUR-OPA Agreement have so far set up national platforms and wishing to promote and support new platforms, including those already planned;

Noting with interest the ISDR document “Guidelines for National Platforms for Disaster Risk Reduction” which provides guidance to establish or strengthen national platforms for disaster risk reduction and describes the objectives, advantages, principles and major functions of national platforms for disaster risk reduction;

Recommend member States of the EUR-OPA Agreement to:

1. consider the creation of a national platform on disaster risk reduction and, where appropriate, the strengthening of existing national platforms;
2. give formal recognition to the national platforms for disaster risk reduction, ensuring their role in promoting dialogue among the different institutional and private actors involved in disaster risk reduction;
3. involve local and regional authorities in national platforms as well as the relevant administrations, technical and scientific institutions, rescuers and appropriate non governmental organisations, civil society bodies and the private sector;
4. ensure, as appropriate, that the national platform for disaster risk reduction is supported by a body or an institution able to liaise all relevant national partners, promote improvement of disaster risk reduction policies, planning and practice;
5. use the potential of national platforms for disaster risk reduction to promote a better information of the public and decision makers on risk, promoting the improvement in society of a culture of risk;

6. provide as appropriate sufficient means for national platforms on disaster risk reduction, at the same time making more judicious use of existing resources to permit them to efficiently carry out their coordination and networking activities;
7. use national platforms as fora to promote new ideas on disaster risk reduction and to analyse the challenges, shortcomings or values of existing disaster risk reduction policies, including the lessons learnt from recent disasters or emergency situations;
8. associate national platforms in the implementation of risk prevention and adaptation policies in the field of spatial planning, city planning and building;
9. communicate to the Secretariat of the EUR-OPA Major Hazards Agreement and to the UN/ISDR Secretariat, plans to establish national platforms for disaster risk reduction so that both Secretariats may provide guidance, support, training and expertise as required;
10. communicate the creation of national platforms to both the Secretariat of the EUR-OPA Major Hazards Agreement and to the UN/ISDR Secretariat;
11. promote the participation of national platforms for disaster risk reduction into regional coordination initiatives so experiences from national platforms for disaster risk reduction may be shared with other European and Mediterranean States.

Recommendation 2010 on reducing vulnerability in the face of climate change

adopted at the 12th Ministerial Session of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Saint Petersburg, Russian Federation on 28 September 2010

The Ministers,

- A. Noting that human induced climate change makes European and Mediterranean societies more vulnerable to a number of hazards, particularly those linked to extreme climate events, marine risks and other water-related hazards. A non-exhaustive list includes drought and shortages in food production, heat waves, increased wild fires, desertification and aridification of natural systems, environmental stress, floods and flash floods, landslides, storms, and coastal and marine risks;
- B. Noting furthermore that environmental degradation linked to climate change is a threat to sustainable development of societies, as reduced availability of food and water and possible human migration may weaken the capacities of certain communities in Europe and the Mediterranean to cope with growing hazards and may impede an adequate response to disasters;
- C. Aware that climate change is a powerful supplementary reason to reinforce and deepen the disaster risk reduction agenda, paying particular attention to integrate climate change and disaster risk reduction concerns, thus improving governance and creating the appropriate partnerships with a varied range of stakeholders (authorities at all levels, industry, rescuers, scientist and technicians, volunteers, insurers, environmentalists, etc.) so that the issue of protecting lives, property, livelihoods and the environment becomes a common concern of the whole society;
- D. Highlighting that governments have a particular responsibility and should show leadership, promoting more education to risk, creating the fora for debate, proposal and innovation in promoting sustainability and disaster risk reduction, such as the national platforms for disaster risk reduction being built in many countries;
- E. Convinced that an integration and harmonisation of policies is essential to success and that economic and development policies need to consider disaster risk reduction, safety of populations and sustainability as the inspiring driving forces for change, thus giving adaptation to climate change high priority;
- F. Noting that international cooperation, exchange of knowledge and experiences and solidarity will be key factors to control or limit the effects on people of climate change and the expected rise in risk and recognising the pioneering and important role of United Nations programmes and initiatives, in particular the International Strategy for Disaster Reduction (ISDR) and encouraging the European and Mediterranean Major Hazards Agreement (EUR-OPA) to be a key player in that field;
- G. Aware that societies need to identify the areas and sectors where climate change may produce an increase in vulnerability and set up appropriate prevention policies and early warning and rapid response mechanisms;

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

I. Identify problems and vulnerabilities

1. Identify how climate change, in the context of global change, will affect the vulnerability of population, paying special attention to the following:

- a. the way climate change will affect specific hazards, such as floods, marine risks, wild land fires, droughts, heat waves, melting of permafrost, landslides and storms on local and regional scale;
 - b. identification of populations at risk, specially the most vulnerable because of social inequalities;
 - c. risk mapping, paying attention to areas and regions that may become more vulnerable as a result of climate change, such as mountains, areas prone to flooding, coastal areas and urban areas, arid and semi-arid areas, as well as the Arctic and the Mediterranean Regions;
2. Evaluate the human, economic and environmental costs of the increase in vulnerability of populations, assessing at the same time the cost of preventive adaptation action and improvement of response in emergencies, so that decisions on action may be supported on reliable data and appropriate cost-benefit analysis;

II. Reinforce the disaster risk reduction agenda and integrate it with the climate change agenda

3. Reinforce as appropriate at the national level the disaster risk reduction agenda, devoting adequate resources to improve the resilience of populations and ensuring that adaptation to climate change are integrated into development and act as a driving force for change and modernisation of societies, making sustainability and safety principles of good governance and progress;
4. Improve existing legal and technical tools for early warning, response and prevention of disasters to integrate the new or increased threats brought by global warming, changes in rainfall patterns and rise of sea level; devise new tools specially as “aid to decision” in crisis situations and prevention, reinforce in this context the building of a culture of risk, integrating as appropriate climate change;
5. Improve governance of disaster risk reduction, involving all authorities, integrating science, industry and citizens into appropriate partnerships and encouraging all to act both for mitigation of climate change and contribute to the implementation of adaptation measures that may reduce vulnerability; take account, in that framework, of the important federating role of multi-stakeholder national platforms for disaster risk reduction;

III. Adopt a knowledge-based approach to prevention and response. The role of science and innovation

6. Recognise the role of knowledge, both science and traditional knowledge, in disaster risk reduction, using existing resources to encourage innovation and favouring exchange of knowledge and good practices; integrate social sciences in to disaster risk reduction, as the human dimension is a key aspect of both preparedness and response;

IV. Recognise the role of cooperation and solidarity

7. Reinforce international cooperation on disaster risk reduction at the global and the European and Mediterranean levels, making disaster risk reduction an important part of the climate change negotiations and supporting global and regional mechanisms of cooperation.

Invite the member States of the Council of Europe which are not parties to the European and Mediterranean Major Hazards Agreement (EUR-OPA), to examine the above recommendations and to use them as a source of inspiration for their policy and practice.

Recommendation 2011 - 1 on information to the public on radiation risks

adopted at the 61st meeting of the Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA), in Yerevan, Armenia, 29-30 September 2011

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Taking into account the high number of nuclear power plants and other installations handling radioactive materials in Europe and the Mediterranean, and the serious potential hazard of such materials to human health and the environment in case of accidental release;
- B. Noting that in the two major nuclear accidents since 1986, in Chernobyl and Fukushima, populations were not properly informed of the risks during the crisis, as authorities proved great inefficiency in delivering accurate information and people had little previous knowledge of the risks of radiation;
- C. Recalling that its Resolution 2011-1 on Ethical Principles relating to Disaster Risk Reduction and contributing to People's resilience to disasters mentions the obligation of public authorities and private actors to provide high quality information about disaster risks and the preventive measures to adopt in order to reduce the risk;
- D. Desirous to both improve the knowledge and awareness of populations in respect to radiation risks and encourage public authorities and managers of nuclear power plants and other installations handling radioactive materials to increase transparency and provide accurate and reliable information on the risk of radiation;

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

- 1. Actively prepare populations for a better understanding of the radioactive hazard, in particular to:
 - populations living around Nuclear Power Plants and other installations dealing with radioactive waste;
 - people involved in handling radioactive materials in industry, medicine or the military;
 - civil protection personnel or rescue workers that may be involved during emergencies;
 - population affected by transport of radioactive materials;
 - People leaving in areas having suffered from radiation contamination.
- 2. Encourage the elaboration of contingency plans for nuclear emergencies establishing mechanisms, in case of imminent threat to human health or the environment, to disseminate without delay all information which could enable the public to take measures to prevent harm arising from a radiation threat;
- 3. Encourage managers of Nuclear Power Plants and other installations using radioactive materials to regularly communicate to local authorities and neighbouring populations the risks and contingency plans in case of accidental release of radiation; organise regular campaigns and exercises in this context;

4. Recognise as appropriate the principle of access of the population of the relevant information concerning the hazard of industrial activities using radioactive materials, as a principle recognised in the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters and in some decisions of the European Court of Human Rights;
5. Support the efforts of the Agreement to produce and disseminate basic knowledge on radiation hazards and the appropriate behaviour in case of nuclear accident, so as to promote appropriate information and awareness on these hazards.

Recommendation 2011 - 2 on preventing and fighting wildland fires in a context of climate change

adopted at the 61st meeting of the Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Yerevan, Armenia, 29-30 September 2011

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Taking into account the increase in the number of wildland fires in Europe and adjoining countries over the last decades;
- B. Noting that wildland fires contribute to carbon emissions and human-induced climate change, a process that is likely to cause progressive aridness of parts of Europe with increased risk for wildland fire and subsequent secondary disasters such as erosion, floods and landslides;
- C. Aware that a number of wildland fire episodes in the last decade have caused unprecedented human and ecological losses in Western Russia, the Iberian Peninsula, the Balkans and Greece;
- D. Recalling Recommendation 2010-1 of the 12th Ministerial Session of the Agreement, held on 28 September 2010 in Saint Petersburg, Russian Federation, on “reducing vulnerability in the face of climate change”;
- E. Aware of the conclusions of the 5th International Wildland Fire Conference “Wildfire 2011”, held in Sun City, Pilanesberg National Park, South Africa, May 2011;
- F. Noting that the Ministerial Conference on the Protection of Forests in Europe, held in Oslo in June 2011, adopted a Ministerial mandate for negotiating a legally binding agreement on Forest in Europe;
- G. Desirous to contribute to the prevention and efficient management of wildland fires in Europe and adjoining countries at national levels and supported by international cooperation;

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. Take note of the “Conference Statement” of the 5th International Wildland Conference (Appendix 1) and the Conclusions and Recommendations of the Regional Sessions IV and V in Europe and the Mediterranean of the same conference (Appendices 2 and 3) and use them as a source of inspiration for policy and practice;
2. Develop specific policies addressing global change and fire devoting special attention to both the integration of fire management in the frame of land management policies and investment in early detection and efficient control of fires;
3. Promote the involvement of local populations in the design and implementation of wildland fire prevention policies, emphasizing awareness, the building of a culture of risk and public participation; support as appropriate local initiatives to reduce wildland fires hazards; focus efforts, in particular on wildland-urban interfaces while ensuring that planning does not increase the vulnerability of populations;

4. Promote European cooperation in wildland fires, the elaboration of sub-regional strategies and of common fire prevention and fighting in transboundary areas of special concern; consider using or joining existing networking structures such as the Regional Wildland Fire Networks under the aegis of the UN International Strategy for Disaster Reduction (UNISDR), the Global Fire Monitoring Centre (GFMC) in its role of Specialized Euro-Mediterranean Centre of the Agreement, and other European networking mechanisms;
5. Support as appropriate a European regional consultation on wildland fires under the aegis and support of UNECE and with support by the Agreement bringing together governments, operational fire experts, fire scientists and international organisations to further examine wildland fire issues and make operative proposals for governments;
6. Consider supporting the development for the whole of the territory of the Agreement of schemes aimed at building competency, capacity and interoperability for efficient international cooperation in fire management, including joint multinational response to fire emergency situations;
7. Support as appropriate that the negotiations on a legal binding agreement on forests in Europe take fully into account forest fires as an important threat to the conservation of European forests and make provision for their efficient management;
8. Promote wildland fire research, including prevention, effects of wildland fires on people, property and the environment, rehabilitation of fire-damaged sites and improvement of firefighting techniques and technologies.

Appendix 1

5th International Wildland Fire Conference - 'Wildfire 2011' Sun City / Pilanesberg National Park, South Africa, 9-13 May 2011

Conference Statement

Background and Rationale

The 5th International Wildland Fire Conference 'Wildfire 2011' was held in Sun City / Pilanesberg National Park, South Africa, 9-13 May 2011. The conference was held under the auspices of the United Nations International Strategy for Disaster Reduction (UNISDR) and the Food and Agriculture Organization of the United Nations (FAO) in conjunction with the Third Session of the Global Platform for Disaster Risk Reduction in Geneva. The Secretary General of the United Nations, Mr. Ban Kimoon, conveyed an opening statement to the 500 delegates from 61 countries. He welcomed the efforts of fire specialists from around the world to develop a spirit of global cooperation in addressing the role of fire in the global environment and its impacts on society. The conference participants elaborated on both the need for the wise use of fire in sustainable management of natural and cultural ecosystems, and on the adverse effects of wildfires at local to global scales. They expressed strong concern at the escalation of wildfires across the globe, many unprecedented in the modern era for the severe impact on communities, the environment and the world economy. The conference participants acknowledged the benefits derived through collaboration in sharing information and researching new ways to tackle emerging issues. The conference participants, including the representatives of Regional Wildland Fire Networks and international thematic networks, concluded that efforts be strengthened in capacity building in wildland fire science and management, and that this can be fostered by international cooperation and sharing of expertise and resources.

Recommendations

The following recommendations are addressing common international concerns and reflect the consensus that priority has to be given to:

Areas of concern

Rural and industrialized societies have altered the natural environment and fire regimes. Vice-versa, humans are becoming increasingly vulnerable to the consequences of wildfires. This is calling for:

- Increase of fire management efforts on terrain contaminated by radioactivity, unexploded ordnance, land mines and chemical deposits, notably in the regions affected by the nuclear fallout of the nuclear power plant failures in Chernobyl (1986) and Fukushima (2011).
- Increase of efforts on securing peat bog / wetland ecosystems that are subjected to drainage and climate-driven desiccation to become affected by fire.
- Increase of effort to reduce unnecessary burning on croplands, fallow and other lands to reduce the negative impact of greenhouse gas and black carbon emissions on the regional, arctic and global environment.
- Address the increasing vulnerability of society at the wildland-urban interface by wildfires.
- Provide necessary awareness and means to protect human health and security from wildland fire smoke pollution.

Peoples participation

Experience in the involvement of civil society in fire management through participatory approaches (community-based fire management) to successfully reduce wildfire hazards, and enhance

productivity and stability of land and the environment, is calling for:

- Creation of operational environments where community decision-making and implementation balance traditional and contemporary fire management requirements.
- Management of fire on its benefits, through controlled burning, to improve livelihoods and health of local populations, and reduce greenhouse gases over vast areas of the globe
- Promotion of establishment of volunteer groups to assist state authorities in rural fire management
- Convention of an international conference on community-based fire management

Common international principles

Considerable success has been made in applying advanced principles in fire management and promoting fire management tools adapted to local conditions. The need for widespread application of these principles in practice is calling for:

- Application of the Voluntary Guidelines for Fire Management (FAO, ITTO, WHO/UNEP).
- Translation of the International Wildland Fire Management Terminology to other languages.
- Global adoption of the Incident Command System (ICS) for the management of incidents.
- Integration of forest fire management principles and tools in the REDD+ scheme.
- Application of methods and approaches in risk management decisions that as far as possible are common across the organization, jurisdictions and countries and reflect recognized contemporary best practice.
- Acknowledgement that fire management is a fundamental element for consideration in all policy, legislation and practices related to land management planning and objectives

Common international tools

Successful development of advanced technologies for wildland fire science and management, notably Satellite Earth Observation products, meteorological observations and forecasting, and climate modeling, is calling for systematic application in support to fire management:

- Development of fire weather and early warning systems at local to global levels
- Capacity Building in the use of fire satellite products
- Design and implementation of a global fire assessment (including fire regime assessment) and establishment of a constantly updated long term satellite fire record which is consistent, validated and endorsed by the Satellite Earth Observation community
- Support national reporting of area burned and emissions
- Support the establishment of regional fire monitoring centres

International cooperation

Experience of a number of successful bilateral and multilateral agreements on cooperation in fire management is calling for:

- Promotion of bilateral and multilateral / regional agreements on cooperation in wildland fire management and mutual assistance in wildland fire emergencies
- Development of a proposal for a Global Agreement on Transboundary Cooperation in Fire Management

- Further involvement of the six FAO Regional Forestry Commissions and the National Platforms for Disaster Risk Reduction in the implementation of principles as laid down in the fire management guidelines and the [“Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters”](#)

Efficiency of sharing ground and aerial fire management resources

Mutual assistance on suppression operations demands protocols to dispatch ground and aerial resources and to set operational procedures based on technical criteria, standardization and harmonization of terminology, and training and certification of human resources. This is calling for:

- Country support the International Fire Aviation Working Group’s project to identify appropriate standards and best-management practices on which to base the development of voluntary guidelines.

Development of policies addressing global change and fire

In response to global change (interaction of climate change, socio-economic changes, and land- use change) and taking into account that global warming is a reality and will lead to an increasing occurrence and severity of wildland fires globally, and increasing impacts of society. Thus the following is recommended:

- Development of adaptive fire policies and strategies for mitigation, adaptation and protection at national to international levels.
- Integration of fire management in the frame of natural resources / land management at landscape level, including use of plant biomass as a renewable and sustainable source for energy production for wildfire hazard reduction.
- Support of countries to conduct fire management assessments, formulate legal frameworks and strategies, build sustainable fire management capabilities and institutions, develop fire management plans and human resources

Follow-up International Wildland Fire Conferences

In following up the 5th International Wildland Fire Conference, considering also the outcomes of the International Wildland Fire Summit (2003), it is recommended:

- That the regions organize Consultations, bringing together the operational fire experts and fire scientists be held globally, within the next 1-2 years, to further examine the fire issues resulting from population change and global warming.
- That the 2nd International Wildland Fire “Summit” of operational fire experts and scientist, be held within the next 2 to 4 years under the auspices of the United Nations, with a view to developing recommendations for the United Nations, to address the global issues raised during this Conference’s Regional Sessions.
- That future wildland fire conferences consider expanding their audience beyond the fire management community

The conference participants thanked the organizers and hosts of the conference for bringing together the international community responsible for wildland fire science and management. The participants welcomed the offer of South Korea to host the 6th International Wildland Fire Conference in 2015.

Appendix 2

Regional Session V: Eurasia, Southeast Europe / Caucasus and Central Asia “Enhancing International Cooperation in Wildland Fire Management” 11 May 2011, 15:50 – 18:10

Conclusions and Recommendations

Rationale

Within the last decade temperate-boreal Eurasia has experienced several wildfire episodes that have resulted in severe environmental damages, high economic losses and considerable humanitarian problems. This has prompted the United Nations Economic Commission for Europe (UNECE), under which the UNISDR Regional Wildland Fire Networks of Eurasia, Southeast Europe / Caucasus and Central Asia are working, to address recent socio-economic, political and land-use changes, as well as climate change, that are affecting fire regimes of temperate-boreal Eurasia. The UNECE region, which is extending from Western Europe to Asia's Far East and spanning over more than 180 degrees longitude, is bearing a large variety of ecosystems and land-use systems. While specific causes and underlying reasons of extreme wildfires may be quite different throughout the region – there are many fire-related issues in common. For instance, in the Western Eurasian part of the region many neighboring countries are sharing similar natural, cultural and social conditions that are determining the occurrence and impacts of wildfires.

Besides changes that are evidently understood by the public there are hazards and risks that have been perceived only recently due to a better scientific understanding of the multiple impacts of fires, notably in the context of climate change and human health, but also with regards to an increasing vulnerability of society to direct and secondary effects of fire, e.g. fires burning at the interface of residential and industrial areas, or in terrain contaminated by industrial deposits or armed conflicts. Land-use change and heritages of former land use constitute a major driver of changing fire regimes in cultural landscapes of Eurasia.

In summary, policy makers of UNECE member states are confronted with the following facts and trends affecting occurrence and impacts of wildland fires in the region:

- Consequences of rural abandonment and urbanization on agriculture, pastoralism, forestry and thus on wildfire hazard;
- Rural exodus affecting availability of the rural work force, including availability of rural firefighters;
- Re-privatization of formerly nationalized forests resulting in vacuums of forest management and forest fire management in smallholder forest estates;
- Weakened governance over forestry and decreased fire management capabilities in many Eastern European and Central Asian countries as a consequence of the transition of national economies, resulting in uncontrolled or illegal forest use and increase of related wildfires;
- Increasing problems of wildfires affecting the perimeters of metropolitan areas, settlements and developments dispersedly located in wildlands;
- Concerns about the impacts of radiatively active trace gases and particle emissions from vegetation fires affecting the functioning of the atmosphere and of ecosystem, e.g. the consequences of the transport of fire-emitted black carbon to the arctic environment;
- Vulnerability of society to fire-generated air pollution, including new scientific insights in the impact of fire emissions on human health;
- Resulting needs for the development of standards for reducing gas and particle emissions from fossil fuel, biofuel and other open burning that are affecting human health;
- Resulting controversial views on the acceptance of prescribed burning as a source of pyrogenic pollutants;

- Secondary problems associated with wildfires, notable on territories contaminated by radioactivity and remnants from armed conflicts (e.g., unexploded ordnance, land mines, uranium-depleted ammunition);
- Consequences of climate change on cultural fire regimes and ecosystem vulnerability, e.g. transformation of former fire-excluded or -protected ecosystems or land-use systems such as peat bogs and other organic terrain, or high-altitude mountain ecosystems, such as in the European Alps.

There is an increasing perception by the public and by policy makers to review and adopt innovative integrated fire management solutions and to exploit of the results of successfully completed international fire research projects in Eurasia for developing adequate public policies affecting fire management and operational fire management.

These issues will be addressed in the planned / upcoming “UNECE/FAO Regional Forum on Cross-boundary Fire Management”, which will be organized by the UNECE/FAO Team of Specialists on Forest Fire through its Coordinator – the Global Fire Monitoring Centre (GFMC), Germany, and supported by the Council of Europe as a contribution to the “UN International Year of Forests”.¹ The participants of the Regional Session are acknowledging and referring to ongoing and proposed initiatives that are addressing specific thematic issues. These initiatives should be supported by members of the Regional Wildland Fire Networks (Eurasia, SE Europe/Caucasus, Central Asia, Euro- Alpine), e.g.:

- Promotion of the application of prescribed fire in nature conservation, forestry and landscape management, with encouraging progress of countries cooperating under the “*Eurasian Fire in Nature Conservation Network*”, the *International Peatland Fire Network* and similar initiatives;
- Exploitation of the results of successfully completed international fire research projects for developing adequate public policies affecting fire management and operational fire management, e.g. the latest accomplished multi-national “*Fire Paradox*” project, or the ongoing development of the multinational Alpine Forest Fire Warning System (ALPF FIRS);
- Introduction and further development of competency-based fire management training standards for achieving qualifications for fire fighters, foresters and land managers, e.g. the “*EuroFire Competency Standards*” (an initiative of the International Association of Fire and Rescue Services (CTIF) and GFMC to enhance fire management capabilities of the fire services);
- Application and further development of existing and development of new bilateral agreements on reciprocal transboundary assistance in wildfire emergencies all over the ECE region;
- Endeavour to enhance governance of UNECE member states to provide and receive assistance in wildfire (and other environmental) emergency situations by setting up standards, protocols and agreements, in cooperation with procedures evolving under the lead of the UNEP/OCHA Joint Environment Unit and the UN Advisory Group on Environmental Emergencies, e.g., the proposed creation of an Environmental Emergencies Centre (EEC);
- Follow up of the recommendations of regional groups, projects and programmes, or earlier regional conferences to enhance international cooperation in fire management in the UNECE region and adjoining regions, e.g. recommendations from projects supported by the Council of Europe through the Euro-Mediterranean Major Hazards Agreement (EUR-OPA), and the Environment and Security Initiative (ENVSEC) addressing wildland fire, human security and peace in the EECCA region; and the outcomes of the International Conference on Cross-Boundary Fire Management (Irkutsk, Russia, 2010) and the APEC Conference on Forest Fire Management and International Cooperation in Fire Emergencies of the Asia Pacific (Khabarovsk, Russia, 2010).

¹ “Regional Forum on Cross-boundary Fire Management” (United Nations Economic Commission for Europe – UNECE region), planned for the week 16-20 January 2012 (at the United Nations, Palais des Nations, Geneva) by the Global Fire Monitoring Center (GFMC) and the UNECE/FAO Team of Specialists on Forest Fire, and supported by the Council of Europe.

Recommendations

Considering the active dialogue taking place in the UNECE Region the recommendations of the Regional Session do not intend to duplicate statements and thus concentrate on the following general and concrete recommendations:

General

Representatives of the regional networks and participants of the regional session underscore the need to:

- Enhance applied research on integrated fire management, notably on:
 - Use of prescribed fire in forestry, conservation and landscape management
 - Development of adaptive fire policies and management in response to global change (climate change, socio-economic changes, and land-use change)
 - Integrate fire management in the frame of natural resources / land management including use of plant biomass as a renewable and sustainable source for energy production.
- Increase fire management efforts on terrain contaminated by radioactivity, unexploded ordnance, land mines and chemical deposits, notably in the regions affected by the nuclear fallout of the Chernobyl power plant failure in 1986.
- Increase efforts on securing peat bog / wetland ecosystems to become affected by fire.
- Increase effort to reduce unnecessary burning on croplands, fallow and other lands to reduce the negative impact of greenhouse gas and black carbon emissions on the regional, arctic and global environment.
- Development of capacities in rural fire management to address possible vacuums concerning the responsibility and capabilities for fire management in the agricultural / rural domain.
- Promote the establishment of volunteer groups to assist state authorities in fire management and to take over responsibilities at community level.
- Support nations and the established Regional SE Europe / Caucasus Fire Monitoring Centre and upcoming regional or sub-regional centres with Earth Observation data.

Specific

Encouraged by ongoing processes and commitments by national bodies and international organizations:

- By welcoming the initiative of the government of Turkey to open its Fire Management Training Centre in Antalya for regional training it is recommended to the UNECE member states and international organizations to support this effort by financial means and active participation in integrated fire management training courses (including fire prevention, community involvement, ground and aerial firefighting) at regional level.
- By acknowledging and building on the recommendations of the Irkutsk and Khabarovsk conferences on transboundary cooperation in fire management (2010) and the recommendations of the 5th International Wildland Fire it is recommended that UNECE member states and representatives actively participate in the preparation of the “UNECE/FAO Regional Forum on Cross-boundary Fire Management” (2012) aimed at developing a proposal for a regional agreement on cooperation in wildland fire management.

Appendix 3

Regional Session IV: European EFFIS Network, Mediterranean Network (Silva Mediterranea Forest Fire Working Group), Near East (NENFIRE), Sub-Regional Euro-Alpine Network
11 May 2011, 15:50 – 18:00

Conclusions and Recommendations

Introduction

Wildfires are a social, economic, and environmental issue more and more frequently tackled by technical and scientific world, taking into account the new climatic scenarios that point out the increase of burnt areas and the rise in the frequency, intensity and severity of wildfires. Wildfires destroy the protective functions of the forests and can lead to increased soil erosion, reduced water retention, rock-fall, and biodiversity loss.

In the last years several events regarding wildfires have taken place where it has been highlighted the raising concern, especially in the Mediterranean Basin. Several conclusions and recommendations have been pointed out as result of these events. The main ones have been the following:

- IV International Wildland Fire Conference, Sevilla, Spain, May 2007
- Workshop on Forest Fires in the Mediterranean Region: prevention and regional cooperation, Sabaudia, Italy, 2008
- Regional Workshop on Forest Fires in the Near-East, Latakia, Syria, 2009
- Workshop on the Assessment of Forest Fire Risks and Innovative Strategies for Fire Prevention, Rhodes, Greece, May 2010
- Council Conclusions on prevention of forest fires in the European Union
- II Mediterranean Forest Week, Avignon, France, April 2011
- ALPFFIRS INTERREG project general meeting, May 2011

The objectives of the Regional session are to discuss preventive measures for the regions, to discuss opportunities to improve the international cooperation and identify opportunities for further collaboration.

2. Determining factors

The main key factors related to wildfires its causes and consequences have been highlighted in the documents resulting from the previously mention events:

SOCIO-DEMOGRAPHIC FACTORS

- Abandonment of rural lands and rural activities, aging of rural population
- Intense urbanization of societies and population concentrated in coastal areas and some built-in urban areas inland
- Increased population from tourism
- Rapidly expanding of wildland urban interface

ECONOMIC FACTORS

- Low economic value and profitability of Forests. Social and economic expenditures of dealing with the sprouted fires and post-fire restoration are not in accordance with a sustainable development.

ECOLOGICAL AND ENVIRONMENTAL FACTORS

- Changing conditions in many European rural areas, changes in land uses and production models, increasing fire risk
- Climate change influence wildfires
- Different meteorological gradients cause regional fire weather situations periods of higher temperature and longer drought
- Fire-dependent character of Mediterranean ecosystems which demand for its management technical use of fire as prescribed burnings.

SCIENTIFIC FACTORS

- Scientific research sometimes disconnected from management.

POLITICAL FACTORS

- Political decisions not made based in long term integral programs.
- Not enough transparency on wildfire management by public administrations, no data on investments made to protect forest fires and forest policies
- Defence against wildfires policy not enough coordinated with urban and rural policy
- Not enough fire land management, wildfire education and awareness to society.

3. International cooperation

Due to the transboundary nature of wildfires, the planning for their prevention should be addressed from a regional perspective. The “Green Paper on Forest Protection and Forest Information in the European Union” notes, significant prevention efforts made by the European Union and its member states have been focused on training, investigation, awareness and structural prevention. However, these efforts need to be intensified to deal with the consequences of climate change, as the Avignon Prevention Position Paper has pointed out.

Due to the existence of several international networks working at international level they should combine and coordinate efforts to prevent and fight wildfires using synergies between networks.

Inter-sectoral cooperation and coordination between fire fighting agencies and environmental services is needed.

Mutual assistance on suppression operations demands protocols to dispatch resources and to set operational procedures based on technical criteria, standardization and harmonisation of terminology and training.

4. Conclusions and recommendations

FIRE PREVENTION

1. Of special priority is the prevention of wildfires caused by socio-economic changes in the land use, traditional practices of burning for agricultural and farming purposes and wildland-urban interface fires.
2. Local population must be involved in the design and establishment of forest fire prevention policies, as they are primary players in making effective prevention.
3. Wildfire prevention strategies should be integrated in national and regional sustainable environmental policies. Forest policies should pursue optimizing social welfare including payment for ecosystems services.

4. Forest fire related policies should consider landscape approach taking into account different land uses. These must be coordinated with urban, rural and agricultural policies and take into account adverse effects due to climate change.
5. Prevention needs a continuous management that integrates among many other activities fuel treatment, silvicultural measures and prescribed burning planning.
6. Wildland -urban interface fires require specific preventive measures as specific legislation at local level.
7. Appropriate knowledge of fire risk and strategic planning of fuel treatment are key factors to decrease impacts of wildfires.
8. Adaptation strategies for forest management should be worked out to reduce the vulnerability of forest ecosystems against extreme wildfires.

INTERNATIONAL COOPERATION

9. Disseminate and share experiences, build up and replicate the best practices in wildfire management, namely by promoting international exchanges between fire professionals of all levels.
10. Promote exchange programs on good practices and develop risk assessment voluntary guidelines and risk cartography with an adequate spatial and temporal resolution, as well as prevention voluntary guidelines.
11. Mutual assistance on suppression operations demands protocols to dispatch resources and to set operational procedures based on technical criteria, standardization and harmonization of terminology and training. Enhancement of joint activities supporting cross border cooperation between countries.
12. Inter-sectoral cooperation and coordination between fire fighting agencies and environmental services is needed.
13. Regarding international cooperation, networks working at international level should combine and coordinate efforts to prevent and fight wildfires using synergies between networks. The joint activities should be supported by bilateral and multilateral cooperation agreements between countries resulting in collaborative third party funded projects.
14. Fire Management Voluntary Guidelines should be supported by agencies. In particular, Incident Command System and standardized training is recommended to be implemented by countries, considering different languages, in order to share resources safely and effectively.

INFORMATION SYSTEMS

15. Build on the information in EFFIS to establish guidelines for forest fire risk mapping at European level.
16. Continue the work on harmonization of data and information through the exchange of data in EFFIS.
17. Planned actions in the Silva Mediterranea and NENFIRE networks for the extension of EFFIS should be implemented.
18. Enhance Information on prevention and suppression investments to be incorporated in EFFIS; data are needed for the assessment of their efficiency.
19. Operational warning systems for wildfires should be further developed at regional level and linked to the EFFIS Forest Fire Warning System.
20. Promotion and funding of activities to study the effects of wildfires on ecosystem services paying particular attention on climate change

FIRE MANAGEMENT

21. Wildfire management need to be considered as a long-term policy by the decision makers.
22. The principle of total fire extinguishment should be questioned in specific cases, balancing economic

efficiency, ecosystem value and other land management objectives.

23. To achieve the goals of wildfire prevention forests must be profitable. It is important to promote the payment for forest goods and environmental services. Education and awareness on this issue has to be integrated in educational programs.
24. Countries are encouraged to adopt the *FAO Voluntary Guidelines for Fire Management*.

Recommendation 2012 on ecosystem-based disaster risk reduction

adopted at the 62nd meeting of the Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Strasbourg, France, 26-27 April 2012

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Recognising the need to explore all possible ways to reduce disaster risk, combining traditional engineering approaches with solutions based on the maintenance or build up of natural infrastructures or buffers capable of reducing risks of flooding, erosion, landslides, snow avalanches, coastal risks and others;
- B. Aware that eroded, degraded or badly managed ecosystem may increase the vulnerability of populations, particularly in mountain regions, rivers flood plains and coastal areas and that hazards in those areas may increase with global change, including climate change;
- C. Desirous to promote new, cost-effective solutions based on natural infrastructures as an alternative or a complement to more classical engineering ones, with the additional advantage of favouring ecological stability, water filtration and storage carbon sequestration, increasing aesthetic and recreational values of the areas treated;
- D. Taking note with satisfaction of the report “Ecosystem Approach to DRR : basic concepts and recommendations to governments, with a special focus to Europe” by Dr. K. Sudmeier-Rieux (IUCN Commission on Ecosystem Management), and welcoming the participation of the Agreement in the Partnership for Environment and Disaster Risk Reduction (PEDRR);

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

- 1. Continue to integrate progressively ecosystem-based solutions into national disaster risk reduction policies and practice, favouring as appropriate investment and landscape planning in prevention and long-term strategies that would reduce vulnerability;
- 2. Pursue the integration of disaster risk reduction into climate change adaptation policies promoting ecosystem-based DRR as a useful approach to help mitigation, protect people, and produce other benefits for populations;
- 3. Consider taking measures to improve the resilience of communities through ecosystem based DRR such as those specified in Appendix 1 to this recommendation, and the use of tools and approaches such as those specified in Appendix 2 to this recommendation;
- 4. Support the efforts of the Agreement to promote ecosystem-based DRR in its Member States mainly through the organisation of specific training and the promotion of ecosystem based DRR in other fora.

Appendix 1

Examples of actions that may be taken by governments to apply ecosystem-based DRR and CCA.

#1. Recognize and promote the multiple functions and services provided by ecosystems at multiple spatial scales.

Ecosystems provide valuable services for hazard protection and regulation, which until now have been under-utilized by European programmes and strategies. Ecosystems serve as natural infrastructure that can reduce physical exposure and buffer energy from physical hazards. However, it is equally important to recognize ecosystems' contributions towards overall human well-being by sustaining rural economies, urban green spaces and strengthening resilience against hazard impacts.

Harnessing the potential of ecosystems for DRR should be based on rigorous understanding of the context-specific, ecological and technical requirements to enhance natural protection and hazard mitigation. Inadequate or ineffective natural buffers and physical structures can create a false sense of security and jeopardize the credibility of ecosystem-based DRR as a whole.

#2. Analyse and promote the cost-effectiveness of ecosystem-based DRR and CCA.

Cost-benefit analyses of ecosystem services for hazard reduction as compared to engineered structures are clearly needed and should be part of spatial planning and any new development projects. Ecosystem valuation studies have clearly shown the value of ecosystems for regulating, provisioning, supporting and cultural services. Yet, there is a lack of economic valuation studies for hazard reduction in Europe to inform decision-making about the benefits and trade-offs between natural and physical infrastructure investments.

#3. Combine investments in ecosystems with other effective DRR strategies as part of a diversified “DRR portfolio”.

Investing in ecosystems is not a single solution to disasters but should be used in combination with other risk reduction measures, such as early warning systems and disaster preparedness. Ecosystem thresholds may be surpassed depending on the type and intensity of the hazard event and the health status of the ecosystem, which may provide insufficient buffering against hazard impacts. In some cases, combining ecosystem-based approaches with engineered structures may be necessary to protect critical assets especially in densely populated urban areas.

#4. Address both long-term and short-term climate risks with ecosystem-management.

Adopting an ecosystem-based DRR approach can strengthen long-term adaptation to climate variability as well as immediate hazard events. In contrast to degraded ecosystems, well managed ecosystems are viewed to be more resilient to climate-related risks. Efforts to integrate DRR and ecosystems management should maximize ongoing work on CCA, i.e., through ecosystem-based approaches such as integrated water resource management

#5. Enhance governance capacities for ecosystem-based DRR through multi-sector, multidisciplinary platforms and especially in spatial planning.

Europe is a leader with regards to progressive legislation on an integrative multi-hazards approach to flooding, spearheading several innovative programmes such as “making space for water”, thus a shift towards ecosystem-based DRR is possible through adoption of national policies and legislation promoting natural infrastructure for risk reduction, as already demonstrated by several European countries. Such innovative policies have yet to reach all European countries at the national and local level.

In many cases, appropriate policies and legislation may be in place, but the main problem lies in their enforcement and the lack of political willingness to carry out programmes over the long-term. In order to facilitate cross-sectoral collaboration and stimulate innovative policies, strong multisectoral mechanisms or platforms are needed. It is particularly important to develop multidisciplinary teams and involve people with different technical expertise and knowledge, for instance city engineers and land developers working together with ecologists and disaster management experts. This should apply both at national as well as sub-national levels. Multisectoral, multi-disciplinary mechanisms facilitate sharing of available data, help

ensure scientific and technical rigour in designing and implementing ecosystem-based DRR initiatives and obtain the political support necessary to integrate them into national and local development plans. However, clear incentives are needed for such mechanisms to build consensus and work effectively.

#6. Create financial incentives for ecosystem-based DRR and CCA.

A strong regulatory framework is certainly a first step for guiding innovative solutions and practices to DRR and CCA but are only effective if coupled with additional innovative financial incentives (e.g., restoration of wetlands may be financially compensated, especially if near high risk zones). Risk transfer schemes (i.e. insurance or re-insurance companies) may be possible by investing in natural infrastructure for reducing risk. Another example are Payments for Ecosystem Services, where the value of ecosystems are transferred from consumers to producers (i.e. downstream water consumers pay upstream users for protecting water source). Financial incentives are often required for relocating settlements out of high-risk zones to the benefit of green spaces.

#7. Involve local stakeholders in decision-making to ensure more sustainable solutions.

Local stakeholders clearly have a role to play in promoting risk reduction through sustainable ecosystems management. The EC has recognized the importance of local action (EC 2009b) for the prevention of natural and technological disasters and further action can be taken to incorporate ecosystem management concerns. This involves understanding local livelihood needs and priorities, risk perceptions, local knowledge, and involving local stakeholders in decision-making. Local communities are often direct resource users and their knowledge of local ecosystems can provide critical information in planning successful ecosystem-based DRR initiatives. Raising the awareness of local people by demonstrating the combined livelihoods and risk reduction benefits of ecosystem-based solutions is equally important in winning and sustaining local support.

#8. Utilize existing instruments and tools in ecosystems management and enhance their DRR value.

A variety of tools, instruments and approaches used in ecosystem management (i.e. EIAs, protected area management, community-based natural resource management, integrated forest management) can be readily adopted and applied at country and community levels as part of disaster risk reduction strategies. What is needed is the improved and routine use of disaster risk information (e.g. types of hazards over time and space, socio-economic vulnerability profiles of communities, elements at risk, etc.) in the design of integrated ecosystem approaches to maximize their added value for DRR. For instance, rehabilitation of upland watersheds can be further harnessed for flood mitigation by improved understanding of the local hazards, hydrology, topography as well as socio-economic demands on forest products and the types of indigenous tree species that are best suited for reforestation activities. Also, considerable progress can be made in incorporating risk assessments into spatial planning tools (Greiving et al., 2006) and ecosystem management in Europe.

#9. Link ecosystems-based risk reduction with sustainable livelihoods and development.

Even in Europe, poverty remains an issue and it is usually the poor and vulnerable who are at greatest risk and the least resilient to disasters (i.e. the 2003 heat wave and the elderly). While ecosystem-based disaster reduction should be an integral part of a long-term development strategy, demonstrating short-term tangible outcomes and benefits especially to communities will be critical to win and maintain stakeholder engagement.

#10. Foster more science - policy - practitioner dialogues

There is still much to be learned about ecosystem services for DRR. More research is needed to better understand the performance thresholds ecosystems and resilience against hazard events and climate change. There is even greater lack of economic valuation studies on the multiple values of ecosystems for hazard reduction. Nonetheless, given the challenges of fully monetizing ecosystem services, there should also be further development and testing of non-economic valuation methodologies. This includes combining evidence-based risk and ecosystem service assessments, such as the RiVAMP project (UNEP, 2010) (See Appendix 2); and interdisciplinary studies that combine local and expert knowledge to

measure and quantify the role of ecosystems especially for hazard mitigation. Above all, it is crucial to transmit existing knowledge through guidelines to national and local governments on how to move forward in integrating ecosystem based management with DRR and CCA, which is what this publication is about (modified from Estrella and Saalismaa, 2010).

Appendix 2

Examples of tools and approaches for ecosystem-based DRR and CCA.

This appendix provides an overview of the full range of environmental tools and instruments available that could be used to integrate environmental concerns and ecosystems-based approaches as part of DRR. Most of these tools and approaches have existed for decades but have not often been combined to integrate ecosystem and DRR functions. These tools include the following:

1. **Environmental assessment tools:** Environmental impact assessments (EIAs) and strategic environmental assessments (SEAs) are the best-known tools for undertaking environmental assessments to inform policy, programme or project development. They allow information on social, economic and environmental impacts to be considered, resulting in a much more integrated assessment process. While practical experience remains very limited, EIAs and SEAs are being adapted to analyze disaster risk-related factors associated with the potential threats to and consequences from proposed projects, programmes, plans or policies. Rapid Environmental Assessments (REAs) are generally applied to assess the environmental situation in the aftermath of a disaster and quickly provide data to support decisions, paying close attention to water and sanitation, potable water supplies, solid and disaster debris management, safe handling of hazardous substances, site selection of temporary camps, and procurement of building materials.
2. **Integrated risk and vulnerability assessments:** although there are many risk and vulnerability assessment methodologies, most do not adequately identify the changes to risk and vulnerability that are attributable to ecosystem conditions and environmental change, including climate change. As a result, assessment methodologies often fail to identify critical aspects of risk and vulnerability affected by ecosystem conditions and thus do not sufficiently address environmental risk drivers nor consider ecosystem-based risk reduction options. To fill this gap, UNEP developed the RiVAMP methodology, which integrates ecosystem conditions with data on exposure, vulnerability and hazards (Text box 1).

The Risk and Vulnerability Assessment Methodology Development Project (RiVAMP) is a methodology, developed in 2010 by the United Nations Environment Programme, which takes into account environmental factors in the analysis of disaster risk and vulnerability. While there are different types of risk and vulnerability assessments, what is new about RiVAMP is that it recognizes ecosystems and climate change in the risk assessment process. The purpose of RiVAMP is to use evidence based, scientific and qualitative research to demonstrate the role of ecosystems in disaster risk reduction, and thus enable policymakers to make better-informed decisions that support sustainable development through improved ecosystems management. In this regard, the targeted end-users of RiVAMP are national and local government decision makers, especially land-use and spatial development planners, as well as key actors in natural resource and disaster management.

Source: UNEP, 2010

Text box 1. Risk and Vulnerability Assessment Methodology Project (RiVAMP) UNEP, 2010.

3. **Spatial planning at regional and local scales:** Spatial planning can draw upon any or all of the above tools and approaches and encompasses comprehensive, coordinated planning at all scales, from national to local, aiming at an efficient and balanced territorial development. Spatial planning operates on the presumption that the conscious integration of sectors such as transport, housing, water management, etc. is likely to be more efficient and effective than uncoordinated programmes in the different sectors (Grieving et al., 2006). Thus, the core element of spatial planning is to prepare and make decisions about future land use, referred to as land use planning at the local level (Grieving et al., 2006). In order to promote sustainable development, it is indispensable to mitigate hazards, a task where spatial planning can play an important role. Hence according to a 2006 study by Grieving

et al., (2006) of spatial planning practices in Europe, risk management aspects play only a minor role in spatial planning decisions: “an integrated planning approach is missing”. Spatial planning can be considered the master plan into which ecosystems management can be integrated.

4. Integrated ecosystems management

Common denominators of these approaches is their multi-stakeholder component and focus on dialogue-building for both improved natural resources management and risk reduction.

- i. **Integrated water resources management:** Integrated water resource management (IWRM) is a process, which promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. In terms of disaster risk reduction, IWRM is relevant for managing both excess water (i.e. flood and landslide mitigation) and water scarcity (i.e. drought management). IWRM approaches can help to build a strong flood mitigation strategy by combining sustainable management of ecosystems (restoration of wetlands, forest and river basin management) with overall land-use planning for the area. It can also be particularly useful in managing transboundary river basins and watersheds, such as in the case of the Alpenrhein River that runs through Switzerland, Austria and Lichtenstein.
- ii. **Integrated coastal zone management:** In coastal areas, integrated coastal zone management (ICZM) (also, ‘integrated coastal area management’ - ICAM) provides a multi-sectoral framework for the sustainable management of coastal zones and resources. It considers fragility of coastal ecosystems, the entire spectrum of crosssectoral uses, their impacts and the trade-offs needed to ensure sustainable development. In Europe there is a move towards integrated coastal zone management (i.e. beach nourishment using dune grasses, and U.K., through a realignment of coastal wetlands to buffer coastal wave energy) (DEFRA, 2005; Deltacommissie, 2008).
- iii. **Integrated fire management:** Enhances capacities to address wildfire hazards together with other social, economic and ecological sustainability concerns in a given area. In the South Caucasus countries Armenia, Azerbaijan and Georgia, fire management practices are introduced to build the social and ecological resilience of local communities (see case study on fire management in the South Caucasus) (Goldammer, 2010). Several countries in Europe are using prescribed burning both for decreasing wildfire hazards and for biodiversity and forest management objectives, and there is growing interest for better use and integration of traditional fire use and management.
- iv. **Protected area management:** Protected areas encompass a wide range of ecological spaces and include national parks, nature reserves, wilderness areas, wildlife areas, protected landscapes as well as community conserved areas, with differing governance systems. Over 120,000 designated protected areas now cover approximately 13.9 percent of the Earth’s land area. Marine protected areas cover 5.9 percent of territorial seas and 0.5 percent of the high seas and are gradually increasing in number and size. Although protected areas are expanding globally, under-protection and significant encroachment of protected areas are leaving many sites extremely exposed and vulnerable to hazards. Protected area professionals therefore need to consider the added value of protected areas for disaster prevention and mitigation when planning, managing and advocating for protection (Dudley et al., 2009).
- v. **Community-based Ecosystem and Disaster Risk Management:** Although in Europe, responsibility for risk has mainly been transferred from individuals to government agencies and insurance companies, local people are still first on site during a hazard event before search and rescue teams arrive. Especially in rural areas of Europe, local populations still possess a wealth

of traditional knowledge both on ecosystem management and disaster risk reduction. Studies demonstrate that even in wealthy countries, disaster risk reduction strategies are much more effective when involving communities in both community based sustainable natural resources management and disaster risk management (Kuhlicke et al., 2011). Examples include community participation in maintaining protection forests, coastal protection, keeping waterways clean of debris, or maintaining terraces on steep slopes.

Recommendation 2013 on the inclusion of people with disabilities in disaster preparedness and response

adopted at the 64th meeting of the Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Paris, France, 24-25 October 2013.

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Recognising that people with disabilities have a fundamental right to a degree of protection against disasters that is comparable with that enjoyed by the rest of the population and in other terms offers a satisfactory level of preparedness;
- B. Mindful that in most European countries awareness, planning, assistance, training and specialised emergency assistance to people with disabilities would benefit from significant improvement;
- C. Desirous to promote a more integrated, efficient and effective approach to the problem of ensuring that people with disabilities in Europe are protected against emergencies and disasters;
- D. Taking note with satisfaction of the report "Including People with Disabilities in Disaster Preparedness and Response" by Prof. David Alexander (Institute for Risk and Disaster Reduction, University College London) and Mr Silvio Sagramola (Director of the Centre National Disability Information and Meeting Centre, Luxembourg), and of the "Guidelines for Assisting People with Disabilities during Emergencies, Crises and Disasters" by the same authors.

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. Integrate specialised measures for people with disabilities into national disaster risk reduction policies, planning processes, training curricula and emergency response practice, favouring, as appropriate, investment in long-term strategies that would reduce the vulnerability and exposure to disaster of people with disabilities;
2. Design and promote national programmes and standards for the protection, rescue and care of people with disabilities when and where they are at risk of disaster;
3. Design and promote measures at the community level through local administrations and civil protection services, making use of local organisations that provide care and representation to people with disabilities;
4. Ensure that people with disabilities are included in the entire disaster risk reduction process and that, wherever possible, their viewpoints are taken fully into account;
5. Ensure that education and training for the protection and assistance of people with disabilities are firmly in the mainstream curricula for incident, crisis and disaster management and response;

6. Support the efforts of the Agreement to promote inclusive disaster risk reduction for people with disabilities in its member states mainly through the promotion of adequate regulations, the sharing of expertise, the organisation of training programmes and the promotion of good practice.

And invites the Secretariat to submit the above Recommendation to the Committee of Ministers for information and possible distribution to all member States of the Council of Europe.

Recommendation 2016 on the inclusion of migrants, asylum seekers and refugees in disaster preparedness and response

adopted at the 13th Ministerial Session of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Lisbon, Portugal, 26 October 2016.

The Ministers,

- A. Recognising that migrants, asylum seekers and refugees have a fundamental right to a degree of protection against disasters that is equal to that enjoyed by the rest of the population;
- B. Mindful that in EUR-OPA member States awareness, planning, services, training and emergency assistance to migrants, asylum seekers and refugees would benefit from significant improvement;
- C. Desirous to promote a more integrated, efficient and effective approach to protecting migrants, asylum seekers and refugees in Europe from the risks and impacts of disasters;
- D. Taking note with satisfaction of the report on “The inclusion of Migrants, Refugees, Asylum Seekers in Disaster Preparedness and Response” and of the “Guidelines for Assisting migrants, asylum seekers and refugees during Emergencies and Disasters”, as well as other relevant frameworks and guidelines.

RECOMMEND that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

- 1. Integrate specialised measures on migrants, asylum seekers and refugees into national disaster risk reduction policies, planning processes, training curricula and emergency management, favouring, investment in long-term strategies that would reduce the vulnerability and exposure to disaster of migrants, asylum seekers and refugees;
- 2. Design and promote national programmes and standards for the rescue, protection and care of migrants, asylum seekers and refugees when and where they are at risk of disaster;
- 3. Design, promote and coordinate measures at all levels, through authorities and emergency management services, making use of civil society;
- 4. Involve civil society and other non-state actors, including the private sector, that provide care, services and representation to migrants, asylum seekers and refugees;
- 5. Ensure that migrants, asylum seekers and refugees are included in the entire disaster risk reduction process, taking their views into account and using their skills and capacities;
- 6. Ensure that education and training on the protection and assistance of migrants, asylum seekers and refugees are in the mainstream curricula for disaster risk reduction;
- 7. Support the efforts of the Agreement to promote inclusive disaster risk reduction for migrants, asylum seekers and refugees in its member States through the promotion of adequate policies, the

sharing of expertise, the organisation of training programmes and the promotion of promising practices.

INVITE the member States of the Council of Europe which are not parties to the European and Mediterranean Major Hazards Agreement (EUR-OPA), to examine the above recommendations and to use them as a source of inspiration for their policy and practice.

Recommendation CM/Rec(2018)3 of the Committee of Ministers to member States on cultural heritage facing climate change: increasing resilience and promoting adaptation

Adopted by the Committee of Ministers on 7 March 2018 at the 1309th meeting of the Ministers' Deputies

The Committee of Ministers, under the terms of Article 15.b of the Statute of the Council of Europe (ETS No. 1);

Considering that the aim of the Council of Europe is to achieve a greater unity between its members, for the purpose of safeguarding and realising the ideals and principles which are their common heritage;

Recalling the decisions of the 57th meeting of the Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA) on the vulnerability of cultural heritage to climate change (Appendix to this Recommendation);

Conscious that climate change is a growing threat to cultural heritage in Europe as it may affect architectural, archaeological and landscape heritage protected by Council of Europe conventions, as well as all other valuable heritage;

Noting that the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (2013-2014) recognises that climate change will affect culturally valued buildings through extreme events and cause chronic damage to materials, affecting also indoor environments where cultural heritage is processed;

Noting that the Paris Agreement under the United Nations Framework Convention on Climate Change encourages parties to engage in adaptation planning processes and implement activities that work towards the development or enhancement of relevant plans, policies and/or contributions;

Desirous that member States climate change adaptation strategies pay due attention to the protection of cultural heritage;

Recognising the efforts of many governments to prevent or limit the negative effects of climate change on cultural heritage;

Noting that the United Nations 2030 Agenda for Sustainable Development refers to culture within the framework of sustainable development goals and wishing to continue recognising the value and potential of cultural heritage, which is used wisely, as a resource for sustainable development and the quality of life of European societies;

Recalling the United Nations Sendai Framework for Disaster Risk Reduction 2015-2030 and in particular paragraph 30.d, which invites member States “to protect or support the protection of cultural and collecting institutions and other sites of historical, cultural and religious interest”;

Noting with interest the work carried out in the framework of the European and Mediterranean Major Hazards Agreement in the field of cultural heritage and disaster risk reduction and bearing in mind that civil protection services, in planning for emergencies, must continue to take the specific needs of cultural heritage facing natural hazards into account;

Recalling its Recommendation [CM/Rec\(2017\)1](#) to member States on the European Cultural Heritage Strategy for the 21st century,

Recommends that the governments of member States:

- a. ensure the inclusion of cultural heritage in their policies and strategies for adaptation to climate change;
- b. assess the economic value of cultural heritage lost to climate change.

Appendix to draft Recommendation CM/Rec(2018)3

Appendix 3 of Recommendation 2009 - 1 of the Committee of Permanent Correspondents, adopted at its 57th meeting in Dubrovnik, Croatia (15-16 October 2009) on Vulnerability of Cultural Heritage to Climate Change

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

Noting that extreme weather events are expected to increase in frequency and intensity in the next decades as a result of climate change;

Recognising that climate change is an important threat to cultural heritage, likely to increase in the coming years;

Conscious that the foreseen changes in temperature and rainfall in Europe and the whole Mediterranean Region will affect the conservation of the cultural heritage, and that rising temperatures, increased or decreased humidity and the frequency of floods, forest fires, coastal erosion, landslides, heat waves, droughts, sea level rise and change in groundwater patterns will have consequences on the stability of historical buildings, integrity of archaeological sites and conservation of materials and collections that may result in their further deterioration or ageing;

Conscious that the deterioration and, in some cases, loss, of cultural heritage would have negative consequences for European and Mediterranean societies, in particular because of its value as a source of identity and livelihood;

Noting that the preservation of existing heritage structures and traditional building materials and methods have advantages in terms of carbon footprint over building new structures and producing new materials;

Mindful of the global dimension of this problem and of the responsibilities of European and Mediterranean States at the world scale, as signatories of numerous international treaties, agreements and strategies within the United Nations system and the Council of Europe;

Recognising that landscapes form part of cultural heritage, but conscious that the effect of climate change on landscapes requires a more specific approach, given the relevance of their biological, environmental and agricultural components;

Recommend member States to:

1. assess the risk to cultural heritage from climate change, including sites, building and objects that may be affected both by climate-related events and/or by gradual change in environmental conditions;
2. identify those cultural assets at higher risk and evaluate necessary preventive and adaptation measures;

3. promote the adoption of emergency planning for those sites most vulnerable to events such as floods, landslides, coastal erosion and extreme weather-related events;
4. assess the potential impact of mitigation measures, such as renovation of buildings for improved heating efficiency, on cultural heritage;
5. promote at the national level inter-agency cooperation on climate change and cultural heritage, integrating heritage concerns into disaster risk-reduction policies;
6. encourage international cooperation on vulnerability of cultural heritage to climate change, favouring research, action and synergies among international organisations in this field and promoting exchanges of knowledge and experiences within member States and also with other non-member States;
7. integrate as appropriate cultural heritage into the adaptation policies to be promoted at international climate change negotiations;
8. promote training among heritage professionals aimed to recognise and deal with climate change impacts of cultural heritage;
9. foster the inclusion of the appropriate courses within education institutions on the science and management of cultural heritage in a context of climate change;
10. promote and support research on the effects of climate change on cultural heritage, including adaptation and prediction strategies, in particular on:
 - a. vulnerability of materials to climate change;
 - b. development of tools to monitor and manage change;
 - c. effects of lowering water tables and coastal erosion on archaeological sites and built heritage;
 - d. increase in bio-deterioration risk for cultural assets;
 - e. economic evaluation of heritage loss and degradation as a result of climate change;
11. encourage local and regional authorities and people with responsibility on managing cultural heritage to be aware of the risks to sites, buildings and objects from a changing climate.

Recommendation 2021 – 1 on enabling and protecting persons with disabilities before, during and after public health emergencies resulting from viral or other pathogenic pandemics

adopted at the 14th Ministerial Meeting on 24 November 2021 in Matosinhos, Portugal

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Recalling its Recommendation 2013 - 1 on the inclusion of people with disabilities in disaster preparedness and response, adopted at the 64th meeting of the Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Paris, France, 24-25 October 2013;
- B. Noting the *Disability Considerations during the COVID-19 outbreak* published by the World Health Organisation on 2 June 2020;
- C. Noting the *Statement of interpretation on the right to protection of health in times of pandemic* adopted by the European Committee of Social Rights on 21 April 2020;
- D. Recalling its Resolution 2020–1 recognising the inclusion of biological threats, hazards and risks causing natural and technological disasters in the EUR-OPA Partial Agreement adopted on 3 November 2020 (as amended on 16 September 2021);
- E. Recognising that people with disabilities have a fundamental right to protection before, during and after public health emergencies resulting from viral or other pathogenic pandemics that is comparable with that enjoyed by the rest of the population;
- F. Desirous to promote a more integrated, efficient and effective approach of public authorities and health professionals to ensure appropriate protection to people with disabilities before, during and after public health emergencies resulting from viral or other pathogenic pandemics;
- G. Noting with interest of the report “Disabled Persons in Viral Pandemics: The Example of Covid-19”, prepared at the request of the Agreement;

Recommends that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. Design and promote national standards for the protection and care of people with disabilities in particular by making public health information and health care facilities accessible to persons with all forms of disabilities, including testing and isolation services, in particular in disasters and emergency situations;
2. Review, in consultation with persons with disabilities and their representatives, national risk reduction policies, planning processes, training curricula and emergency response practice with a view to integrating specific measures that would reduce the vulnerability and exposure of

people with disabilities before, during and after public health emergencies resulting from viral or other pathogenic pandemics;

3. Review the Medical Code of Ethics and other deontological codes of practice to ensure that the provision of healthcare during disasters conform fully with the provisions of the Article 25 of the UN Convention on the Rights of Persons with Disabilities and jurisprudence of the UN Committee on the Rights of Persons with Disabilities and do not discriminate against people with disabilities;
4. Ensure that measures adopted to counteract natural and technological disasters caused by biological hazards provide for people with disabilities to have access to flexible work arrangements that take into account their form of disability and potentially increased vulnerability; give adequate support to caregivers, including family members, in particular by including them in flexible work arrangements and other specific measures designed to protect employment, and by providing them with appropriate moral support that could reduce their mental stress;
5. Support the initiatives of the EUR-OPA Major Hazards Agreement to promote, with respect to natural and technological disasters caused by biological hazards, inclusive disaster risk reduction strategies for people with disabilities in its member States, in particular through the promoting adequate regulations, sharing expertise, awareness raising, undertaking training programmes and promoting good practice;

Invites the Secretariat to submit the Recommendation 2021-1 to the Committee of Ministers for information and possible distribution to all member States of the Council of Europe.

Recommendation 2021 - 2 on the inclusion of migrants, asylum seekers and refugees in public health emergencies resulting from viral or other pathogenic pandemics

adopted at the 14th Ministerial Meeting on 24 November 2021 in Matosinhos, Portugal

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Recalling its Recommendation 2016 - 1 on the Inclusion of Migrants, Asylum Seekers and Refugees in disaster preparedness and response, adopted at the 13th Ministerial Session of the European and Mediterranean Major Hazards Agreement (EUR-OPA), Lisbon, Portugal, 26 October 2016;
- B. Noting the Recommendations contained in the International Organization for Migration (IOM) briefs on *Covid-19 and Stranded Migrants* published on 2 June 2020, on *Countering Xenophobia and Stigma to Foster Social Cohesion in the Covid-19 Response and Recovery* published on 14 July 2020 and on *Covid-19 Emerging Immigration Consular and Visa Needs and Recommendations*, published on 15 July 2020;
- C. Noting the *Statement of interpretation on the right to protection of health in times of pandemic* adopted by the European Committee of Social Rights on 21 April 2020;
- D. Noting the opportunities offered by the European Qualifications Passport for Refugees and other measures contained in the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Recognition Convention) in the countries that ratified it and in line with their national legislations, to include migrants, asylum seekers and refugees having necessary qualifications in the steps taken to respond to natural and technological disasters;
- E. Recalling the actions of the Special Representative of the Secretary General of the Council of Europe on Migration and Refugees, undertaken in particular in the framework of the Action Plan on Protecting Refugee and Migrant Children in Europe (2017-2019) and the ongoing work on the preparation of the new Action Plan in the field of migration;
- F. Recalling recommendations and guidelines contained in the publications *Migrants in Disaster Risk Reduction – Practices for Inclusion*, prepared jointly with International Organisation for Migration and Migrants in Countries in Crisis Initiative (MICIC) in 2017 and *Major Hazards, Migrants, Asylum Seekers and Refugees – Their Inclusion in Disaster Preparedness and Management*, published in 2017;
- G. Recalling its Resolution 2020–1 recognising the inclusion of biological threats, hazards and risks causing natural and technological disasters in the EUR-OPA Partial Agreement adopted on 3 November 2020, as amended on 16 September 2021;
- H. Desirous to promote a more integrated, efficient and effective approach of public authorities and health professionals to ensure appropriate protection to migrants, asylum seekers and refugees,

including stranded migrants, regardless of nationality or migratory status during public health emergencies resulting from viral or other pathogenic pandemics;

- I. Noting with interest the report on “Inclusion of Migrants and Refugees in Preparedness and Response to Biological Disasters: Case Study of the COVID-19 Pandemic”, prepared at the request of the Agreement.

Recommend that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. Include all migrants, asylum seekers and refugees, regardless of nationality or migratory status, in all national disaster risk reduction policies, linked to public health emergencies arising from biological hazards, planning processes, training curricula and emergency management, favouring long-term strategies that would reduce the vulnerability and exposure to disaster of migrants, asylum seekers and refugees;
2. Ensure that, during public health emergencies resulting from viral or other pathogenic pandemics, all migrants, asylum seekers and refugees have adequate access to information, health services, shelter, food and other social support systems that is comparable with that enjoyed by the rest of the population;
3. Involve migrants, asylum seekers and refugees having necessary qualifications in emergency response to natural and technological disasters, taking advantage in particular of the European Qualifications Passport for Refugees and other measures contained in particular in the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Recognition Convention) in the countries having ratified it, and in line with their national legislations;
4. Support the initiatives of the EUR-OPA Major Hazards Agreement to promote, with respect to public health emergencies resulting from viral or other pathogenic pandemics, inclusive disaster risk reduction strategies for migrants, asylum seekers and refugees in its member States, in particular through promoting adequate regulations, sharing of expertise, awareness raising, undertaking training programmes and promoting good practice.

Invites the Secretariat to submit the Recommendation 2021-2 to the Committee of Ministers for information and possible distribution to all member States of the Council of Europe.

Recommendation 2023 on the use of digital tools such as social media and mobile applications for successful disaster risk communication

adopted at the 80th Joint meeting of the Committee of Permanent Correspondents and the Directors of Specialised Centres on 6-7 November 2023, Strasbourg

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Recalls that the Medium-Term Plan 2021 – 2025, adopted at the 14th Ministerial Meeting on 24 November 2020 in Matosinhos, Portugal, the Ministers called for the adoption of specific disaster risk reduction communications policies and dissemination accurate and non-sensitive disaster risk, hazard and disaster information in a simple, transparent, easy-to-understand and accessible manner;
- B. Notes that one of the priorities listed in the Medium-Term Plan 2021-2025 called for the Committee to develop guidelines on the greater use social media, traditional media, big data and mobile phone networks, to support national measures for successful disaster risk communication;
- C. Recognises that the Sendai Framework for Disaster Risk Reduction 2015 – 2030 invites states to use media, including social media, and mobile phone networks to leverage knowledge for the purpose of pre-disaster risk assessment, for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters;
- D. Considers that the effect of disasters can be reduced if people are aware of disaster risks, prepare for them and know how to act in emergency situations;
- E. Recognises that social media platforms have become a feature of everyday lives of millions of people and can play a vital role in saving and safeguarding people's lives and livelihoods.
- F. Notes that of media pressure, such as rumours or information disorder campaigns on social media may cause panic or fear which may have disastrous consequences for the public.

Recommends that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

- 6. develop, as part of prevention and preparedness planning, national policies, legal framework, plans and programmes to support the integration and use of digital tools such as social media into practices and facilitate communication and collaboration with civil society;
- 7. embrace digital opportunities by including, in response to disasters and emergency management, specific networks of actors to monitor the social media environment;
- 8. integrate, as part of prevention and preparedness measures, regular use of mobile networks, cell broadcast and social media in their awareness raising and communication campaigns to build trust of the public;

9. ensure during emergency management and when responding to disasters real-time top-down communication through historical and new media such as mobile networks, cell broadcast and social media) to provide timely, accurate and pertinent information to the public;
10. mobilise digital expert communities to both collect relevant data and information regarding the state of roads, bridges, water levels, electricity and mobile networks and update usual maps used by the public;
11. use social media data as an additional situational assessment tool to obtain clearest vision of the disaster on the field and scale up or down the response measures accordingly;
12. monitor the digital space to identify any potential information disorders (rumours or disinformation campaigns) to avoid any panic or fear which may lead to disastrous consequences on the field;
13. engage with the public by communicating using cell-broadcast and social media about the situation and answer whenever possible to their queries and requests;
14. mobilise and engage civil society in the preparation, response and recovery stages using digital tools whenever possible and relevant accordingly with national legal framework.

Invites the Secretariat to submit the Recommendation 2023-1 to the Committee of Ministers for information and possible distribution to all member States of the Council of Europe.

Recommendation 2025 – 1 on citizen-centred prevention and preparedness in the face of natural hazards connected to climate change

adopted at the 84th meeting of the Committee of Permanent Correspondents on 6-7 November 2025, Paris, France.

The Committee of Permanent Correspondents of the European and Mediterranean Major Hazards Agreement (EUR-OPA),

- A. Recalls that the Reykjavík Declaration *United around our values* adopted at the Fourth Summit of Heads of State and Government of the Council of Europe, held in Reykjavík, Iceland on 16 and 17 May 2023 recognised that Human Rights and the environment are intertwined and that a clean, healthy and sustainable environment is critical to the full enjoyment of human rights by present and future generations;
- B. Notes that in the Reykjavík Declaration the Heads of State and Government, recognised “*the urgency of additional efforts to protect the environment, as well as to counter the impact of the triple planetary crisis of pollution, climate change and loss of biodiversity on human rights, democracy and the rule of law*”;
- C. Notes that the Council of Europe Strategy on the Environment *United around our Values for People and the Planet*, adopted by the Committee of Ministers on 14 May 2025, recognised that the Council of Europe is uniquely placed to support States in their efforts to protect wildlife, ecosystems, habitats and landscapes and called for the action aimed at fostering co-operation and co-ordination to better prevent and respond to major natural and technological hazards, to assess and reduce risks, and to improve preparedness and post-crisis analysis;
- D. Recalls that the Medium-Term Plan 2021–2025, adopted at the 14th Ministerial Meeting on 24 November 2020 in Matosinhos, Portugal, the Ministers recognised that adequate involvement of the population as well as by preparedness actions at all levels is one of the key principles that must cover the entire disaster management cycle;
- E. Recognises that the Sendai Framework for Disaster Risk Reduction 2015 – 2030 calls for policies and practices for disaster risk management at national and local levels to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment and to that end that non-sensitive hazard-exposure, vulnerability, risk, disaster and loss-disaggregated information be made freely available and accessible;
- F. Welcomes the principles established by the European Preparedness Union Strategy, adopted on 26 March 2025, namely an all-hazards, whole-of-the-government and whole-of-society approach, with the aim of fostering a culture of preparedness and resilience among citizens;
- G. Considers that the effect of disasters can be reduced if people’s capabilities are reinforced by access to the available science-based knowledge of disaster risks in all its dimensions of vulnerability and by their involvement in the decision-making process, in order to be prepared and know how to act individually and collectively in emergency situations;

- H. Recalls that robust scientific evidence on climate risks now exists, enabling states to propose solutions to mitigate their impact on human lives;
- I. Recognises that, in addition to punitive and restorative responsibility, under international law, including the newly adopted Council of Europe Convention on the Protection of the Environment through Criminal Law (to be open for signature on 3 December 2025), States bear a long-accepted obligation of prevention based on due diligence, of which the responsibility to prepare populations is a fundamental component, as risks are inevitable.

Recommends that member States of the European and Mediterranean Major Hazards Agreement (EUR-OPA):

1. develop, as part of prevention and preparedness planning, national policies, legal framework, plans and programmes to support initial and further training for all; accordingly, education in climate risks should be set up as initial and further training, targeting all children and adults including public policy makers, taking account sensibilities, vulnerabilities and incorporating a cultural dimension;
2. ensure the effective right to prior, detailed, accessible and clear information, as a key component of the capability to protect oneself from the risks to which one is inevitably exposed, and to take part in decision-making; tailor clear and specific information to cultural and linguistic groups, ensure that information provided by State, regional and local authorities is understandable and accessible to the various audiences, notably to groups at higher risk;
3. promote the right to science, which is critical to ensure appropriate governance, and in particular, access to scientific knowledge and its benefits, entailing an obligation to support and disseminate high-quality, independent and public scientific results;
4. set up effective channels of exchange between a plurality of academics, civil society at large and decision-makers and seek to resolve conflicts of interest through dialogue in science-policy interface mechanisms;
5. engage with the public with a view to achieve genuine citizen participation in the preparation, response and recovery stages, at different tiers of decision-making, particularly the local level, taking into account specific circumstances of persons in vulnerable situations, and taking a culturally-sensitive approach;
6. provide information to the Committee of Permanent Correspondents on measures taken and problems encountered in implementing this recommendation, with a view to examining its impact at national level, and sharing best practices;
7. promote meetings on the ground between the EUR-OPA Secretariat, experts and relevant partners in the member states involving all the stakeholders including civil society with a view to promoting best practices and addressing particular issues encountered in implementing this recommendation;

Invites the Secretariat to submit the Recommendation 2025-1 to the Committee of Ministers for information and possible distribution to all member States of the Council of Europe.