SPECIAL CO-ORDINATOR OF THE
STABILITY PACT
FOR SOUTH EASTERN EUROPE

DISASTER PREPAREDNESS AND PREVENTION INITIATIVE (DPPI)

Regional Report of the DPPI Operational Team
"The Gorizia Document"

May, 2001

OPERATIONAL TEAM MEMBER ORGANISATIONS AND COUNTRIES

United Nations Development Programme

International Federation of Red Cross and Red Crescent Societies

North Atlantic Treaty Organisation

United States of America
Federal Emergency Management Agency
U.S. Agency for International Development

Italy
Commissione Paritetica Interparlamentare Internazionale per i rapporti Cultura e Politica

Sweden
Swedish Rescue Services Agency

Bulgaria

Croatia

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Stability Pact
For South Eastern Europe
Disaster Preparedness and Prevention Initiative
Regional Report

Introduction

The Disaster Preparedness and Prevention Initiative (DPPI) is an effort by the Stability Pact for South Eastern Europe to contribute to the development of a cohesive regional strategy for disaster preparedness and prevention. It aims to bridge the gap between international and local efforts and to encourage the full participation and mutual support of all regional countries.

An operational team, with expert personnel from the Bulgaria, Croatia, Italy, Sweden, the United States, the International Federation of Red Cross and Red Crescent Societies (IFRC), the North Atlantic Treaty Organisation (NATO), and the United Nations Development Programme (UNDP), was established to provide the technical background work. The multi-institutional and international composition of the Team is unprecedented. For Team member organisations and nations, it is the first time that such a Team was established around the issue of disaster preparedness and prevention in South Eastern Europe.

As the first stage in developing a strategy, the DPPI undertook an assessment in each country of the region. The team assessed disaster preparedness and prevention needs and capabilities, reviewed natural and technological disaster risks and existing disaster management and preparedness plans, and identified ongoing emergency response projects, coordination structures and procedures. The assessments were based on a methodology developed by UNDP with inputs from the other participant organisations and nations. It is provided in Annex 1. The methodology includes the standard terminology utilised by the Team.

The work commenced with Operational Team visits in October 2000, to Bulgaria and Croatia to conduct pilot assessments and evaluate the proposed methodology. The methodology was revised by representatives from all the regional countries in a workshop held in Split, Croatia on 17-18 November 2000. A schedule was agreed for the rest of the assessments, which were concluded in March 2001.

ASSESSMENT SCHEDULE

Country	Dates	Team Members
Bulgaria	19-20 October 2000	Sune Follin, IFRC Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Drazen Horvat, Croatia Robert Mister, UNDP (Team Leader) Evert G. J. Somer, NATO
Croatia	22-24 October 2000	Sune Follin, IFRC; Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Robert Mister, UNDP (Team Leader) Valentin Sofianski, Bulgaria Evert G. J. Somer, NATO
The former Yugoslav Republic of Macedonia	14-16 January 2001	Sune Follin, IFRC, Team Leader María Olga González, UNDP Evert G. J. Somer, NATO Michael Austin, USA/FEMA Barbara Russell, USA/FEMA

		Bob Becker, USA/OFDA Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria
Slovenia	17-18 January 2001	Sune Follin, IFRC, Team Leader María Olga González, UNDP Evert G. J. Somer, NATO Michael Austin, USA/FEMA Barbara Russell, USA/FEMA Bob Becker, USA/OFDA Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria
Romania	12-13 February 2001	Sune Follin, IFRC, Team Leader Evert G. J. Somer, NATO Mikael Notting, Sweden Ben Curran, USA/FEMA Drazen Horvat, Croatia Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria Sabri Ergen, Stability Pact
Moldova	14-15 February 2001	Sune Follin, IFRC, Team Leader Evert G. J. Somer, NATO Mikael Notting, Sweden Drazen Horvat, Croatia Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria
Hungary	16 February 2001	Sune Follin, IFRC, Team Leader Evert G. J. Somer, NATO Mikael Notting, Sweden Ben Curran, USA/FEMA Drazen Horvat, Croatia Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria
Greece	05 March 2001	Sune Follin, IFRC, Team Leader Evert G. J. Somer, NATO Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria
Albania	06-07 March 2001	Sune Follin, IFRC, Team Leader Evert G. J. Somer, NATO Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria Jeffrey Glick, USA/FEMA
Bosnia and Herzegovina	9-10 March 2001	Sune Follin, IFRC, Team Leader María Olga González, UNDP Evert G. J. Somer, NATO Jeffrey Glick, FEMA Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy
Yugoslavia	20-21 March 2001	Sune Follin, IFRC, Team Leader María Olga González, UNDP Evert G. J. Somer, NATO Michael Austin, USA/FEMA Bob Becker, USA/OFDA Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria Drazen Horvat, Croatia Ebru Alarslan, Turkey
Turkey	22-23 March 2001	Sune Follin, IFRC, Team Leader María Olga González, UNDP Evert G. J. Somer, NATO Michael Austin, USA/FEMA Bob Becker, USA/OFDA Mikael Notting, Sweden Ennio Geromin, Area di Ric. Gorizia, Comm Ingerparlamentare, Italy Valentin Sofianski, Bulgaria Drazen Horvat, Croatia

As agreed in the Split workshop, most countries provided a national report to the Operational Team prior to the visit. The report contained an overview of the disaster preparedness and prevention systems in the country and was to serve as the basis for discussions during the assessment mission. The following are the national reports received by the Operational Team:

Bulgaria
Bosnia and Herzegovina
Croatia
Hungary
The former Yugoslav Republic of Macedonia
Moldova
Romania
Slovenia

Other countries visited did not provide reports, bud did provide written inputs during the Teams visits.

Preparations for the Team's visits were made by the Operational Team members' organisations, with the cooperation from the respective national focal points.

Although the agreed methodology included the preparation of country reports by the Operational Team, time constraints and in some cases limited information did not always allow for the drafting of full national assessments. However, at the conclusion of every visit, the Team provided feedback to the national authorities. In addition, written summaries of the Team's findings have been provided to the nations.

Once the assessment stage was concluded, the Operational Team produced the Regional Report, which contains the findings, conclusions and recommendations of the Operational Team. The Regional Report focuses on common concerns, risks and issues that are shared by most countries in South Eastern Europe.

In formulating the Regional Report, the Operational Team made some basic assumptions:

- Nations of the region have a shared interest in mutual cooperation to prevent, mitigate, and respond to disasters.

- This interest transcends political issues and historical experience.

- Other forms of bilateral and multilateral cooperation will continue and support this cooperative process.

- This positive opportunity will permit open and cordial consultations as well as constructive cooperation and assistance in the interest of improved disaster preparedness and response capabilities.

- Objective criticism and feedback on the process of assessment and the cooperative effort will continue to improve and enhance its utility for the region.

- The process will continue to strengthen and work with existing institutions and mechanisms, rather than creating new coordinating structures for the region.

In line with the major objective of DPPI, the Regional Report will serve as the basis for the development of a comprehensive Disaster Preparedness and Prevention Strategy for South Eastern Europe. This strategy will be developed in cooperation with the countries

and validated by them. The main strategies and lines of work identified for improving the overall disaster management capacity in the region may be addressed at the national, bi-national, multi-national or regional level.

The Team wishes to express its acknowledgements and gratitude to those individuals and organisations in the nations' capitals for preparing the country reports and for organising and hosting the Operational Team's visits.

1. Disaster Profile and Vulnerability

1.1 **Shared Risks and Vulnerability**

Nations in the region share a number of risks. With slight variation when asked to assign priorities they came up with similar prioritised lists of dangers. Where there were differences there was a clear explanation reflecting a number of variables including the level of industrialisation, economic activity and population distribution. The purpose of this attempt at a regional assessment is to identify where there are significant risks shared by a number of nations that will provide the foundation for sustained cooperation in emergency preparedness and management.

Determining how to measure risk varies based on a combination of factors. All emergency managers face the dilemma of how to weigh the catastrophic severity of a disaster that might occur only at 50 or 100 year intervals against the annual spring flood or summer forest fire that will most certainly occur somewhere in their nation. Then too, the possibility of man-caused or technological disasters (such as hazardous materials (HAZMAT) or nuclear incidents) has to be weighed against the full range of natural disaster risks faced by the region.

A statement of commonly shared risks is by itself of little value. It must be complemented by an appreciation of the degree of vulnerability to these risks that each nation faces, the level of public awareness, the availability of means to determine and communicate the degree of risk, and finally the political and administrative environment in which risks are identified and managed. Insight into these considerations when carefully evaluated by national authorities and external actors will help us determine where to place our emphasis and work to leverage available resources to the maximum extent possible toward improving disaster preparedness, mitigation and response, and how nations can help each other.

South Eastern Europe is a complex area, strategically located. Major cities and population density are shown in *Figure 1*. The crisis management environment is heavily conditioned by historical political and military events including numerous armed conflicts. Specifically, it is further complicated by the collapse of the Soviet system and resultant abandonment of its political and physical infrastructure, the major changes in land use, population migrations and changes in political jurisdictions that created ethnic minorities within and among neighbouring nations. These factors either added new risks or created constraints that impede effective emergency management. A short list of these added considerations include the following:

- The need to deal with extensive amounts of unexploded and highly unstable military ordnance included a significant number of highly sophisticated mines and anti-personnel devices.

- Uncorrected war damage to the economic, social, and transportation infrastructure.

- The need to either deal with current refugees or internally displaced persons and to anticipate and plan for the possibility of further uncontrolled mass migration resulting from hostilities and politic upheaval.

- The need to deal with transportation, flood control, land use, and economic infrastructure and methods that were inherited from the previous political and economic systems that have been either abandoned or inadequately maintained.

- The legacy of economic exploitation and depletion or destruction of natural resources that have irrevocably damaged the environment contributing significantly to soil erosion, landslides, flooding, forest fires, contamination of water supplies and reduction of arable land.

- The introduction of advanced technologies (such as nuclear power) that create artificial dependencies and unsustainable maintenance requirements.

- The existence of ethnic, religious and social minorities within nations that complicate the process of providing equitable access to and benefits from effective emergency management.

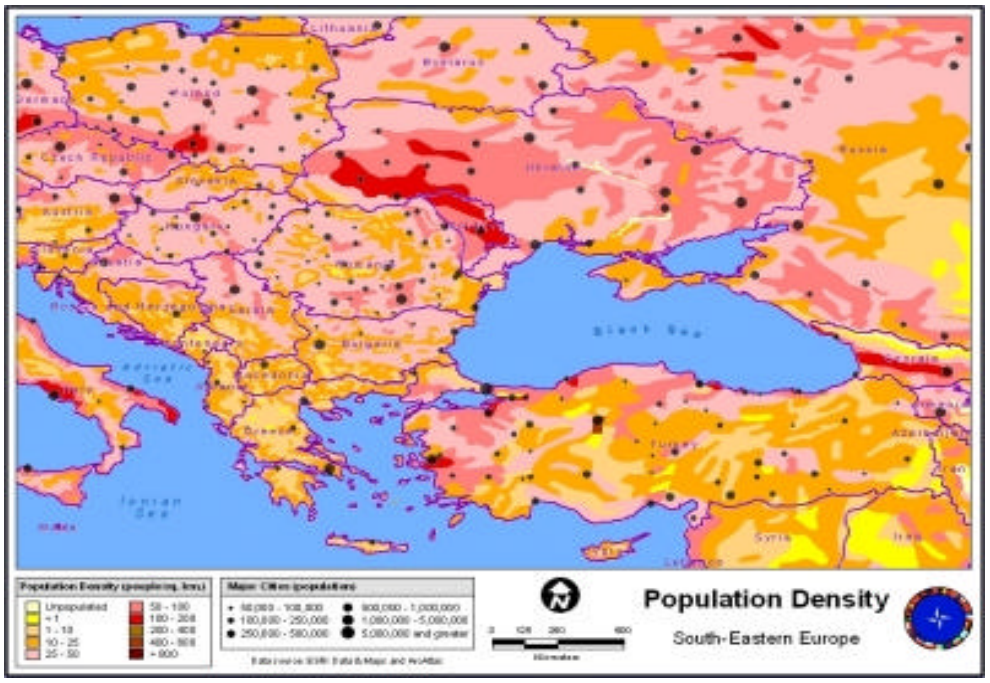

Figure 1

1.2 **Risks**

We can safely make several broad statements that apply generally to the risks nations of South Eastern Europe face from natural, man made or technological disasters. In most cases national authorities were unable or unwilling to attempt to establish priorities for the risk. An overall picture of the extent to which risks are shared is provided in the matrix contained in *Figure 2*.

Risk assessment

	Quake	Floods	Fires	Slides	HazMat	EOD	Dams	Nuclear	Drought	Storms
Albania	X	X	X	X		X				
Bosnia / Herzegovina	X	X	X	X		X			X	X
Bulgaria	X	X	X	X	X			X	X	X
Croatia	X	X	X		X	X		X	X	X
FR Yugoslavia	X	X	X		X	X			X	
Greece	X	X	X	X	X	X			X	
Hungary		X	X		X			X	X	
Macedonia	X	X	X	X	X	X	X	X		X
Moldova	X	X	X	X	X		X	X	X	X
Romania	X	X	X	X	X		X	X	X	
Slovenia	X	X	X	X	X	X	X	X		
Turkey	X	X	X	X	X				X	

Figure 2

Some threats, such as flooding, forest fires and droughts tend to be seasonal in nature and thus present opportunities for immediate preparedness measures and mutual cooperation between neighbouring nations. Clearly the most serious threats within the region are the following:

Seismic Activity: Geological zones characterised by large seismic event with historical evidence of major earthquake activity (recent occurrences in Greece, Turkey, and Macedonia are examples). Only one of the 12 nations did not list the threat of earthquakes as a concern. The dramatic nature of major earthquakes, the likelihood that national capabilities will be overwhelmed and the urgent necessity of external assistance give them widespread visibility and intense media coverage. In most nations where seismic conditions present a major threat, key national authorities, and certainly the emergency preparedness and supporting academic community appear to comprehensively understand the risk. They also have the basic analysis capability and mapping tools to accurately define high threat areas and to share the information with other nations and their public. Research centres in several nations such as the Institute of Earthquake Engineering and Engineering Seismology (IZIIS) at the University of St Cyril and Methodius in Macedonia and the National Building Research Institute (INCERC) in Romania are excellent examples. The chart in *Figure 3* shows the general areas of seismic activity in the region as reflected in earthquake epicentres. From this it is relatively easy to identify the major fault lines.

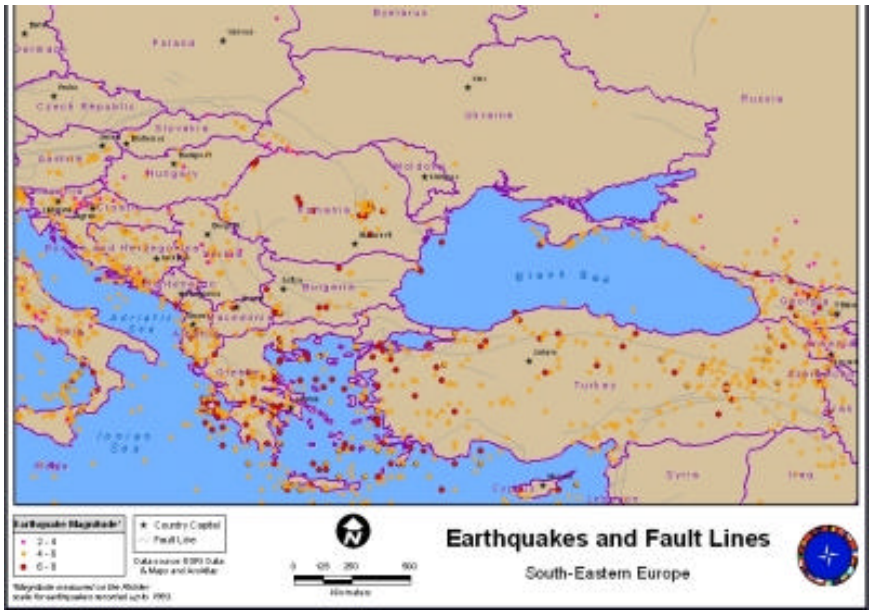

Figure 3

Floods: Recurrent flooding and water management problems are often associated with other threats such as mudslides and erosion. Flooding occurs in varying degrees of severity in every country and is high on the list of nearly all emergency managers. These major disasters force the evacuation of thousands of people and cause tremendous loss of property and means of livelihood. In many cases the weather phenomena and drainage systems require coordinated response from several nations. Contaminated water and debris can further exacerbate the consequences prolonging recovery efforts and costs. The chart in *Figure 4* shows the major areas subject to recurrent flooding in the region since 1985.

Other aspects of regional geography, such as the massive drainage area of the Danube River and its many tributaries, as well as the large number of high dams and water control systems within the region have to be taken into consideration in any coordinated approach to flood control, mitigation, preparedness and response operations. Historically cooperative efforts between neighbouring nations, existing flood control infrastructure methods and resources, as well as valuable experience will have to be assessed before launching any new initiatives. Some systems may simply require refurbishment, moderate improvements or simply adequate funding and proper management. The role of these drainage systems in providing an important element of the region transportation infrastructure will need to be considered. In that context dam safety seems to be given little attention and while frequently mentioned, does not appear to be backed up with safety evaluations or warning systems.

Figure 4

Fires: Forest, grassland and structural fires. These incidents often occur frequently in dry summer periods or as a result of drought conditions. They can be associated with a wide range of other man-made and natural incidents. Some are the direct result of arson and others are from lightening. In the last several years the simultaneous occurrence of large numbers of major forest fires in many nations of the region has brought new awareness as to this specific threat being a multi-national problem. Coordinated response between neighbouring nations is essential to gain access to certain areas, share critical resources and manage prevention and warning programs. Some nations do not differentiate between forest and structural fires in assessing their risk or organising response capability. On average the nations of the region have 20 to 38 % of their territory covered with forestlands. The chart in *Figure 5* shows these areas in the region covered with vegetation susceptible to fires.

Figure 5

Industrial Accidents and Hazardous Material Incidents: These incidents occur frequently and have significant potential for causing major loss of life and destruction of property. Several nations ranked this as one of their major concerns. The nations of the region sit astride major transportation routes and host extensive road and rail traffic carrying significant volumes of hazardous material. A further consideration is the deterioration of transportation infrastructure resulting from intense use. These risks are normally associated with population and industrial centres and key transportation infrastructure including pipelines, refineries, port complexes and associate inter-modal transportation systems. The major transportation systems including airports, roads and railroads are shown in *Figure 6*. Statistics and perception of trends are somewhat deceiving because reorientation and restructuring of economic activity following demise of the previous political systems masks what are probably increasing trends in increased exposure to hazardous material risks.

Figure 6

Nuclear Power incidents or accidents: There are ten nuclear power plants operating within or immediately adjacent to the region. Their location and general proximity to national borders are shown in *Figure 7*. In addition a number of less powerful, but still dangerous concentrations of potential nuclear contamination exist in research centres and nuclear fuel storage facilities. One nation, Slovenia, which has a nuclear power plant in Krsko, also calculated that it has 50 nuclear power plants with 109 reactors situated within 1,000 kilometres of its borders. Others express similar concerns even though they do not have nuclear facilities on their territory. These facilities force the host nation and its neighbours to consider the possibility of an incident involving release of radiological contamination. The legacy of Chernobyl still overhangs portions of the region and cannot be ignored in this context.

Figure 7

Explosives and Ordnance: A number of nations in the region have been involved in recent hostilities or still have a significant amount of unexploded ordnance including artillery shells, bombs, hand grenades and land mines. Six nations included de-mining or explosive ordnance disposal in their lists of risks that cause active concern. Albania, Bosnia and Herzegovina, Croatia, Kosovo and Macedonia are actively participating in de-mining operations orchestrated by the International Trust Fund for De-mining and Mine Victims with the cooperation of the Slovenia Training Centre for Civil Protection and Disaster Relief located at Ig.

1.3 **Vulnerability**

There are a number of considerations that influence vulnerability. Only a few are cited to illustrate the potential implications for national and regional emergency managers. Unlike risks that generally tend to be less subject to prevention, elimination or mitigation, vulnerability can be significantly reduced by prudent preparedness measures and political intervention. Regional cooperation is much more than an abstract concept for South Eastern Europe. Several factors in the threat analysis provide strong arguments that highlight the urgent need for improved cooperation to mitigate and so reduce vulnerability.

Seismic: In the case of seismic activity key factors are: building codes, public awareness of protective measures and immediate response actions; existence and enforcement of appropriate land-use planning guidelines; population distribution; public infrastructure, and existence of effective warning, evacuation, and response procedures. In most cases nations possess considerable scientific capability to identify, assess, and delineate high-risk areas, and design appropriate national codes and regulations. What they are lacking is the administrative instruments to implement and enforce effective programs exploiting this scientific insight. In some cases the unstable seismic areas coincide with population and industrial centres that are also the location of a disproportionate share of national resources and response capability.

Recent experience in major earthquakes has demonstrated again the significant role that proper construction can play in reducing quake damage. This is a case again where in some nations earlier enforcement programs were neglected or abandoned resulting in another generation of housing and industrial facilities being built without minimum protection. A related consideration is the potential role of the insurance industry in working with national authorities to provide incentives for adherence to protective building codes and to share some of the risks. Here is also a case where uniform

application of safety standards and measures could help to reduce the perception of unequal protection for minority communities.

Flooding: The most obvious and dramatic demonstration of shared vulnerability is in flood control and watershed management. Many nations in the region not only share borders but river systems, drainage areas and public and private infrastructure that are interdependent. The absence or operation of flood control procedures has a dramatic effect on neighbouring nations. For example Hungary has 24 rivers flowing into it from 7 nations. Neighbouring nations need to cooperate closely in managing water flow and dealing with the results of weather-related disasters. The cross border movement of water can also carry dangerous pollution such as chemicals and heavy metals that poison water, ground tables, and soil.

Recent trends of increasing severity of flooding are the direct result of loss of watershed protection and land abuse. The prevalent problem of landslides and resultant casualties and property loss are directly associated with ground saturation and uncontrolled run-off that undercuts embankments and promotes slides.

There are a number of requirements to manage the risk and reduce vulnerability. The first is an adequate awareness of the risk and the means to monitor all aspects of the system. This requires adequate means on a continuing basis to assess the capability of the drainage system to handle the flow. It requires the full cooperation of nations who are an inescapable part of the same drainage system.

Fires: Fires present a seasonal threat that involves a number of countries in the region. The vulnerability significantly increases during weather patterns that lead to periods of drought affecting large portions of the region. These simultaneous requirements greatly limit the opportunity for mutual help from neighbours and greatly complicate external assistance efforts. Vulnerability is increased if the nations do not have effective fire prevention programmes that limit public access and commercial logging operations in fire-prone areas during high-risk periods. Public awareness of the level of fire danger, the need for early detection and warning and organised response is also an essential ingredient. Delayed response often leads to situations in which fires get out of control, endanger population areas and critical infrastructure and enter inaccessible areas.

Mutual efforts of neighbouring nations can be strengthened by sharing information on measures to reduce vulnerability to fire such as good forestry management practices, maintenance of fire control zones, access roads, use of controlled burns, and other measures that require significant resources and positive control of forest areas. Effective fire fighting is a labour-intensive effort that requires considerable logistical organisation and rapid response resources of both men and material that may be beyond local or national capability.

Industrial Accidents and Hazardous Material Incidents: Vulnerability is significantly increased where there is poor land use management that permits the location of industrial activities involving hazardous materials or key transportation infrastructure in close proximity to residential or high-use public areas. Concentrations in highly populated areas, near critical transportation arteries or water sources frequently put the public at risk. Safety standards must be established and rigidly enforced to avoid critical disasters. By-products from manufacturing processes must be properly evaluated for their impact on the environment including air pollution, contamination of surface and ground water, soil and vegetation before commencement of operations and routinely checked during operation. Radical changes in property ownership such as transfer from public to private control and major restructuring of the economy have resulted in loss of records and continuity of liability. It is difficult now, after the fact, to create a sense of accountability and deal adequately with the consequences of long

periods of operation in which adverse impact on the environment was not actively considered. Much of the damage to the local environment will be extremely difficult to repair. In some cases the technology, equipment or funding resources are simply not available.

An overall awareness of the need for sound land use management, particularly in the face of growing population and economic pressure, is necessary to avoid unacceptable concentrations of sensitive high-risk industries and supporting system. The deterioration of national transportation systems resulting from heavy use by transiting surface and water-borne vehicles or pipelines needs to be carefully evaluated. Appropriate action is often complicated by politically and economically difficult choices. In some cases the need for long term efforts and significant capital investments without immediate visible benefits make necessary action difficult. Long term planning and sustained enforcement of realistic guidelines is essential and often must involve the local communities as well as neighbouring nations and the broader international community.

2. National Policy, Plans and Projects

2.1 National Disaster Management Policy

There is a considerable range of differences in the approach to disaster preparedness and management by the nations of South Eastern Europe. Some are quite sophisticated and have well-developed systems of preparedness and prevention that seem pragmatic and sustainable. They appear to anticipate problems and reflect good risk assessment and planning methods. Others appear to be in a purely reactive mode waiting for something to happen, hedging on necessary political or financial investments, simply playing the percentage game hoping that that disasters might not occur. However, to varying degrees there is growing recognition that disaster prevention and emergency response must be a priority function of governments. The media coverage given to such events creates political imperatives to act that cannot be completely ignored.

There appeared to be in some countries an attitude that passage of national laws is sufficient response. At least it puts the government in a better position as having addressed the problem and laid the foundation for national response capability. All too frequently the implementation or enforcement phase is lacking or insufficient resources were available. In other countries, such as Albania, there is a growing recognition and governmental enforcement action based on this recognition that laws have to be backed by aggressive enforcement or they are ineffective.

The enactment of laws, their enforcement and the commitment of resources were influenced by the degree that the public, as private citizens or volunteers had become involved. The merits of community-based organisations were demonstrably sound and proved cost effective where they resulted in organisations that were well supported by the population and by pubic institutions. Expectations vary based on cultural and social dynamics where the social and religious organisations have significant influence.

In almost every country visited the Red Cross or the Red Crescent Society proved to be a strong, well-organised capability that was known and trusted by both the public and the government. In several cases they provided the only real pre-disaster planning, organisation and response resource. In other cases smaller NGOs handled specific functions and in so doing reduced the pressure for development of national emergency management capability or government ownership of that capability. There is significant room for national and multilateral initiatives to improve public awareness and involvement in disaster preparedness efforts throughout the region. Far too much effort

including political direction, planning and distribution of resources is retained by national authorities at the central level.

In addition, too little was said about logistics, handling of long duration operations, public care and sheltering or development of sound public awareness as a basis for national disaster prevention and preparedness. In most cases providing the funding to respond to a disaster was considered an *ad-hoc* requirement to be dealt with at the time of the emergency. Understandably when national budgets are tight and there is extreme pressure for critical resources, expending funds or distribution of funds for contingency requirements is a difficult choice. Hungary, however, has established a national fund for emergency situations, which allowed them to respond to the floods of 2001 without any external assistance.

While many nations talked about having local and regional capability, as in the case of Macedonia and Turkey, it was often not well defined and was not much in evidence. Many of the governments are still moving towards more complex democratic structures where differing interest groups play a role and political, economic and social power are shared. In many cases the civil protection process is located in the Ministry of Defence and the focus is understandably on civil defence and national security concerns rather than civil protection.

Inter-ministerial coordination seemed to be weak and at best superficial. We saw limited evidence of planning systems or methods that engaged all key players. In some meetings with national officials they did not appear to be fully conversant with national plans or to have a close working rapport which would have resulted from their joint planning and preparedness efforts. There was often heavy reliance on a supra government committee operating at the behest of the national executive that determine who the players would be in handling an emergency and what they would have to work with.

There was awareness and discussion of various ongoing projects impacting disaster preparedness, particularly by external organisations. However, the Team frequently did not get the impression that the efforts were well understood or appreciated by any officials or ministries other than those immediately involved.

The Team was encouraged by what they saw as opportunities for more adequate multilateral coordination and support for mutual assistance efforts between neighbouring nations. It may have to begin as a mutual effort between two or three nations and grow to include only those nations who share a particular risk or concern. In some cases patterns of mutual effort and assistance are well developed and coordination is routinely carried out. None of the policies or procedures appeared to be exclusionary. Even the experience under the previous regimes as part of a larger political entity, as in the case of Yugoslavia, has certain benefits and offered areas where cooperation would be facilitated by old acquaintances or shared experience. While every nation had some weaknesses, they also had strengths that would serve as the basis for cooperation with others in the Region.

2.2 **National Plans and Procedures**

Although there are disaster management plans in most countries visited, they do not in many cases appear to be comprehensive. They do not define clear roles for individual organisations and provide an adequate basis for mutual support from others within the nation or external support from neighbouring nations. Plans are not generally tested or periodically reviewed and revised. National plans should ultimately reflect an agreed upon regional standard that would facilitate mutual cooperation and support. Planning and other preparedness efforts were generally better financed when under military authority than under current civil authority.

Capabilities in the region are stronger and more focused on preparedness than on prevention, where a multi-disciplinary, inter-institutional approach would be more effective. Creating a family of plans encompassing concept, prevention, preparedness, and response should be a management priority in each of the countries. This family of plans would be tied directly to the hazards and risks the countries face and so serve as the background information needed to develop regional coordination, cooperation and mutual aid agreements in emergency management.

Operations plans in the region and the accompanying management structure tend to be highly centralised and difficult to implement in actual practice on a local basis at the disaster site. Highly centralised systems of governmental authority and allocation of resources often creates delays and adds layers of bureaucracy compounding problems of an already difficult emergency response situation. The benefits of a decentralised system of emergency response are widely recognised by disaster management professionals. Countries should critically review if and how decentralisation would benefit their immediate and appropriate disaster response and how it would benefit regional cooperative response as well.

2.3 **Disaster Management Legislation**

Updated and in some cases comprehensive legislation on disaster related issues, such as urban planning and land use, exists in most of the countries. However, the implementation and enforcement of such legislation is under the responsibility of municipal or local authorities, which do not always have enough resources or authority to ensure that these regulations are adhered to. In some cases, more current legislation is in direct conflict with legislation from an earlier time and different political atmosphere. Conflicting legislation confuses the roles and responsibilities of different government ministries, directorates, agencies, etc. and non-government organisations. Disaster planning scenarios, when existing, tend to be very conservative and do not take into account population increases and changes, urban development, or the full effects of potential major disasters.

The change in governmental organisations over the last decade has impacted the structure and procedures of disaster management are not always accompanied by an action plan for implementation in the case of a disaster in South Eastern Europe. Review and revision of existing management structures at all levels to clearly define roles, responsibilities and capabilities should be undertaken as appropriate. A key element to effective management at the local, on-scene management level is a clearly defined management system. The emergency management system needs to be delegated to authorities at ~~to~~ the local level through written delegations of authority to local authorities and experts. The management system should contain the major functional areas of effective emergency management: prevention, preparedness, management of operations, planning, administration, and logistics. For example, if a response system is to work efficiently, ~~(~~especially in a disaster that spans country boundaries), there needs to be a common approach to disaster response. Be it the Incident Management System, or other response orientation, there needs to be some commonality in terminology, personnel qualifications, procedures and management orientation. For trans-border disasters there also needs to be pre-arranged border crossing procedures for visas, customs, transit of personnel, supplies and disaster-unique items such as search and rescue dogs.

2.4 **Training, Education and Exercises**

Public education in disaster prevention, preparedness and response within the countries in South Eastern Europe varies greatly as to quality and intended targeted audiences. The key to public education is to start educating and informing children with a comprehensive program about disasters and the consequences, focusing on those hazards that the particular country is facing. such as mines and left over war materials. This public education has to be continued via the public media and be broadened to include prevention and preparedness measures.

The training and education goal of disaster managers for their personnel should be to prepare and train responding units, including participating non-governmental organisations, to be able to carry out prevention, protection and mitigation and response tasks in an appropriate efficient and effective manner. Countries should implement and/or review national, regional and local disaster management training curriculum for against this goal. Training usually suffers during a budget crisis, but as budgets shrink, training is even more critical as staff is required to perform more duties at higher levels of expertise.

For regional emergency management exercises to be educational and effective, a certain level of commonality between participating countries must be achieved. Regional exercises are beneficial only when they cover hazards faced in the region and are presented to exercise the systems and individuals critical to success in the event of an actual disaster. The critical on-site questions to ask are who is really in charge, and do they have the means, mechanisms and authority to efficiently and effectively manage the situation.

2.5 **Monitoring, Information and Warning Systems**

Monitoring, information and warning systems in place in the countries of South Eastern Europe tended to vary widely and were in many cases designed to be implemented in a war or a war related scenario, not in response to a disaster. Many of the region's telephone early warning and reporting systems tend to be problematic at best, often with radio reporting from the field into a central unit for consolidation or information. Warning systems that are more local in nature usually can focus more clearly on local problems and therefore are more immediately responsive. Trans-boundary warning issues such as common boundary flooding, nuclear accident or hail, (e.g., Bosnia and Herzegovina, and Yugoslavia) needs to be coordinated through common communications channels and exercised routinely. Early warning systems such as sirens work well in urban areas if the system is maintained and the population is aware of the signals' meaning and measures to be taken in the event of warning. These types of systems were often originally designed for war warnings, but are currently more geared toward disasters like rising floodwaters or atmospheric contamination from hazardous materials (road accident, chemical plant, etc.) or a nuclear accident. Most of the regional countries maintain early warning centres throughout the country with varying degrees of efficiency depending largely on the local communications system. Countries having specialised resources such as seismology institutes are prime candidates to be regional resources for common information and warning, supported by regional and/or donor funding. Most countries in the region do not have an operable 112 emergency reporting and response system as is common in the EU. Governments should have direct access to public and cable television, teletext channels and radio for disaster information and warning announcements.

2.6 **Disaster Awareness and Public Information**

For governments to be effective in dissemination of information for disaster prevention, preparedness and response, a variety of methods may be employed such as leaflets, posters, magazines, newspapers, children's books, radio, television programmes and brochures which inform the public of measures to take before, during and after specific disasters. Developing disaster awareness through the media is generally weak throughout the region and should be a priority for improvement. Media is perhaps the cheapest and potentially most effective means to reach the largest number of people. The media should be used to present current information, press releases, interviews with appropriate disaster managers and officials, preventive measures, etc.

With the significant increase in access to personal computers, the use of web pages for informing and educating the public and the media are a severely under-used resource. While news media web pages are often a more timely and comprehensive source than government sites in the case of an actual disaster (because of time sensitivity and resources available), government web pages could be used for a variety of information and services pre, during and post disaster such as preparedness, procedures for relief requests from donors or non-governmental organisations, or tracing.

3. Government Structures

As anticipated, the Team found a wide variety of governmental approaches and structures providing emergency management capabilities. Emergency management services seldom exist as a stand-alone organisation. Many nations still think in terms of civil defence and so their emergency management resources and personnel are part of the military. In several countries, emergency management is positioned in the Ministry of the Interior where there is important interaction and synergy with other emergency functions such as police, fire, medical care, and warning. Several nations (e.g. Turkey) have either just completed major reorganisations or (e.g. Albania) are considering creating of an independent agency or department at the Cabinet level to deal with emergency preparedness and response.

Most governments have placed primary responsibility for emergency preparedness and response in a single ministry or government organisation, but still have multi-ministry or agency structures or committees that provide access to other government organisations and resources. This is of primary importance, in that where the responsibility for emergency preparedness and response is located is not so important as is the capabilities of this organisation to facilitate and coordinate the resources of the rest of the government, including the military, as well as the NGOs (e.g. Red Cross) in preparing for and responding to disasters. Furthermore, this preparedness/response organisation needs to be in the forefront of planning for and coordinating support such as intergovernmental agreements from neighbouring countries and the international community, including NGOs.

In South Eastern European countries, the ultimate leadership role in a disaster is frequently retained by the President or Prime Minister while day-to-day management relegated to second or third echelon political appointees. While cabinet-level officials or their immediate supporting staffs may have good professional relations and mutual experience from recent crises, this broader cooperation does not appear to be consistently nurtured in the subordinate administrative or civil service structures. There does not seem to be emergency operation plans and procedures that span different governmental departments and ministries that would be called upon to assist in a disaster. Nor does there appear to be interagency committees that meet regularly to prepare for disasters and coordinate their resources through training and exercises.

There appears to be little structural interface (e.g., committees, exercises) between those responsible for preparedness efforts and others responsible for operational response when some crisis occurs. As a consequence, if emergency plans are available, they tend to be under utilised, as senior decision-makers tend to improvise. Since the general situation is that most funding is focused on response rather than preparedness, there is little opportunity for key decision-makers and officials to operationally understand disaster preparedness and response and to develop a sense of leadership.

International consultation and coordination process remains the responsibility of the Ministries of Foreign Affairs; however, international agreements regarding disaster preparedness and crisis management are not always coordinated with the other departments and ministries who have a key role to play (health, environment, transportation, energy, etc). Consequently the requirements and the capabilities of the country are not properly included in the national government efforts for disaster preparedness.

In several nations the governmental structures at the national, regional and local levels appear to have only limited, if any, mutual plans, agreements and channels for communication. There are unclear lines of authority or coordination structures for effective cooperation and assistance between the different levels of government. Perhaps as one consequence much more effort in developing emergency response capabilities is devoted to the capital or major political centres at the expense of the regional or local governments. With few exceptions a disproportionate amount of capability is retained at the national governmental level.

In some cases even where recent reorganisation concerning emergency management has been pursued, there is still excessive layers of administration, unclear roles and responsibilities of involved institutions and a confusing management structures. This is complicated further when the government needs to work both with internal NGOs as well as external international organisations.

However, even with the problems and challenges discussed above, the countries of South Eastern Europe have the opportunity and capability to take advantage of bilateral and regional cooperation opportunities and resources. Through exchanges of information on planning, training, exercises and other preparedness efforts those more progressive governments can make important contributions in helping their neighbours. Throughout the assessment visits conducted by the DPPI team, there was much evidence of an earnest desire at all levels of government, to work toward more capable and sustainable governmental relationships and shared capabilities in emergency management. Cooperative efforts in prevention of flooding, hail, etc. and in meteorology would have substantial regional benefits. In addition, even countries under harshest economic strains have substantial resources that they can contribute to disaster response. In many cases, the resources that can be brought to the disaster scene quickly (first 72 hours) will have a far greater impact than those brought later. Neighbours helping neighbours and regional cooperation could significantly increase the disaster prevention, preparedness and response capabilities of all the South Eastern European countries.

4. Non-governmental Structures

As the DPPI Team conducted their visits, they met with non-governmental organisations (NGOs), those national private organisations and associations and associations, volunteer groups and different faith communities who can play a role in disaster prevention, preparedness and response.

Probably best known is the Red Cross/Red Crescent Society. It is well established in eleven out of twelve countries in the region. Their efforts are guided by the seven principles of the movement: *Humanity, Impartiality, Neutrality, Independence, Voluntariness, Unity and Universality.* The strength of the organisation, their relationship with the public and the government, and the tasks they carry out vary considerably between the countries but in general the resources that they can bring to disaster prevention, preparedness and response is considerable. Coordination and cooperation with these groups needs to be strengthened by the governmental departments and ministries responsible for disaster management.

The formal roles of NGOs in disaster management varies widely from country to country. In some of the countries there is very little cooperation while in others the role of the Red Cross, for example, is well defined and given a leadership role in the national system of protection and rescue. In the countries where the role is well defined, the Red Cross draws up its own plans but these are presented to and adopted by the relevant national, regional or local governmental organisations. Plans are often regularly exercised and the Red Cross is represented in the management structure on the levels where their units have tasks.

In some of the countries the national Red Cross/Red Crescent Society has bilateral agreements with other sister societies who have permanent presence in the country and support the national society.

In case of disasters, the Red Cross/Red Crescent Society has a standard procedure to establish connections with International Organisations (International Federation of Red Cross and Red Crescent Societies (IFRC); International Committee of the Red Cross/Red Crescent, ICRC; and sister Red Cross/Red Crescent organisations). This ability to immediately begin working with others, particularly in efforts to find additional resources, is one of the major strengths of the movement and is to great benefit to the country hit by a disaster. In many of the countries the Red Cross/Red Crescent has an active role in training the population for disaster preparedness, and also training of specialised units for specific tasks, for instance rescuing from high buildings.

In each country there are a number of other volunteer organisations that can participate in undertaking preventive and preparedness measures or responding to disasters. Organisations such as Amateur Radio Associations, Canine Associations, Diving Associations, Ecological Associations, Hunters Associations, Medical Associations, Mountain Rescue Services, Search and Rescue Associations, Scouts, Volunteer Fire Brigades, other social organisations and different faith communities play an important role in preventing, reducing or eliminating the consequences of disasters.

Many of the NGOs have organised and trained specialised units or autonomous disaster response teams which develop a very high level of ability. They have their own equipment and are often very cost-effective. In most of the countries, each of these organisations draws up its own protection and rescue plans and cooperates with the authorities mainly at the local level.

Some of these organisations have both bilateral and multilateral international contacts. Many are very active and take part in international training courses, meetings and exercises. They are part of global networks. Some have gained valuable experience by taking part in rescue and relief operations abroad, which can be used effectively in the national planning context.

The tasks and the roles of the NGOs, and how they are incorporated in national disaster prevention, preparedness and response structures require a clearer identification and further development as part of an integrated national and regional disaster management

strategy. To improve national planning and mutual support, joint co-operation agreements between the involved government organisations and the major NGOs, perhaps through an umbrella NGO, should be considered.

Effective coordination with NGOs requires a thorough joint assessment of capabilities, interests and operating methods. There must be agreed coordination procedures and full accountability. Most NGOs have limited resources, but if they are involved in the planning and are assigned well-defined tasks on different levels in the national structures, the resources may be used in the most effective way for the benefit of the country.

5. Human and Material Resources

The countries have significant human resources with scientific, technical and practical knowledge of key aspects of disaster management.

In the course of the assessments, several categories of human resources involved in disaster preparedness and prevention could be identified:

- individuals professionally engaged in the field of disaster preparedness and prevention
- individuals engaged on a voluntary basis (i.e. NGOs)
- individuals mobilised in case of disasters (i.e. representatives of scientific institutions, different companies, construction and transport enterprises, and the military forces).

The organisation, roles and responsibilities and how the various groups are trained and used varies considerably.

Due to financial constraints, training programmes are generally neither available nor up to the required standards. Only a few joint programmes with neighbouring countries could be identified.

Most countries have solid scientific institutions with a very good level of knowledge and cooperating networks with similar institutions. These contacts, however, are frequently outside the region, e.g., with Japan and the United States. The exchange of scientific information and capabilities amongst the countries in the region, in emergency situations or for preparedness and prevention purposes, is difficult due partly to language barriers, but perhaps more importantly due to the lack of coordinating multinational plans or multinational activity concerning emergency management (e.g., meetings, exercises). Many countries have some English speaking capability and this can be built upon with translation of documents between nations.

Most of the countries have both human and material resources to deal with day-to-day training, preparedness operations and minor or very specific types of disasters. However, for large-scale emergencies, they are likely to require external assistance, which would be most effective if provided, at least in the immediate phase, by neighbouring countries.

In most of the countries it is still the military forces that have the most resources, both human and material and therefore plans and procedures that link the civilian structures and the military for emergency situations are essential. In addition, joint training and emergency exercises are needed so emergency responders in both civilian and military structures will know what to do, how they will do it and will know each other, so a disaster will not be the first time that responders meet and have to work together.

Many countries are prepared for certain specific risks, but at the low-impact level. Equipment and material resources, including communication systems, are in general old, obsolete, poorly maintained and even destroyed by war. Also, standards for such equipment differ considerably between countries. In situations that may require international and regional assistance incompatibility problems may arise.

Access to TV and radio for disaster prevention education and notification is very limited. This creates problems in the use of population awareness and emergency notifications. Very good and useful equipment is often available in the private sector, but the practise of coordinating for the use of such resources in an emergency has not been developed in most of the countries visited, nor is the practice of providing "public service" announcements concerning prevention methods and techniques.

6. International, Regional and National Assistance Organisations

6.1 Existing International and Regional Operational Support

Most Nations in the region have identified one or more contact point to request or provide international assistance. In most cases, these contact points serve also as the focal point for contacts related to multilateral agreements or treaties that have been concluded by the nations in the region. Examples of such multilateral agreements or treaties are the "UN-ECE Convention on Trans-boundary Effects of Industrial Accidents" and the Early Notification and Assistance Convention of the International Atomic Energy Agency (IAEA).

Based on information provide by the nations of the region, the chart in *Figure 8* shows membership in a number of major multinational agreements and or treaties.

	ALB	BIH	BGR	HRV	YUG	MKD	GRC	HUN	MDA	ROM	SVN	TUR
CoE EUR-OPA	X			X			X		X			X
UN ECE TBEIA	X			X			X	X	X			
CMEP Council for SEE			X	X		X					X	
IAEA Early Notification				X		X	X	X		X	X	X
IAEA Assistance				X		X	X	X				X
Barcelona Convention	X			X			X				X	X
Danube River Convention			X	X				X			X	
CEI CP/Disasters				X				X			X	
ALPE-JADRAN WG				X				X			X	
Tampere Convention				X						X		

Figure 8

A number of these multinational agreements or treaties, such as the "Danube River Convention" and the very recently signed Civil-Military Emergency Planning Council, are of specific importance for the region, while other like the Tampere convention have a more global impact.

As stated before, most nations have an effective Red Cross or Red Crescent society, which could in an emergency be utilised to access the larger international network of the Red Cross Movement.

In addition, all nations in the region are members of the United Nations, while the majority is members of the Euro-Atlantic Partnership Council (EAPC) of the North Atlantic Treaty Organisation. The UN as well as the EAPC have established coordinating

mechanisms for international disaster assistance. Most nations in the region are aware of their existence and actively co-operate actively with these networks.

6.2 **Programmes and procedures for mutual assistance between neighbouring jurisdictions**

In addition to multinational agreements and treaties, a small number of nations have concluded bilateral agreements on mutual assistance during disasters. *Figure 9* gives an overview of existing bilateral (marked with X) agreements in the region, and bilateral agreements under development (marked with D).

	ALB	BIH	BGR	HRV	YUG	MKD	GRC	HUN	MDA	ROM	SVN	TUR
ALB												
BiH				D								
BGR										X		
HRV		D						X			X	
YUG												
MKD												
GRC												
HUN				X						D	X	X
MDA										X		
ROM			X					D	X			
SVN				X				X				
TUR								X				

Figure 9

Most of these bilateral agreements also address the issue of border crossing between the signatories to the agreement of humanitarian or disaster relief in an emergency. However, transit of humanitarian and disaster relief, from a third country not being part to the agreements, is in most cases not addressed and may therefore cause a problem in case of a major disaster.

6.3 **International Organisations working in any aspect of disaster management**

A wide network of international organisations and NGK's is working in the region in the field of disaster management. Particularly since the 1990's disaster management appears increasingly as an area of interest but also priority of international organisations, such as the United Nations agencies, the Organisation of Economic Development (OECD), the World Bank and others.

As a consequence of the large number of ongoing programmes, it can be stated that nations have gained vast experience in dealing with international cooperation in the last ten years. However, due to this large number of programmes, and the lack of transparency and coordination, a risk of duplication of efforts does exist. This on its turn may hamper the effective use of resources, both on the national and the international level.

In addition, most of this international cooperation is conducted on a one-to-one basis. Consequently, the individual experiences, but also lessons learned from this international cooperation are not always shared with neighbouring countries, which may have similar interests and or problems.

6.4 **Existence of a UN Disaster Management Team**

The United Nations Development Programme (UNDP) is represented in most countries of the region. In those countries where UNDP is represented, regular contacts between the national governments and UNDP take place. The intensity of these contacts and the level of cooperation varies amongst the countries of the region. The Disaster Management Team, however, is not a permanent or generalised feature of the UNDP offices in the region.

7. Links Outside the Country

7.1 **Organisations outside the country that Governments and/or NGO have links with in terms of Disaster Management**

Nations in the region have established links with a large number of international organisations in terms of disaster management. The following could be mentioned as the most relevant:

- ✓ United Nations Office for the Coordination of Humanitarian Affairs (OCHA)
- ✓ United Nations High Commissioner for Refugees (UNHCR)
- ✓ United Nations Children Fund (UNICEF)
- ✓ United Nations Development Programme (UNDP)
- ✓ World Food Programme (WFP)
- ✓ World Health Organisation (WHO)
- ✓ United Nations Food and Agriculture Organisation (FAO)
- ✓ International Atomic Energy Agency (IAEA)
- ✓ Nuclear Energy Agency of the Organisation of Economic Cooperation and Development
- ✓ World Meteorological Organisation (WMO)
- ✓ International Federation of the Red Cross and Red Crescent Societies (IFRC)
- ✓ International Committee of the Red Cross (ICRC), and
- ✓ North Atlantic Treaty Organisation (NATO)

Also good cooperation exists with a number of representatives of the NGO family, such as Médecins sans Frontières. The areas of responsibility of the organisations mentioned above vary, covering a wide array of aspects of disaster management. Although in general it can be stated that cooperation between national governments and NGOs with international interlocutors has satisfactorily developed in the last years, it is felt that a more transparent and coordinated approach would be necessary, in order to share information on the existence and functions of these arrangements.

In addition to links between governmental institutions and international organisations, it was observed that a number of scientific institutions in the region have sometimes intensive cooperation programmes with similar institutions in the United States and/or Western Europe. Scientific cooperation within the region is more the exception than the rule.

8. Conclusions

This chapter highlights issues and concerns that were identified by the DPPI Operational Team as present in most of the countries in the region, and which constitute the core of the recommendations provided in the next chapter.

8.1 **Disaster profile**

- There are clearly a number of shared risks that can be readily recognised by nations in the region and provide the impetus for mutual cooperation in disaster prevention and preparedness. In a number of cases vulnerabilities as well as the risks are shared by neighbouring nations. The best example is that of floods where river basin and natural drainage areas encompass more than one nation.

- Threats that tend to be seasonal, such as floods and fires, provide additional opportunities to work together on preparedness efforts and to undertake prevention and mitigation programmes to manage the risk and reduce vulnerability.

- In some cases such as seismic threat where prior disasters have led to international cooperation and assistance, adequate capability exists to further define the risk and exploit assessment and prediction technology as well as protective measures to mitigate the loss of life or property.

- Man-made or technological risks rival natural threats to the nations of the region. The potential problems caused by the introduction of nuclear power and research facilities and growing volume of hazardous material created by economic activity or movement on major regional transportation arteries require significant planning and preparedness efforts. Safety standards and guidelines are not uniformly applied and insurance systems that could assist in managing the risk and providing compensation when there are casualties are in the early stages of development.

- The consequence of recent military actions and the persistence of danger from munitions and land mines deployed in earlier conflicts have created a particular type of man-made technological risk requiring close cooperation between military and civilian authorities to reduce threat of injury and death.

- Recent experience with mass migrations or uncontrolled population movements as a result of turmoil in the region is a lingering cause for concern and complicates other emergency preparedness efforts. In small nations, the disproportionate national population in contrast to the large number of displaced persons creates urgent political and economic problems in addition to the disaster or crisis management concerns.

8.2 **National policies, plans and projects**

- In many countries of the region national disaster management structures and policies are either under review or fairly new and in most cases have not been fully implemented or tested.

- A significant amount of comprehensive new legislation has been passed on disaster-related issues, such as urban planning and land use. However, many of these laws have not yet been fully implemented and/or enforced. In addition, despite this significant legislative action at the national level, implementation and enforcement of codes and regulations needed to enforce these laws is under the responsibility of municipal or local authorities, which do not always have sufficient authority or resources to enforce these laws.

- In some countries there are disaster management plans in existence or in development. However, many are not comprehensive or fully implemented and generally they do not define, at all levels of government administration, clear roles of individual organisation and stakeholders. Plans are not fully tested and systematically reviewed.

- Many countries have not established a "family of plans" relevant to disaster prevention, preparedness and response, given the hazards and risks they confront. Lack of such a set of plans hinders coordination and cooperation between different public sector resources and with NGO resources. Also coordination is hindered by the lack of comprehensive planning between neighbouring countries and between the countries affected by a disaster and the international community.

- Most countries would benefit from an on-scene operational management system that allows disaster management experts to operate through a written delegation from the political authority responsible for disaster management. This system must have clear lines of authority and reporting requirements.

- Disaster preparedness and exercise planning scenarios, when existing, tend to be very conservative and do not take into account population increases and movements, urban development and other limiting factors.

- Disaster management capabilities in the region are more focused on short-term, response-type activities rather than on longer-term preparedness, prevention and mitigation, where a more multi-disciplinary, inter-institutional approach is required.

8.3 **Government structures**

- Most of the countries in the region have gone through major political, social, economic and administrative changes in recent years, which have had an impact on the structures, resources and procedures for disaster management. These include, in some cases, a shift from military to civil administration in the disaster management structures.

- Disaster management has been assigned to a wide variety of governmental organisation or military units by countries in the region. Also, the mandates of these organisations and units range from responsibilities limited to response (e.g., search and rescue) to more comprehensive approaches that include prevention, preparedness and mitigation.

- The benefits of decentralised disaster management structures are widely recognised, although there are not always clear ideas on how to adopt more decentralised, community-based approaches.

- Coordination and cooperation between government units responsible and capable of preparing for and responding to disasters within the countries is not always optimal. Numerous resources exist in all countries visited, however for example getting fire brigades to train, exercise and work closely with military units, other governmental, NGO and health community assets has yet to be achieved in many cases.

8.4 **Non Governmental Structures**

- In most countries in South Eastern Europe, the National Red Cross and Red Crescent Societies, with the support of IFRC play a pivotal and in some cases leading role in disaster preparedness and response.

- A wide variety of NGOs, community and voluntary organisations exist across the region. Their areas of focus and operations also cover a wide range of activities and degrees of participation that need to be incorporated in national disaster management planning.

- These organisations provide a significant and sustainable disaster management capability at a low cost to the government. In addition, they can also provide access to international and global networks to generate additional support when needed.

- The added value of such organisations could be considerably increased with a clearer definition of roles and responsibilities in disaster prevention, preparedness and response. These organisations need to operate in coordination and in cooperation with the leading local, regional and sate disaster management entities.

8.5 **Human and Material Resources**

- The countries have significant human resources with scientific, technical and practical knowledge of key aspects of disaster management. However, these resources are not fully utilised by national planning and preparedness efforts.

- There are no systematic attempts to inter-link and upgrade disaster prevention and preparedness knowledge and abilities in the public or private sectors and to translate these into practice.

- Scientific equipment (i.e. meteorological, seismological, and hydrological) is in general terms outdated and under-utilised and in some cases destroyed by war. With good management and proper training, older equipment can still be productively used. With proper protocols established there could be significant regional, multi-national cooperation in this area.

- In most countries inadequate emphasis is placed on sustainability, maintenance and logistical requirements. As a result, the nations are not getting full life-cycle value from investments in equipment and infrastructure.

- Material resources available in the countries are, in most cases, sufficient to cover day-to-day training and preparedness operations and minor disasters. Major disasters would undoubtedly exceed these resources.

8.6 **International Organisations**

- Disaster management appears increasingly as an interest and a priority of international organisations working in South Eastern Europe since the 90's.

- There are a number of related ongoing programmes with international cooperation that should be more transparent and coordinated to avoid duplication and ensure effective use of available resources.

- Nations have substantial experience in dealing with international cooperation on a one-to-one basis. However, lessons learnt from the individual experiences are not shared across the region, due to a lack of regional contacts, meetings and exercises focused on the sharing of disaster experience, techniques and plans.

8.7 **Links Outside the Countries**

- All countries have subscribed a number of international treaties, conventions and other forms of international cooperation. However, there is no coordinated system for sharing information on the existence and functions of these arrangements.

- Whereas links at the bilateral and multilateral level are present in all of the countries, for many such links are very limited and there are few agreements for mutual assistance between neighbouring countries or other forms of regional cooperation.

9. Recommendations

This report's recommendations are focused on areas in which cooperation at the bi-national, multi-national and regional level could add value to ongoing national efforts in disaster prevention, preparedness and response. In the course of the assessments, a number of issues were identified that may also be addressed from the national level and the Operational Team found it useful to include them.

The recommendations identify lines of work that should be developed into regional, multi-national and national programmes and projects. It is important that they are endorsed and prioritised by the participating countries, according to their own assessments of requirements, plans of action, resources and capabilities.

The report and its recommendations constitute an initial step towards the definition, development and implementation of a regional strategy for disaster prevention, preparedness and response. Subsequently this regional strategy needs to be sustained by its corresponding programmes and projects, as a tool for the development of the necessary internal and external disaster resources and capabilities required for the benefit of the entire region.

9.1 On the Region's Disaster Profile

The recommended lines of work that follow have the primary purpose of fostering the exchange of information in the overall disaster management process.

- Development of common capabilities to enable the intra-regional exchange of information on disaster prevention, preparedness, mitigation and response. These include:
  - ✓ Assessment methodologies
  - ✓ Relevant standards
  - ✓ Methods of presentation and recording, including risk/resource mapping (GIS), meteorological information, etc.

- Cooperation in preparedness for seasonal and common risks, including joint:
  - ✓ contingency planning, with a special emphasis on developing an agreed upon common response plan at the management level and incident level;
  - ✓ preparedness exercises,
  - ✓ preparedness efforts
  - ✓ early warning systems

- Identification and development of a roster of regional experts to support countries facing disasters. Establishment of specialised coordinating networks to exchange technical expertise and information, such as medical, structural engineering, hydraulic engineering and energy information.

9.2 On National Policies, Plans and Projects

Although some of the recommended lines of work in this chapter are primarily for the national level, they provide a good opportunity for exchanging results and experiences with other countries, as a first step towards more harmonised disaster management

plans and procedures in the region and for enhancing capabilities at the local level. The following lines of work are recommended:

- Assessment, and revision as appropriate, of existing disaster management structures in order to achieve a clear definition of roles, responsibilities and capabilities of the various entities involved, including:

  - ✓ National institutions
  - ✓ Regional and local authorities
  - ✓ NGOs, civil society and voluntary organisations
  - ✓ Individuals

  The identification of the roles and capabilities of international organisations in supporting and complementing national authorities should also be included.

- Establishment of an on-scene operational management system with the corresponding delegation of authority which outlines the parameters within which the on-scene team must operate, including fiscal authority, ecology, social issues, military use, etc.

- Information sharing and networking among the countries needs to include the following:
  - ✓ Lessons learnt from disasters and exercises
  - ✓ Databases and web sites for easy access to information on common risks, planning methods and lessons learnt
  - ✓ Early warning systems
  - ✓ Planning and preparedness efforts
  - ✓ Operational situation reports
  - ✓ Meteorological, seismological and hydrological information
  - ✓ Critical infrastructure characteristics and capabilities
  - ✓ Ongoing initiatives and projects
  - ✓ Exchange of technical, research and development information for disaster management purposes
  - ✓ Prevention and mitigation techniques and approaches

- Development and updating of a comprehensive, multi-hazard, disaster management family of plans and contingency plans. This "family" must include the concept and operational plans and procedures needed by the different entities and resources involved with prevention, preparedness and response at the national, regional, local and private/NGO levels. There also has to be provision for their periodic training, exercising and revising.

- Review and enhancement of existing transit and border-crossing arrangements, including customs and immigration controls, with a view to facilitating intra-regional and international transit for emergency relief/recovery purposes.

- Standardisation/harmonisation, taking into consideration existing work on:
  - ✓ Definitions
  - ✓ Descriptions/specifications of relief assets, including teams, equipment and supplies
  - ✓ Procedures for the coordination of relief requests and response
  - ✓ Reporting methods

- Pilot projects in selected high-risk communities to test a more decentralised, community-based approach to disaster management.

- Strengthening national mechanisms for public information and warning on threats/disasters.

- Designation and dissemination of 24-hour emergency contact points and focal points to request and deliver emergency assistance.

9.3 **On Human and Material Resources**

The DPPI Operational Team considers that more emphasis should be given to enhancing human resources needed in various disaster management capacities in the region. Actions recommended include:

- Cooperative development, conduction and evaluation of national, regional or multi-national exercises and training events, with a comprehensive approach to disaster management, for the following audiences:
  - ✓ Disaster management staff and practitioners, but public and private
  - ✓ Decision-makers, politicians and administrative staff
  - ✓ General public

- Organising and training of media representatives, to foster a better understanding of disaster preparedness, prevention and response. Training and exercising of disaster managers and operational staff in dealing with the media also needs to be conducted.

- Conferences and the development of procedures to promote the exchange of instructors, curricula, materials, plans and techniques, at the bilateral, multilateral and regional levels, for common concerns.

- Exchange of public education curricula and public awareness materials.

- Exploring opportunities for economies in joint procurement of equipment and supplies, contracting and outsourcing, as well as for accessing surplus equipment for disaster management purposes.

9.4 **On International Cooperation**

- Involvement of qualified regional experts in existing international mechanisms for rapid assessment/response (e.g., UNDAC and FACT teams).

- Coordination in planning, training and exercising.

ANNEX 1

Disaster Preparedness and Prevention Initiative (DPPI) for South-Eastern Europe

Annex to the TOR for Operational Team

Methodology/Guidelines for the Operational Team in each Country

(Revised following pilot assessment in Croatia and Bulgaria
for discussion at the Stability Pact DPPI Workshop in Split,
Croatia November 2000)

Purpose of Operational Team's Missions:

The **aim or purpose**, as defined in the TOR, of the Operational Team is as follows:

The Operational team, in line with the overall aim of developing a regional strategy for disaster preparedness and prevention, should provide the technical background work. The Operational Team's findings will form the basis for a full Steering Group discussion with all regional countries present, with the aim of agreeing a comprehensive strategy and selecting projects to carry it forward.

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The **objective** of the operational team in each country of the region is:

to assess disaster preparedness and prevention needs and capacities. Such an assessment would require an:

- Analysis of natural and technological disaster risk,
- Review of existing natural disaster management and preparedness plans, and
- The identification and assessment of ongoing emergency response projects and coordination structures and procedures.

The assessment is intended for consideration by the full Steering Group.

Countries included: The Operational Team will undertake assessments in the following countries:
Albania, Bosnia/Herzogovina, Greece, Hungary, FYR Macedonia, Moldova, Romania, Slovenia, Turkey and F.R.Yugoslavia. Assessments have been undertaken in Bulgaria and Croatia.

Assessment Process:

- The Operational Team will produce a report on the status of disaster preparedness and prevention in each country following the completion of the assessment in that country.

- From the operational team's national reports and analysis the Operational Team will prepare a consolidated report on the Status of Disaster Preparedness and Prevention in the Region of South Eastern Europe.

- The consolidated report will be in three parts and will provide a regional disaster risk assessment; an analysis of strengths, weaknesses, opportunities and threats; and present proposals for the way forward in terms of regional co-operation on disaster management issues that are both feasible and add value to activities at a country level.

- The consolidated report will be presented to a meeting of Working Table III in April 2001 and to a Regional Workshop for endorsement by the region.

Outputs:

Regional Report: A Consolidated Report on the Status of Disaster Preparedness and Prevention in the Region of South Eastern Europe.

Country Reports: A report in two parts for each country: Part A will be completed by the country being assessed whilst Part B will be completed by the Operational Team. The full report will contain:

- A disaster profile of the country to include both hazards and vulnerability;
- An outline of national policies, plans and projects for disaster management and disaster response;
- Details of Government and other structures at all levels for disaster management, warning and emergency response;
- Identification of material and human resources available for disaster management in the country; A listing of international and national assistance organisations operating within the country;
- Information on links established outside the country with other disaster management and assistance organisations;
- An analysis of the country's strengths as well as gaps, the strengths, outstanding needs and requirements in the country for effective disaster management including: risk reduction, early warning, information sharing, co-ordination, mitigation, preparedness, response and vulnerability reduction; and
- Recommendations for areas in which regional cooperation can make an immediate positive impact and for long-terms strategic planning.

Mission Methodology

Assessments in each county will be undertaken in two stages. In stage 1 the relevant Government disaster management focal point will organise the preparation of a report on disaster preparedness and prevention (see attached guidelines). This report will be provided to the Operational Team prior to commencing stage 2 of the process. In stage 2, the Operational team will visit the country to conduct a round table discussion and a series of interviews building on the Government Report.

During the initial preparations in each country the Government disaster management focal point will be required to co-ordinate the preparation of the report and to deal with the in-country organisation of the visit of the Operational Team. Issues to be addressed in the report are identified in Appendix I to this Annex.

The Government disaster management focal point will be required to co-ordinate:

- the assembly of relevant information,
- the gathering of disaster preparedness and prevention materials,
- the identification of key stakeholders to be interviewed by the Operational Team,
- informing stakeholders of the assessment process,
- ensuring that stakeholders receive copies of the guidelines and the Government report when produced, and
- the organisation of individual meetings and a round-table meeting between the Operational Team and stakeholders.

The Operational Team will participate in and facilitate one or more round table meetings of stakeholders. Workshopping techniques (small group discussions, brainstorming, etc)

will be utilised during the meeting. Issues to be considered during interviews and meetings will be based on the Government Report and will enable the Operational Team to identify the challenges, gaps and needs to be considered by the region in developing regional programmes (see Guidelines in Appendix II to this Annex). The round table meeting will close with an evaluation to be undertaken by the participants. In addition the team will undertake visits to key stakeholders and prepare a country report for the Stability Pact.

Assessment Timeframe

6 weeks prior to visit	Country commences preparation of National Report
2 weeks prior to visit	Completion of Country Report
1 week prior to visit	Report reviewed by Operational Team
Visit of Operational Team ▪ Operational Team and Focal Point Finalise visit Programme ▪ Individual meetings with key Stakeholders ▪ Round Table discussions with stakeholders ▪ Final discussions with Focal Point	
2 weeks after visit	Operational Team completes Report for Stability Pact (Country Report to be included as an Annex)

Identification of Stakeholders

- Government officials with responsibility for disaster management in its broadest sense and international co-ordination of external assistance;
- Staff of academic and research institutions working in the field of disaster management;
- UN Disaster Management Team or individual UN organisations;
- Red Cross/Red Crescent Society, NGO umbrella body, key NGOs and other civil society groups.