

# **ASPECTS OF INTERNATIONAL COOPERATION IN STABILITY PACT FOR SOUTH EASTERN EUROPE DISASTER PREPAREDNESS AND PREVENTION INITIATIVE (DPPI) – FOCUSED ON EARTHQUAKE PREPAREDNESS**

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## **SUMMARY**

South Eastern Europe is prone to disasters that transcend borders or overwhelm the capacity of a single country to cope. The level of preparedness and prevention in case of natural and man-made disasters varies from country to country. The Stability pact for see Disaster Preparedness and Prevention Initiative (DPPI) aims to pull together ongoing activities and identifies unmet needs in order to improve the efficiency of the national disaster management systems and to endorse a framework for regional cooperation. One of its valuable projects is “Earthquake Monitoring in Support of Disaster Preparedness in South Eastern Europe”.

## **STABILITY PACT FOR SOUTH EASTERN EUROPE**

The Stability Pact is a political initiative to encourage and strengthen cooperation between the countries of South Eastern Europe as well as to streamline existing efforts to assist South Eastern Europe’s political, economic and security integration into Europe. The Pact does not implement the projects but is an instrument to co-ordinate and facilitate the implementation of the projects of all its partners.

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Its activities are guided by the core principles of the Stability Pact, namely that they contribute to regional cooperation, expedite integration into European structures and secure the region's involvement in relevant international organizations. Priority is given to initiatives where the SP brings clear added value.

With over 40 participating countries, the Stability Pact is complementary to the European Union's Stabilization and Association Process, as well as to the Accession Process, and thus provides a bridge between the Western Balkans, the SEE candidate countries and Moldova. Stability Pact partners are the countries of South Eastern Europe and neighboring countries, the European Commission, NATO and OSCE, the International Financial Institutions, the member states of the European Union, the United States, Russia, Japan, Canada, Norway, Switzerland.

The Stability Pact is based on key experiences and lessons from worldwide international crisis management. Conflict prevention and peace building can be successful only if they start in parallel in three key sectors: the creation of a secure environment, the promotion of sustainable democratic systems, and the promotion of economic and social well being. Only if there is progress in all three sectors can a self-sustaining process of peace be achieved.

## **THE DISASTER PREPAREDNESS AND PREVENTION INITIATIVE (DPPI)**

### **Background**

DPPI, placed within Working Table III, was initiated in March 2000. Bulgaria, Croatia, Italy, the International Federation of the Red Cross, UN OCHA and the Gorizia Research Area attended the inaugural meeting where an ad hoc Steering Group was formed under the joint chairmanship of Croatia and Italy. The Steering Group in turn appointed an operational team, which carried out an assessment of the needs and capacities related to the disaster preparedness of 12 countries in the region. The resulting Regional Report was discussed at a Workshop in June 2001 and a "Strategy Outline" was developed encompassing several lines of work (information sharing and networking, preparedness planning and exercises, strengthening local Disaster Management (DM) structures and border crossing procedures).

Today, the DPPI is a regionally owned initiative that brings together regional and donor countries and relevant international organizations and facilitates good neighborly relations, stability and cooperation in disaster management through:

- The exchange of information, lessons learnt and best practices in the field of disaster management
- Enhanced cooperation between DPPI partners in view of EU enlargement and the process of Euro – Atlantic integration for SEE countries.

## **POLICY DEVELOPMENT THROUGH ADOPTION OF THE DECLARATION ON COOPERATION IN DPPI (JUNE 2002) AND THE DPPI ACTION PLAN 2002 –2006 (SEPTEMBER 2002)**

During the WT III meeting in Bucharest (June 5, 2002) additional steps were taken to enhance regional cooperation – 11 countries and the representative of IFRC (*International Federation of the Red Cross and Red Crescent Societies*) signed the Declaration on Cooperation in DPPI. The Declaration has the objective to strengthen the collaboration in the field of disaster preparedness and to provide for more effective implementation of all related activities. The next step with a considerable impact on the DPPI strategy and future performance was the Action Plan 2002 – 2006, endorsed on the Regional DPPI Meeting in Sofia in September 2002, together with the Terms of Reference for the Advisory Board to DPPI. The Action Plan will serve as guidance for the DPPI participating countries in order to intensify the level of their co-ordination and to allow the creation of regional network for future cooperation. The Action Plan sets feasible goals and objectives for the 2002 – 2006 period and supports and encourages SEE countries to develop, adopt and implement disaster management emergency legislation and other codes designed to prevent and mitigate disasters, in line with common practices accepted in the international community. The Action Plan envisages a coordinative structure to allow for better management of the Initiative and accommodate the principle of regional ownership. It was not the intention to overload the Initiative with more bureaucracy or to create new structures, but to find the way to ensure the best organizational model for coordination and greater efficiency. The WT III Chair (coming from the region) serves as the Chair of DPPI to bring higher visibility to the Initiative and ensure necessary political guidance.

The Advisory Board, comprised of the representatives from international organizations, donor and beneficiary countries, and DPPI partners, serves as a consultative and steering body for the evaluation and implementation of the projects proposed to DPPI. The role of international organizations, in particular UN (UNDP), NATO and IFRC, will be important in this regard and their active participation good starting point for necessary streamlining of all efforts in this field.

## **PROJECT FACILITATION AND IMPLEMENTATION**

The SP/DPPI secretariat facilitated agreed projects development and conducted fund raising. This resulted in donor contribution to the Disaster Management Training Project for SEE (a four year project) and donor contribution for a joint Bosnia and Herzegovina/Croatia/FR Yugoslavia-Montenegro project on a joint response fire-fighting unit (implemented in May 2004). It is important to notice that countries of the region that took a lead in project development.

One of the very important projects, relevant for this conference is

## **EARTHQUAKE MONITORING IN SUPPORT OF DISASTER PREPAREDNESS IN SOUTH EASTERN EUROPE**

### **Background:**

In the past centuries, many destructive earthquakes have struck South Eastern Europe. Today, such a destructive event would be disastrous for the region and could jeopardize its economic recovery. It is, therefore, of the greatest importance to develop the tools in the region required to properly assess the hazard, raise awareness and improve disaster planning and management. In developing this project proposal, the willingness and cooperative environment between the partners has proved to be exceptional and the support from the European seismological community comprehensive. The Disaster Preparedness and Prevention Initiative (DPPI) of the Stability Pact for South Eastern Europe framework has been identified as the best vehicle to achieve a closing of the gap between South Eastern Europe earthquake practitioners and those in the rest of Europe where there has been rapid development in recent years.

Despite this region having the highest earthquake hazard and risk in the whole of Europe, its seismicity remains poorly monitored, with some countries totally deprived of any seismological observations. Furthermore, cross-border data exchanges, which are essential for good quality monitoring, are very limited. Such actions are required to ensure regional and international redundancy of the monitoring systems, and they lead to greater understanding of phenomena that do not conform to political boundaries. The present situation results in poor hazard and risk assessment, and limits disaster management because of the impossibility of rapidly and accurately locating a damaging earthquake. As a consequence, the development of appropriate prevention and preparedness measures are hampered. Furthermore, it contributes to a lack of national expertise in seismology and disaster management, an inability to connect with the international research and engineering community, and it produces a downward spiral in overall capability and capacity to resist being overwhelmed by natural disaster events.

Representatives of the organizations in charge of informing the authorities in case of an earthquake occurrence from all DPPI countries of the South Eastern Europe have met at a dedicated *Meeting of South-Eastern European Seismologists* from 16 to 18 November 2003, hosted in Slovenia (by the Ministry of Defence, Administration for Civil Protection and Disaster Relief and the Ministry for Foreign Affairs of the Republic of Slovenia), and organized by the Seismological Office of the Environmental Agency of the Republic of Slovenia, EMSC and the

DPPI. Together with seismologists from EMSC, OREFUS, GEOFON and MedNET they have defined a project.

**Main objectives:**

- **Real-time monitoring of earthquakes**

Each country must have the capacity to rapidly and accurately locate any significant earthquake, which occur in its territory. The project includes the implementation of new digital seismological stations with real time data transmission and real time data processing. Real time data exchanges between partners will be set up to ensure that each partner is able to locate events in border regions.

- **Comprehensive long-term plan to improve the earthquake disaster preparedness**

Real-time monitoring and data processing is essential to rapidly inform Civil Protection Agencies (CPA) in case of an earthquake occurrence. The long term plan will also include the standardisation of seismic hazard assessment and risk assessment (building vulnerability), the introduction of earthquake scenarios and rapid damage evaluation (coordinated with on-going initiatives such as the ESA-EC GMES initiative) and the integration of the DPPI partners in the European Research Area with respect to seismology and earthquake engineering research.

- **Sustainability**

The sustainability is at the heart of this project. Network upgrade will be conditional to the commitment by the national authorities to provide the required resources and manpower to operate the network. Training sessions and visiting seismologists to European centres will ensure that the required level of expertise is available to run the networks and make the best use of the data.

- **South Eastern European integration**

The southeastern European integration is favoured through the establishment/strengthening of scientific links between the partners. The project implementation is based on bilateral/multilateral collaborations among the partners. Project meetings and training sessions are to be organised locally and establishment of data exchanges will be the opportunity for the partners to meet each other on a regular basis. The new seismological infrastructure to be deployed will not be defined as the simple addition of national needs but more as a regionally coordinated network. Beside its cost effectiveness, such an approach, will intrinsically favour regional integration.

- **European and international integration**

EMSC and ORFEUS have been playing an increasing role in networking and in the current integration process of the European seismological community. They have led and are developing major European initiatives and are working in close collaboration with other international organisations in this field. They are the guarantee that this project is developed in good coherency with the main international initiatives and they will facilitate developments and collaborations between seismologists in the region and seismologists in Western Europe and elsewhere beyond the work of this project.

**Proposed project organization:**

The proposed organisation consists of:

- **A steering board** representing all the partners (the seismological institutes in charge of informing the authorities in case of an earthquake occurrence) in South Eastern Europe, which define the content of the project and implement it.
- **A coordinating team** consisting of EMSC and ORFEUS, the two pan-European organizations in seismology. Jointly, they have a member/participant list of more than 100 institutes in 42 different countries. Their non-profit NGO status, their experience in networking activities and international project management and their strong links with the DPPI partners (9 of them are member/participants) fits them for this role.
- **A management bureau** at the EMSC will be in charge of the financial aspects, including financial reporting. EMSC host institution, LDG is in charge of accounting and a firm of auditors produces a yearly financial report.
- **A scientific advisory board** consisting of international experts who provide independent review of the project to the donors and the coordinating team. The experts will be appointed by the countries/organizations funding the project.
- **A partnership agreement** will be signed by the partners to precise the rules to be applied in this project.

**Project implementation:**

The project implementation will rely on, and will be built on the existing expertise and the capacities in South Eastern Europe; technical developments will proceed through regional bilateral/multilateral collaborations, with project meetings and training sessions organised locally. This ambitious project cycle is expected to last 3 to 5 years. A coordinated plan for the upgrade of seismological stations at a regional scale will be completed in 2004 for an implementation start in 2005. It will ensure that each partner obtains real-time access to all the data they need to properly monitor their territory. Disaster management will be improved by

the implementation of automatic tools for locating earthquakes in real-time. The new equipment and an integrated approach will offer each partner access to high quality information to develop its own research and research collaborations. Seismologists' and disaster managers' commitment to cooperate on the national level will foster disaster preparedness and contingency planning for earthquakes.

**The main objectives of the 2004 pilot project** are to demonstrate the commitments of the partners through concrete bilateral/multilateral actions to improve data quality and cross-border data exchange, to define a coordinated plan for network upgrades and to initiate training/demonstration sessions. Each partner has identified its own contributions to the project to demonstrate its willingness to collaborate;

### **Regional ownership:**

Participation will come from the fifteen identified DPPI partners that are the organizations in charge of informing the authorities in cases of earthquake occurrence in each of the 12 DPPI countries. They have all actively participated in the definition of this proposal in recent months and they all endorse it.

Despite the lack of funding, the partners have started to implement the first phase of the project on their own budget, which is a clear demonstration of a commitment.

- Albania:
  - Development of real-time monitoring capacities
  - Meeting with INGV (Italy) to set-up RT data exchange
- Bosnia & Herzegovina:
  - Permanent Internet connection (required for data exchange)
- Bulgaria:
  - RT data exchange (one station) with Romania
  - In progress: RT data exchange with Greece and Turkey
- Croatia:
  - Validation of Internet connection by satellite (report in progress)
  - **“How to build a virtual network from scratch”** Workshop (June 9-13, 2004, Valbandon, Croatia) organised by Seismological survey of the Republic of Croatia, the Geophysical institute “Andrija Mohorovičić” of the Faculty of science in Zagreb and the Disaster

Preparedness and Prevention Initiative (DPPI) of the Stability Pact for SE-Europe in collaboration with the EU project MEREDIAN.

- Romania – Moldova:
  - Implementation of the bilateral collaboration:
  - Meeting in Bucharest (April 4-6)
  - Permanent Internet connections in Chisinau
  - Implementation of one digital station with RT exchange with Bucharest (hardware offered by Romania)
  - By Nov. 15th: Plan to implement 3 new stations (hardware not secured yet)
  
- Serbia - Montenegro:
  - Development of RT monitoring capacities
  
- Slovenia:
  - Real time network integration with Croatia
  - Organization of the Meeting of South-Eastern European Seismologists

This initiative has attracted wide support from European seismologists, like the leaders of the so-called GEOFON and MedNet initiatives, which are transnational and which will contribute further external expertise. The neighboring countries of the DPPI partners, like Italy and the members of the Committee of Earth Sciences/Geophysics of the Central European Initiative, are strongly supporting this initiative and are willing to collaborate. At a broader scale, the project has been endorsed by the European Seismological Commission (ESC), International Seismological Centre (ISC), National Earthquake Information Center (NEIC-USGS) of USA and the International Association for Seismology and Physics of the Earth's Interior (IASPEI), demonstrating its importance in the European and worldwide context.