

Agreement INGV-DPC 2007-2009

**Project S1: Analysis of the seismic potential in Italy for the
evaluation of the seismic hazard**

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<http://groups.google.com/group/INGV-DPC-2007-S1>
(restricted access)

Deliverable # 3.01.3
Seismogenic sources in the studied key areas
(contributing to populate the DISS)

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1. Description of the Deliverable

This deliverable consists of 12 new composite (Tab. 1) and 3 individual (Tab. 2) seismogenic sources in the Dinarides. They are full-fledged records to be entered in the DISS following the database structure illustrated in Basili et al. (2008) and documentation requirements set forth by RU3.12 in this project (Basili et al., 2009). The area covered by these new records is a work in progress towards filling in the information gap about the active tectonic structures on the eastern side of the Adriatic Sea, mainly located along the coast and off-shore areas of Croatia (Fig. 1).

Table 1 - Composite Seismogenic Sources

#	DISS-ID	Name
1	HRCS001	Mljet
2	HRCS002	Hvar
3	HRCS003	Imotski
4	HRCS004	Eastern Mid Adriatic offshore
5	HRCS005	Velebit
6	HRCS006	Vinodol
7	HRCS007	Vis-Korcula
8	HRCS008	Dugi Otok
9	HRCS009	Metkovic
10	HRCS010	Palagruza
11	HRCS011	Ravni Kotari
12	HRCS012	Zadar

Table 2 - Individual Seismogenic Sources

#	DISS-ID	Name
1	HRIS001	Ston
2	HRIS002	Makarska-North
3	HRIS012	Makarska-South

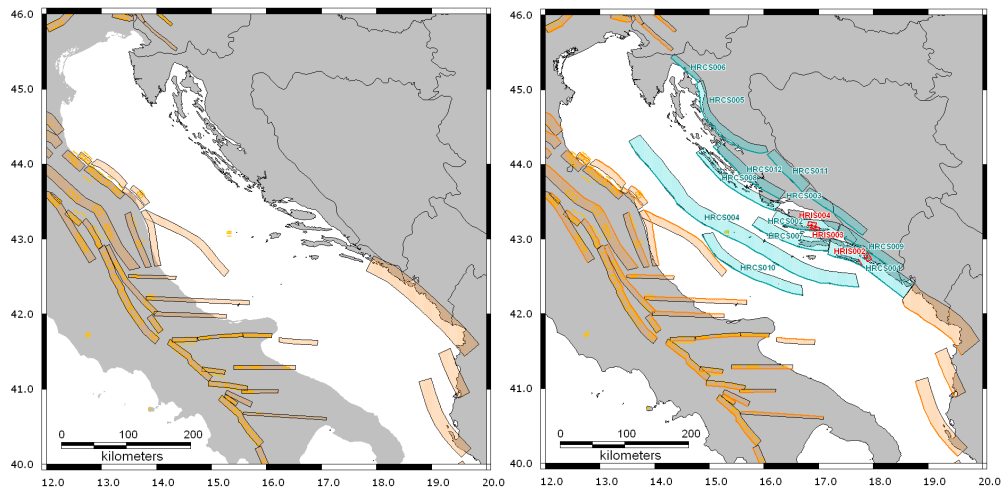


Figure 1 – The map on the left shows the coverage of seismogenic sources before the start of the project. The map on the right shows the new composite seismogenic sources are in green, and the new individual seismogenic sources in red.

This new dataset was made available to UR 3.12 for updating the DISS and to other project partners. It will also be part of the new version of DISS after thorough revision and validation on the DISS website (<http://diss.rm.ingv.it/diss>).

2. Relevance for DPC and/or for the scientific community

The area covered in this product was an information gap of a tectonically active region just outside Italy. The tectonic structures therein may also pose some tsunami threats to the Italian coast that was already explored by Tiberti et al. (2008). The new information provided contributes in better understanding and more fully exploring the seismic hazard posed by active faults just outside the Italian border and may contribute to the interpretation of location and magnitude of historical earthquakes in the Adriatic Sea.

3. Changes with respect to the original plans and reasons for it

There are no significant changes to the original plans.

4. References

- Basili R., G. Valensise, P. Vannoli, P. Burrato, U. Fracassi, S. Mariano, M.M. Tiberti, E. Boschi, The Database of Individual Seismogenic Sources (DISS), version 3: summarizing 20 years of research on Italy's earthquake geology. *Tectonophysics*, 2008. 453, 20-43, doi:10.1016/j.tecto.2007.04.014.
- Basili, R., Kastelic, V., Valensise, G., and DISS Working Group 2009, 2009, DISS3 tutorial series: Guidelines for compiling records of the Database of Individual Seismogenic Sources, version 3. *Rapporti Tecnici INGV*, no. 108, 20 p., <http://portale.ingv.it/produzione-scientifica/rapporti-tecnici-ingv/archivio/rapporti-tecnici-2009/>.
- Tiberti, M. M., S. Lorito, R. Basili, V. Kastelic, A. Piatanesi, and G. Valensise (2008), Scenarios of earthquake-generated tsunamis in the Adriatic Sea. P. Cummins, L. Kong and K. Satake (Eds): *Tsunami Science Four Years After the 2004 Indian Ocean Tsunami, Part I: Modelling*. *Pure and Applied Geophysics, Topical Volume*, 165(11/12), 2117-2142, doi:10.1007/s00024-008-0417-6.

5. Key publications/presentation

- Kastelic, V., Tiberti, M.M., Rovida, A., Albini, P. and Basili, R.: Towards a seismogenic source model of the Dinarides. Presented at the GEOITALIA 2009 meeting, Rimini, 9-11 september 2009. Available online: <http://www.earth-prints.org/handle/2122/5705>
- Kastelic, V., Barba, S., Basili, R., Burrato, P., Fracasi, U., Tiberti, M.M., Valensise, G., Vannoli, P.: Seismogenic sources of the Adriatic domain: an overview from the Database of Individual Seismogenic Sources (DISS 3.1.0). Presented at the *Natura e Geodinamica della Litosfera nell' Alto Adriatico* meeting, Venice, 5-6 Novembre 2009. *Rendiconti online Soc. Geol. It.*, Vol. 2 (2008), 1-3. Editors: G.V. Dal Piaz, C. Doglioni, A. Mottana, G. Panza, A. Rinaldo e F.P. Sassi. Available online: <http://www.earth-prints.org/handle/2122/5578>