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Facing problems of ground water pollution in the post-conflict scenario of Mostar (Bosnia Herzegovina): guidelines for an integrated strategy

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The town of Mostar, in Bosnia Herzegovina, has been theatre of many tragic events during the recent wars in the Balkans, culminating with the destruction of the historical bridge over the Neretva River. Mostar has still to face many difficulties also in the field of environmental management, besides the problems related to the destruction of the town, displacement of people, and the tensions among the different ethnic groups. Mostar is located in southeastern Bosnia Herzegovina, not far from the boundary with Croatia, in a geological setting characterized by outcrops of carbonate rocks of Mesozoic age. The area is intensely affected by karst processes, as shown by the many karst landforms, including poljes, blind valleys, swallets, etc. Limestones and dolomites are fractured and karstified, which makes the area extremely vulnerable to pollution, with particular regard to groundwater. This contribution examines the environmental hazard related to the mining area of Vihovici, some 500 m from downtown Mostar, and 300 m from the Neretva River. In this area, the extraction of coal has been carried out for many years, and interrupted because of the war. Following the abandonment of the site, the mining area has become an uncontrolled dumpsite, where hundreds of tons of solid wastes have been, and still are, discharged. Danger of pollution is further exacerbated by the proximity to Neretva River, the main source of water supply for the town. After the war, the Mostar population division in two main ethnic groups, Croats and Bosnian Muslims, complicates waste disposal. This division has repercussions also on the two firms that manage the collection and disposal of wastes, each of which operates only in one municipality. This has resulted in degradation of water quality in the Vihovici area, as highlighted by soil and water analysis. This loss of quality could also have affected the waters in the Neretva, given the direct connection with the mining area. In Mostar, like in many other towns involved in conflicts and wars, there is the need of using approaches to environmental planning and management able to deal not only with physical and organisational issues but also with the different and interrelated socio-cultural problems highlighted above. In this paper we propose the guidelines of an 'inclusive strategy' for solving the waste disposal problem in Mostar, i.e. a strategy that considers cooperation between different expert and non-expert knowledge, and dialogue and collaboration among different ethnic groups as key elements of the problem-solving approach.