Flood knowledge and sharing of experiences via Internet

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In recent years, Poland has been stricken by catastrophic floods, of which the largest took place in 1997. Fifty-five persons died, areas were inundated which contained nearly 680 000 apartments and over 10 000 businesses. As many as 70 000 buildings—so, a good-sized city—were destroyed or damaged. Losses are estimated at 14 billion zloty, which represents about 3% of the GNP.

Despite these experiences, inhabitants rarely take action leading to reduction of future losses. Research conducted as part of the OSIRIS program has shown that 70–80% of persons affected by the 1997 flood consider it impossible or nearly impossible to secure their property from flood damage via their own efforts. Considered effective are mainly structural measures, such as reservoirs, embankments, etc. Many representatives of local crisis intervention forces think similarly. Contributing in large measure to this state of affairs is a lack of knowledge regarding possibilities and techniques for flood loss limitation on a local and individual scale (non-structural measures) which are used successfully in many countries around the world.

An essential role should be played in this situation by education and information dissemination systems. Though the role of education and information is verbally declared as very important by responsible persons (in local government and state administration) for flood protection, in practice not many are following through with action. There is a lack of handbooks and flyers—in general, of information sources to aid local government in these activities.

The OSIRIS Project

For several years, IMGW has been carrying out work concerning the role of education and information in flood loss limitation. One example is IMGW's participation in a project entitled 'Operational Solution for the Management of Inundation Risks in the Information Society' (OSIRIS, cf. www.ist-osiris.org), financed by the 5th Framework Program of the European Commission. It is being executed by 12 teams from France, Germany, Italy, Holland and Poland.

The fundamental objectives of the OSIRIS project are the following:

- To reinforce inhabitants' awareness in the area of flood risk and involve them in the crisis management process
- To prepare inhabitants and crisis intervention forces to take effective safety measures before, and action during a flood
- To improve the quality of information available to inhabitants and forces before, during and after a flood

- To improve the speed and flexibility of access to information (using the newest communications technologies), at all management levels (central and local), for the various pilot locations.

Solutions prepared will be tested in practice in the catchment areas of the Loire (France) and the Oder/Odra (Poland, Germany). In Poland, the project pilot location is Kłodzko County (southwestern Poland), a region at risk for flash flooding, severely affected by the floods in 1997 and 1998.

Research conducted as part of the project shows that the problem of people's awareness and knowledge in the area of individual and local safety measures will play a key role in flood loss limitation. Thus, one of the directions of IMGW's activity in this project are education and information actions.

Proposed solutions in the area of education

The success of non-structural methods of flood loss reduction (especially of individual methods) requires change in thinking about means of protection and, as a result, change in behavior and habits of society. This is all the more difficult, in that floods are a relatively rare phenomenon; thus, an important problem is to maintain so-called 'flood memory' in society's awareness during periods when floods do not occur for a long time.

The solutions proposed in the project concern two levels:

- Local—containing proposed detailed solutions concerning the role of local government authorities, schools and other entities interested in flood issues, such as creation of a special flood forum, preparation of didactic materials (lesson plans for teachers) and various forms of education (contests for youth initiated by local government), collaboration with mass media, etc.
- Nationwide—encompassing utilization of the Internet as a tool for making information available about methods which can be used on a local and individual scale, as well as for presenting the experiences of institutions and ordinary people.

System for Dissemination of Common Knowledge via Internet

The system proposed in the OSIRIS Project is to enable presentation of knowledge and experiences in the area of flood loss limitation to various public entities (e.g. schools, local government), firms and inhabitants.

The fundamental objectives of the System for Dissemination of Common Knowledge via Internet (SWWI) are as follows:

- To facilitate access to knowledge in the area of flood loss limitation methods at the local (municipal) and individual level (inhabitants, firms)
- To enable various entities (local government, schools, firms, NGO's, inhabitants) to share their own experiences in the area of flood loss limitation
- To enable testing of individual knowledge in the area of flood loss limitation with quizzes from selected subject areas.

SWWI will be of great significance, above all, to small municipalities and suburban schools which in practice do not have access to expert information in the area of flood loss limitation. A characteristic of SWWI worth noting is also the fact that it permits presentation of one's own experiences, as well as exchange of observations regarding the effectiveness of methods and solutions used in practice.

So that SWWI can properly carry out its tasks, it will be supported by accompanying actions to increase interest in such a form of knowledge and experience sharing. The methods presently being tested concern collaboration with schools and local mass media.