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Case Study Information	
• Source (reference)	Institute of Meteorology and Water Management, Poland
• Sector	Water – Emergency Management
• Sub-sector	Local Flood Warning Systems
• Case Study Name	Supporting activity of local societies in the field of flood warning (Office for Local Government Collaboration)
• Case Study Summary	Flood in 1997 in Poland became the impulse for many changes. One of them is the taking of actions by institutions responsible for flood damage mitigation, which had not previously existed within the purview of their duties. An example of this is the activity of IMGW, which is only obligated by law to collaborate with regional- and central-level administration. The experiences of 1997, however, showed that without collaboration with local communities at risk, especially those at risk for flash flooding, no progress in the direction of effective warning systems will be made. Board of directors of IMGW takes a decision to establish in the structure of IMGW Office for Local Government Collaboration. One of the main tasks of this team is advising local self governments in building effective local flood warning systems and local mitigation plan.
• Case Study Description	
○ Location of study	Local societies in Poland (Kłodzko Valley, Staszów District, Brzesko commune, etc)
○ Tools employed / analysis methods	Integrated local flood warning systems consist of: local monitoring systems supplementing nationwide local monitoring system, tools for interpretation of forecasts, tools for disseminating warnings, training and education activity.
○ Description of application	<p>Example: On a wave of criticism aimed at official institutions responsible for flood damage mitigation, many local governments in Poland took actions meant to lead to better preparedness for future floods. One interesting example is a local precipitation and water-level monitoring system in the Kłodzko Valley, built by the local government. The Kłodzko Valley is a compact area surrounded by mountains, which makes flood wave concentration times very short—for the lower portion of the valley, they do not exceed 8 hours. In 1997, flooding in this area killed 13 persons; and in 1998, 8 persons. The measurement network built is comprised of 40 stations, of which half measure water levels, and the other half, precipitation. IMGW, as part of the European OSIRIS project (Fifth Framework Program), was involved in the expansion of this system with the following elements:</p> <ul style="list-style-type: none"> • A module for integration of measurement data from the nationwide and local measurement networks • A module for analysis of these data based on a simple precipitation-runoff model (HEC), which permits local crisis intervention forces to predict events in their area • A module for effective warning of inhabitants, based on land-line telephone service, permitting about 1000 inhabitants at risk to be

	warned in the space of an hour. Presently, work is in progress to implement this system in individual towns.
o Outcomes application of	
o Cost/Benefits	Cost: work with local services, preparation of guidebook about local flood warning systems, training material, training activity, education activity, etc The benefits are, furthermore, mutual. This new area of collaboration brings IMGW more and more information about the real needs of end-users of its products: messages, forecasts, warnings. This enables us to make effective use of institutions' potential, as well as focus the attention of operational and academic-research teams on satisfaction of real end-user needs. Local governments have, on the other hand, acquired a partner which, aside from preparing early forecasts addressed to concrete areas, is able to provide them with consultation in the area of building local monitoring and warning systems, as well as guarantee training programs to improve the effectiveness of local services' and forces' work.
• Characteristics of the Case Study	Example: Klodzko Valley
o Consultation mechanisms	Direct collaboration with emergency services on the district and local level, questionnaire survey, meeting with inhabitants
o Structural interface	Supplementation of data record from local monitoring system by data from nationwide monitoring network
o Delivery mechanism	e-mail, ftp
o Feedback mechanism	
o Review Mechanism	Workshops of IMGW staff and local crisis management teams – discussion about weak and strong poin in the system.
o Other Relevant Information	
• Project Logistics	
o Resources Used	
o Data Requirements	Data from nationwide monitoring network of water and rain stations, precipitation forecast, knowledge about local flood warning systems
o Economic Expertise Required	
• Lessons learned	Integrated flood warning system should be a part of local flood mitigation plan. Such plan should be prepared jointly with the local population, which is represented by local leaders, the village administrator, volunteer fire brigade members, municipal and county crisis intervention center staff, and ordinary inhabitants.
• Best Practice Advice	
• Possible future advances	Implementation in different places in Poland

• Comments	
• URL	http://www.apfm.info/cee_workshop.htm