

Federal Monitoring of Exogenic Geological Processes (FM EGP) in Russia

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The theoretical principles of FM EGP monitoring in Russia have been elaborated in 1980s (A.I. Sheko, et al) to the level of methodical and technological solutions and implemented practically within the RF Ministry of Natural Resources. By structure the EGP-monitoring is a subsystem of the Federal Geoenvironmental Monitoring (FGEM) incorporated into the "Unified Federal Environmental Monitoring System" created by the Resolution of the Government of the Russian Federation.

The EGP monitoring includes the following functions: (1) observe EGPs and their factors, including an anthropogenic one; (2) collect, process and analyze information obtained; (3) prepare different-purpose predictions and recommendations on control and liquidation of EGP-induced hazardous situations.

The basis of the EGP-monitoring is an observation network, hierarchically consisted of three levels depending on sizes and structure of observed geological objects (EGP-objects), scales and detailedness of observations.

The objects of EGP-observations are: (1) geological areas with similar types of outside influences; (2) geological bodies (formations, stratigrapho-genetic complexes of rocks) subjected to EGP-impact or prone to be subjected; (3) particular forms of EGP manifestations. The hierarchical structure of an EGP observation network enables obtaining data on EGP regime with any preciseness and details for any territory not carrying out continuous areal investigations. Such networks are installed in the areas most of all affected by landslides, mud flows, abrasion, etc and include about 1200 observation sites.