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Environment transformation conditioned with climate change in Georgia

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Climate change is one of the most important problems for mankind caused by those catastrophic consequences, which could take place if the global climatic system loses its equilibrium. Georgia (Caucasus Region), as well as whole world, is under the impact of climate change. The main results are: desertification, erosion, salinization, chemical pollution, soil degradation, etc. According to Georgia's Second National Communication to the UNFCCC (2009) a number of vulnerable sectors and regions have been identified and the adaptation of critical systems and economy sectors is a priority to the Caucasus countries. The most vulnerable to climate change ecosystems in Georgia are: Black Sea strip-coastal area, regarded as the economy and tourism development zone; High- mountainous zone-which has been identified as a vulnerable area to various and disastrous weather events (landslides, mud torrents, snow avalanches), land erosion has intensified, damaging agriculture, forests; desertification zone in the extreme east part of country-territories under the threat of degradation and relevant adaptation measures should be urgently implemented as Georgia historically is an agrarian country and agriculture is considered to be one of the leading sectors of economy. Glaciers are the best indicators for climate change. Late-20th-century changes in glacier extent in the Caucasus Mountains. The increase of glaciers number is connected with their deviation and partitions as a result of thawing. The relative elevation of sea level on the eastern coast of Black Sea is caused by extensive melting of glaciers in the mountain regions, provoking flooding processes of the lowland territories.

Biography

Lia Matchavariani is Professor of Iv. Javakishvili Tbilisi State University (TSU), Faculty of Exact & Natural Sciences, Department of Soil Geography, Head of Chair; Institute of Applied Ecology at TSU, Director. She has completed her PhD in Agrarian Sciences (Soil Science) from GSAU in 1989, and doctoral dissertation in Geographical Sciences (Geoecology) from TSU in 2006. She is chief of Doctoral Program "Applied Ecology", Bachelor Program "Geography", co-chief of Master Program "Physical Geography & Sustainable Development" at TSU. She has published over 150 papers, including more than 100 scientific articles (some of them in reputed peer-reviewed journals), textbooks, monographs, maps, etc.

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