
KOSOVO- Climate Modeling and Qualitative Vulnerability Assessment - water sector

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CLIMATE MODELING

- ✘ We haven't used any modeling program to prepare National Strategy on Climate Change/Adaptation, but we used questionnaires to do the assessment of the current situation of climate disasters treatment.
- ✘ The questionnaire is prepared and distributed to local and central level, including the working group within the ministry.
- ✘ Based on the results (answers) of the distributed questionnaires we created a list with 38 possible measures of high and medium priority and they are adopted in NCCS.

VULNERABILITY ASSESSMENT IN WATER SECTOR

Current situation of water resource

- ✖ It is estimated that Kosovo has limited water resources, evaluated that Kosovo has 1,600 m³ / water / year per capita.
- ✖ In hydrographical terms Kosovo is divided into five river basins: the Drini i bardh, Ibar, Morava Binçës Lepneci and Plava and five accumulations are : Ujmani (Gazivoda), Batllava, Badovci, Ereniku and Livoqi.
- ✖ Rivers with the biggest flow during the year are in the basin of Drini Bardhe in Dukagjin area. Around 95 % the water of rivers outflow from Kosovo and 5% inflow from Montenegro (Ibri River).
- ✖ Floods in Kosovo are tightly related with the orography of river spread and precipitation quantity. In average during the year the amount of precipitation is 600-700mm, in the mountains it goes till 1750 mm
- ✖ Fresh water resource shortages are most likely to occur in near future dry years if appropriate adaptive actions are not implemented right now.

VULNERABILITY ASSESSMENT IN WATER SECTOR

Impact from climate change s

- ✘ Climate change can directly affect the hydrological cycle and, through it, the quantity and quality of water resources.
- ✘ Current and expected impacts presented in the National Adaptation Strategy of Kosovo (NAS Kosovo) include :

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- ✘ Exposure to hazards such as droughts, floods, and forest fires;
 - ✘ Rising intensity and frequency of precipitation extremes like heavy rain events;
 - ✘ Higher temperatures will make heat waves and forest fires more likely;
 - ✘ Kosovo has been struck by drought several times in the last two decades (1993, 2000, 2007, and 2008);
 - ✘ Since 2004, 80% of Kosovo municipalities have suffered from water shortages due to hydrological drought and the misuse of water resources (OSCE, 2008);
 - ✘ Ecosystem degradation and reduction of ecosystem services;
 - ✘ Increase and new forms of pollution and water-related diseases.

In Kosovo the impact of climate changes in the water sector also increase and from other factors such as:

- ✗ Inappropriate construction and urbanization ;
- ✗ Illegal construction in hazard zones ;
- ✗ High socio-economic vulnerability ;
- ✗ Inadequate design of drainage and sewage systems;
- ✗ Inadequate land use and municipal planning increase population exposure to hazards;
- ✗ Unsustainable water management.

MEASURES FOR ADAPTATION IN WATER SECTOR

In the national strategy for adaptation measures, for water sector included same components :

× Flood protection

- High priority (>4): are 9 measures and
- Medium priority (<4): are 4 measures.

× Drought / low flow / water scarcity(insufficient)

- High priority (>4): are 12 measures and
- Medium priority (<4): are 1 measure.

THANK YOU FOR ATTENTION