



Questionnaire on Water and Climate Adaptation

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Water and adaptation to climate change: Joining efforts to adapt

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Aims of the questionnaire

- Assess the degree of awareness on climate change impacts on water resources in Southern and Eastern Europe
- Assess the vulnerability to climate change in that region
- Compile potential adaptation measures and strategies as well as information on implementation experiences

Builds on:

Survey by German Environment
Ministry in cooperation with
European Commission and
European Environment
Agency

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Responses from countries (10 out of 18)

- Armenia
- Azerbaijan
- Belarus
- Croatia
- FYR Macedonia
- Georgia
- Kyrgyz Republic
- Moldova
- Ukraine
- Uzbekistan
- Bosnia-Herzegovina



Assessment of future impacts

- Increase in precipitation: (5-20 %)
Azerbaijan, Kyrgyz Republic, Uzbekistan
- Decrease in precipitation: (2-6 %)
FYR Macedonia, Croatia, Moldova
- Increase /decrease depending on season:
Ukraine, Belarus, Georgia

Kolheti National Reserve bogs and marshlands

Vashlovani National Reserve savannah semi-desert



Ispani II peatland



Assessment of future impacts

Sea level decline
approx. 4 cm



Sea level rise
approx. 20 -
30 cm

Adaptation measures

- Moldova - measures necessary, but not planned yet
- Macedonia – measures planned, but not implemented yet
- Uzbekistan - measures concerning flood & drought management, both technical, economic and strategies

Adaptation initiatives

- Building adaptive capacity (Georgia, Belarus, Azerbaijan, Uzbekistan)
 - Mapping & modeling impacts, and vulnerability
 - Risk assessment
 - Developing and participating in networks
 - Training & raising public awareness
- Policy formulation (Georgia, Uzbekistan)
 - Legislation
 - Bills and acts of parliament concerning adaptation measures
- Physical/managerial implementation (Georgia, Belarus, Azerbaijan, Uzbekistan)
 - improving water system

Need for information and research

- Need for improved climate information both on long term and short term
 - strategic and planning decisions
 - operational decisions
- Research needs on:
 - Modeling of changes in water resources
 - Groundwater
 - Drinking water
 - Glaciers
 - Adaptation measures

Conclusions

- General awareness - impacts reported
- Differences in impact assessments + possible conflict between water users
 - need for coordination between countries
- Planning and implementation of adaptation still in an early stage
 - need for national policies
- More attention for non-structural measures
 - e.g. legislation, insurance and capacity building
- General lack of data
- Common guidance for climate proofing is needed
- Climate change also creates opportunities



Thank you