



Republic
Hydrometeorological
Service of Serbia

Support Of The Identification Of Adaption Options (Adaption Planning)

STEP A: climate adaption tool: prioritization of adaption needs

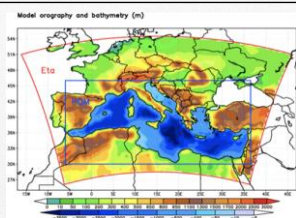
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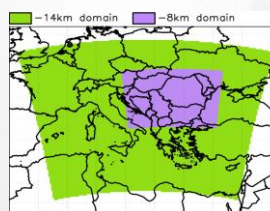
TASK 1: Position Paper On Modelling Activities

Climate models

Regional Model	Global model	Time slices	CC Scenarios	Resolution
RCM-SEEVCCC fully coupled atmosphere - ocean model	ECHAM4	1961-1990 2001-2030 2071-2100	A1B A2	~ 35 km
	ECHAM5	1961-1990 2011-2100	A1B A2	~ 35 km
NMMB	ERA40	1971-2000		14 and 8 km
	CMCC-CM	1971-2100	RCP8.5	8 km



RCM-
SEEVCCC



NMMB



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Impact assessment

- **Hydrology** – different dynamical and statistical hydrological models (HBV, HEC-HMS, VNC linear regression...)
- **Agriculture** – different biometeorological models (DSSAT-CSM, BAHUS...), indices, expert judgment
- **Forestry** – forest indices, expert judgment
- **Biodiversity and human health** – expert judgment

All impact models are applied on data provided by various climate model combinations on different time periods and scenarios.



TASK 1: Position Paper On Modelling Activities

Risk and vulnerability assessment

- **National risk assessment** – National methodology for risk assessment and plan of protection and rescue in emergency situations

Covered hazards are:

1. floods
2. earthquake, landslides, mudslides and erosion
3. extreme weather hazards (drought, severe wind, hail, blizzard, snow drift and glaze)
4. technical - technological accidents and terrorist attacks
5. fire and explosion
6. demolition of the dams
7. nuclear accidents
8. epidemiological and sanitary hazards
9. epidemic
10. epizootic
11. plant diseases



TASK 1: Position Paper On Modelling Activities

Risk and vulnerability assessment

- **“Joint disaster management risk assessment and preparedness in the Danube macro-region (SEERisk)”**- Methodology in accordance with the European Directive "Risk Assessment and Mapping Guidelines for Disaster Management"
- **“Climate Change Adaptation in Western Balkan”** - City of Belgrade is the pilot area for urban planning
- **Second National Communication of the Republic of Serbia to the UNFCCC** – review of observed and projected climate change; planning and implementation of measures to facilitate adequate adaptation to climate change in Agriculture, Forestry, Waters, Ecosystems and Biodiversity, Health sectors.