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Environmental monitoring present structure and proposals

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VI. 1. Monitoring of natural environment – present structure and proposals

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The present structure of the environmental monitoring:

- it represents a complex and mutually interconnected observations

- it is focused on processes, which depend on the surface and ground water regime changes

- it consist of:

- surface water levels and discharges
- surface water quality, including riverbed sediments
- ground water levels
- ground water quality
- soils and soil moisture
- forest monitoring
- biological monitoring

Surface water levels and discharges

- observation of water level, discharges, flow velocity and water distribution (15 SK, 13 HU + inundation 13 SK, 24 HU)

  the present monitoring network fully satisfies the goals of the Joint monitoring

  data exchange for the period before 1992

  for special tasks should be extended

Surface water quality, including riverbed sediments

- observation of surface water and riverbed sediment quality (13 SK, 8 HU + riverbed sediment 6 SK, 9 HU)

  the present monitoring network fully satisfies the goals of the Joint monitoring

  data exchange for the period before 1992

  adaptation to the Water Framework Directive is necessary

Ground water levels

- observation of ground water levels, flow directions (139 SK, 126 HU)

  the present monitoring network fully satisfies the goals of the Joint monitoring

  data exchange for the period before 1992

  for special tasks could be extended

Ground water quality

- observation of ground water and drinking water quality (10 SK, 16 HU + drinking water sources 8 SK, 6 HU)

  the present monitoring network satisfies the goals of the Joint monitoring

  focus on the redox processes

  criteria are drinking water limits

Soil moisture

- observation of soil moisture content
  (18 SK, 14 HU)

  the present monitoring network is situated on monitoring plots of soils, forest and biota

  changes are not expected at present

Forest monitoring

- forest stands in the inundation area
  (14 SK, 12 HU)

  some differences in the monitoring methods

  focus on gradual elimination of differences

  areal evaluation (remote sensing methods)

Biological monitoring

- observation of terrestrial and aquatic biocoenoses
  (6 complex monitoring areas SK,
  31 monitoring plots of single parameter HU)

  some differences in the monitoring methods

  reduction of frequency of sampling can be recommended

  principles of species inventory in the entire territory should be reconsidered (including monitoring plots outside of influenced area)

  aquatic biota – shift towards modern methods should be realized

  adaptation to the Water Framework Directive is necessary

  co-ordination with the surface water quality monitoring is required

  the Kohler method for macrophytes evaluation should be complemented by Braun-Blanquet method

  river hydromorphology evaluation in means of River Habitat Survey is recommended

Biological monitoring

complex monitoring of aquatic fauna is recommended (WFD)

fish monitoring should be focused on species inventory as well

including of birds monitoring results is recommended as well