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**ASSESSMENT IN THE WORKSHOP ON  
TRANSBOUNDARY WATER  
RESOURCES MANAGEMENT IN  
EASTERN AND NORTHERN EUROPE**

**SHMI, BRATISLAVA, SLOVAKIA**

# General description of the basins – SR territory

	Waterbodies	Forests	Cropland	Grassland	Urban/ industrial areas	no vegetation	Wetlands/ peatlands	Other forms
<b>VAH</b>	0.6	36.54	37.34	5.99	6.63	0.21	0.07	12.61
<b>IPLY</b>	0.11	36.26	34.71	6.03	3.42	0.03	0.02	19.41

The river Vah long (398 km) is a right-hand tributary of the Danube. Rising in the Tatra Mountains as the Biely Váh (in the High Tatras) and Čierny Váh (in the Low Tatras). It joins the Little Danube to become the Váh Danube (Vážský Dunaj) and enters the Danube River at Komárno, in southern Slovakia, after a course of 242 miles (390 km). The Váh has a large number of tributaries, many of which fall steeply off the Tatras and the outer ranges of the Carpathians. The east-west valley formed by its upper course provides a natural transportation route across Slovakia that is followed by major road and rail arteries; the river's north-south valley between Žilina and Bratislava similarly serves as a corridor. There are 40 small hydroelectric-power stations along the Váh.

# Countries sharing the river basin

**VAH:**

The area* of the river basin in the country:	Country	Area in the country in km <sup>2</sup>
	<b>Slovakia</b>	<b>19,148 (97.4 %)</b>
	<b>Czech republic</b>	<b>300.0 (1.5 %)</b>
<b>Total 19,661 km<sup>2</sup></b>	<b>Poland</b>	<b>212.1 (1.1 %)</b>

# Discharge characteristics

**VAH:**

Gauging station (name and km reading e.g. from the mouth of the river or another fixed point): **\_Váh-Liptovský Mikuláš, Slovakia; 346,60 km; 1107,21 km<sup>2</sup>\_\_\_\_\_**

Discharge characteristics	Discharge characteristic s	Discharge characteristics
$Q_{av}$	<b>20.134___ m<sup>3</sup>/s</b>	<b>1961-2000</b>
$Q_{max}$	<b>540___ m<sup>3</sup>/s</b>	<b>1921-2008</b>
$Q_{min}$	<b>4.2___ m<sup>3</sup>/s</b>	<b>1921-2008</b>

# Main problems in the basin and their relative importance

## VAH:

- Many Hydromorphological changes
- Diffuse pollution mainly stems from agriculture.
- Chemical, paper and pulp industry, also metal – working companies are in river basin.
- The most important and problematic pressure factor is inappropriate wastewater treatment. Point sources of pollution, which are mostly municipal wastewater treatment plants, discharge organic pollutants, nutrients and also heavy metals into the river and its tributaries.
- The most serious water-quality problems are eutrophication, organic pollution, bacterial pollution, and pollution by hazardous substances.

# Additional information on water-quality and water-quality classification

- **Vah** river in Slovakia was evaluated as moderate ecological status in water bodies: SKV0006, SKV0008, SKV0019, SKV0027 and in SKV0005 and SKV0007 ecological status was good. Chemical status was good in water bodies: SKV0005, SKV0008, SKV0019 of Vah river, in SKV0006, SKV0007 and chemical status was failing to achieve good.

# Program of measures

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**Program of measures for s.w. corresponds with identified problems:**

- **organic pollution**
- **nutrient pollution**
- **priority and relevant substances pollution**
- **hydromorphological changes**

**Each identified problem from PoM deals with:**

- **environmental objectives (ICPDR level, national level, operational object.)**
- **Background information**
- **Vision to 2015 (scenarios, modelling)**
- **Basic and additional measures**

# FUTURE TRENDS

- Ecological status and chemical status of transboundary section of Slovak rivers will improve due to realization of basic and supplementary measures in the river basin.
- However good status in Slovak rivers is not expected till 2015 – because realization of measures (mainly hydromorphological and supplementary measures in small agglomerations of the river basin – more than 50 % inhabitants live in agglomerations below 2000 PE) due to high finance needs will be realized gradually up to 2025.
- Climatic change may affect surface water status – the extent is not known at present. It is necessary to continue in realisation of National climatic program and in research of impacts of the climatic change on ecological and chemical status of surface water.



A scenic view of a river, likely the Danube in Bratislava, Slovakia. In the background, a hill features a large church with a red roof and a tall spire. A white bridge spans the river. A large white boat is docked on the right. The foreground shows a paved path and green grass. The text "GOOD LUCK!" is overlaid in cyan.

**GOOD LUCK!**