www.unece.org/index.php?id=31136

In response to new findings from the first joint assessment of water resources and climate change impacts in the Neman Basin River, a field trip and seminars will be organized along the Neman River Basin in Belarus and Lithuania from 15 to 19 October 2012. The findings, released last week, project the likely impacts of climate change on the basin and sketch some scenarios for what that will mean for the people and enterprises located there.

Both the report and the week-long meetings are being organized as part of project, “River basin management and climate change adaptation in the Neman River Basin”, which is carried out by the United Nations Economic Commission for Europe (UNECE) in conjunction with the United Nations Development Programme (UNDP) Belarus, implemented under the Environment and S ecurity Initiative (ENVSEC).

According to the new findings, climate change will bring warmer winters and less snow to the Neman Basin. Temperature in the basin is expected to rise by 1.4° C–1.7° C on average within the next 35 years, according to different scenarios of climate change, with a 2.0°C–2.8° C increase in winter and 0.7° C–1.1° C increase in summer. Other probable impacts include increased precipitation in winter, and run-off changes, with an expected increase of winter run-off, decreases in spring and summer run-off, as well as an earlier peak of the dates of spring flood.

The climate changes predicted through the studies carried out within the project (please see the note for editors below for details) will have numerous consequences for the society and economies of the basin countries (Belarus, Lithuania and the Russian Federation (Kaliningrad Region), most notably in terms of the characteristics of surface water quantity and quality. Such changes will affect different water uses, such as drinking and industrial water supply, agriculture, hydropower, recreation and tourism. The expected climate change impacts make stronger cooperation among the riparian countries — something which the project aims to support — more than ever a necessity.

The week-long series will gather together representatives of the ministries of natural resources and environmental protection and the water agencies of Belarus, Lithuania and the Russian Federation, as well as representatives of the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), UNDP, ENVSEC, international experts, local authorities and other interested parties.

During the field trip and seminars it is planned to visit monitoring stations in Belarus and Lithuania, hydropower plants, quarries, analytical control laboratories and other water facilities. T he main results of the project activities to date will be discussed: climate change scenarios for the Neman River Basin; expected changes in water run-off and in water quality due to climate change; and the monitoring systems and draft Internet platform (database) for sharing information about the state of water resources in the basin. Possible adaptation measures will also be discussed, as well as collaboration with other international projects within the basin and opportunities for further transboundary cooperation of the countries located within it.

Two press conferences for will be organized during the seminars held in Hrodna, Belarus, and Druskininkai, Lithuania:

> On 16 October, 10.15–10.45 a.m., in the Conference Hall of RUE “Grodnoenergo”, Molodzezhnaja str., 2, Hrodna.

On 18 October, 10.15–10.45 a.m., in the Conference Hall of the Hotel Grand Spa —Druskininkai, V. Kudirkos str., 43, Druskininkai.

Note to editors:

Model temperature projections for Neman river basin foresee an air temperature rise in the first half of the 21st century. Mean annual air temperature in the basin is expected to rise by 1.4° C–1.7° C according to different climate scenarios, with a 2.0 ° C–2.8° C increase in Winter and 0.7° C–1.1° C increase in Summer. The annual precipitation amount will also likely increase in the Neman basin area. Larger changes are predicted for the first half of the year, while for the su mmer-autumn period smaller positive or even negative changes are foreseen. Model outputs data indicate a decrease in sunshine duration in the first half of the 21st century. The largest sunshine duration decrease will be observed during the winter months. Due to the cold season air temperature rise and changes in precipitation composition snow cover will decline in the near-term future.

Results of the future water balance modelling show that significant changes of the runoff regime in the Neman basin are likely to happen. The projected annual runoff will be lower in 2021-2050 than in 1961-2009 in the Belarusian part of the Neman basin, but the annual runoff in the Lithuanian part of the Neman basin is likely to increase. The largest positive changes are projected in January and February due to the earlier start of spring flood, rise of winter precipitation and increased frequency of thaws. The projected maximum runoff will decrease in the majority of the Neman basin because of warmer Winters with more frequent thaws and consequently less water accumulated in snow cover before flood. Spring flood will also start earlier due to the shorter duration of snow cover. Higher flood risk can be expected only in the western part of Lithuania. The changing climate will also affect the warm season (May-September) runoff. The decrease of May-September runoff in some catchments suggests that in some parts of the Neman basin the hydrological droughts may be more frequent or with higher magnitude then they were in the 1961-2009.

Forecasted water use for the industry of Belarus will grow by 0.5-2.0% per year in case of optimistic scenario of economic development which will also have slight impact on runoff regime. However, it was determined that the impact of climate change will be more important on runoff in the Neman River Basin on the territory of Belarus in comparison with forecasted impact of water use changes. The findings are available from the project website at http://www1.unece.org/ehlm/platform/display/ClimateChange/Neman

The project “River basin management and climate change adaptation in the Neman River Basin” was launched in 2011 and is funded by Finland and Sweden in the framework of ENVSEC. Local implementation in Belarus started in February 2012. It is one of the pilot projects on climate change adaptation in transboundary basins under the UNECE Water Convention (see http://www1.unece.org/ehlm/platform/display/ClimateChange/). The project is implemented in Belarus by UNDP Belarus and covers the territory of the Neman River Basin (Belarus, Lithuania and the Kaliningrad Region in the Russian Federation).

The overall objective of the project is to improve integrated river basin management and transboundary cooperation in times of a changing climate in the Neman River Basin. The project aims to strengthen the capacity of the countries sharing the Neman River to adapt to climate change through supporting dialogue and cooperation on the needed steps to design an adaptation strategy in the transboundary context. It will aim to reach a common understanding on future water availability and water use, taking into account possible climate change impacts. The project also assists Belarus in implementation of the United Nations Framework Convention on Climate Change by means of building national capacity for sustainable management of the country's water resources in the context of climate change.

Within the project the following activities are carried out: assessment of the Neman River Basin's water resources, taking into account different scenarios of climate change and economic development; water balance calculations; development of proposals regarding the agreed indicators of water bodies' status and systems for classification of water bodies' state and parameters; analysis of the monitoring systems; development of recommendations related to adaptation to climate change in the Neman River Basin; and elaboration of an information platform (Internet database), containing data on water resources management for the Neman River Basin countries. The project activities are expected to support improvement of integrated water resources management and enhance transboundary cooperation, including improvement of ex change of information about water resources use between Belarus, Lithuania and the Russian Federation.

The UNECE Water Convention programme of pilot projects on promoting cooperation to adapt to climate change in transboundary basins aims to assist UNECE countries in implementing the Water Convention and the European Union Water Framework Directive under conditions of a changing climate and to support UNECE countries in their efforts to develop adaptation strategies and measures by promoting cooperation on adaptation in transboundary basins.

For more information about the project and the field trip, please contact:

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