

Project:

Development of proposal for national adaptation strategy, including identification of scientific data, measures for adapting to changing climate, impact and cost evaluation

Results of Completed Activities

Partner No.3:

**Latvian Environment, Geology and
Meteorology Centre (LEGMC)**

General Information

- LEGMC has shared responsibility of implementing the following activities:
 - to develop climate change adaptation and impact scenario for the year of 2011.-2100. (Activity 1.1.)
 - to develop the flood risk maps (Activity 2.1.)
- LEGMC participates in developing the climate change scenario for Latvia, as well as develop of the adjustment system of monitoring indicators database

Results of the Completed Activities (1)

- LEGMC has prepared historical climatic output data (e.g. temperature, precipitation, wind speed) which are prepared for submission to the expected service provider. Data has been gathered from all the available monitoring stations in Latvia.
- Range of period 1961-2010.
- Performed data quality and homogeneity.
- Defined most appropriate methods of the data analysis.
- Performed calculation of probability recurrence and analysis of existing climatic data.

Results of the Completed Activities (2)

- Identified and calculated essential extreme climatic indexes, e.g. temperature, precipitation.
- And other preparation works.
- An agreement on the climate scenario development has been signed. It is defined that the service provider (FMI) will develop the report on climate scenarios and it is proposed to be finished until August 2016.
- Trainings about climate scenarios experience adaptation are expected.
- Expected – GIS application to visualize and select climate data (historical and future, climatic parameter, chosen place etc.).

Other information

- In the border area of Latvia project data were obtained from Lithuania and Estonia. Data from Russia was not obtained. All attempts to communicate with Russia was unsuccessful.
- It is important as soon as possible to start collaboration with the most vulnerable sector competent experts to accomplish rest of tasks.

Activity 2.1.

**Development of flood risk maps
(three river basins – Gauja, Lielupe, Venta)**

Results of the Completed Activities (1)

- LEGMC has made preparation work for flood modelling (Gauja, Lielupe, Venta)
 - Prepared (digitalised) historical data (e.g. level, ice thickness, daily vaporising data) outputs in details.
 - Prepared meteorological and hydrological parameters (air pressure, precipitation etc.), metadata of Lielupe, Venta and Gauja RB, hydrometeorological data (waterflows etc.)
 - Range of period 1926-2003.
- LEGMC has developed the flood risk maps for three river basins (Gauja, Lielupe, Venta) (basic data)

Results of the Completed Activities (2)

- To disseminate user–friendly flood map service for wider society (incl. state services, insurers), LEGMC will finalises all the flood maps up to level which will increase functionality of selecting data and interactivity. Expected time – July/August.

Other information

- It has been identified that the quality of data have significant differences. Using LIDAR data it has been covered approximately 25% of the territory of Latvia. Responsible institution for LIDAR data – Latvian Geospatial Information Agency (LGIA) – working on preparation of data and estimates cover rest of the territory within 3-5 years of period. LEGMC expect that at the end of the project it will increase the flood risk maps with more LIDAR data.

Thank you!

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