LIFE LOCAL ADAPT

Integration of climate change adaptation into the work of local authorities

IN THIS ISSUE

Welcome to the Life Local Adapt newsletter

On July 1st 2016 the **LIFE LOCAL ADAPT – Integration of climate change adaptation into the work of local authorities** project started. Within this five-year project, six partners from four countries will identify and test different approaches to support small and medium sized municipalities to cope with the expected impacts of future climate change.

With the half-yearly sent newsletters we will inform you about the project, its progress and latest findings. This first edition will inform about the project itself and the participating partners. Later newsletters will then shift to latest and upcoming activities, opportunities to get involved and additional information related to the topic of climate change adaption in urban areas.

If you are interested to receive these information we would like you to register for the newsletter on www.life-local-adapt.eu.

We hope you will enjoy reading the newsletter.

With warm regards

Prof. Dr. Christian Bernhofer
Project coordinator

Introducing LIFE LOCAL ADAPT

Integration of climate change adaptation into the work of local authorities

Climate change is among the greatest challenges of our time and the impacts will in particular affect human settelments of all size. There are several initiatives, programmes and projects in place that support local authorities to cope with the arising challenges. However, many, if not all, of those activities primarily address larger cities; only limited attention is paid to small municipalities. While larger cities are typically better equipped with staff and other resources necessary to deal with climate change, small municipalities have only very limited support to cope with climate change.

Given this background, LIFE LOCAL ADAPT is characterized by the following aspects:

1. Identificaiton, development and test of innovative approaches to integrate climate change into the work of local authorities in these backgrounds. This includes implementation of measures during the project.

2. It focuses in particular on small and medium sized municipalities. In total, 23 municipalities and counties already committed their participation in and support of the project.

3. Two of the demonstration areas are located in Eastern European countries, the Czech Republic and Latvia. The other two areas in Austria and Germany are especially characterised by topographic gradients comprising catchments from mountainous regions to lowlands.

Consequently, the six partners from four countries will identify and test different innovative approaches in their demonstration areas (see figure). The project duration of five years allows implementation of concrete measures, including support for some „best solutions for CCA“ which will be nominated via a contest (details in another newsletter). A transferability concept also to be developed in LIFE LOCAL ADAPT willl ensure that findings can also be applied elsewhere.

All activities in the project follow a strict transdisciplinary approach by including the local stakeholders. The innovative solutions will thus be the result of a joint effort in order to include the local knowledge and expertise.

For further information on structure and objectives of LIFE LOCAL ADAPT please visit our homepage: www.life-local-adapt.eu

Brief partner description

Technische Universität Dresden – Chair of Meteorology and European Project Center

The Chair of Meteorology and the European Project Center (EPC) of Technische Universität Dresden (TU Dresden) together form the coordinating beneficiary of the LIFE LOCAL ADAPT project. Together with the Saxon State Office for Environment, Agriculture and Geology (LfULG) they represent the German demonstration area Saxony.

The Technische Universität Dresden (TU Dresden) is one of the 10 largest universities in Germany with about 37.000 students and over 9.000 employees. As a full-curriculum university with 14 faculties, it offers a broad variety of 129 disciplines in engineering sciences, social sciences and humanities, natural sciences and medicine. TU Dresden belongs to eleven "universities of excellence" in Germany and true to the motto "Wissen schafft Brücken" ("Knowledge builds bridges"), inter- and transdisciplinary projects and close cooperation with administrations and organisations outside are not the exception but rather the rule.

The Chair of Meteorology is part of the Institute of Hydrology and Meteorology at the Faculty of Environmental Sciences. Its main research mission is „Surface-Atmosphere-Interaction". Research and teaching are equally important aspects for about 25 staff members. Since the 1990s regional climate change represents one focus of research. In the last ten years climate impact and adaptation to climate change became additional important research areas.

The European Project Center is an institution of TU Dresden providing advice on European programmes for research funding, training and third country cooperation, and support from the European Structural Funds. In addition to consulting on funding, the key competences lie in administrative project management. The team has grown now to over 35 members of staff and is entirely financed by the third-party funding it receives.

Helmholtz-Zentrum Geesthacht / GERICS

The Climate Service Center Germany (GERICS) is an independent scientific entity at Helmholtz-Zentrum Geesthacht, Zentrum für Material- und Küstenforschung GmbH (HZG). HZG is one of 18 members of the Helmholtz Association of German Research Centres, Germany's largest science organization.

GERICS is among the leading experts in the field of climate services in Europe and will bring this expertise from the cutting edge of the field to the use of LIFE LOCAL ADAPT. Currently, roughly 45 experts from different natural and social sciences as well as the Humanities work at GERICS. The four core areas of activities are climate system modelling including model development, urban areas, energy and water, and ecosystems. In addition, GERICS is engaged in several national and European networks.

In LIFE LOCAL ADAPT, GERICS will mainly contribute to the data assessment based on the EURO-CORDEX activities, for the development of the transferability concept based on the various activities related to urban areas and communication activities.

For more information on the Climate Service Center Germany visit the homepage on www.gerics.de.

Brief partner description

CzechGlobe - Global Change Research Institute, The Czech Academy of Sciences

CzechGlobe - Global Change Research Institute has been established as a Centre of Excellence within The Czech Academy of Sciences. Research is carried out in three main segments affected by global change:

1. atmosphere – climate change and its modelling;
2. ecosystems – the carbon cycle, impacts of global change on biodiversity and ecosystems; and
3. socio-economic systems - impacts of global change on the development and behaviour of society.

In the LIFE LOCAL ADAPT project, CzechGlobe is responsible for the realization of all project activities planned in the North-West region, Czech Republic. These includes:

- integration of climate change adaptation into the administrative practice of local authorities;
- enhancing the knowledge of municipalities on climate change adaptation; and
- improving the data and information base on climate change impacts.

Series of workshops are being organised in pilot cities in order to meet project aims.

First workshop has already took place in Ústí nad Labem (regional capital of NW region) in October 2016. Key stakeholders and local authorities were familiarized with projections of climate change and its expected potential impacts on the city. Using participatory approaches, fundamental problems were identified and ranked. Four major issues arised:

- floods – both river flooding and flash floods; extreme precipitation and insufficient rainwater retention;
- quality and distribution of green infrastructure in the city;
- heat waves and urban heat island.

Further on, future scenarios of three thematical areas were discussed in detail during word café session:

- quality of life and vulnerable population;
- spatial planning and urban development;
- environment and adaptation to climate change.

All the inputs from the workshops will be used for the analysis of adaptation priorities and options for the integration of adaptations into the administrative practice.

Usti nad Labem Seminar

Usti nad Labem group work

Brief partner description

The Provincial Government of Styria

The Provincial Government of Styria in Austria is represented by the division 15, department energy and domestic architecture, climate protection coordination. With its employees the organization is liable for coordination, organization and implementation of the climate protection- and climate adaption plan of Styria. In 2011 the department invented the initiative “Ich tu`s - für unsere Zukunft” (I‘m doing it – for our future) to raise the awareness in Styria with activities like special information days, climate protection and energy saving campaigns or for example climate protection competitions.

Andrea Gössinger-Wieser, Heidi Weiland and Bettina Fisher are responsible for the implementation of the project LIFE LOCAL ADAPT in Styria for the next 5 years. The local objective in Styria is to establish local adaption plans in five pilot-municipalities (Deutschlandsberg, Gleisdorf, Hartberg, Mariazell and Weiz) and to implement up to 5 pilot-measures in these local authorities. The involved municipalities will receive profound knowledge about climate change including regional and local climate data.

Since the beginning of the project in Styria first meetings with the attending municipalities took place to give them all information about the project and the organisation structure. In spring 2017 the first thematic workshops will take place in the five municipalities with the aim to identify the special requirements for each of them. The results of these workshops will be the basis for their special local adaption plans.

One main point also will be to collect current literature and database about climate adaptation in Austria and the region of Styria. This technical overview will be imported for the successful progress of the further project work.

Kick-off meeting with involved municipalities at Gleisdorf, Styria

General information meeting on climate adaptation for all municipalities of Styria in Hartberg/ Austria

Brief partner description

The Valka Municipality

The Valka Municipality is one of 110 administrative municipalities in the Republic of Latvia. Its area is 906.8 km^2. The Valka Municipality is situated in the north-east of Latvia, in the historical region of Vidzeme. it is one of 110 administrative municipalities with an area is 906.8km2. The municipality is compromised by the town of Valka and the rural territories of Ērģeme, Kārķi, Valka, Vijciems and Zvārtava.

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The Valka Municipality is located 157 km from Riga, the capital of the Republic of Latvia; the distance to Valmiera, a national development centre, is 50 km. The municipality borders on the Estonian town of Valga; its distance to Tartu, the second largest city in Estonia, is 90 km, but the distance to Tallin, the Estonian capital, is 240 km.

The territory of the municipality is crossed by one of the main national motorways – A3 (E264) Riga – Tallin, which links the European Union countries with Russia and the regional roads of Valka – Smiltene, Valka – Rūjiena, Valka – Vireši; the railway Riga – Tartu on the Rail Baltica axis is also important for the accessibility of the Valka district and populated places in other regions.

Valka town, Latvia

A large part of the territory is included in the North Vidzeme Biosphere Reserve and the protected landscape area of “Ziemeļgauja” (NATURA 2000).

The Valka Municipality Council has a great co-operation with Valga Town Government (Estonia) in all spheres which helps to develop our cities and inhabitants have a better standard of living.

Main industries are wood processing, forestry; production of heat and electricity; production of polyethylene foam products and air bubble sheets; metalworking; land amelioration, peat extraction, construction of small hydropower stations; production of spare parts for cars; sewing; construction; food production.

Valka Municipality´s main aim in the LIFE LOCAL ADAPT project is to develop and implement the Valka Municipality Local Adaption Strategy to climate changes. It is planned to develop the Local Climate Adaption Strategy till December, 2017 and Monitoring and Evaluation System of Local Climate Adaption Strategy till June, 2018.

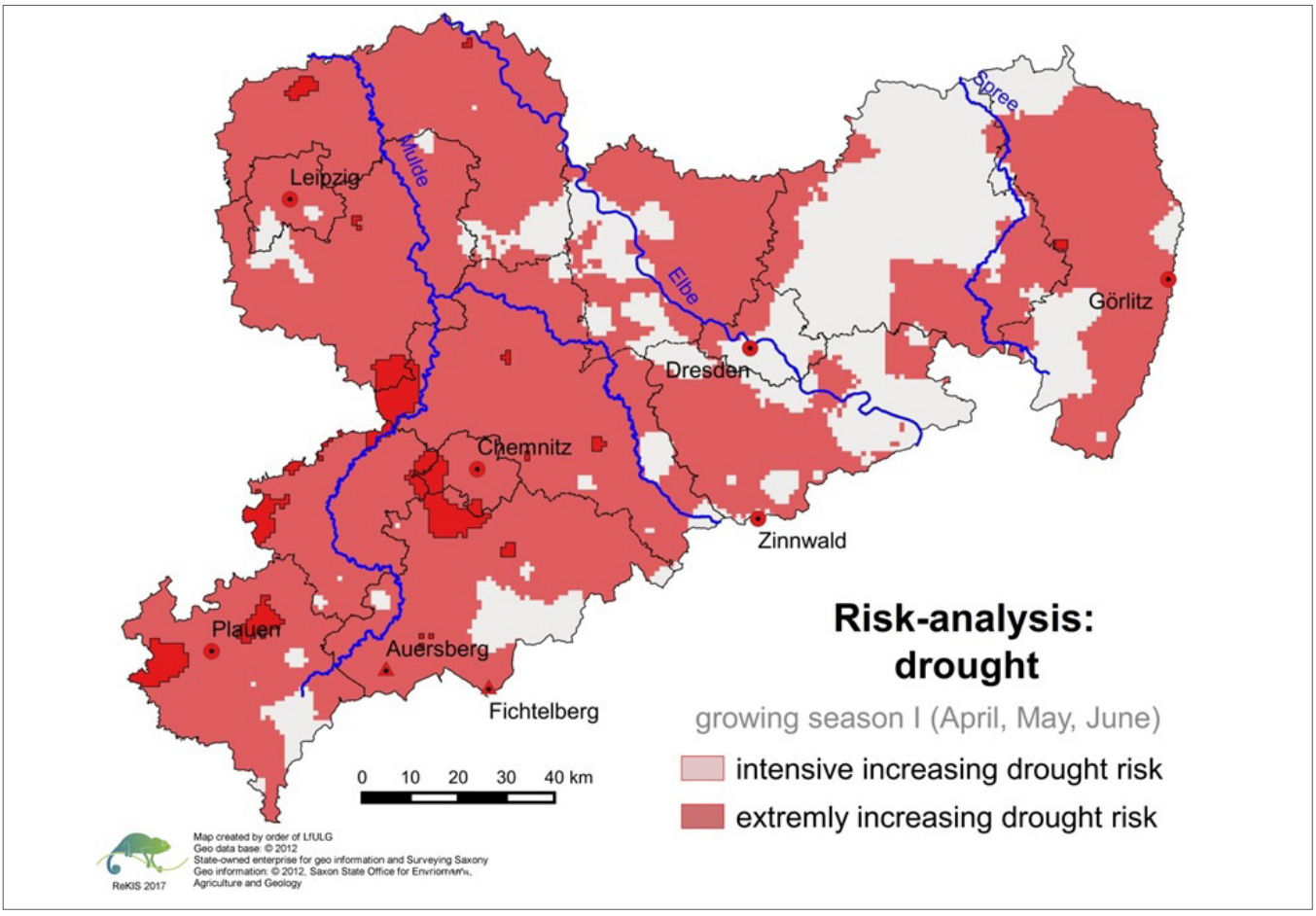
As a small but active municipality we would like to demonstrate the climate change adaptation management approaches and solutions at regional, national and international level. We seek to contribute to the overall aim of the European Union (EU) Adaptation Strategy for a more climate-resiliant Europe by the implementation of an effective climate management system.

Extended partner description

Saxon State Office for Environment, Agriculture and Geology (LfULG)

The Saxon State Office for Environment, Agriculture and Geology (LfULG) is an extension authority of the Saxon State Ministry for Environment and Agriculture (SMUL) of the Free Federal State of Saxony/Germany. Primary activities include environmental monitoring, support of agricultural and environmental measures in rural areas, applied research of public interest as well as professional education and training in the agricultural and horticultural sector. LfULG also develops strategies and region-specific recommendations for viable and sustainable agricultural and environmental policies. The unit “Climate, Air Quality” is responsible for regional climate analysis as well as for monitoring and coordination of and assistance to regional activities concerning climate change, adaptation strategies and measures. Here the advisory service is anchored.

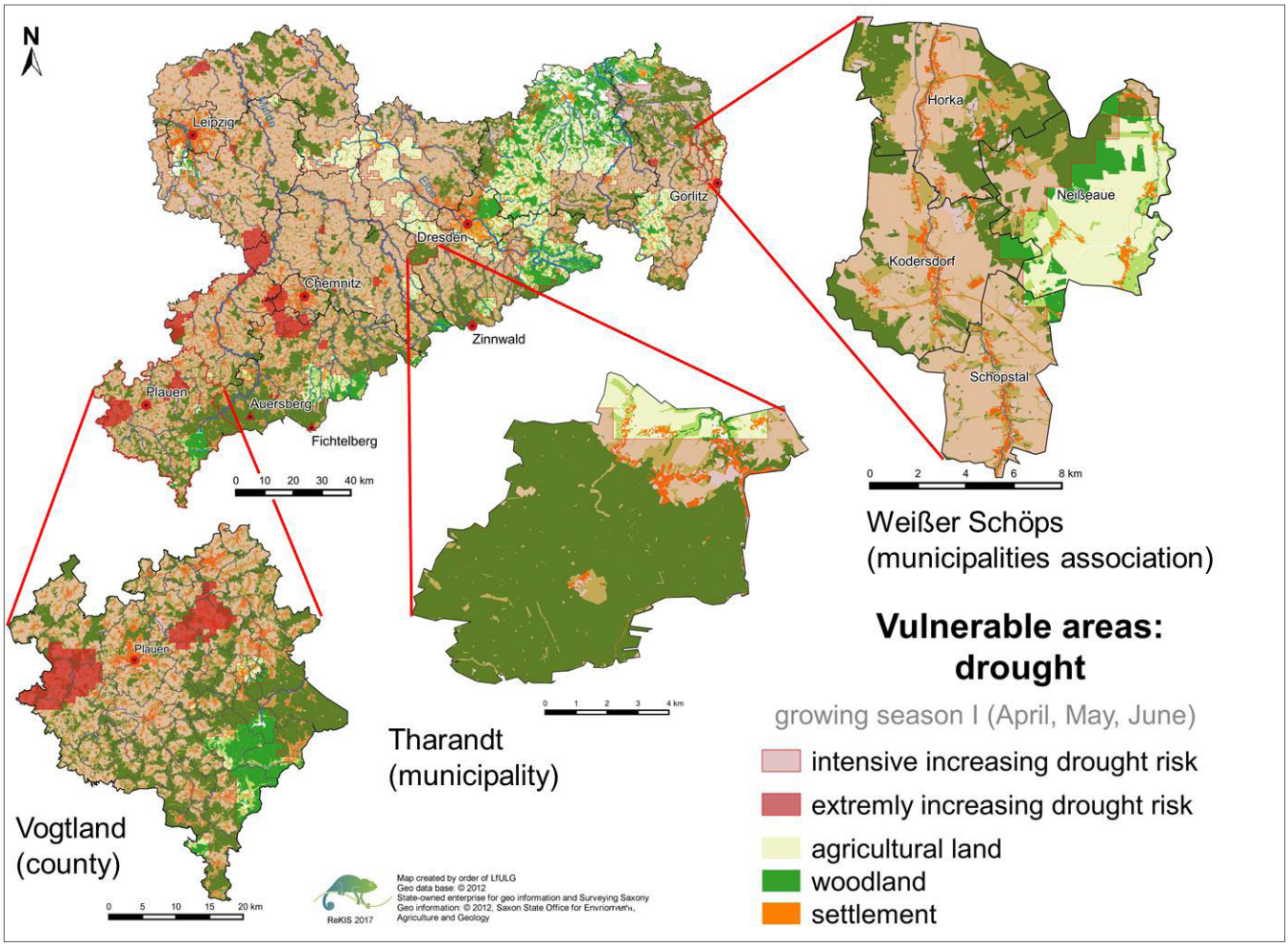
Currently, several Saxon municipalities are addressed by the project team to introduce the project, to collect information of local vulnerabilities and to develop first ideas for pilot projects. To visualize the vulnerabilities some risk maps for heavy rain and drought (fig X1) were created. As shown below, nearly the whole area of Saxony is affected by increasing drought risks during the so-called growing season I (April, May, June). This period is very important for plant sprouting, tillering and young trees.



During this season, the appropriate temperature and an adequate amount of water for an optimal development is needed. The increasing drought risk is a consequence of lower precipitation and higher evaporation (driven by higher average temperature). To investigate the vulnerability, it is necessary to merge drought risk and land use (fig X2).

About 80 % of Saxony is covered by agricultural (55%) and wooded (27%) areas, so large parts of these areas are directly affected by drought. The regions at the border of Thuringia and in the West of Chemnitz are extremely affected by increasing drought risk. Besides these general statements special software allows to zoom to different levels from counties to municipalities. This allows to generate specific information for local administrations and to arouse interest and attention for LIFE LOCAL ADAPT.

To encourage municipalities to further develop their ideas, prototypes of factsheets were presented and discussed. Useful suggestions from the municipalities will be integrated in the following versions. Further, a report on vulnerability due to climate change in Saxony and on the concept for the establishment of an advisory service, the so called “climate coaches” is prepared. A contest is planned to promote adaptation projects of municipalities. It aims to provide funding to three to six municipalities for



the development and implementation of their adaptation measures. In 2019 a second call of the contest will follow. The target group of LIFE LOCAL ADAPT comprises municipalities with a maximum number of 100,000 inhabitants.

On 24 January 2017 the kickoff-event took place in the agriculture and environmental center Nossen. Municipalities and counties from all over Saxony sent out 27 representatives to get the updated information about LIFE LOCAL ADAPT.

The project and the preliminary conditions of the contest were presented, experts as well as other Saxon communities reported on their experience about adaption measures to an interested audience. Werner Sommer, head of the unit “climate, air quality, noise protection and radiation protection”, introduced the evening by recollecting the project idea and the significance of adaptation strategies on the local level. Afterwards Majana Heidenreich from the Chair of Meteorology of the TU Dresden accounted the impacts of the global climate change. Furthermore Wolfgang Socher, member of the environment agency Dresden, told about the finished project REGKLAM (climate adaption in the model region Dresden) and lessons learned also suitable for smaller and medium-sized municipalities. Prof. Thomas Naumann from the Leibniz Institute of Ecological Urban and Regional Development presented results of his work on climate adaptation for buildings and Anne-Pauline Kittel from the municipal planning and building control office Freital gave a summary of adaptation measures in an area subject to flooding. Finally, discussions were continued in smaller groups at the “Come Together” buffet.

More information and the lectures of the kickoff-event

Kick-off event at the Saxon State Office for Environment, Agriculture and Geology (LfULG) in Nossen, Germany

Team members of Life Local Adapt

For detailed information, please visit our website! www.life-local-adapt.eu

Technische Universität Dresden, Germany

Christian Bernhofer, Majana Heidenreich, Barbara Köstner and Ines Schmidt

Helmholtz-Zentrum Geesthacht / GERICS, Germany

Jörg Cortekar and Claas Teichmann

Saxon State Office for Environment, Agriculture and Geology (LfULG), Germany

Janka Soltes, Dominic Rumpf, Andreas Völlings and Werner Sommer

Provincial Government of Styria, Austria

Bettina Fischer, Andrea Gössinger-Wieser and Adelheid Weiland

CzechGlobe – Global Change Research Institute, The Czech Academy of Science, Czech Republic

Eliška K. Lorencová, Adam Emmer, David Vačkář and Manuel Acosta

Valka Municipality, Latvia

Inga Aleksejeva and Jana Putniņa

Upcoming Events

Conference „Green infrastructure: Nature based solutions for sustainable and resilient cities“

4 - 7 April 2017, Orvieto, Italy

CzechGlobe workshop in one of the LIFE LOCAL ADAPT municipalities: „Climate change adaptation in Litoměřice“

20th April 2017, Litoměřice, Czech Republic

Workshop: The Covenant of Mayors going national - Collaboration perspectives

26 April 2017 09:00 - 15:00

Stuttgart, Germany

http://www.covenantofmayors.eu/index_en.html

10. Bürgermeisterkongress Risiken und Katastrophen in Deutschland

3 - 4 April 2017, Günnewig Hotel Bristol, Bonn

http://www.buergermeisterkongress.de

„Green Awards” Ceremony and LIFE Information Day

29 May - 2 June at Green Week 2017, Brussels

http://www.eugreenweek.eu

Conference „ECCA 2017 - 3rd European Climate Change Adaptation Conference“

5 - 9 June 2017, Glasgow, UK

LfULG: Regionalveranstaltungen »Klimawandel in der Region

4. April 2017, Bautzen

26. April 2017, Grimma

15. November 2016, Zwickau

https://www.umwelt.sachsen.de/umwelt/klima/43523.htm

2nd Life Local Adapt Annual Project Meeting

20 - 21 June, Graz, Austria (for project members)

Life Local Adapt will be presented by a poster from CzechGlobe at the European Geosciences Union (EGU) General Assembly 2017; 23–28 April 2017, Wien: „The Municipalities of the Northwest Region of the Czech Republic Adapt to Climate Change: Overview of Barriers and Challenges.“

Imprint
Technische Universität Dresden
Institute of Hydrology and Meteorology
Chair of Meteorology
01062 Dresden, Germany
https://tu-dresden.de/bu/umwelt/hydro/ihm/meteorologie
Contact: barbara.koestner@tu-dresden.de