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Urban Climate-Gardens: an educational initiative in the model region of Berlin

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Urban areas are especially affected by climate change. The city of Berlin, for example, expects higher average temperatures by up to 2.5 degrees Celsius until 2050, more "hot days" and an increase in heavy rain days and a rise of rainfall in the spring and in the winter. Although the precipitation in the summer might barely change droughts are more likely because of concentrated heavy rains. The winters tend to become milder with less ice and snow. "Insecurity" is part of the climate models; exact predictions are not possible.

What does this mean for Berlin? Which impacts do climatic changes have on urban gardening? What can gardeners contribute to adaptation and mitigation?

The project "Urban Climate-Gardens: an educational initiative in the model region of Berlin" – funded by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety from 04/2015 till 03/2017 – aims at climate change adaptation in allotments, community gardens and neighborhood initiatives. The purpose of the project is, to raise awareness about climate change and the importance of the gardens for the city, and to develop educational measures. The main target group is "multipliers" for the more than 70.000 allotment- and community gardeners in Berlin. They should be enabled to implement adaptation and mitigation actions in their gardens and carry on their knowledge to others.

The project implements a holistic approach to education, consisting of the development of "climate-educational gardens", trainings, and an online platform. Participation is seen as axiomatic for the success and usability of educational measures. Therefore all units are planned in an advisory board of garden associations, community garden initiatives, environmental organizations, scientists and the Senate Department for Urban Development and the Environment, and are evaluated by these experts as well as the end-users. The concretization of the project implementation is carried out on the basis of a situational and knowledge needs analysis which took place from May to November 2015. Literature was analyzed; existing training courses and materials researched and a series of expert interviews and an online survey among gardeners in Berlin were carried out.

Initial results give evidence that “climate gardening” resembles organic gardening in many aspects. The current gardening praxis shows a diverse picture: on one side there are climate adaptive practices which are realized by the gardeners whereas on the other side left potentials become visible, for example concerning crop rotation, use of rain water, efficient irrigation and the ground cover. Regarding education the survey shows that gardeners learn mostly “by exchange“ and “by doing“. The respondents mostly state a big interest on learning more about climate change adaptation measures. Relevant educational materials on (organic) gardening exist but they rarely consider the relevance of specific measures against the background of climate change. Between the groups (allotment gardeners – community gardeners / age groups / groups of gardening experience and knowledge) there are several significant differences in the gardening practice and the interests on education, its topics and implementation.

Based on these results the current planning for the further process of the project envisages two main threads. One focuses on the extension of the survey on existing knowledge, educational measures and experts in the field of gardening and climate change and in the next step distribute the information in workshops and in the internet. The other concentrates on the creation of supplementing materials and workshops to bridge from gardening to climate change and especially to offer settings for further networking amongst the stakeholders such as science and praxis, allotment gardeners and community gardeners, education and gardeners, city council and gardeners. In terms of the core topics the focus will be on “species and varieties”, “soil: its conservation and improvement”, “water: dealing with lack and excess of water” and “gardens and their importance for Berlin in climate change”.

The report on the situation analysis will presumably be published in February 2016.

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