



## UNI BASEL

# KlimaGarten 2085

Zurich-Basel Plant Science Center

Launch in 2016



# Climate Garden 2085: a multi-disciplinary exploration of a future garden

The Climate Garden 2085 brings climate scenarios to a human temporal and spacial scale, and considers the role of science and culture in imagining our future green cities, landscape and agriculture.

How would a summer feel in the Swiss lowlands in 2085? What will our grandchildren grow in their gardens that year? For many people it's hard to imagine what few degrees difference will make to their local weather and vegetation.

We hear about the likelihood of extreme weather events and global average temperature changes of 1.7 to 6 °C, but what does this mean for Switzerland? Communicating climate change is not only about facts but about how people relate emotionally to predictions and the cultural context of the information. The Climate Garden 2085 brings together expertise from natural sciences, humanities and arts to engage the public in events and dialogue around plants in a changing climate.

#### Goals

- To investigate what a future garden would look like based on climate change scenarios from the IPCC, specifically for Switzerland.
- To show in a tangible way what global models mean on a local scale.
- To create a platform for diverse activities from multiple contributors.
- To contribute to the public dialogue about climate change in a creative way through natural sciences, arts and humanities.



### Activities

1. A planted garden set in the Zürich Botanical Gardens: Crops which currently grow well in Switzerland such as ryegrass, clover, sunflowers, wheat, maize and chard, will be grown in two greenhouse compartments. One set to the temperature of the A2 business as usual scenario, and the other to RCP3PD, best case scenario. Half the plants in each compartment will be given 8-28 % less water as defined by the scenarios. (Meteoschweiz/ ETH CH-2011)

2. Workshops for secondary school students on plant stress, e.g. stomatal conductance with elevated CO2. Primary school workshops will be given by PSC and Botanical Garden staff.

#### **Resources & Parameters**

- A greenhouse space 2 x 10-15 sqm and optional outdoor space ca 20s qm from April-October 2016
- Workshop room for school groups/public
- Staff resources from Botanical Garden and PSC
- We are seeking additional funding to carry out the activities



3. "Future forecasting" The garden would be a platform for showcasing Swiss research on climate change from many natural science and humanities disciplines.4. A series of public talks and demonstrations by experts from the Botanical Gardens on gardening in a changing climate.

5. Workshops for children and families with the Botanical Garden staff.

6. "A climate garden feast" where local chefs harvest the garden and design meals for the future.

7. A film and event series looking at the ways in which cultures have attempted to predict the future over centuries from the Mayans through science and fashion forecasting, but also literature (Orwell) and film (Metropolis).

8. An art month with temporary installations, theatre, storytelling or poetry in the garden. "How to eat from the wild", post-carbon survival skills, etc.

#### **Impacts & Outcomes**

• Facilitate dialogue with the general public about climate scenarios for Switzerland.

- Associate involved institutions and funders with constructive, solutionoriented discussions around climate change.
- Showcase the research of the University of Zurich, ETH Zurich and the University of Basel on climate change from natural science and humanities disciplines.
- Produce a manual for other communities around the world to create a Climate Garden 2085 based on their downscaled scenarios.

#### About Us

The Zurich-Basel Plant Science Center (PSC) promotes fundamental and applied research in plant sciences. We seek creative approaches to engaging with schools and the public about our research topics and the cultural and scientific context of that research.

The Climate Hope Garden is a collaborative project with the Botanical Garden Zürich, the Swiss Environmental Humanities Group, GLOBE, ProClim, and more to follow.

#### Concept

Juanita Schläpfer is an artist and science communication expert with a proven track record. She created the first Climate Garden in 2011 and repeated it in 2012 in a research greenhouse at the ETHZ in conjunction with the publication of the IPCC scenario downscaling for Switzerland, Meteoschweiz/ETH CH-2011. It was featured on the Tageschau and DRS2 Context:

http://www.videoportal.sf.tv/video?id=e1812c49-fa02-4533-bec2-305e10a137d3 http://blogs.ethz.ch/klimablog/news-veranstaltungen/klimanews/

Partners

### botanical *garden*

University of Zurich



EH-CH environmental humanities switzerland



Science and Policy Platform of the Swiss Academy of Sciences ProClim– Forum for Climate and Global Change



Fonds national suisse Schweizerischer Nationalfonds Fondo nazionale svizzero Swiss National Science Foundation

Cover illustration by Tom Reed

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