

Climathon - Idea/solution description

City	Bologna	Challenge	City Resilience – Rain Gardens
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Description

1. General Summary

The project (Rain Gardens) was developed to revitalize peripheral neighborhoods, in order to give new life (in terms of sustainability and economic opportunity).

The main idea is to redevelop the commuter area belt around cities in order to adapt them to future climate changes and critical events. This could be possible with the installation of water tanks (big water tank to be installed on the existing façade without any major alteration on the aesthetic of the existing building) and the creation of artificial lakes that serve as reservoirs and water squares (convertible into auditorium, common leisure space or playground areas).

This could allow the local community to deal with flash flood events (flood caused by the limited capacity of the municipal drainage system) and draught periods, by storing large amounts of rainwater.

This advantages comes in terms of: economic benefits (reduction of the fresh water bills due to the use of rain water for shared services like irrigations, common laundry, car washing and WC flush water - very important in a co-housing project); social benefits (regeneration of an area with new commercial activities using rainwater – laundry, beer brewery, car washing services, etc - and the use of the regenerated area in as educational space in order to increase public awareness on water scarcity); environmental benefits with the creation of a “green belt” around the city, which could help to reduce the heat island effect during the summer and the consequences of flash floods during autumn

We suggest that the funding of this project could happen through loans from private citizen, to be repaid through monthly savings on the fresh water bills.

The project was develop around the example of an existing Bologna’s neighbor, the Pilastro district (which includes a combination of agricultural, residential and commercial areas and the possible redevelopment of the ex-railway area of San Donato). But it could be applied to any other community where it’s needed and the Urban plans allow it.



2. Climate Impact

The project was developed taking into account the forecasted scenarios of flash floods and draught periods that could happen in Bologna in the future. The project aims to decrease the use of fresh water by replacing it with rainwater where possible and to create a “green belt” around the city in order to reduce the effect of heat waves and the detrimental consequences of flash floods on the city infrastructures and ultimately on the citizens.

3. Team

The team (Michele Argenta, Serena Bacuzzi, Ilaria Bagalini, Isabelle Grant and Antonio Bonomi) was formed during Climathon 2016 in Bologna.

The team members have different backgrounds (architecture, engineering, sustainability and social skills) and this widespread experience has been crucial to give ideas in many applicative fields and to approach the challenge with an open mind..

4. Future plans (if any)

TBD