



Narodowe Centrum
Badań i Rozwoju



UNIWERSYTET
WARSZAWSKI

Lecture 6: The social aspect of urban adaptation to climate change. Bottom-up initiatives to implement nature-based solutions in order to adapt cities to climate change by local communities (1.5 h)

Slide 2

"The role of local communities in adapting urban spaces to climate change"

Adaptation of cities to climate change involves not only changes in the existing urban tissue and its adaptation to the current environmental conditions, but also being ready for future events (especially predicting the effects of natural disasters). An important element here will be working with local communities and their education in this field. Significant stakeholders participating in the process of adapting urban spaces will be: government institutions at various levels, social organizations (local and international) and the private sector. In this process, it is important to build awareness about the possibility of a given risk and effective communication adapted to the diverse social groups living in cities. Construction of the so-called resilient society¹ (appropriate education). An important element of the activities will be appropriate land development, improvement of the quality of buildings and infrastructure as well as preventing poverty, because this social group will be most exposed to the effects of natural disasters.²

Slide 3

"NBS tools targeting local communities"

The universality of NBS tools is demonstrated not only by their flexibility and multi-functionality, but also by the fact that many of them are cheap and easy to make. Therefore, by working with local communities and their education, it becomes possible to implement NBS solutions as a bottom-up action (by the hands of city dwellers).

Examples of such solutions are:

- green gabion walls

(detailed solutions on the Citadine website)

- green modular walls

¹What is the impact of urbanisation risk of, and vulnerability to, natural disasters? What are the effective approaches for reducing exposure of urban population to disaster risks?, 2016, <https://epi.ioe.ac.uk/CMS/Portals/0/PDF%20reviews%20and%20summaries/Revised%20protocol-Urbanisation%20and%20Natural%20Disaster.pdf>

²Mata-Lima H., Alvino-Borba A., Pinheiro A., Mata-Lima A., Almeida J., 2013, *Impacts of natural disasters on environmental and socio-economic systems*, Ambiente & Sociedade, 16(3), p. 45-64

(detailed solutions on the Citadine website)

-green container walls

(detailed solutions on the Citadine website)

The use of creepers

(detailed solutions on the Citadine website)

Or building the so-called rain gardens.

(detailed solutions on the Citadine website)

Slide 4

"The role of education of local communities in the process of adapting cities to climate change"

In the discussion on the adaptation of cities to climate change, an important role is played by issues related to the so-called social and ecological resilience, where important elements are: building the integration of society with nature, social network of connections and the so-called bottom-up activities. One of the effective methods of educating local communities may be "learning from the example of a specific project" or through joint involvement in a given project. Such activities affect another important component in building the resilience of a given community - building trust - urban commons, e.g. by building community gardens). Another important issue will be building cognitive resilience, which arises during constant interactions of specific groups with local communities.³ Another factor will be social justice⁴, equal access to ecosystem services and counteracting the phenomenon of "green gentrification."

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"Educational activities carried out among local communities on the example of FloMo activity aimed at a group of immigrants living in the San Rafael district of California "

More about the project on the website: https://www.asla.org/2019awards/640492-The_FloMo_A_Mobile_Messenger_For_Sea_Level_Rise.html

³Feinberg A., Ghorbani A., Herder P., 2020, *Commoning toward urban resilience: The role of trust, social cohesion, and involvement in a simulated urban commons setting*, Journal of Urban Affairs, DOI: 10.1080/07352166.2020.1851139

⁴Meerow S., Pajouhesh P., Miller T., 2019, *Social equity in urban resilience planning*, Local Environment, 24, p. 793-808

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Another example is "A project to redevelop degraded spaces in Detroit implemented with local communities"

More about the project on the website: <https://www.asla.org/2016awards/167102.html>

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"The use of modern technologies in changes in the development of green areas on the example of the project of using social media for the new development of the Seattle Freeway park"

[https://www.asla.org/2019awards/629092-](https://www.asla.org/2019awards/629092-Using_Social_Media_Data_To_Understand_Site.html)

[Using_Social_Media_Data_To_Understand_Site.html](https://www.asla.org/2019awards/629092-Using_Social_Media_Data_To_Understand_Site.html) , patrz film:

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"The need to select a leader"

An important element of the success of the integration of local communities, their education and mobilization to take specific actions in the field of adapting given spaces to climate change is the appropriate leader of a given community. An important factor is also the appropriate involvement of various types of organizations and institutions.⁵

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"Tools implemented by local communities that are elements of urban adaptation to climate change"

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"Community Gardens"

(detailed solutions on the Citadine website)

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"New York Community Gardens"

Community gardens are extremely popular in New York City. They are an element of the revitalization of degraded spaces, adaptation to climate change, integration of local communities, education and provide healthy and natural food.

For full details of New York Community Gardens, visit:

<https://www.grownyc.org/greenmarket>

⁵Tyler S., Moench M., 2012, *A framework for urban climate resilience*, Climate and Development, 4, p. 311-326

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"Paris Community Gardens"

In Paris - similarly to New York - community gardens are created in degraded areas, and are also an important element of the integration of various social groups living in the city, often of different nationality and religion.

<https://www.parisunlocked.com/history-of-paris/urban-farms-and-community-gardens-to-explore-in-paris-now/>

<https://photo.geo.fr/a-la-decouverte-des-jardins-partages-de-paris-21578#le-jardin-d-abel-13e-381984>

List of Parisian community gardens at the link:

https://fr.wikipedia.org/wiki/Liste_des_jardins_partag%C3%A9s_de_Paris

<http://www.jardinons-ensemble.org/spip.php?article876>

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City orchards

(detailed solutions on the Citadine website)

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"Unsealing of hardened surfaces"

(detailed solutions on the Citadine website)

Slide 45 - 51

"City meadows"

(detailed solutions on the Citadine website)

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"Urban commons" - urban ecosystems as a common good.

Cities have specific ecosystems that should be cared for and strengthened along with the implementation of new NBS solutions, they will create a specific network of connections and exchanges, strengthening the resilience of a given space. Urban ecosystems are rarely perceived by city dwellers as valuable areas. Therefore, also in this respect, it is important to educate local communities so that they properly care for them. An interesting educational project will be the "City Safari 7" project.

More about the project on the website: <https://www.asla.org/2010awards/061.html>

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Spaces of democracy, spaces created by local communities for local communities. Example of the Tempelhofer Feld airport in Berlin”.

<https://www.theguardian.com/cities/2015/mar/05/how-berliners-refused-to-give-tempelhof-airport-over-to-developers>

References:

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