

Urban Sociology
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Module 3 – Smart Cities and Urban Life
Lecture 15
Urban Greens

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Introduction and contents

In this module we will cover-

- What Urban Green Spaces are
- Urban Green spaces and interaction among different groups of people
- Urban green spaces and the marginalized sections
- Urban Green Spaces and their importance during the global crisis like the COVID 19 pandemic
- Resilience based approach
- Urban Greens as Socially Produced

A warm welcome, to all, today we will discuss urban greens. And in this module, we will cover what urban green spaces are, urban green spaces and interaction among different groups of people, the urban green spaces and the marginalized sections, and urban green spaces, and their importance during the global crisis like the pandemic or the COVID-19. Resilience-based approaches and urban greens as socially produced.

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Definition of the concept

- Varied definitions.
- Different types of vegetation that are located in the urban environment such as woodlands, parks, roadside vegetation, roof gardens, green open spaces, front and back yards (Zhang & Tan, 2019; Taylor & Hochuli, 2017; Zhang, et al., 2017).
- Others like Kabisch & Haase (2014) have considered street trees, urban agriculture, residential lawns, and roof gardens as a part of urban green spaces.
- Other than these categories, lawn, and sporting fields were also included as a part of the urban green spaces by Palliwoda et. al. (2020) and Yessoufou et. al. (2020)

The slide features a diagram of an urban landscape with a road, trees, and green spaces. A small inset image shows a woman speaking.

When we look at the city, urban green spaces are something that we can never miss. Urban green spaces have been identified or defined in various ways in different disciplines and by different scholars. Some scholars categorize urban green spaces as different types of vegetation that are located in the urban environment such as woodlands, parks, roadside vegetation, roof garden, open spaces, and front and back yards.

Other scholars like Kabisch and Haase, have considered the street trees, urban agriculture, residential lawns, and roof gardens as a part of urban green spaces, and other than these categories, the lawn, and the sporting fields were also included as a part of the urban greens by the Palliwoda and Yessoufou and others.

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What are Urban Green Spaces?

- Colding et. al. (2020) - entire urban greens which are either located within or around the urban areas comprising natural, semi-natural, and artificial ecological systems that are covered by some sort of vegetation.

The Government of India (2014, p. 12) -

"an amalgamation of either naturally or artificially constructed greens which are owned by the government and are available and accessible to people as these areas provide opportunities for exercise and enjoyment to the people".

The slide features two illustrations: the top one shows a green field with trees and buildings in the background, and the bottom one shows a park with people walking, a dog, and a pond.

Colding and others have used the term urban green spaces to refer to the entire urban greens which are either located within or around the urban areas comprising natural, semi-natural, and artificial ecological systems that are covered by some sort of vegetation.

However, the government of India has defined urban greens as the amalgamation of either naturally or artificially constructed greens which are owned by the government and are available and accessible to people. As these areas provide opportunities for exercise and enjoyment to the people.

Thus, urban green spaces can be used to describe a myriad of places, parks, green roofs, community gardens, urban forests and woodland, street trees and natural conservation areas greenways and trails etcetera.

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What are Urban Green Spaces?

A positive correlation between the use of green spaces and the socio-physical and psychological well-being of people has been identified by many scholars. (see Heikinheimo et al., 2020; Rodgers, 2020; Slater et al., 2020; Zhang et al., 2020; Rueda et al., 2019; Weimann et al., 2019).

- In addition to this, Tsai et al. (2018) and Markevych et al. (2017) established that green spaces help in fostering community wellbeing, cohesion, and resilience among the community members.




A positive correlation between the use of urban green spaces and the socio-physical and psychological well-being of the people has been identified by many scholars through their various studies. In addition to this, Tsai and Markovic established the help of that green space in fostering the community's well-being cohesion, and resilience among the community members.

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Levels of interactions within urban greens

- Further, Ling et al. (2020) observed that when individuals visit greenspaces interaction happens at two levels.
 - green spaces themselves encourage an active lifestyle,
 - fellow members help in building connections among each other.
- The mere presence of urban greenspaces is not enough
- Quality of greenery and infrastructure present in those areas positively influence the social interaction among people (see Haq et al., 2021 among others).



Further, Ling and others observed that when individuals visit green spaces, interaction happens at 2 levels. The first is with the green spaces themselves, which encourage the active lifestyle and the second one is with the fellow members, which helps in building connections among each other.

Scholars have identified that the mere presence of urban green spaces is not enough, but the quality of greenery and the infrastructure that is present within those. They affect or create a positive influence on the social interaction among people using that.

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Urban green spaces and interaction among different groups

Provisions for physical activities in urban greenspaces determine the level of interaction people of the same age group have (see Aram et al., 2018; Bocarro et al., 2015; Uchiyama & Koshaka, 2020; Yuma-Guerrero et al., 2017).

- An increase in the levels of interaction between people of the same age group,
- The tendency of people to suffer from mental illness which is especially common among the older generation is reduced (see Bertossi-Urzu, et al., 2018; Cramm et al., 2013; Inoue et al., 2013).



Various colors have stated that the provision for physical activities in the urban green spaces, determines the level of interaction people or people of the same age group have. Studies have established that with an increase in the level of interaction between people of the same age group, the tendency of people to suffer from mental illness, which is especially common among the older generations is reduced.

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Urban Green spaces and interaction among different groups of people

- Krellenberg et al. (2014) - Chile - the nature of social interactions among different groups of individuals in urban green spaces is closely linked to gender, age, income, level of education and socioeconomic composition.
- Shan (2014) -younger people in China tend to use green spaces mostly to pursue a sport or engage in light-hearted conversation with their peer group or find newer connections.



Krellenberg and others' study in Chile established that the nature of social interaction among different groups of individuals in urban green spaces is closely linked to gender, age, income, and level of education or socioeconomic composition.

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Urban Green spaces and interaction among different groups of people

- Putra et al. (2020)- interaction of children with each other in urban greenspaces encourages the development of confidence and pro-social behaviour within themselves.
- Weber & Anderson (2010) adults in Australia visit urban green spaces to develop a deeper connection with nature as well as to engage in a leisurely informal chat with other people.
- Sanesi & Chiarello (2006) based on a case study in Bari observed that differentials in the pattern of social interaction exist between the males and the females.



In the case of younger populations, Shan observed that younger people in China tend to use the green spaces mostly to pursue sports or engage in light-hearted conversations with their peer groups, or, find newer connections within those spaces.

Putra and others based on their empirical observation stated that the interaction of children with each other in the urban green spaces encourages the development of confidence and pro-social behavior within themselves.

Weber and Anderson observe that most adults in Australia visit urban green spaces to develop a deeper connection with nature as well as to engage in a leisurely informal chat with other people. Sanesi and Chiarello based on a case study in Bari observed that differences in the pattern of social interactions exist between males and females.

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Urban Green spaces and interaction among different groups of people

- They found that females were more motivated to relax and seek more personal communication in these spaces, whereas males were more motivated to engage in light-hearted communication and pursue sports.



They found that females were more motivated to relax and seek more personal communication in these places. Whereas males were more motivated to engage in light-hearted communication and pursue sports.

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Urban Green spaces and interaction among different groups of people



- Baran et al. (2014) based on a study in Durham, North Carolina have observed that the presence of sidewalks and picnic areas provides an appropriate setting for women and adolescents to interact with one another.
- In the case of the elderly, Hong et al. (2018) based on a case study in Seattle and Washington DC. had observed that the quality of greenery, solitude and seating arrangement is very important, and most of them tend to interact only with members of their age group.
- Bertossi-Urza et al. (2018) have observed in central and eastern Europe that social interaction among the elderly can only develop among those individuals who share a similar interpersonal trust.



Baran and others based on their study in Durham, North Carolina have observed that the presence of sidewalks and picnic areas provide an appropriate setting for women and adolescents to interact with one another, in the case of the elderly and others based on a case study in Seattle and Washington DC had observed that the quality of greenery, solitude and seating arrangement is very important, and most of them tend to interact only when members are only with the members of their age group.

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Urban green spaces and the marginalized sections

- Inequality in access to green spaces by the marginalized section has been highlighted by many scholars (see Rigolon & Nemeth, 2019; Ashtel-Burt et al., 2014; Kabisch & Haase, 2014; Wustemann et al., 2013).
- Studies have also emphasized that people occupying lower socio-economic positions living in relatively deprived neighbourhoods have access to inferior green spaces (Frey, 2017; Rigolon, 2017; Hoffmann et al., 2017)

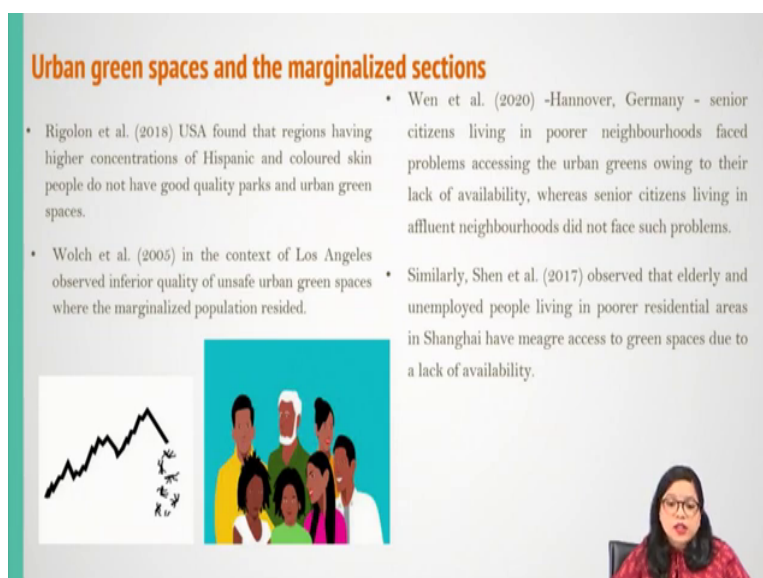


Inequality in access to green spaces by the marginalized section has been highlighted by many scholars, because now if we have discussed the importance of urban greens, for different age groups and various genders, it is also important to discuss urban green spaces and how marginalized sections interact with them. Studies have also emphasized that people occupying low lower socio-economic positions living in the relatively deprived neighborhood have access to inferior green spaces.

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Urban green spaces and the marginalized sections

- Rigolon et al. (2018) USA found that regions having higher concentrations of Hispanic and coloured skin people do not have good quality parks and urban green spaces.
- Wolch et al. (2005) in the context of Los Angeles observed inferior quality of unsafe urban green spaces where the marginalized population resided.
- Wen et al. (2020) -Hannover, Germany - senior citizens living in poorer neighbourhoods faced problems accessing the urban greens owing to their lack of availability, whereas senior citizens living in affluent neighbourhoods did not face such problems.
- Similarly, Shen et al. (2017) observed that elderly and unemployed people living in poorer residential areas in Shanghai have meagre access to green spaces due to a lack of availability.



Rigolon and others based on their observation of large cities in the United States found that regions having a higher concentration of Hispanic and colored skin people do not have good quality parks and urban green spaces. Wolch and others in the context of Los Angeles observed inferior quality of unsafe green or urban green spaces, where the marginalized population resided.

Wen and others based on their study in Hannover Germany found that senior citizens living in poorer neighborhood faced problems accessing the urban greens owing to their lack of availability, whereas senior citizens living in affluent neighborhoods did not face such problems.

Similarly, Shen and others observe that elderly and unemployed people living in poorer residential areas in Shanghai have meager access to green spaces due to the lack of availability of green spaces.

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Urban green spaces and the marginalized sections

- Kim et al. (2021) in their study in Seoul, South Korea observed that solitary seniors and single-mother families have lesser access to urban green spaces owing to the distributional inequity of urban green spaces among this section of people.
- This problem of distributional inequity in access to urban green spaces by the solitary senior members and single-mother families was also highlighted by Heo et al. (2021) in the case of Seoul.



Kim and others, in their study in Seoul. South Korea observed that solitary seniors and single mother families have lesser access to urban green spaces owing to the distributional inequality of urban green spaces among the section of people.

The problem of distributional inequality in access to urban green spaces by solitary senior members and single mothers was also highlighted by Heo and others in the case of Seoul.

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Urban green spaces and the marginalized sections

- Casey et al. (2017) have observed that neighbourhoods in the United States comprising racial minorities experience a lesser number of green amenities.
- It has also been observed by Vaughan et al. (2013) that in the case of Kansas City that low-income areas comprising racially and ethnically diverse populations have lower access to parks.



Casey and others have observed that neighborhoods in the United States comprising racial minorities experience a lesser number of green amenities. It has also been observed by Vaughan and others that in the case of Kansas City, the low-income areas comprising racially and ethnically diverse populations have lesser access to the parks.

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Urban green spaces and the marginalized sections

- Further, studies have found that marginalized populations who had some access to urban greens found these spaces ill-maintained and unsafe for them

(see Bosch & Sang, 2017; Shen et al., 2017; Rutt et al., 2016; Rigolon et al., 2018; Mullenbach & Baker, 2018; Nesbitt et al., 2018).



Further studies have found that the marginalized population who had some access to urban greens found the spaces ill-maintained and unsafe for them.

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Urban green spaces and the marginalized sections

- Rigolon (2016) -Global North, found marginalized populations belonging to the Black and Latino community were denied access to the urban green spaces due to their skin colour and racial orientation.
- Limited access to the urban greens, and addressing these problems would require a region-specific approach.

The slide features two illustrations: one showing a diverse group of people behind a wooden fence with a city skyline in the background, and another showing a green park area with trees and buildings.

Rigolon in the context of countries located in the Global North found marginalized populations belonging to the black and Latino community were denied access to the urban green spaces due to their skin color and racial orientation.

Thus, it can be observed that the minorities and the marginalized population residing in poorer neighborhoods have limited access to the urban greens, and addressing these problems would require a region-specific approach.

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Their importance during the global crisis like the COVID 19 pandemic

- Outdoor recreation serves as an effective means of dealing with many health crises as it provides relief from stress, encourages socialization, and allows people to appreciate nature (Samuelsson et al., 2020; Scholte et al., 2018).
- Further, Surico (2020) observed that access to local green spaces is extremely important for the physical, emotional, and mental health of people, especially during the Covid-19 pandemic as they act as a major stress buster.

The slide features an illustration of people wearing face masks in a park setting with trees and buildings.

Outdoor recreational serves as an effective means of dealing with many health crises, like it provides relief from stress, encourages socialization, and allow people to appreciate nature.

Further, Surico observe that access to local green spaces is extremely important for the physical, emotional, and mental health of the people, especially during the Covid-19 pandemic as during this period, they acted as major stress buster.

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Their importance during the global crisis like the COVID 19 pandemic

- Physical isolation during, absence of green spaces had increased the discomfort of the city lives by restricting people's movement to indoor spaces at home confinement and reducing their interaction with nature and fellow members (Jainer & Yadav, 2020).
- Adding to this Aram et al. (2018) stated that urban green spaces provide ample space for people to frequently meet and engage in informal light-hearted conversation with one another.


According to Jainer and Yadav physical isolation during the pandemic, and the absence of adequate Greenspaces had increased the discomfort of the city life by restricting people's movement to indoor spaces as home confinement and reducing even their interaction with nature, and their fellow members.

Adding to this Aram and others stated that urban green spaces provide ample space for people to frequent or frequently meet and engage in informal, light-hearted conversation with one another.

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Their importance during the global crisis like the COVID 19 pandemic

- Kazmierczak (2019)- urban green spaces play a key role in strengthening the existing contacts with the people and this has in turn promoted social interaction.
- But, with the COVID safety protocols, their movements were restricted and their exposure to urban green spaces was confined.
- The park visitation has drastically shifted during the ongoing pandemic and the patterns vary from one country to the other.



In this context, Kazmierczak observed that urban green spaces play a key role in strengthening the existing contact with people. And this has in turn promoted social interaction. But with the Covid-19 safety protocols, their movements were restricted and their exposure to the urban green spaces was confined according to various scholars. The park visitation has drastically shifted during the ongoing pandemic and the pattern varies from one country to the other.

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Their importance during the global crisis like the COVID 19 pandemic

- Based on a study conducted in Bonn, Germany by Derks et. al. (2020) they found that the number of visitors to urban parks and urban forests increased.
- This increase was specifically observed during and after office hours; the visitors comprising of people from all age groups and the presence of novel visitors could be observed.
- A similar observation was made by Geng et. al. (2021) who found that the demand for parks and outdoor green spaces increased since the outbreak began in Oslo, Norway.



Based on a study conducted in Bonn, Germany, by Derks and others, they found that the number of visitors to urban parks and urban forests increased during this period. This increase was specifically observed during and after office hours, the visitor comprised people

from all age groups, and the presence of novel visitors was also observed. A similar observation was made by Geng and others who found that the demand for parks and outdoor green spaces increased since the outbreak began in Oslo, Norway.

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Their importance during the global crisis like the COVID 19 pandemic

- Further, Venter et. al. (2020) During the lockdown there was an increase and the need for urban green spaces among the residents of Oslo.
- However, Ugolini et. al. (2020) observed in the US, Israel, Italy, Slovenia, and Spain a reduction in the usage of urban green spaces occurred.
- According to them, in countries like Italy and Spain which were the two hardest hit by the pandemic, nearly two-thirds had stopped - a reduction mostly among their female respondents.

The slide features a photograph of a park area with a yellow sign that says 'PLAY' and a small video inset in the bottom right corner showing a woman with glasses speaking.



Further, Venter and others found that during the lockdown since the indoor training facilities were closed, or shut down, there was an increased need for urban green spaces among the residents of Oslo. However, Ugolini and others observed in the US, Israel, Italy, Slovenia, and Spain a reduction in the usage of urban green spaces, occurred during the pandemic.

The countries like Italy and Spain were the 2 hardest hit by the pandemic. Nearly two-thirds of those who previously visited the urban green spaces regularly had stopped doing that, with a reduction mostly among the female respondents.

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Their importance during the global crisis like the COVID 19 pandemic

- Rice & Pan (2021) while analyzing the Global Mobility Reports found a significant decrease in the time spent at urban parks by the people.
- Korpilo et. al. (2021) conducted a study on Helsinki and observed a mixed response regarding the usage of urban green spaces during the pandemic.
- Decrease in the time spent could be noticed among some groups, and, on the other hand, there was an increase in time spent among others.
- COVID-19 related regulations.
- Improved urban green infrastructure proves as an effective means of coping by allowing people to enjoy its various recreational ecosystem services (Palliwoda et al., 2020)



Rice and Pan while analyzing the Global Mobility report found a significant decrease in the time spent at the urban parks, by the people. Korpilo and others conducted a study in Helsinki and observed a mixed response regarding the usage of urban green spaces during the pandemic. On one hand, a decrease in the time spent could be noticed among some groups, and on the other hand, there was an increase in time spent among the others.

This could be attributed to the rules and the regulation that were imposed during the pandemic by the different park authorities, which were based in different countries across the globe. Improved urban green infrastructure proves as an effective means of coping and allowing people to enjoy its various recreational ecosystem services according to Polliwoda and others. Thus access to urban green spaces during the pandemic becomes important from a socio-physical and cultural perspective.

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Three urban mission for creating resilient cities

- The concept of Green Infrastructure was defined by Derkzen et al (2017:35):
- 'Infrastructure of green spaces, water and built systems, for example, forests, wetlands, parks, green roofs and walls that together can contribute to ecosystem resilience and human benefits through ecosystem services'
- Thus, scholars have emphasized on developing cities based on resilience-based approach.



The concept of green infrastructure was defined by Derkzen and others as the infrastructure of green spaces, water, and building systems, for example, forests, wetlands, parks, green roofs, and walls that together can contribute to the ecosystem resilience and human benefit through the ecosystem services. Scholars have emphasized developing cities that are based on a resilience-based approach.

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Three urban mission for creating resilient cities

- Moglia et al. (2018)- resilience of a system *"is traditionally defined either by the time that it takes to return to its steady state following a perturbation (engineering resilience) or by the magnitude of disturbance that can be absorbed before the system redefines its functional structure (ecological resilience)"*.
- Similarly, Brian Walker states that "Resilience is largely about learning how to change in order not to be changed" (2020).



Moglia and others explain the resilience of a system as traditionally defined either by the time that it takes to return to its steady state, following a perturbation or by the magnitude of disturbance that can be absorbed before the system redefines its function, or functional

structure or the ecological resilience. Similarly, Brian Walker states that resilience is largely about learning how to change in order not to be changed.

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Three urban mission for creating resilient cities

- Moglia et al. (2021) suggest that embracing a green recovery from COVID-19 will provide an opportunity for cities around the world to become more resilient and sustainable.
- "Urban resilience - ability of an urban system and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change and to quickly transform systems that limit current or future adaptive capacity."

The slide features a photograph of a vibrant city street with lush green trees and a pedestrian walkway. A small inset image in the bottom right corner shows a woman with glasses and a red top, likely the presenter.

Mongolia and others suggest that embracing a green recovery from COVID-19 will provide an opportunity for cities around the world to become more resilient and sustainable.

According to them, urban resilience refers to the ability of an urban system and all its constituent, socio-ecological and socio-technical networks across temporal and spatial scales to maintain or rapidly return to the desired functions in the face of a disturbance to apt or to adapt to change and to quickly transform the system that limits the current or the future adaptive capacity.

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Three urban mission for creating resilient cities

According to Moglia and others (2021)

1. Accelerating the urban mobility transition to minimise car use – reduce the pressure on the fossil fuels, but also reduce pollution and increase green spaces
2. Developing and adopting a regenerative urban design for people and nature –
3. Investing and investing in resilient and multi-functional infrastructure for future generations

The slide includes a photograph of a modern urban park with a circular water feature and a person in a red jacket in the bottom right corner.

According to Mongolia and others, 3 urban missions for creating resilient cities are first accelerating the urban mobility transition to minimize car use. According to the planning of the cities in such a way that building roads for private cars is not privatized would or would only reduce the pressure on fossil fuels, but also it would reduce pollution and increase the green spaces in the cities.

The second is by developing and adopting a regenerative urban design for people and nature. According to them, this can be done by upgrading the Suburbans with adequate walkability, compatible mixed land usage, increased medium density housing, and by implementing regenerative urban design, including the well-managed and maintained green infrastructure.

The third is by investing and inventing resilient and multifunctional infrastructure for the future generation according to them by reinvesting in sustainable cleantech infrastructure, investing in local upcycling businesses that manufacture new products using recycled materials more investment in renewable energy, and investing in facilities to convert wastewater into methane for energy production, nutrients, and clean water will create water resilient cities.

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Urban Green equity

- Nesbitt et al. (2018) have defined urban green equity as "fair access to and governance of urban vegetation regardless of differentiating factors such as socioeconomic status, race, culture, or age".
- They identified two principal dimensions of urban green equity:-
 - distributional equity and
 - recognitional equity,



Nesbitt and others have defined urban green equity as fair access to and governance of urban vegetation regardless of differentiating factors such as socio-economic status, race, culture, or age. They define the 2 dimensions of urban green equity as distributional equity and recognitional equity.

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Urban Green equity

- According to Pipitone and Jovic (2021:2)

"Distributional equity refers to the spatial distribution of urban vegetation and trees and includes the sub-dimensions -

1. Temporality (e.g., historical context; seasonality; leisure time),
2. Condition and preference (e.g., quality of urban vegetation; sociocultural landscape preferences),
3. Ownership (e.g., public vs. private land).



According to Pipitone and Jovic, distributional equity refers to the spatial distribution of the urban vegetation and the trees and includes the sub-dimension of temporality. For example, the historical context, the seasonality, leisure time, and cost condition and preferences such as the quality of urban vegetation, the socio-cultural landscape preferences, and the ownership like if they are public or they are private land.

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Urban Green equity

- Nesbitt et al. (2018:1) have defined recognitional equity as -
"acknowledgement of participants' difference, existence and validity in decision-making processes, both formal and informal, and the inherent inclusion and power associated with that acknowledgement".
- Here participants of UGS need a sense of recognition in both decision-making process and as users of the space.



Nesbitt and others have defined recognitional equity as the acknowledgment of participants' differences, existing and validating, acknowledge, Nisbett and others have defined recognitional equity as an acknowledgment of participants' differences, existence, and validity in decision-making processes, both formal and informal, and the inherent inclusion and power associated with that acknowledgment. Here, the participant in the urban green spaces needs a sense of recognition in both the decision-making processes and as users of the space.

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Urban Green equity

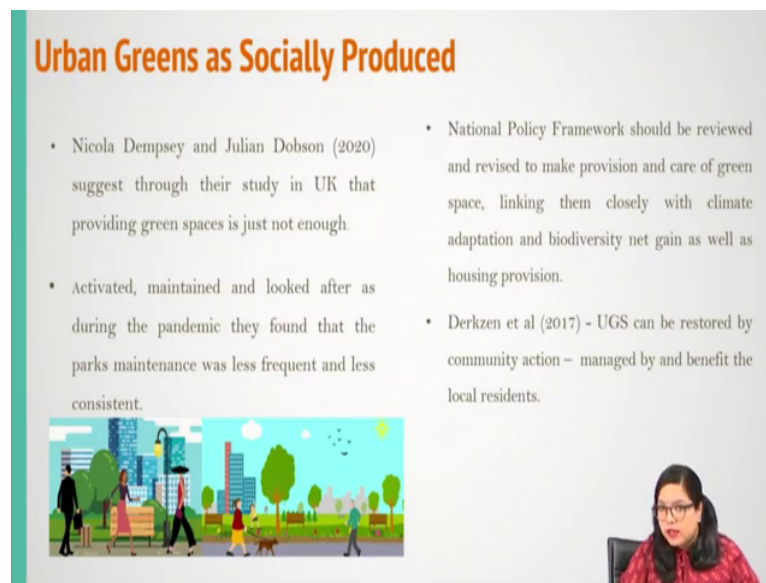
- In the study conducted by Pipitone and Jovic (2021) they found that in New York participants whose neighborhood fell within the lowest income bracket showed a remarkably lower sense of belonging in comparison to all other income groups.
- The lower income residents felt they had less access to UGS.
- The white and more affluent participants showed stronger sense of belonging during the pre-pandemic era, and their sense of belonging rose due to pandemic.



In the study conducted by Pipitone and Jovic, they found that in New York participants whose neighborhood fell within the lowest income bracket showed a remarkably lower sense of belonging in comparison to all other income groups.

The lower-income residents felt that they had less access to the urban green spaces and were dirty and unsafe, which was the reason for their low sense of belongingness. Whereas the white and the more affluent participants showed a stronger sense of belonging during the pre-pandemic era and their sense of belonging even rose during the pandemic.

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Urban Greens as Socially Produced

- Nicola Dempsey and Julian Dobson (2020) suggest through their study in UK that providing green spaces is just not enough.
- Activated, maintained and looked after as during the pandemic they found that the parks maintenance was less frequent and less consistent.
- National Policy Framework should be reviewed and revised to make provision and care of green space, linking them closely with climate adaptation and biodiversity net gain as well as housing provision.
- Derkzen et al (2017) - UGS can be restored by community action – managed by and benefit the local residents.

The slide features a colorful illustration of a city park with people walking, a dog, and buildings in the background. A small video inset in the bottom right corner shows a woman with glasses speaking.

Nicola Dempsey and Julian Dobson suggest through their study in the UK that providing green spaces is just not enough, but they have to be activated, maintained, and looked after, as during the pandemic, they found that the park's maintenance was less frequent and less consistent.

According to them, the national policy framework should be reviewed and revised to make provision and care of the green spaces linking them closely with climate adaptation and biodiversity net gain, as well as the housing provision. Derkzen and others in their articles suggest that urban green spaces can be restored by community action, where these green spaces are managed by and benefit the residents.

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Urban Greens as Socially Produced

- They also suggest that “restoration can happen through different actors: the municipality, business parks, citizen groups or a combination of these” (p.35).
- Tengo and Bodin (2014) in their study show how in Bangalore, India citizen groups teamed up with local authorities and restored urban lakes creating rejuvenated lake parks.



They also suggest that restoration can happen through different actors, like the municipality, the business parks, the citizen groups, or a combination of these even. Tengo and Bordin in their study show how in Bangalore India citizen groups teamed up with the local authorities and started restoring the urban lakes creating rejuvenated lake parks.

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Urban Greens as Socially Produced

- Bendt, Barthel and Colding (2013) suggest that community ownership and/or management of UGS can play a very important role in facilitating environmental management over a longer period of time.
- Thus, UGS play an important role in the life of urbanities.



References

- Moglia, M., Frantzeskaki, N., Newton, P., Pineda-Pinto, M., Witheridge, J., Cook, S., & Glackin, S. (2021). Accelerating a green recovery of cities: Lessons from a scoping review and a proposal for mission-oriented recovery towards post-pandemic urban resilience. *Developments in the Built Environment*, 7, 100052.
- Zhang, W., Yang, J., Ma, L., & Huang, C. (2015). Factors affecting the use of urban green spaces for physical activities: Views of young urban residents in Beijing. *Urban Forestry & Urban Greening*, 14(4), 851-857.
- Geary, R. S., Wheeler, B., Lovell, R., Jepson, R., Hunter, R., & Rodgers, S. (2021). A call to action: Improving urban green spaces to reduce health inequalities exacerbated by COVID-19. *Preventive medicine*, 145, 106425.
- Lopez, B., Kennedy, C., Field, C., & McPhearson, T. (2021). Who benefits from urban green spaces during times of crisis? Perception and use of urban green spaces in New York City during the COVID-19 pandemic. *Urban forestry & urban greening*, 65, 127354.
- Moore, A. (2021). The Power of Parks: Environmental Justice in the Context of Green Space Accessibility and Distribution.
- Rodgers, C. (2020). Nourishing and protecting our urban 'green' space in a post-pandemic world. *Environmental Law Review*, 22(3), 165-169.
- Pipitone, J. M., & Jović, S. (2021). Urban green equity and COVID-19: Effects on park use and sense of belonging in New York City. *Urban Forestry & Urban Greening*, 65, 127338.
- Dempsey, N., & Dobson, J. (2021). Planning for sociable green spaces after COVID-19. *Town Planning Review*, ahead-of-p (0), 1-9.
- Derksen, M. L., van Teeffelen, A. J., Nagendra, H., & Verburg, P. H. (2017). Shifting roles of urban green space in the context of urban development and global change. *Current opinion in environmental sustainability*, 29, 32-39.
- Xie, J., Luo, S., Furuya, K., & Sun, D. (2020). Urban parks as green buffers during the COVID-19 pandemic. *Sustainability*, 12(17), 6751.



Thank you



Bendt, Barthel, and Colding suggest that community ownership and or management of the urban green spaces can play a very important role in facilitating environmental management longer period.

Thus, urban green spaces in this context play an important role in the life of the urbanites and hence also during the pandemic. So, we should be that by focusing on urban green spaces. Thank you so much for listening and have a great day ahead.