

Urban Nature Accelerator

Planned Actions to Deliver Commitments





This document summarises the actions planned by signatory cities to achieve their two-year commitments at the time of joining the Urban Nature Accelerator (between 2021 and 2024).

Please note that the information provided has not been updated since then, as it reflects their initial plans. For recent updates on cities' achievements and challenges they are facing, please check the **2023 Urban Nature Accelerator Report.**

Dutioan Concentration

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

The Durban Metropolitan Open Space System (D'MOSS) is a system of open spaces of land and water that incorporates areas of high biodiversity value linked together in a viable network of open spaces. The D'MOSS is protected by legislation that includes environmental protection intentions and targets.

Durban nature goals include:

- Updating Durban's Biodiversity Strategy (previous iteration undertaken in 2017) regarding intentions and spatial priorities for biodiversity conservation.
- Publishing a 'rough guide' to ecosystem restoration (English and isiZulu versions) for use by communities and small contractors that implement restoration and ecosystem management work.
- Publishing an updated series of 'indigenous plant' posters and flashcards, for distribution to members of the public, including communities and small contractors that implement restoration and ecosystem management work. This will highlight plants suitable for use in indigenous gardens and locally restored ecosystems.

With regards to riverine ecosystems, eThekwini has completed an Transformative Riverine Management Programme that seeks to improve the condition of the city's 7400 km of rivers resulting in improved ecological infrastructure, hard infrastructure resilience and the creation of thousands of green jobs.

The municipality's Ecological Restoration programmes (for ecosystems prioritized under D'MOSS) and the stream cleaning interventions are all part of ecosystem based adaptation response to bring about infrastructure and community resilience against climate change shocks such as flooding, extreme heat and drought. Both programmes have been included in the city's Covid-19 Economic Recovery Plan as they are major contributors to a green recovery while they create a lot of jobs for the vulnerable communities.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The D'MOSS plan is reviewed and updated on an annual basis in response to the continuous impact assessment and ecological assessment work that is done to evaluate the condition of the environment on the ground. The science that underpins the mapping of priority ecosystems under D'MOSS follows a Systematic Conservation Assessment approach that defines levels of acceptable change for each ecosystem type, ecosystems of conservation importance in terms of national legislation, protection status for each ecosystem type, and identifies areas where below target ecosystems can be recreated and/or restored through the Ecological Restoration programmes that the city allocates budget to on an annual basis. Also key to this intervention is the land acquisition programme where the city acquires environmentally important land under private ownership that due to historical zoning was assigned a zone that allows hard development. The D'MOSS map is available in GIS shapefiles as well as in HTML format.

Significantly accelerate action to address governance parriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

As 60% of the city's ecological assets are in areas under traditional authority leadership governed by the Ingonyama Trust Board (ITB), the city has begun to investigate best approaches to secure conservation land in Traditional Authority areas, i.e. areas controlled by the Ingonyama Trust Board (ITB), using the iNanda Mountain grasslands and forest restoration as a pilot. The city also has a Biodiversity Stewardship Policy that allows for partnerships with traditional authorities and provides them with incentives to conserve the environment and allocate land under their control responsibly.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

A vegetation map has been produced for the City of Durban and is regularly updated, while a number of natural capital metrics are reported on through Durban's annual State of Biodiversity report. Both these work streams will continue to be reviewed and updated. The Durban Climate Change Strategy places a particular emphasis on the role of the natural environment in responding to the impacts of climate change, and this workflow will continue to raise awareness of the City's adaptation work.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

While tools and projects are already being implemented that promote public-private partnerships under the banner of biodiversity conservation (e.g. Special Rating Areas), there is a need to increase the scale of these interventions, and where necessary to identify new tools to address governance challenges (e.g. biodiversity stewardship in traditional authority areas). Durban's Biodiversity Strategy will provide an overview of the tools that will be rolled out and those to be piloted.

Example of financial resources available to deliver the commitment

Over the past 15 years, the city has invested about R300 million (around USD 15.8 million) annually on various programmes that improve the environment both from capital and operational expenditures. These programmes include land acquisition for ecologically important land parcels currently under private ownership, investment into Special Rating Areas where private landowners contribute dedicated rates for keeping the green space in their areas free of alien vegetation, city wide alien invasive species removal, fire control of alien invasives, reforestation, recreation of habitats and citywide stream cleaning. In the next MTEF the city has committed R800 million in ecosystem based adaptation projects in addition to Parks and Natural Area revitalization.



The Freetown City Council (FCC) strategically divided the 'Freetown the Tree Town' programme into two phases:

- Phase 1-Urban Greening Programme for Hazard and Disaster Risk Reduction (2020) which planted, tracked and is currently growing approximately 250,000 trees in 48 planting areas in the upper catchments of vulnerable communities.
- Phase 2- Climate Ready Cities (2021-2022) aims to enhance community engagement, participation, and impact particularly in vulnerable communities through planting approximately 700,000 trees in 2021 and 2022. The Urban Greening Programme focuses on harnessing strategic partnerships to establish and implement a comprehensive community-based planting and growing, stewardship, and monitoring and evaluation model. It also provides opportunities to tie wider / cobenefit outcomes pending the greening approach; examples include: job creation for short term, disaster risk reduction (landslide events) & water quality / security improvements for longer term.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The FCC has worked very closely with a Technical Team to build a Phase 2 Urban Greening Model which maps greening opportunities, include planting locations, species mix / biodiversity profile against specific land-use typologies to guide planting and growing of the first target of 300,000 indigenous trees and additional supportive shrub and grass vegetation to be planted in the upcoming 2021 implementation cycle. The FCC has agreed with the World Bank and the Ministry of Finance to focus on the following key objectives under the RUSLP Urban Greening Programme for Phase 2 implementation of the #FreetownTheTreeTownCampaign to commence in July 2021:

- Target Green Infrastructure Under Phase 2: Plant, grow and track 300,000 trees and additional supportive shrub and grass vegetation city-wide under the climate resilience approach to urban greening using nature-based solutions to mitigate climate risks.
- Target Planting Areas: Planting to take place along; (i) major and secondary roads and other critical infrastructure; (ii) around key water sources, mangroves; (iii) targeted community/ neighbourhood spaces such as community dams and existing and to be established greenspaces; and (Iv) areas that are vulnerable to soil erosion
- Community Tree Stewardship: The aim is to harness the momentum of Phase 1 and the awareness raising that was built about trees with local community members to create more ownership and sustainability for trees and green infrastructure. An opportunity exists for inclusive jobs for experienced community members from Phase 1 to provide training to other communities.

- Tree Mapping, Tracking & Monitoring: A critical component of Phase 2 planting and growing operations is to map existing trees and build a forest inventory for Freetown, measure the volume of land restored, and measure GHG reductions (carbon capture) because of trees planted and grown under the Campaign.
- Urban Forestry Management Policy Formulation: The aim is to strengthen Council capacity to support and manage the urban forestry sector in Freetown and the Western Area Peninsula by establishing an Urban Forestry Strategy and Action Plan, and governance structure which will manage tree planting, growing and operational maintenance of the Freetown Urban Forest.

Currently, there is no official funding for the additional 400,000 trees of the forecasted goal to plant 700,000 trees. The FCC will continue to work closely with the Technical Team to achieve the second tree planting and growing target of 400,000 trees in 2022.

significantly accelerate action to address governance parriers to implementation, and mobilize access to investments and resources that support the Accelerator argets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for lelivering urban nature solutions.

The FCC is establishing a sustainable financing mechanism by leveraging potential carbon offsets resulting from the Urban Greening Programme and offering these offsets to corporate and institutional partners to invest in the city's pathway to climate resilience. Through the #FreetownTheTreeTownCampaign, communities are provided with monetary incentives to plant trees and a tree trading market is established through carbon offsets sold to institutional and corporate partners which fund additional reforestation. Further carbon offset financing will be achieved through offsets identified from additional green infrastructure and nature-based solutions linked to identifying the co-benefits of naturebased solutions and community co-management of the urban forests which are integrated within the tree trading market. This initiative poses a unique opportunity to use market forces to drive climate action at the community level, with multiple benefits achievable against the city's environmental and public health indicators.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Freetown will undertake a comprehensive inventory of natural trees and vegetation in conjunction with the building of our Freetown Urban Forestry Strategy and Action Plan. This will be built on a platform of community tree and canopy mappers linked to our existing Community Tree Growing Teams and Tree Tracker Platform. This process will be conducted over 2021 and 2022. A pilot exercise was conducted in 2020.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The #FreetownTheTreeTownCampaign focuses on harnessing strategic partnerships with the Ministry of the Environment (Forestry Division, Environmental Protection Agency and National Protected Area Authority), the Ministry of Water Resources and the National Water Resources Management Agency, Guma Valley Water Co., the Ministry of Lands, Housing and Country Planning, the Sierra Leone Roads Authority and community-based organizations at Catchment-level who will work directly with communities to establish and implement a comprehensive community-based planting and growing, stewardship, and monitoring and evaluation models. The nature of decentralization in Sierra Leone is such that all of the above Ministries, Departments and Agencies (MDAs) have mandated authority over spaces for greening in the city of Freetown that is not delegated authority to the city itself. Hence, this requires strategic coordination with central Government MDAs to design and implement natural solutions that are sustainable. A critical piece to this, however, is the ability of the city to attract resources directly and sustainably to fund urban solutions which are rarely funded as an allocation to local councils through central Government.

Other supportive actions

Through the Freetown Community Climate Action Ambassador engagement process the city is engaging vulnerable communities in climate risk mapping based on three stages and ten processes of community-led climate action and adaptation where equitable greening is a critical driver to climate resilience.

Additional Resources

https://www.worldbank.org/en/topic/ disasterriskmanagement/brief/sierra-leone-multi-cityhazard-review-and-risk-assessment_

https://blogs.worldbank.org/sustainablecities/ freetownthetreetown-campaign-using-digital-toolsencourage-tree-cultivation

Example of financial resources available to deliver the commitment

The World Bank and the Global Environment Facility (GEF) have directly financed USD\$ 1.8 million for the Urban Greening Programme [#FreetownTheTreeTownCampaign], which has been leveraged to support Freetown to mobilize for an additional USD\$ 1 million from Bloomberg for the same programme.

Additionally, serving as a vital funding source for urban greening efforts, Freetown has been recognized as one of 50 Champion Cities in the Bloomberg Global Mayors Challenge, thanks to the #FreetownTheTreeTownCampaign. Should the city advance to the next round of 15, it will receive a US\$ 1 million award to support its greening initiatives and fulfill its commitments under the C40 Nature Accelerator between 2022 and 2024.



Athens

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

In 2021, the city will be releasing an updated Climate Action Plan, a large part of which focuses on making the city greener and more resilient to heat, droughts and flash floods. A significant communication plan is going to take place around the launch of our CAP this fall, including a series of stakeholder workshops.

To foster support and broad community engagement in designing Athens' nature targets, the city relies on synergies with various existing programs such as SynAthina, Athens Partnership, ADDMA, as well as specific Green Deal Horizon 2020 European Programs recently secured, namely Arsinoe and ReachOut.

Finally, in early July, the City of Athens will be launching its collaboration with the Atlantic Council's Extreme Heat Resilience Alliance which focuses on a nature-based response for keeping the city cool and protecting the health and wellbeing of our most vulnerable populations. In July an interim Chief Heat Officer, will be in place and the city will be putting together a Task Force (internal and external to the municipality) that will move this effort forward.

In terms of monitoring and assessment, Athens has established metrics for its CAP goals and is in the process of defining metrics for its heat reduction targets. While the city currently lacks a monitoring process, establishing one is a recognized next step in the plan.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Athens recently commissioned a high-resolution heat map that depicts the average summer temperatures

of the last 5 consecutive years in every building block of the city. The city is also currently in the process of creating a tree map for the national census for 2021 (which takes place every 10 years), whch will result in demographic and socio-economic data and is estimated to produce results in 2022.

Up to date, a gap analysis and its map - created in 2017- were used. There is a basic line understanding of where vulnerability and risks lie. This is to a large extent leading the city's decision to mainly focus on new green areas in the 3rd district, i.e. the west part of Athens which is the most vulnerable to heat (Elaionas).

The city is also focusing at the neighborhood level, creating pocket parks wherever possible, and establishing green corridors in districts characterized by dense urban development or low socio-economic indexes.

In general, greening Athens—a densely built and populated city—is a challenge that needs to be transformed into a solution.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The Accelerator initiative aims to propel Athens' green agenda forward, enhancing the city's resilience to climate change, particularly extreme heat.

Currently, the city is finalizing technical plans for a Nature Capital Finance Facility Ioan, part of a 55 million Euro European Investment Bank Ioan. This initiative is anchored on Athens' Resilience Strategy, with a particular focus on its Green Pillar and Climate Adaptation actions.

Through the Athens Partnership initiative "Adopt your City," the City of Athens is engaging citizens, small and large companies, foundations, organizations, and interested individuals to "adopt" various urban spaces—streets, pathways, abandoned lots, parks, squares, and playgrounds—and contribute to their greening. This program promotes collaboration between citizens and the corporate world, as well as between the public and private sectors. Additionally, the city has launched the "Adopt a Tree" initiative for community engagement, which has been running for the past two years.

Furthermore, Athens is in the process of launching a partnership with the Atlantic Council, establishing itself as the City Champion for Heat Action in Europe. This partnership will support Athens across four pillars: policy, education, financing, and implementation, focusing on mitigating heat and protecting the most vulnerable populations.

These initiatives represent just a few among many others. Athens aims to assume a leadership role in addressing heat-related risks, one of the most dangerous consequences of climate change. Introducing nature into the urban landscape is considered pivotal to achieving this goal.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Athens is currently assembling resources to undertake a comprehensive baseline vegetation inventory and natural capital accounting within the next two to three years. It is anticipated that this initiative will inform decisions regarding the city's trajectory towards achieving its 2030 Urban Nature targets. This strategic approach aims to enhance the city's resilience and safeguard its communities against climate-related risks. Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

As mentioned above, Athens is currently in the process of implementing a series of inclusive frameworks that are increasing and enhancing natural solutions around the city. The city is eager to continue on this path and share/learn from other cities solutions and opportunities that will maximize and capitalize on our efforts.

Other supportive actions

Athens is now starting to engage with a series of European programmes (such as Horizon 2020 New Deal) and international collaborations (C40 Cool Cities, R-Cities CoP on Heat, Atlantic Council Extreme Heat Resilience Alliance) that will enhance its efforts by bringing nature into the city with a focus on equity regarding accessibility to green spaces.

Example of financial resources available to deliver the commitment

EIB Ioan, European Programmes, Municipal Funds, Public Private Partnerships.

Barcelona

SIGNATORY SINCE 2021

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The Green and Biodiversity Plan 2013-2020 proposed an approach to increase and naturalize the various green spaces in the city. Within the framework of the plan, the city established during COP21 a commitment to increase urban green space by 160 ha, equivalent to 1 m2 of green per inhabitant by 2030. Throughout these years, the Green Infrastructure Promotion Programme approved a government measure that established different accounting mechanisms for increasing urban green spaces.

In July 2021, the Natura 2021-2030 Plan was initially presented, which is the evolved version of the Green and Biodiversity Plan, and aims to generate, expand, conserve and protect the green and biodiversity of the city. It is also expected to grow green spaces through (1) the development of green connectors within the metropolitan area, (2) the promotion of urban transformation with a green fabric (superblock, green axes) and (3) the commitment to green roofs where there is less space.

One of the components of the Nature Plan and on which the city has been working for a few years is the "Mans al verd" programme, which involves working collaboratively with citizens to co-manage disused land, tree pits and new community green spaces. Conduct a gap analysis and mapping of where new preening is needed and opportunities for existing green paces to be upgraded to respond to local needs.

Part of the diagnostic work of the Nature Plan is based on analyzing the presence of urban greenery in the different neighborhoods and districts of the city. The increase in green space was a commitment of the mayor at COP21, it is included in the Climate Plan and also it is in the Nature Plan and in the green infrastructure government measure.

The increase in green spaces works as a structure to strengthen biodiversity in the city and to promote greater environmental services, among them: thermoregulation, regulation of the water cycle, generation of shade, among many other services. The approximation is made through various analyses where the amount of "real" greenspaces, that is, biologically active, is considered. This parameter is analyzed from different perspectives, the percentage of the city surface area (i.e. parks, gardens, etc.), the percentage of coverage (using the NDVI index) and the accessibility to these spaces within 300m. These analyses allows the city to detect the areas where there is greater difficulty in accessing green areas and establish strategies to improve these parameters.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The city of Barcelona has put different mechanisms in place to promote and finance the implementation of urban greenery through:

- Participatory budgets
- Commitment to municipal investment plans
- Participation processes in urban transformation projects
- Green roof competitions to subsidize 75% of the cost.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Barcelona has an ecological map that is made from a land cover map. In July 2020 it presented a strategy for the naturalization of spaces in order to improve biodiversity in the city and to be able to recover gardening systems that favor a lower intensity of management and handling and favor naturalized plant strata.

Another initiative to highlight is BioBlitzBcn, a collaborative and festive nature discovery event, where, during a 24-hour period, all organisms in a given area are identified. It constitutes a space for training, knowledge and citizen participation. Its main objective is to identify the maximum number of species that is possible in a given place, in order to carry out an annual biological inventory.



Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The City has begun to establish through urban regulations, for example in the Vallcarca MPGM or in modifications of the general plan that are now being carried out, criteria that favor the implementation of green roofs or green dividing walls so that the building contributes to provide vegetation to the city. On the other hand, in most large urban transformation projects, the increase in vegetation is a fundamental objective. A mechanism for monitoring the increase in vegetation has been established in urban transformation projects.

Additional Resources

https://www.icgc.cat/Descarregues/Mapes-en-formatd-imatge/Cobertes-del-sol

https://opendata-ajuntament.barcelona.cat/data/es/ dataset/cobertura-vegetal-ndvi

Berlin

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Make our nature goals public:

Berlin has had an urban landscape strategy ("Strategie Stadtlandschaft") since 2011. Its aim is to safeguard and expand Berlin's open and green spaces and to prepare them for new challenges such as climate change. With the funds made available for its implementation, it was possible to launch the urban tree campaign (for planting new urban trees) and the mixed forest programme (for adapting Berlin's forests to climate change) and to support other reference projects. Information (in German) is available <u>here.</u>

Most recently, the Berlin Senate developed the Charter for Urban Green ("Charta Stadtgrün"), which was adopted by the Senate and the Council of Mayors in May and June 2021, respectively. The Charter for Berlin's Urban Green formulates goals, tasks and measures for the protection of Berlin's urban green spaces, especially with regard to the growing population. Among other things, it formulates the goal that every citizen should be able to reach a green space within 500 meters of their homes. For recreation, each resident should have 6 sqm of recreational space close to the home and 7 sqm close to the settlement, as well as 1 sqm of playground space. Together with the Charter, a 2030 action programme was adopted, which defines the necessary projects and measures. The Charter was adopted together with the urban community in a broad-based participation process. The implementation of the Charter is evaluated every 2 years and the action programme is updated accordingly. Information (in German) is available here.

In addition, there is the Landscape Programme for Berlin. This is the green sectoral planning for the overall spatial planning. The 2016 landscape programme, including the species protection programme, consists of the general requirements and measures for achieving the goals and principles of nature conservation and landscape management in the state of Berlin. In accordance with the requirements of the German Federal Nature Conservation Act ("Bundesna-turschutzgesetz") and the Berlin Nature Conservation Act, the programme includes an analysis and assessment of the state of nature and landscape and the development goals for nature and landscape. The landscape programme including the species protection programme is a strategic, city-wide planning instrument for integrative environmental risk reduction. Information (in German) is available <u>here</u>.

The Berlin Energy and Climate Protection Programme 2030 ("BEK 2030 – Berliner Energie- und Klimaschutzpro-gramm 2030") has been in place since 2018 to transform Berlin into a climate-neutral city. In the area of adaptation, the BEK 2030 provides, among other things, for the safeguarding of climatic relief areas and the creation of further green and open spaces. Information is available <u>here</u>.

In the area of adaptation, the 2011 Urban Development Plan on Climate ("StEP Klima – Stadtentwicklungsplan Klima") should also be mentioned. It is used as a planning instrument as a basis for consideration and for district urban land use planning and thus ensures the integration of the topic of adaptation. It was specifically supplemented by the StEP Klima and makes the heat-adapted and water-sensitive city guiding themes in urban land use planning. The plan contains bundles of measures and strategies for seven common building structure and area types in Berlin, for example dense perimeter block development, new multi-story residential construction as well as streets and squares. Information (in German) is available here.

In addition, a Water Master Plan is nearing completion, the aim of which is to secure the drinking water supply, water protection and an adapted wastewater disposal system for Berlin and the surrounding area, even under changing future conditions. This also includes the field of action "Urban Green" ("Stadtgrün"), which includes measures for decentralised rainwater management.

Develop support and skills building programmes for green jobs:

The following measures, among others, are collected under the Charta Stadtgrün:

- Deploying park managers, urban nature rangers and forest rangers in recreation focal points
- Strengthening measures for nature experience and environmental education through programmes such as nature guides, species finders for biodiversity, advice for nature experience spaces, green learning sites
- Further training for gardeners, landscape architects, park managers and nature guides should be increased.

Develop a process for involving vulnerable and marginalized communities in design, implementation and monitoring of our nature targets:

The Charter for Urban Green ("Charta Stadtgrün") was developed in a broad participation process with the urban society. Among other things, the charter and the action programme provide for the following measures to involve the (disadvantaged) urban population:

- Maintaining the supply of allotment garden plots for the population
- Preparation, implementation and evaluation of pilot projects for the integration of open space for general use and community gardens in allotment gardens.
- Realisation of parks near housing and settlements, play landscapes, nature experience areas, sports fields and neigh-bourhood gardens in the large new building quarters parallel to the building development.
- Launch "Rooting Community Gardening in the City" programme
- Supporting citizens' initiatives that are committed to the Urban Green
- The 1000 Green Roofs Programme "GründachPLUS" - offers the possibility of promoting green roofs, primarily on existing buildings, but also innovative building greenings as a so-called Green Roof LAB

Other notable projects include:

 Participation in the EU innovation project EdiCitNet (September 2018- August 2023): Codevelopment and implementation of different Edible City Solutions (special form of nature based solutions) in two real labs/community gardens in socially disadvantaged neighbourhoods. Development of a strategy to strengthen socially disadvantaged neigh-bourhoods through solutions for the so-called Edible City.

- Urban renewal programme "Social Cohesion": The overarching goal of the programme is to strengthen socially disadvantaged neighbourhoods. From 2021 onwards, stronger integration of the topics of climate protection and climate adaptation in funding programmes (integrated strategies, construction measures, public relations, sociointegrative projects).
- Berlin has had an urban landscape strategy ("Strategie Stadtlandschaft") since 2011. Its aim is to safeguard and expand the substance of Berlin's open and green spaces and to prepare them for new challenges such as climate change. With the funds made available for its implementation, it was possible, for example, to launch the so-called urban tree campaign (for planting new urban trees) and the mixed forest programme (for adapting Berlin's forests to climate change) and to support other reference projects.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

A corresponding analysis is already being carried out in Berlin with the supply analysis of green spaces. The Senate is developing maps showing the supply of public green spaces close to residential areas. They form a basis for the landscape programme and for further planning. Based on the guideline values for green space provision in Berlin, the recreational function is assessed by means of accessibility area size, and a statement is made on green space provision. When con-sidering the existing situation, a distinction is made between green spaces close to homes and those close to settlements, with the allocation to the respective open space type being based on the size of the area. The analysis is publicly available and can be found here (in German). Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

In order to remove structural obstacles, the Charter or the Programme of Action provides for the following measures among others:

- Establishment of a task force for the accelerated designation of protected areas planned according to the land-scape programme with the target perspective 2030
- Adequate equipment of the districts and the senate administrations to draw up and implement sub-area land-scape and open space concepts as a basis for the open space quality offensive and strategic land development and to ensure the implementation of the eco-account ("Ökokonto").

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

In Berlin, the following inventories exist and are being continued:

- Biotope mapping: Between 2011 and 2013, all undeveloped areas in Berlin were recorded or mapped as so-called biotopes. Berlin has created an essential basis for urban and regional planning, landscape planning and for the nature-compatible development of land uses such as forestry through knowledge of the features and spatial distribution of near-natural and cultivated biotopes. The citywide biotope type mapping is updated approximately every 10 years (high effort). Areas with more valuable natural "features" are mapped more frequently (e.g. nature conservation areas).
- Climate change impact monitoring: In order to be able to take concrete measures for climate protection and adaptation, it is necessary to have precise knowledge of the current state of the climate and the environment and to know how individual parame-ters have changed over the past decades. For this reason, the Berlin Energy Transition Act ("EWG Bln – Berliner Energiewendegesetz,") made the establishment and implementation of climate impact monitoring mandatory.

- Berlin eco-account ("Berliner Ökokonto"): According to the German Building Code, unavoidable interventions in nature and landscape must be compensated. The German federal states have to set up eco-accounts for this purpose. The Senate approved the first Berlin eco-account project in December 2019; first measures have al-ready been implemented. The basis for working with the eco-account is provided by the city-wide compensation concept ("GAK - Gesamtstädtische Ausgleichskonzeption"). The GAK identifies areas in the city where there is an increased need for action in terms of nature and landscape. If negative environmental impacts need to be compensated, the GAK helps to find suitable areas for compensation.
- Project "Social Value of Tempelhofer Feld -Capturing Qualities and Making Them Visible": The former airfield "Tempelhofer Feld" is a unique place in its dimension, size, history and variety of possibilities. The interplay of large nature conservation areas and recreational spaces amidst the density of the city is unique. The Helmholtz Centre for Environmental Research was commissioned by the Senate Department for the Environment, Transport and Climate Protection to research the social value of the Tempelhofer Feld.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The Charter for Urban Green ("Charta Stadtgrün") provides for the following measures in this area:

- Incentive programmes to activate green potential on private land (public relations, advisory services, guidelines, competitions, development of instruments for funding).
- Introduction of an open space design plan to ensure and promote appropriate greening and design of building plots.
- Campaign to promote biodiversity on private land: public relations, guidance, cooperation with owners, competitions, citizen science projects, networks, etc.

 Dialoue campaign "Together we are park" (initiative for respect and appreciation in Berlin's urban green spaces)

Example of financial resources available to deliver the commitment

Funds of around 16,400,000 € are available for the implementation of the Urban Landscape Strategy in 2021. In addition, there are other comprehensive funds such as those from the districts for the maintenance and upkeep of green spaces, from the Berliner Forsten (Berlin forestry office) for the Berlin forests, and from the Senate for the implementation of the Berlin Energy and Climate Protection Programme 2030 (BEK 2030).

Additional Resources

https://www.ibb-business-team.de/gruendachplus/

https://www.berlin.de/sen/uvk/natur-und-gruen/ landschaftsplanung/strategie-stadtlandschaft/

https://www.berlin.de/senuvk/umwelt/stadtgruen/ tempelhofer_feld/download/studie/THF_studie.pdf



Copenhagen

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

The City of Copenhagen makes its nature goals public in strategic documents such as the Municipal Master Plan. As part of the Area Renewal projects the city will involve citizens in preparing Neighbourhood Plans. Involving citizens, including vulnerable and marginalized communities, is integrated in all of the City of Copenhagen's planning processes. The City also provides funding for citizens who have initiated local initiatives to increase green spaces and biodiversity.

As part of the job-creation programme the city is conducting a programme for nature-management for people outside the work-force.

There is also a need for an upgrade in skills for new types of green maintenance both for existing employees and for future employees in the city. The city is working with the national education system, e.g. the Forest and Landscape College at University of Copenhagen, to ensure the relevant competences in our workforce.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

As part of the Climate Adaptation Plan and the Area Plan the administration will continue to prepare annual reports to the City Council with status and gap analyses for the green areas and possibilities for new green areas. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

As part of the Climate Adaptation Plan and the Area Plan for Green Areas, the administration will continue to prepare reports to the City Council giving a status and gap analysis for the green areas and present possibilities for new green areas. The analysis presented by the administration will be included in the annual city budget negotiations.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The City's Area Plan for Green Areas will entail a baseline for natural vegetation inventory and when appropriate include a natural capital accounting on a case by case approach. The city has previously conducted case studies according to natural accounting principles to raise awareness.

The city's strategy for biological diversity, 'A Place for Nature,' was adopted in 2011 and aimed to highlight biodiversity considerations in day-to-day planning, including local plans and the Municipal Master Plan. The plan is expected to be complemented by a new biodiversity strategy which will be prepared together with the Danish Society for Nature Conservation. This will aim to ensure that existing nature areas in the city must be better protected and the greenery must be better integrated in the form of new nature areas in urban areas.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

In connection with the preparation of a biodiversity strategy, there will be citizen involvement, including the private sector, e.g. the social housing sector, residents and businesses. The City provides the possibility for funding for citizens who initiate local initiatives to increase green spaces and biodiversity. The Biodiversity Fund in Copenhagen supports projects in Copenhagen that encourage Copenhageners to create more and better urban nature. The ambition is to ensure green breathing spaces for insects, birds and small animals and thus help to reverse the decline in species diversity. Examples of projects that are eligible for funding:

- Lawns that are transformed into flower meadows
- Plants and seeds to establish beds surrounding street trees
- Flower boxes placed at sidewalks and areas with asphalt
- Lectures in housing associations and schools on how to increase the quality of nature in a specific area
- Partnership trees (municipality pays for the tree, which citizen groups plant and tend to)



Other supportive actions

As part of the implementation of the cloudburst management plan the city is prioritising spaces that are located in low income areas and are lacking good quality public green spaces.

Example of financial resources available to deliver the commitment

Financial resources to fulfil the necessary requirements are usually obtained in the yearly city budget negotiations.

Additional Resources

Biofactor Tool



The Municipality is developing and carrying out programmes to train residents in the practice of urban agriculture, green roofs and communal gardens. Some of the plans take into account residents of neighborhoods with a low socioeconomic status. Another task currently underway is mapping vulnerable populations in the city, in cooperation with the Ministry of Labor, Social Affairs, Social Services and the municipal Welfare Department. This mapping will also support and assist in preparing appropriate training programmes for these populations in required neighborhoods, as well as preparing vulnerable populations to cope with climate change. The city is also developing and implementing a training programme in the education system for students and teaching staff to address climate change, urban agriculture, green roofs, urban heat islands and sustainable nutrition. This is a direct initiative by the mayor, who conducts training in person, both in schools and on the hydroponic green roof built on the city's Resident Service Center, realising the importance she attaches to spreading her vision of nurturing and preserving urban nature and dealing with the climate crisis.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The Municipality has at its disposal a number of mapping measures for urban nature and open spaces. Some have been executed and some are planned:

• **Municipal tree survey:** The Haifa 2030 Authority is beginning to conduct a survey in which it will examine the inventory of urban trees. The survey will include locating the trees, their species, size, condition, the need for care, safety and more.

- Mapping green areas in the city: As part of promoting the goals of a climate change preparedness program, the city intends to map all its green areas. This mapping initiative will assess the distribution of green spaces and their associated benefits in mitigating urban heat islands.
- Mapping values of open spaces: Haifa is beginning to work on mapping open spaces and their values from various aspects.
- **Urban nature survey:** Surveys have been conducted that determined the ecological values of various areas of the city. These unique sites are embedded in the urban planning system.
- Marine nature: The sea has importance and a significant place in the life of the city, and contains a variety of marine habitats, both sandy and rocky. Some of these areas are protected as nature reserves.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The Haifa Municipality is currently assembling a preparatory programme for dealing with climate issues. In this framework, it will publish the Authority's goals regarding urban nature. The objectives will touch on topics such as maintaining open areas, thickening urban forestland, reducing urban heat islands, inculcating surface water runoff, and so on. The programme is being promoted in cooperation with government ministries (the ministries of Energy, Environmental Protection and Housing) and as a result, the city aims to cooperate with the central government regarding the removal of barriers and recognition of promotion opportunities as part of a national project. To acquire more fundings for projects, the city will pursue the following two sources:

- The Fund for the Protection of Open Spaces (under the Israel Land Authority): Submitting to public appeals calling for project financing
- Self-budgeting: The local authority places promoting environmental and climate issues at the head of its priorities. Therefore, in accordance with existing measures and priorities, budgets will be allocated to realize the mayor's vision in environmental aspects.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The completion of knowledge regarding the values of the existing natural areas in the city is being conducted, and will be conducted later in a number of channels:

- Urban nature survey: Conducted in 2012, the survey included species inventories in every open natural area within the city limits. The findings are integrated into the urban planning processes and are used to manage urban nature.
- The open spaces values survey is scheduled to take place in the coming year, in cooperation with the University of Haifa.

Urban nature is a major resource in Haifa, and many actions are being taken to engage the public:

- Urban Nature Conference and Green Roofs: Open to the public and professionals from the city and beyond, the conference – initiated by the Haifa 2030 Administration in cooperation with leading lecturers and professionals in the field – was held in June 2021 and addressed the design of a nature-biased landscape, surface water runoff solutions, green roofs, marine ecology and more.
- A unique urban study curriculum that deals with the environmental challenges facing the city of Haifa, including reference to the city's unique urban nature. The programme will connect students in different age groups with natural resources, and emphasize education from the experience of researching what exists.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The Authority is working on refreshing practices and programmes in order to promote issues related to urban nature and the percolation of surface water runoff.

- Incentives and regulation policy for the construction of green roofs: Work is currently being done to examine the possibility of supporting the construction of green roofs throughout the city and encouraging their establishment in both private and public buildings. This work is led by the Haifa 2030 Authority in cooperation with the legal service and the Israeli Green Building Council. As part of this work, Haifa is examining the possibility of incentivizing this activity, and ways to arrange the issue in regulatory terms are being examined.
- Master plan for surface runoff: As part of promoting a climate change preparedness programme, the need for a master plan for surface water runoff is being examined. The Authority's spirit is one of finding nature-based solutions. The plan will include reference to privately-held areas as well as solutions to be implemented in the public sphere.
- Preventing the spread of invasive species: Due to the intensive interface between the city's urban nature and built-up areas, instructions have been prepared regarding the use of plant species in hazardous areas. This is in order to prevent the spread of invasive species to the natural areas.

Other supportive actions

The Municipality has a number of urban nature programmes:

- Master Plan for Wadis: A programme aimed at making green wadis (dry valleys or ravines except for the rainy season) accessible to the city's residents while preserving the unique habitats and character of all ecological values.
- Urban Forestry Programme: Aims to increase the city's inventory of trees in the public sphere. As part of this plan, thousands of trees will be added each year to the city's streets, gardens, parks and courtyards of public buildings. The plan is to provide cool shady spaces for residents, reduce urban heat islands, lower air pollution and contribute to the city's appearance.
- Green Roofs: As noted, the Authority is promoting the issue of green roofs for expanding green land cover and exploiting the fifth façade. Recently, potential roof mapping has been carried out for development as a green roof on community buildings in the city center. All the community buildings in the city were mapped in cooperation with a landscape architect, engineering and community planning, and a number of buildings have been identified on which living roofs will be built and maintained by residents, for their mental and health wellbeing.

Example of financial resources available to deliver the commitment

Examples of sources of funding for operations planned by the Authority:

- Master Plan for Wadis: An appeal has been made to the Israel Land Authority's Open Spaces Foundation for funding for the implementation of the plan in Wadi Siah.
- **Urban Forestry Plan:** The municipal tree survey and implementing the forestry plan by planting throughout the city will be partly funded by the government's scenic compensation budget.
- **Green Roofs:** The mayor has allocated a budget for a strategic plan for green roofs, as well as implementing the first roofs as case studies.

Additional Resources

http://natureisrael.org/cms_uploads/PDF%20files%20 of%20reports/urban_nature.pdf





London's nature goals:

- In 2021-2022 and 2022-2023, prioritise projects funded through the Green New Deal and Mayoral grant programmes to improve green spaces and increase climate resilience in areas identified as of the highest climate vulnerability through our climate risk mapping. These programmes Include the Grow Back Greener community grants programme, the Green and Resilient Spaces Programme, and the Green and Healthy Streets programme with Transport for London. In addition to targeting areas at highest climate risk/ vulnerability, funding criteria will promote green skills development and encourage community engagement as part of projects delivered
- Support the development of a Centre for Excellence for parks in London including a focus on improving skills in the greenspace sector to support better management of greenspaces, improving access and resilience by 2023
- Deliver the CLEVER Cities programme and Greener Together pilot programme, working with communities to test and share best practice approaches to addressing environmental inequality linked to social and racial injustice, and share learning by 2023

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

London's commitments:

- Publish a spatial Greenness Index in 2021 that identifies areas of the city that have inadequate access to public open space and the lowest areas of green cover so that action to increase nature based solutions can be prioritised in these areas.
- By 2022, upgrade the data and functionality of the Green Infrastructure Focus Map so that it is even easier for communities, boroughs and other landowners to understand and use environmental and social information to plan and design new greening that responds to local needs.
- Work with London boroughs and other partners to deliver more detailed climate risk mapping to inform nature based adaptation interventions by end of 2022.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

London will develop and test mechanisms that help secure funding for management of existing and creation of new nature based solutions, and develop new policy approaches to support better management and investment in nature based solutions, including:

 Supporting two to four neighbourhoods to become exemplar models of how to tackle the climate and ecological emergencies, whilst addressing London's health and social inequalities by funding the development of Future Neighbourhood 2030 strategies and sharing learning from the project. Funding awarded in 2021, learning shared by 2023.

- Publishing new planning guidance for London boroughs on developing green infrastructure strategies as part of their statutory Local Plan making process Consultation draft and consultation events delivered in 2021-22, final draft published in 2022.
- Investigating and reporting on the feasibility of pan-London Nature Based Solutions (nature based solutions) credits and potential scope of investible nature based solutions options by 2022.
- Strategic Sustainable Urban Drainage Systems (SuDS) Optimisation to unlock flood funding

 SuDS mapping and modelling to identify the benefits of multiple strategic SuDS schemes in managing flooding and delivering wider cobenefits. Learning shared by the end of 2022.
- A Centre of Excellence for London's green spaces to increase support for the enhancement, improved management and funding of green space by 2022.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

London's commitments include:

- Publish a map of Sites of Importance for Nature Conservation which should be protected in accordance with the Mayor's London Plan on the London Datastore by 2021.
- Build on the work already completed to produce a Natural Capital Account for London by publishing new evidence on the economic benefits of street greening by 2021.
- Complete a Sustainable Urban Drainage Systems (SuDS) projects map for London with a plan to keep the map up to date by end of 2021.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

- Support skills building and new green jobs to develop the green economy through the development of a Green Skills Academy by 2024
- Deliver community co-designed nature based solutions interventions that support the regeneration of Thamesmead area of London, improve economic opportunities for residents as part of the CLEVER Cities project, and share learning from the project with other housing providers by 2023.
- Support local communities across London to improve and create green spaces and increase climate resilience through a Mayoral grant programme which prioritises projects located in areas of poor access to green space and high climate risk, as well as those that offer training and green skills development opportunities. Projects completed by 2023.
- Work with the Department for Health and Thames Water. The city will support up to 100 schools in London that are most at risk of surface water flooding and high climate risk to reduce this risk through the delivery of new nature based solutions, climate adaptation plans and an education programme that promotes nature based solutions by 2023
- Support 10-12 large-scale exemplar projects to deliver innovative enhancements to green and blue spaces, and the wider public realm, to strengthen climate resilience, increase biodiversity, improve accessibility, build green skills and help reduce health inequalities with projects completed by 2024
- Work with Transport for London through the Green New Deal's Green and Healthy Streets Programme, support up to 15 permanent exemplar street improvement projects that increase opportunities for active travel alongside increased climate resilience and urban greening by 2024.
- Coordinate and support London boroughs councils to plant 7000 new street trees in areas of lowest tree canopy cover by 2024.

Other supportive actions

London's green recovery: The London Recovery Board, chaired jointly by the Mayor of London, oversees the capital's recovery from the COVID-19 pandemic. It seeks to build back better and make London a greener, fairer and safer place to live and work. In his first term, the Mayor has made huge strides in increasing and protecting our city's green spaces and secured London's status as the world's first National Park City. However, in the face of the ongoing climate and ecological emergencies there is a need to go much further and faster. Accelerating the delivery of a cleaner, greener London is one of the Recovery Board's five core aims. As part of the recovery programme, the Green New Deal Mission aims to tackle the climate and ecological emergencies and improve air quality by doubling the size of London's green economy to accelerate job creation for all. In the Mayor's budget for 2021/22 over £20m has been committed to support the delivery of this Mission. The four overarching objectives of the Green New Deal Mission are to:

- Improve London's natural environment, improve air quality and tackle the climate and ecological emergency;
- Promote and incentivise activities that sustain and grow London's green economy;
- Prioritise interventions reducing health inequalities and social injustices;
- Engage Londoners and businesses in the journey to become a zero pollution and greener city.

Planning policy: The Mayor's London Plan is the strategic development framework for London. It Includes a number of green Infrastructure and climate adaptation policies that together ensure that new development increases the climate resilience and overall green cover of London. Key policies include:

- The protection of the greenbelt and Metropolitan Open Land;
- The protection of over 1600 sites of importance for nature conservation and a requirement for developments to provide biodiversity gains;
- A requirement for all major developments to provide a set standard of new greening, measured by an Urban Greening Factor;
- A SuDS hierarchy that requires developers to take a green-over-grey nature based solutions approach to surface water management.

Example of financial resources available to deliver the commitment

The Mayor's Green New Deal Fund

Additional Resources

https://data.london.gov.uk/dataset/climate-riskmapping

https://www.greenertogether.co.uk/

https://apps.london.gov.uk/green-infrastructure/

https://www.london.gov.uk/what-we-do/funding/ future-neighbourhoods-2030

https://apps.london.gov.uk/green-cover/

https://www.london.gov.uk/what-we-do/ environment/parks-green-spaces-and-biodiversity/ green-infrastructure/natural-capital-accountlondon?source=vanityurl

https://clevercities.eu/london/

https://www.london.gov.uk/what-we-do/planning/ london-plan/new-london-plan/london-plan-2021

https://www.london.gov.uk/what-we-do/urbangreening-biodiversity-net-gain-design-guide

https://www.london.gov.uk/what-we-do/planning/ implementing-london-plan/london-plan-guidanceand-spgs/urban-greening-factor-ugf-guidance-preconsultation-draft





The city makes its green objectives public and involves citizens in many different ways. The two main strategic pillars in order to reach the goal are the Air and Climate Action Plan – Piano Aria Clima PAC, and the Piano di Governo del Territorio – PGT, that include strategies and action in order to bring back nature into the city and make Milan more green, sustainable and resilient.

In terms of green jobs, the municipality of Milan is also working on the elaboration of an assessment of the impacts of the Air and Climate Action Plan. The goal is to identify the main socio-economic benefits from the implementation of the actions provided by the Plan, such as the creation of jobs by gender and age. The analysis will highlight the possible creation of jobs connected and generated by the Guidelines for adaptation to climate change, including the implementing urban greening.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The identification of opportunities and needs for the creation of new urban green spaces can both use some territorial analysis already developed by the Municipality of Milan and as well new opportunities the Municipality will develop in the next years, aimed at identifying local problems and strengths, such as:

 Vulnerability analysis, within the project, "Towards Climate-proof Landscapes (Verso Paesaggi a prova di clima)" funded by Fondazione Cariplo that, in 2020, elaborated an urban-scale analysis consisting of mapping of vulnerability and exposure of the territory and citizens to climaterelated risks.

- Land Surface Temperature map NOA and Bloomberg Associates. The map was developed from a five-year time series (2013-2017) of 100m satellite derived daytime LST images corresponding to the summer months (June, July and August), and identifies the hottest areas of the city.
- Land Surface Temperature maps elaborated in 2020 through the "ClimaMi project" financed by Fondazione Cariplo.
- Other opportunities for the future implementation of urban green areas have been identified using the following tool: Table S03 "Green and blue infrastructures and Municipal ecological network" of the Services Plan of the PGT Milano 2030 (City Masterplan).

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Regulations and projects aimed at facilitating the implementation of green infrastructures and nature based solutions include:

Art. 10 "Environmental Sustainability and Urban Resilience" of the PGT Rules Plan - defines new sustainability standards, both for new construction and for requalification of existing assets. The article regulates the achievement of a RIC climate impact reduction index - seen as the ratio between green surfaces and the territorial surface of the intervention, diversified according to the type of areas on which the intervention is made, and accessible through a catalog of solutions including the different permeable surfaces - green or semi-paved - on the ground, green roofs and walls, basement roofs, etc.

- Projects that are not able to reach those standards can monetize the difference and that money will contribute to the creation of the Metropolitan Park of Milan – Forestami programme.
- Art. 8 "Identification and regulation of existing and new localized services" of the PGT Services Plan, which recognizes and identifies existing ecosystem services and opportunities to increase the amount of green areas within the city thanks to the contribution of the private sector.
- Fondo ForestaMi The Forestami Fund is functional to the implementation of the "Forestami" Urban Forestry Project and collects resources from individuals, companies, and organizations, to support interventions aimed at planting trees in order to slow down global warming, reduce energy consumption, clean up particulate matter from the air and improve the well-being of citizens. The Fund collects the contributions of anyone who shares its aims and makes available for their use, both through direct disbursements to specific initiatives consistent with the Project, and through calls for entries promoted by actors promoting and managing the project.
- Annual Planting Plan The Planting Plan represents the governing instrument that regulates and sets objectives for the planting of trees for each agronomic season, from November to March. The 2019-2020 agronomic period saw the planting of over 20,000 new trees for the Municipality and the goal of 100,000 by March in the municipalities of the Metropolitan City, confirming the growing trend of recent years (+ 122% in three years).

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Existing strategic opportunities:

- The Municipality of Milan has developed the "Geoportale del Verde", an inventory that maps all the arboreal and shrub species present on public land, constantly updated by the competent authorities. The map is interactive and allows users to know the type of plant, the age, height, circumference, environmental and economic benefit for each specimen type of plant.
- Some pilot projects related to biodiversity support (project "Una comunità verde per la biodiversità" with Fondazione Oikos, funded by Fondazione

Cariplo) as well as the Life Project VEG-GAP contribute to the description of vegetation and the inventory of the natural capital of the city, at different scales, providing the opportunity to verify the urban roofs on the ground.

- Bilancio Ambientale Comune di Milano Environmental accounting for the Municipality of Milan aims at collecting data, info, analysis, indicators related to environmental strategies and policies in order to evaluate and monitor impacts.
- Osservatorio VAS PGT Observatory for the environmental strategic evaluation for the PGT – to evaluate the achievement of the goals set within the Plan and their environmental impact of the city (number of trees, amount of green areas, amount of permeable areas, permeability index, forestation areas, green element within buildings, etc.)

Acquisition of new data:

- The Mol with ESA will contribute to the description of land use and urban surface
- The new LIDAR flight, which will be carried out in the coming months throughout the Milan area, will make new detailed satellite data available to the Administration, allowing the City to obtain valuable information

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

To achieve this commitment, Milan counts on:

- Art. 10 "Environmental Sustainability and Urban Resilience" of the PGT Rules Plan, as described earlier.
- Giardini Condivisi The "Shared Gardens" project, approved by the Municipality of Milan in 2012, represents an innovative way of recovering and managing abandoned and/or degraded public areas for which direct and immediate intervention by the Municipal Administration is not possible. These areas, through a concerted redevelopment process, are returned and made usable to citizens, with the aim not only of making aesthetic improvements, but also and above all launching moments of shared design, construction and

maintenance, creating a sense of responsibility and belonging to the instilling community.

- 'Cura e adotta il verde pubblico' (Care and adopt public green) - The initiative "care and adopt public green", making use of partnerships with stakeholders, was born with the intention of improving the quality and maintenance of the city's green heritage. Through this tool it is possible to take care of furnishings and equipment, spaces intended for public green in front of shops, condominiums and public places, squares and urban flower beds. The sponsorship and partnership opportunities are divided into three types, ranging from the simple direct intervention of citizens without specific monetary investments, to the actual financing of ad hoc projects.
- The Municipality has launched the Technical Sponsorship of urban spaces to stimulate the private sector to realize interventions regarding the execution of works, supplies, and services for the regeneration and requalification of urban areas. The approved interventions must have high naturalistic and environmental value, including where possible natural and green elements.
- Linee Guida Spazio Pubblico Guidelines for public space in order to set precise indications both for private sector and for the Municipality to plan, design and implement public spaces, considering as well green and depaving projects.

Example of financial resources available to deliver the commitment

- Internal resources Bilancio Comunale
- Monetizations and planning fees coming from the PGT
- Forestami fund

Additional Resources

https://geoportale.comune.milano.it/sit/patrimonio-delverde/_





The city of Paris openly shares its urban nature objectives, including biodiversity plans and sustainable food initiatives, which are accessible on its website. For instance, the sustainable food plan supports agricultural development near water supply points.

Efforts are underway to develop strategies for integrating climate migrants into the socio-ecological transition. Inclusive actions involving stakeholders like residents and traders are common across various city departments. Gardens are designed in consultation with local residents and neighborhood councils, accommodating diverse preferences.

Through participatory budgeting and permits, Paris empowers residents to influence tree management and contribute to urban nature enhancement. Additionally, Paris operates the "Boost emploi" program, focusing on sustainable agriculture with a training center for future farmers and financial assistance for their establishment. The city also supports sustainable tourism through various projects.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

A study by APUR 2020 identified the potential for fullground revegetation. The criteria taken into account include:

- The morphology and history, and in particular the legacy of the Alphand walks,
- The development and reinforcement of urban biodiversity corridors,

- Thermal comfort and reduction of the heat island effect,
- Reduction of areas where there is a lack of vegetation,
- Opportunities for projects initiated on the outskirts of Paris, the Boulevard Périphérique and the green belt, the banks of the Seine, bicycle routes and underground infrastructures.

A map has been drawn up which specifies the sites where reinforcements are necessary and technically possible. This made it possible to achieve the objective of mandating 100 hectares of waterproofing with revegetation in public spaces, and also to the creation of an atlas of the streets to be revegetated in each arrondissement.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The roadmaps of elected officials are focused on enhancing the management of vegetation and natural resources.

The climate budget involves a retrospective review of Paris' operational expenditures, providing insights into how these expenses align with major objectives, particularly in terms of climate action and resilience. By identifying points of vulnerability, this approach enables the city to effectively strive towards meeting its objectives comprehensively.

Additionally, Paris is in the process of establishing a carbon offset mechanism to finance both mitigation and adaptation measures.

Some green spaces benefit from funding outside the city budget but are still accessible to the public. These include:

- Gardens financed directly by public or private development operations carried out by the developer
- Private gardens on which the city agrees to openings to the public by participating in the maintenance.
- European fund water agency or Ile de France region type subsidies which compensate for work linked to ambitions (biodiversity, rainwater management, the objective of creating green spaces).
- Participatory budget: 25% of the investment budget of the City of Paris is decided in a participatory manner during this term: the participatory budget offers the possibility to all Parisians to propose projects which, if they are voted on, will be carried out or financed by the City. This ambition concerns all types of investment and in particular the development of public space, the renovation or the creation of facilities. The participatory budget makes it possible to carry out large-scale projects, which can easily be set up and quickly.. This approach affects all public policies, foremost among pertain to an ecological transition.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The Paris biodiversity plan has objectives for 2024 and 2030. In line with this, the Singapore index was calculated for the first time in 2015 and updated in 2020. The study of the vulnerabilities and robustness of the Parisian territory will be published this summer (2021), showing that the erosion of biodiversity is a major source of vulnerability for the Parisian territory.

An inventory of urban biodiversity reservoirs has also been carried out. The "nature trails" and the 2020 Paris Atlas of Nature have been published for the general public.

An "Open Data" approach has facilitated the accessibility of information to the public. Databases containing information on trees, green spaces, and CETTIA (Ile de France naturalist database) are crucial resources for evaluating urban nature, with service providers obligated to supply data when commissioned by Paris for studies. Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The "Paris Climate Action" charter encourages the economic sector to take part in reducing emissions and adapting to climate change. The Paris Climate Action charter could eventually integrate issues related to biodiversity.

The Parisian Climate Agency administers an "Ecorenovate Paris" programme, the purpose of which is to support the implementation of more virtuous heating solutions. The programmes on which the APC relies can be as much about design as they are retrofitting, with special arrangements for vulnerable communities.

The Parisian construction pact constitutes a collection of principles to ensure that the building sector rapidly uptakes the requirements to reduce the carbon footprint and promote biodiversity (bio-sourced materials, reuse of existing, reduction of site waste, minimum surface area of green spaces, etc.). The building ecological transition committee (Côté Bâti) ensures that it supports stakeholders in the sector in this direction. An enrichment of the parts relating to biodiversity is currently being prepared.

The 2016 modification of the Local Urban Plan introduced innovations favorable to biodiversity: biotope coefficient, obligation to revegetate for roofs of more than 100 square meters; if the roof is dedicated to urban agriculture, possibility of exemption from the maximum authorized height. An assessment of compensation in the event of felling has been carried out which tends to show that overcompensation has been made in the event of felled trees. The 2023 local bioclimatic urban plan should lead to further improvements.

The establishment of the climate academy is helping to move in this direction. In particular, the recruitment of civic services and apprentices constitutes one of the pillars in order to bring young people into the jobs of ecological transition. If the target audience is mainly young people, apprenticeship programmes could be set up for the over 25s as part of professional retraining.

Other supportive actions

- Every Parisian has an outdoor green space within a 7-minute walk. All Parisians have access to a green space within 15 minutes (i.e. the value of 1km) during the day, this observation can also extend to almost the entire territory at night.
- 2. A network of shared gardens, a green thumb charter and the permit to revegetate bring nature closer to residents while making them actors in the transformation of their neighborhood.
- Accessibility plan for the environment and public spaces: public space accessibility plan provides for making all of the gardens accessible to people with disabilities. Currently, 55% of the gardens are fully accessible.
- 4. Ensure that unequal access to green spaces is avoided with a solution targeting age and gender: The issue of gender in public space is an emerging topic that is starting to be taken into account. New equipment is therefore increasingly designed to ensure that it promotes equal access. Apparatuses are placed near the play areas to encourage use by those accompanying them, who are often mothers. Benches designed for seniors have higher seats and armrests for ease of use by people with reduced mobility.
- 6. Conception and health: Consideration of the impact on health has been the subject of great attention in the design and maintenance procedures for green spaces. Some of these considerations include the presence of toxic and allergenic plants (and the creation of a Pollinarium Sentinelle), the Parisian Environmental Health Plan which reconciles biodiversity and health, and the abandonment of the use of phytosanitary products in maintenance.
- 7. Oasis courtyards and streets to schools: The center of Paris has only 5.8 square meters of green space per inhabitant. The City has identified a deposit represented by the network of 656 schools and 115 high schools managed by the city. The majority of Parisians live within 200 meters of a school, and schoolyards cover 73 hectares. The OASIS project seeks to transform schoolyards into public gardens so that all residents can benefit from access to these green and fresh spaces outside of school hours. The project took a coccreation approach to involve students and local residents in the design of their gardens. The first ten schoolyard transformations are underway.

Example of financial resources available to deliver the commitment

In addition to the points already mentioned, DEVE's investment budget has a dedicated budget to meet commitments. Green bonds have also enabled the city of Paris to raise funds that could be directed towards the achievement of these commitments.

Additional Resources

https://www.apur.org/fr/nos-travaux/espaces-publics-vegetaliser-paris

https://www.apur.org/fr/nos-travaux/orientations-espaces-publics-vegetalises-paris

c40.box.com/s/k3oowybybxtg5rrzxqncv0c0dbjgzteh

https://www.paris.fr/pages/un-nouveau-plan-biodiversite-pour-paris-5594

https://cdn.paris.fr/paris/2021/03/11/0d339e2fcc589b14e3bd0bde8240e709.pdf

https://cdn.paris.fr/presse/2021/03/01/ d23bb56949787e1db4c44e25278b62a0.pdf

https://cooperative-oasis.org/



WOLDEN IN 18





For developing green jobs Roma Capitale, through the reconstitution of the School of Gardeners, will be able to directly organize public gardening courses. They will be aimed at all age groups, even without any gardening skills. The theoretical course can be integrated with classroom seminars and guided tours, application lessons, with a demonstrative nature, at points of interest of the Environmental Protection Department of Rome Capital.

The programme will address issues concerning the life, cultivation and maintenance of plants and gardens. Teachers will be environmental officials with a degree of experience and with a proven track record. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

- Access to investments and resources will be accelerated and facilitated by the recent approval of the Action Plan for Sustainable Energy and Climate whose actions include climate adaptation projects through green areas.
- Roma Capitale will participate and conclude European Projects for the development of governance and nature based solutions.
- The Roma Capitale Soil Permeability Plan will be adopted within two years

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Census update: Roma Capitale constantly monitors its green heritage through the establishment of a fully digitized green cadastre in open source format and freely available to all citizens, which will also contain the tree census updated annually. Within two years, it will update the census and monitoring for the efficient management of public parks as well as for the planning of actions, through a survey software with GIS and Database system (R3Trees).

The recent, "Regulation of public and private green areas and of the urban landscape of Rome Capital," approved with Resolution of the Capitoline Assembly no. 17/2021 has regulated and institutionalized these two lines of action.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Roma Capitale has formalized its support for the Multi Actor Forest Information Service (MAFIS) project. The project, funded by the European Space Agency, provides for the development of a new satellite monitoring service of natural forests and green areas of cities, with the aim of evaluating the current situation, in terms of extension of vegetated areas and classification. of the species present, and use this information for a possible planning of urban green development, as well as to develop a study on urban heat islands. Its use and initial monitoring is expected within 5 years.

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

Rome goals include:

- Increase the form of voluntary participation of citizens in the management of greenery through the adoption of green areas, the stipulation of collaboration agreements as well as sponsorships. To date, 126 adoptions of green areas are active.
- Promote the development of urban gardens and shared gardens.
- Promote and increase environmental awareness projects in schools.
- Promote and increase participatory afforestation through the "Participatory Budget" making all citizens participate in the choices of definition and sharing of urban forestation.
- Encourage the construction of green roofs and walls on buildings: these actions are included in the SECAP.
- Sustainable urban foresting: 20,000 trees to be replaced and 1,000,000 new trees by 2030, 2 million new trees by 2050.

Through the SOIL4LIFE project, Roma Capitale will propose and implement possible operational and longterm solutions to counter the problem of the growing waterproofing of soils through specific governance actions, such as:

- Recognition of the best techniques / solutions to increase the permeability of the soil both in already urbanized areas and in areas where the General Town Plan of Rome provides for new buildings
- Preparation of a Municipal Plan for Soil Permeability: a series of interventions that the Municipal Administration will undertake to progressively reduce the problem of soil sealing in the city including: selection and mapping of priority areas on which to intervene with de-sealing projects, and Managed Aquifer Recharge (MAR) pilot projects to increase the recharge of aquifers; Restoration of existing and disused irrigation systems in the green areas of Rome and their management systems; Analysis and monitoring of the environmental effects related to repermeabilization on air quality

• Addresses for the modification of the future New Building Regulations of Roma Capitale

Other supportive actions

Establishment of the "Consulta del Green and Urban Landscape" made up of representatives of associations, committees, bodies and professional orders and by the technicians of the Environmental Protection Department with consultancy, control, support and guidance tasks regarding the political choices concerning the green. This Consultation was established by art. 4 paragraph 3 of the Regulation of public private green and urban landscape.

Additional Resources

https://www.comune.roma.it/web/it/scheda-servizi. page?contentId=INF76968

https://eo4society.esa.int/projects/mafis/



GNATORY SINCE 2021

The city's green ambitions plan, "Rotterdam goes green," has already been published (a.o. adding 20ha by 2022, 12,5mln Euros committed) and the Biodiversity Implementation Plan was published in December 2020. This includes subsidies for citizens to use indigenous plants.

Vulnerable groups such as the elderly and youth are targeted through the Play & Recreation Vision that is aimed at offering an opportunity to all to play and exercise in green areas. In collaboration with the Weatherwise programme, community gardens are established in old and stony areas of the city. In addition, Rotterdammers are invited to support the monitoring process; and coaches and municipal gardeners support citizens in the greening of their own roof or garden. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The city provides subsidies to citizens and private owners to create green roofs, depave their gardens and enhance biodiversity. The city provides easy access to information through various websites and greening campaigns (a.o. depaving/greening championships, Opzoomer greenification/ beautification campaigns etc).

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The Biodiversity Implementation Agenda includes the action to monitor types and species of urban greening which also includes a baseline study. This will increase awareness both internally and externally on how to change the design and maintenance of urban green.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

Such programmes already exist and are already cross linked. That said, the Biodiversity programme is relatively new and the city will continuously seek opportunities to link this to other municipal programmes. For example, the Weatherwise and Biodiversity programmes are collaboratively seeking to adjust municipal design standards to incorporate nature-based solutions to improve biodiversity and climate resilience at the same time.

Example of financial resources available to deliver the commitment

- 12,5 million Euros to add 20ha of green by 2022 in addition to 3,5 million Euro to strengthen ecological connections.
- Weatherwise programme: 13,5 million Euros until and including 2022 to improve climate resilience, including an amount for subsidies (green roofs; depaving and greening of gardens; and enhancing biodiversity)



Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

This gap analysis has already been executed and the city knows which streets lack trees or other types of green. The city is currently updating its 2016 Nature Map that presents existing green, ecological gems and further opportunities for connecting and improving green areas.

Additional Resources

- Rotterdam goes green
- **Biodiversity Implementation Plan**
- Weatherwise programme
- 2016 Nature Map
- https://www.opzoomermee.nl/

SCRATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

In urban and park development projects, the City of Stockholm arranges dialogue activities with the inhabitants, as a tool for increased public participation in the city planning process.

The City performs regular surveys to the residents of the city, including experiences of their local environment and neighbourhood. These issues are also included in the City's work with Agenda 2030. Link to information about the Citizens surveys: https://miljobarometern.stockholm.se/stockholmarna/ medborgarenkat/

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Areas with proposed improvements of the ecological infrastructure are pointed out in the Stockholm City Plan (Översiktsplan).

A more detailed mapping identifying improvement needs of green infrastructure is in progress. The time schedule for this differs from different City Districts in Stockholm. The first is planned to be finished in summer 2022, and the last one in the fall of 2023.

Updated mapping of the existing ecological infrastructure is planned, and a method is being developed during 2021.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Stockholm has an Environmental programme for 2020-2023 and an Action plan for Biodiversity that are being implemented. The city is now producing City District Action Plans for Biodiversity to pin-point what can be done in each specific city district to enhance biodiversity.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The City has a Biotope Database that has been updated this year, with maps that cover all land biotopes and shorelines in the municipality. The ecological (or green) infrastructure of the City has been mapped, as well as habitat networks for prioritized species. The City also has maps of ecosystem services.

The City has developed a cloudburst model that predicts run-off and flooded areas from a 100year rain event, and Local cloudburst plans will be produced for the most vulnerable parts of the city. The City is implementing an Action plan for Climate adaptation, with focus on cloudbursts and heatwaves. Nature based solutions will be an important part of this plan.

The City has also developed a Green Space Index which is a requirement for all development projects on the City's own land. Link:

https://vaxer.stockholm/globalassets/omraden/stadsutvecklingsomraden/skarholmen-fokusskarholmen/direktanvisning/gyf---gronytefaktor-forkvartersmark.pdf_

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The city is involved in various research projects with multidisciplinary and/or expert participants from universities, businesses and local authorities. These projects deal with, for example, storm water treatment, cloudbursts, heat wave effects, nature based solutions, green infrastructure and the use of excess material from new subway tunnels. An inspirational manual on how to enhance biodiversity in your garden or residential area will be available for the public.

Other supportive actions

According to the City's guidelines for good access to parks and nature qualities, all inhabitants shall have a green space suitable for staying within 200 metres from where they live.

Example of financial resources available to deliver the commitment

The city's sustainability goals are an important part of all urban development and the city's environmental and climate work is integrated into ordinary processes. Urban planning must take into account the effects of a changed climate and the impact on the environment, such as stormwater management, the impact on natural values, green space compensation, etc. Therefore, the largest part of the financing takes place within the framework of each project. Major projects are Norra Djurgårdsstaden, the new Slussen and Stockholm's future sewage treatment plant to name a few.



In addition to the city's ordinary processes, there are specific funds set aside in the city's budget in order to achieve the city's environmental and climate goals. For the period 2019-2022, SEK 200 million per year (nearly USD 19 million) is set aside for climate investments with the aim of accelerating the municipal group's efforts to increase climate adaptation and reduce climate impact.

For a number of years, SEK 20 million has also been set aside annually for efforts to achieve good water status and finance the development of the local action programmes for water bodies. In addition to these multi-year funds, there are also annual funds set aside for nature reserves, biodiversity and the development of the urban environment.

Additional Resources

https://vaxer.stockholm/besok-oss/medborgardialogoch-samrad/

https://vaxer.stockholm/besok-oss/medborgardialogoch-samrad/dialog-och-samrad-i-stadsbyggnad/

https://vaxer.stockholm/aktuellt/?page-21-28765=0#page-21-28765

http://dialog.spacescape.se/stockholmlek/

Stockholm City Plan

Stockholm Miljöbarometer

Biotope map



In 2012, the city conducted an ecological survey which in 2016 was regulated and recognized 52 Urban Nature sites. By 2020, the city had 67 UNS and it is in the process of dedicating another one. These sites are used for community engagement events, attended by thousands of residents every year. Furthermore, in the last few years, the city distributed local plants and seeds to around 400 private building courtyards. Community engagement with nature is widespread and accessible across the city, through the UNS and the 54 community gardens. In the coming years, through the Tel Aviv Yafo climate mitigation plan, green jobs will be promoted to residents, with training in gardening, rehabilitation, and construction. The shade index for tree canopy will also be developed (as a part of our Urban Forest Plan) as an indicator for planting plans. Distribution of planting plans will take into consideration vulnerable and marginalized populations. Furthermore, the city plans to establish new nature sites in these communities to increase access to green spaces, and engage residents in the construction and preservation of the urban nature sites.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

In the next two years, a gap analysis will be conducted to see where improvements are needed in regards to the eco-infrastructure. Furthermore, within the next two years, the city will develop a set of indicators to monitor and evaluate the city's ecological system. The municipality is currently working to strengthen the public realm infrastructure. The focus is to assist urban planners to better ensure the proximity and accessibility for different plans the city needs to produce. This allows to produce a gap analysis by understanding the city's ecological stock, what is lacking and what needs protection. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

In early 2021, a municipal ecological task group was formed through collaboration between the Environmental Authority, Beautification Department, city architect' office, and the city's ecologists. This group is set up as an administrative framework for urban nature to support and enhance climate adaptation actions. In June, a metropolitan steering committee was established, bringing together municipal entities with intergovernmental agencies and nonprofits, such as the National Nature and Park Authority and the Society for the Protection of Nature in Israel. A conference will be held in late 2021 to further institutionalize and solidify the advisory team, with the goal of creating an Urban Nature Metropolitan forum.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

An ecological survey was conducted in 2012, which measured and documented the flora and fauna of the city. Another survey will be completed within the next five years that will ideally be overlayed with Climate Change Risk Assessment data. Though this has not yet been confirmed, the idea is to create different layers of analysis to check sensitivities and exposures that can lead to better-informed decisions. In 2013, the drainage department conducted a survey of water permeation throughout the city. The purpose of the new survey is on one hand to improve decisionmaking in terms of new buildings and regulations, and on the other to better understand our ecological system status. Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

In terms of regulation, the city has a mechanism for charging the removal of private trees. When a new building is in the process of approval and trees need to be removed (for construction purposes), there is a process that calculates the trees' value based on age, species, and condition. If the removal is due to decay, it will be replanted with a tree of the same environmental value. If the removal is due to new construction, the fee is paid for by the constructor and a new tree will be planted.

There are initial plans in the city to strengthen the green infrastructure in the private areas. Some of these programmes have already begun, such as tree distribution for planting to private buildings. Tel Aviv-Yafo plans for more meaningful mechanisms to be put in place in the near future, including green and blue roofs, both of which are being explored.

The city is currently establishing the Climate Business Cities Alliance (CBCA), which aims to partner with the private sector to make use of nature-conscious solutions. Furthermore, the city has recognized and intends to further develop ecological corridors, encompassing private and public spaces. A pilot training and toolkit for gardening and harvesting is being developed for distribution to all city residents as a means of education and empowerment. The city also aims to plant hundreds of trees annually by providing trees to residents who meet the necessary criteria and are in need of shading.

Other supportive actions

Tel Aviv-Yafo has a multitude of other ecosystem supportive services. There are various grove areas in the city that allow local seeds and vegetation to flourish. These are green areas but are dense with vegetation and not parks. Formal and informal programmes are supported and operated by the city within kindergartens, elementary, and high schools. The programmes focus on beaches, ecosystems, and nature in order to foster a better appreciation of the city's environment.

Example of financial resources available to deliver the commitment

The budget allocated for planting young trees increased from 300,000 NIS (nearly 80,000 USD) in 2020 to 8,000,000 NIS (over 2 million USD) in 2021. Money is also allocated to support community based initiatives concerning ecosystem management. For instance, in 2021, a young activist set up harvest nests for bees with funding and infrastructural help from the government. Additionally, an annual budget is allocated for maintenance and restoration of urban nature sites. For example, 30 acres of land were rehabilitated in 2020 through collaboration between the city and the national government. The result was a new urban space' restoring over 200 local flora and fauna species and establishing a winter pond and infiltration systema nature-based solution to contend with urban flooding.

Additional Resources

https://www.tel-aviv.gov.il/Residents/Environment/ Pages/NatureSurvey.aspx_

https://www.tel-aviv.gov.il/ Forms/%D7%A1%D7%A7%D7%A8%20%D7% AA%D7%A9%D7%AA%D7%99%D7%95%D7% AA%20%D7%98%D7%91%D7%A2%20%D7%A2% D7%99%D7%A8%D7%95%D7%A0%D7%99%20 %D7%9E%D7%9C%D7%90%202012.pdf



The Climate Action Plan - PAC - of Bogotá 2020-2050 covers within its actions the dissemination of its climate commitments to citizens, through educational and communication campaigns. The PAC considers differential and gender criteria in all its mitigation and adaptation actions, and also addresses specific measures for the inclusion and equity of vulnerable populations within the framework of its actions. For mitigation, the city proposes to link both households and productive units, especially of the vulnerable population, to productive and commercialization processes, which increase climate resilience. In this same vein, the District Secretary of the Environment will promote the green jobs programme for women in agreement with UNDP and USAID, which aims to employ 5,000 women in the areas of: gardening, nursery, restoration and tree planting.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Through the Public Space Observatory, a process has been carried out to analyze public space. This process is carried out every two years and the development of the green public space indicator is found, for urban land and expansion land. The indicator is developed by UPZ (Zonal Planning Unit), at the local level, and for the city globally, in order to show the behavior of the indicators at different scales and to account for the public green areas of the city. From this map it is possible to identify the areas of the city that require interventions to improve the public green infrastructure, which is accessible to all citizens Likewise, there is a Climate Risk Assessment, which included the analysis of urban heat islands, and identified the areas of the city that need to increase their area in green areas to reduce the effects

of climate change. This analysis will be updated periodically. In turn, the Botanical Garden of Bogotá will carry out research processes for the sustainable use of plant species. This includes 26 investigations on the ecological potential and valuation of the ecosystem service of carbon storage and flow, 26 investigations on connectivity aspects of ecology and 13 investigations on the flora of Bogotá DC.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

In the implementation of the Climate Action Plan, Bogotá proposes institutional articulation in Bogotá, the region, nation and international level, which seeks to strengthen coordination for climate management and promote the establishment of common strategies for the mobilization of resources, exchange of experiences, formulation of projects, creation of networks and implementation of measures that help meet the City's climate goals. Likewise, within the action of governance, citizen, community and business participation for climate action, it is established to facilitate alliances between public, private, academic, civil society and organizations for compliance in mitigation and adaptation actions, as well as , design and implement strategies to promote private sector participation.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The City has carried out a census of urban trees in which more than 1.3 million trees were identified in the public space; each tree has sub-metric georeferencing and 53 variables on its size and phytosanitary status; The Information System for the Management of Urban Trees (SIGAU) has been created to permanently record the data obtained in it so that management and maintenance can be given.

On the other hand, the City, through the District Secretary for the Environment, has the Bogotá Environmental Observatory (OAB), a tool that allows knowing the state and quality of the City's environment through environmental indicators. The work of the SDA is aimed at various actions, among others:

- Recovery of protected areas of the Entre Nubes District Ecological Park, to avoid current and future processes of illegal occupation;
- Develop conservation strategies in 153 hectares to increase the supply of environmental and ecosystem services;
- 3. Implement the environmental management plan for 100 hectares of the Thomas Van der Hammen reserve consisting of carrying out ecological restoration processes and entering into conservation agreements with the community that inhabits the reserve;
- Execution of ecological restoration, rehabilitation or recovery actions with a goal of 370 new hectares intervened for their ecological recovery and the planting of 450,000 new plant individuals;
- 5. Maintenance of 590 hectares prioritized in restoration processes is carried out;
- The proposal for the implementation of four ecological connectivity projects for the conservation of biodiversity and the offer of ecosystem services is under development;
- Administration and management activities are developed for 19 declared protected areas (mountain ecological parks, wetlands and other areas of environmental interest) and
- 8. A programme for monitoring, evaluation and monitoring of biodiversity in protected areas and of environmental interest in Bogotá DC

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The Climate Action Plan has incorporated environmental guidelines and determinants of ecourbanism and sustainable construction. It is expected that the PAC will influence the implementation of new infrastructure projects carried out in the city, based on criteria of nature-based solutions, which in addition to contributing to the reduction of current and future hydroclimatic risks, increase adaptive capacity and generate co-benefits.

The Institute of Urban Development will incorporate within the specifications of the contracts the obligation to generate a proposal for design and environmental innovation, considering new materials (permeable, ecological and / or capable of use), activities and / or sustainable construction practices, as well as ecological connectivity criteria for the project. It is important to highlight that, from the conception of the projects, environmental innovation initiatives should be considered. This obligation will be in force as of the year 2023. Currently, the Carrera Séptima Green Corridor project already has this contractual obligation incorporated, this will be the first pilot in the city with this product. Which will allow the City to follow up on this goal.

Example of financial resources available to deliver the commitment

The financial resources available to meet the twoyear goals are defined in the investment projects of the District Secretary for the Environment, namely; 7710 "Control of the factors of deterioration of urban trees and flora in Bogotá", 7794 "Strengthening of sectoral environmental management, eco-urbanism and climate change in DC", 7811 "Implementation of comprehensive strategies that lead to the conservation of areas with high ecosystem value in Bogotá "7814" Strengthening of the administration and monitoring of protected areas and others of environmental interest to reduce the vulnerability of ecosystems to natural and anthropic alterations in Bogotá "7780" Contributions of environmental vision to the construction of the rural district territory in Bogotá "; in the same sense, the Botanical Garden of Bogotá has provided resources for the next two years in accordance with its investment projects 7679" research for the conservation of ecosystems and flora in the region and Bogotá "and 7677" improvement, planning and management of the vegetation cover of the Capital District and the City Region to green Bogotá. The previous investment projects account for resources destined to fulfill the commitments described for two and five years; for ten-year urban coverage commitments, there are also district resources already identified, although they are not expected to be sufficient to cover the required budget.

Additional Resources

https://www.jbb.gov.co/index.php/productos-yservicios/sigau

http://sigau.jbb.gov.co/SigauJBB/VisorPublico/ VisorPublico_

https://oab.ambientebogota.gov.co/

https://Bogotá.gov.co/node/35546

http://www.ambientebogota.gov.co/web/sda/ proyectos-de-inversion





The urban nature goals for our city are included in the new Climate Action Plan.

Some global actions that discuss this are "Nature as a solution", "More and better trees" and "More and better green spaces". Likewise, other complementary actions are "Pedestrian priority" and "Meeting streets."

In relation to programmes that address the development of skills for green jobs, different workshops and training on urban gardens are promoted and contemplated in the action, "Healthy Eating." Within this framework, there is the community garden project "La vivera organica," where a group of women are accompanied in the cultivation and commercialization of organic food, generating sustainable employment.

An economic recovery plan to reduce the impacts of COVID-19 includes green jobs under construction by the City. The cited example of the "La Vivera Orgánica" project was prior to COVID-19 and responded to a genuine employment generation strategy for women living in a popular neighborhood

On the other hand, from the Housing Institute of the City, a programme is being carried out in conjunction with the International Climate Initiative from which it seeks to provide knowledge on environmental issues and achieve changes in habits in the residents of popular neighborhoods . Likewise, the IVC team carries out participatory tables in these neighborhoods, where they convene residents in order to discuss different issues, among which are: waste, environmental health, trees, urban gardens, composting. These tables may provide the framework to address issues related to this statement. Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Buenos Aires is working to deepen its gap analysis and identification of opportunities to improve existing green spaces. The City has sufficient information, which is updated periodically.

As a background, there is a map of public and private green spaces in the city and a map of vegetation cover (NDVI). According to the Vegetal Cover Report, "The City of Buenos Aires extends over an area of 203 km2. 30.4 percent of this surface (equivalent to 61 km2) has vegetal cover, defined as the vegetal mass located on absorbent and non-absorbent soils, identifiable thanks to photogrammetry. "

In 2019, the General Directorate of Data, Statistics and Urban Projection finalized the Vegetal Cover Report of Buenos Aires, carried out by mapping aerial photos of the entire vegetal surface of the City, including public and private green spaces, reserves, trees and stonemasons, with the aim of creating a base tool for urban planning. From this map, the city can know the absorbing surface of the City; estimate coverage; understand the relationship between green spaces with free, restricted and private access; observe its relationship with the density of the population, the morphology of each zone and the uses of the land; identify sites with a green deficit in public space and even study the conformation of apple lungs.

In addition, the GCBA has the Arbolado Master Plan (2013) and the Arbolado Census (2017-2018) of the General Directorate of Green Spaces and Trees.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Since the end of 2019, the City has had the Undersecretariat for Urban Green Infrastructure

and Sustainable Development Policies (SSPIVUDS), which acts in coordination with the different areas responsible for green spaces, trees and nature in general, integrating their actions. This area will be central to enhance the governance of the implementation of the objectives of this Accelerator.

On the other hand, international and national networks will be promoted for learning and improving the identification of governance barriers and their approach, as well as the recognition of financing mechanisms for the implementation of management solutions. These actions have and will have multiple sources, the main ones being the City's own budget and international financing. Currently, green infrastructure actions are being carried out to mitigate water risk, financed by the World Bank(for example).

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Using the inventory information described above, the City periodically reviews, makes updates, and integrates it with different sources of information and makes them available in an open data format to any interested party. This in order to increase the degree of knowledge and awareness of the value of urban nature and its fundamental role in reducing the main climatic risks of our city: heat waves and floods.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

In this framework, Buenos Aires is currently working with various sectors and actors, establishing governance and articulation frameworks. The city is committed to continuing these spaces, strengthening them and including urban nature solutions in its approach.

Since 2019, the City Government has begun to jointly work with the private sector in order to align goals and objectives in climate matters.

On the other hand, the new City Building Code encourages the incorporation of urban nature in new

buildings. Some associated indicators are: Area (m2) of intensive / extensive green roofs implemented in new and existing buildings, Area (m2) of vertical gardens / green walls / curtains implemented in new and existing buildings. All this is mentioned in the new Climate Action Plan, as well as the action referred to as "Sustainable Food," which considers urban agriculture, healthy seasons, markets and neighborhood fairs, among other subactions. Also within this framework, community gardens in vulnerable neighborhoods are discussed. Some associated indicators are: the number of new orchards, nurseries and gastronomic centers, percentage / number of popular neighborhoods with orchards, Number of people benefited by orchards in popular neighborhoods.

In order for the benefits of vegetation to reach the entire city, plantations are carried out in recovered spaces (action "More and better trees" and indicator "Number of trees planted in recovered spaces" of the new Plan), in which active participation is open to different sectors and actors.

Likewise, in the urbanization processes of popular neighborhoods, participatory tables are held in which residents decide which areas of the neighborhood will become new entrances, which neighbors will move and to which areas. The creation of internal vegetated patios in homes is also encouraged.

Finally, in 2020, the Advisory Council for the Environment and Sustainable Development was created. It is a group made up of civil society organizations led by young people and representatives of community interest groups. The Council's function is to issue proposals in nature of non-binding recommendations that will be considered by the Secretary of the Environment for the development of public policies in environmental matters and sustainable development.

Other supportive actions

It is proposed by 2025 to reach a goal of 400 meters of maximum proximity to a green space for the entire population. Associated indicator: Percentage of population with green space at a maximum distance of 400 meters.

Additional Resources

https://www.buenosaires.gob.ar/planeamiento/ noticias/informe-de-cobertura-vegetal-unrelevamiento-de-la-superficie-de-masa-vegetal



The Municipal Plan for Mitigation and Adaptation to Climate Change was developed from November 2018 to December 2020 and was approved by the municipal decree No. 1670, of December 16, 2020, with the commitment to establish a multisectoral governance structure for the implementation and monitoring of PlanClima in the form of a Unit, Committee, Management Group, Working Group, or similar. This entity will act under the shared coordination of the Municipal Secretariat for the Environment and the Institute for Research and Urban Planning of Curitiba.

It will be up to this entity to detail the actions prioritized in PlanClima, manage them, monitor their implementation, evaluate and track both actions and results, and organize a specific database on the topic. This governance structure will also liaise with the Curitiba Forum on Climate Change, other municipalities in the Metropolitan Region of Curitiba, various government bodies, and other societal agents interested in and capable of acting on climate change. Additionally, it will strengthen PlanClima's transparency and social control, and coordinate the process of structuring the Municipal Policy on Mitigation and Adaptation to Climate Change. PlanClima has established as a priority action the implementation of measures for the recovery, maintenance, conservation, preservation, and expansion of the city's green areas, aiming at increasing the carbon stock and promoting ecosystem-based adaptation.

Within the Government's Plan for the 2021-2024 administration, the parks and squares department has 1,141 public places under its responsibility. For maintenance and conservation, the department has 24 contracts with the approximate monthly value of R\$ 1,935,000 (around USD 365,539). To assess the quality of services provided in the maintenance of conservation units, and to improve the infrastructure and accessibility of these public facilities, the urban maintenance indicator was created and established by the Department of Parks and Squares of the Municipal Secretariat for the Environment. According to the established standard, Curitiba intends to achieve 90% maintenance in the city's conservation units by the end of 2024.

Another action taken by the city is the "Plan for the Planet" initiative, a challenge which involved the planting of 100,000 trees in one year (link), in which citizens can purchase a seedling of a native species for free and plant it in the city of Curitiba, under the guidance of the Municipal Secretariat for the Environment. The planting of seedlings contributes to the maintenance of afforestation on roads, public spaces, and facilities. Additionally, it aids in the restoration of native vegetation in understory and riparian forests on both private and public land.

After reaching the project goal one month ahead of schedule (August 2020), Curitiba set a new goal of planting 200,000 trees by 2024. As the seedlings are produced and delivered by the city, guidance is given by the Municipal Environment on where to plant the seedlings.

The city has carried out studies on the amount of carbon stored in the forests where enrichment is needed. However, planting is encouraged in any public or private place, respecting the proper management with the surrounding natural and urban environment.

In order to carry out the monitoring of these actions, the Municipal Secretariat also committed to preparing an Urban Afforestation Plan. This plan includes the updating of the city's arboreal census and the development of a tool to manage afforestation, by contracting a company specialized in information technology.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

As a technical basis for the preparation of PlanClima, the Climate Risk Assessment was developed as part of the C40 Network of Cities' Technical Assistance Programme for Latin America. This study helped to identify emerging risks and stressors even amidst the great uncertainties associated with the effects of the ongoing climate emergency.

With regard to heat waves, the main factor that defines the degree of threat is the distance from vegetated areas, since it is known that massive forests have effects on the microclimate and reduce the effects of the urban heat island.

Within Curitiba's urban planning system, there are sectoral and regional plans, which present comprehensive diagnostics at the territorial level that support decision makers on where there are gaps and opportunities for improving existing green spaces.

The Municipality of Curitiba, through a partnership between the Municipal Secretariat for the Environment and civil society organizations(focused on biodiversity conservation) have carried out the inventory of sinks in the municipality, which assesses the carbon stock and balance in massive forests and in the city's afforestation.

The survey carried out in 2008 and completed in 2009 in the massive forests present in 14 parks in the city of Curitiba (SPVS, 2009) represent a unique situation compared to other Brazilian cities. The results achieved traced a projection of the carbon stock in natural areas for the municipality, which is unprecedented in Brazil. With a view to seeking an understanding of the dynamics of carbon increment, new measurements were planned at periodic intervals.

At the end of 2018, the Municipality of Curitiba signed a Collaboration Agreement with SPVS to carry out actions to conserve biodiversity in the Municipality of Curitiba, reducing vulnerability and providing increased resilience to extreme weather events through protection and restoration of natural areas of Curitiba. Among the actions planned is to quantify the increase in carbon in native areas of Curitiba, submitted to carbon stock assessments in 2009 and 2011. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Along with the approval of the Climate Change Mitigation and Adaptation Plan – PlanClima, through municipal decree No. 1670/2020, a commitment was established by the Municipality to establish the internal and external governance structure of Curitiba to manage the implementation of the plan whose priority action is "Implementing actions for the recovery, maintenance, conservation, preservation and expansion of the city's green areas, aiming at increasing the carbon stock and adaptation based on ecosystems".

The Pluriannual Plan, usually referred to by the nickname PPA, is a mayor's initiative law approved by city councilors (municipal law 15.131/2017). This norm puts on paper the municipality's medium-term planning and establishes strategies, guidelines and goals for the next four years. The Budget Guidelines Law (LDO), Municipal Law 15.669/2020, defines the municipality's goals and priorities, as well as the rules for the preparation, organization and execution of the budget for the following year. The proposed law must come from the mayor and is debated, analyzed and voted on annually by councilors. The LDO usually makes adjustments to the Pluriannual Plan and, therefore, establishes the link between this mediumterm strategic plan, with the short-term operational plan, represented by the Annual Budget Law (LOA), municipal law nº 15.798/2020. This multi-sector governance structure will be established in the form of a Unit, Committee, Management Group, Working Group, or similar, which will act under the shared coordination of the Municipal Secretariat for the Environment and the Institute for Research and Urban Planning of Curitiba.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

So far, three studies have been carried out. The survey conducted in 2008 and completed in 2009 on the massive forests in 14 parks in Curitiba (SPVS, 2009) represented a unique situation compared to other Brazilian cities. The results projected the carbon stock in the municipality's natural areas, an unprecedented achievement in Brazil. Understanding the dynamics of carbon increment, new measurements were planned. The estimate of the annual carbon increment by Curitiba's native forests was based on the increase in biomass (growth in diameter or height) of the arboreal individuals in permanent plots in the municipal parks over two years. The initial carbon stocks were determined in 2008 when 39 permanent plots were installed in 15 municipal conservation units (UC). To obtain updated biomass values, the parameters from the first measurement between December 2010 and January 2011 were re-measured.

At the end of 2018, the Municipality of Curitiba signed a Collaboration Agreement with SPVS to carry out actions to conserve biodiversity in the Municipality of Curitiba, reducing vulnerability and providing increased resilience to extreme weather events through protection and restoration of natural areas of Curitiba. Among the actions planned is to quantify the increase in carbon in native areas of Curitiba, submitted to carbon stock assessment in 2009 and 2011.

When it comes to water bodies, organisms known as benthic invertebrates have been shown to be an effective bioindicator to monitor the quality and health of aquatic ecosystems. Benthic invertebrates are organisms that do not have vertebrae and live in substrates in the aquatic environment, which may be soil, sand or rocks. Its life cycle, which can reach months or even more than a year, its size, its low mobility, its sensitivity to different concentrations of pollutants and the ease of sampling and identification make benthic invertebrates great bioindicators (Laboratory of Ecology of Bentos, UFMG). The analysis of the contamination of water bodies through benthic invertebrate bioindicators have the ability to portray the local and temporal conditions of the water body, since the organisms have little mobility and integrate the effects of environmental variations in the short term. It is a relatively simple analysis to be carried out, which contributes to the diagnosis of water quality in water bodies and the taking of actions for their decontamination (United States Environmental Protection Agency, 1999).

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The Law No. 7833, of 1991, defined the principle that the conservation of natural heritage is one of the essential conditions for the quality of life in our city. Among other advances, the law incorporates environmental licensing into the municipality's attributions, integrating it with permit concessions. It created the Municipal System of Conservation Units, considering the importance of ecological, landscape and leisure aspects of these spaces for the balance between the natural and urban environment. It recognized the importance of preserving the valley bottoms, curbing the occupation of these areas as they are part of the natural dynamics of rivers. It guaranteed the participation of civil society in the governance of municipal public policy and created the Municipal Environment Council.

However, the importance of aligning and adapting municipal legislation cannot be ignored. Since the approval of Law No. 7,833/1991, several federal laws have been enacted, such as the 1997 Water Resources Law; Environmental Crimes Act 1998; Environmental Education Act 1999; National System of Conservation Units 2000; City Statute 2001; Sanitation Law 2007; Climate Change Act 2009; Solid Waste Act 2010; Forest Code 2012; and Metropolis Statute 2015.

Climate change, which has brought challenges for cities that need to take measures to increase their resilience and reduce greenhouse gas emissions, is being incorporated into this update of the city's environmental protection law. In addition, this new policy seeks to reaffirm the relevance of biodiversity conservation as part of the city's green infrastructure. The project proposes the elaboration of a specific policy for the theme to be used as a resilience strategy, since it is a bioindicator of the desirable environmental condition. Animal protection, in turn, has been mobilizing society to guarantee the right to life, freedom and dignified care for animals. Thus, this bill, in response to this demand, establishes guidelines for the creation of a specific policy.

The Sectoral Plan for Environmental Development and Biodiversity Conservation is under review. It has a 10year coverage (2031) and the following objectives in relation to green areas and Conservation Units:

• The recovery, maintenance, conservation and preservation of native forests occurring in the Municipality.

- Expansion of the municipality's native forest coverage area, protected by the Municipal System of Conservation Units.
- The interconnection between native forest fragments, seeking to allow the displacement of urban fauna, its use as shelter, feeding and reproduction area.
- Expansion of existing forest cover in municipal public spaces.
- Expansion of forest cover on the city's streets.
- Expand the Municipal System of Conservation Units - SMUC
- Improve the maintenance of existing conservation units and those to be implemented
- Define social use policy for Conservation Units
- Implement the management and monitoring of the Municipality's Conservation Units
- Consolidate municipal legislation regarding Conservation Units, with an emphasis on regulation of use and partnerships

Other supportive actions

Curitiba is currently utilizing the City Biodiversity Index (CBI), also known as the Singapore Index, as a self-assessment tool to measure conservation efforts and progress in reducing biodiversity loss. Recognized by the United Nations' Convention on Biological Diversity (CBD), the CBI helps develop public conservation policies. Globally, 36 local governments have submitted to the CBI, with 11 more in progress. Curitiba is the only Brazilian city that has participated from the start. In 2010, Curitiba scored 80 points (86.96%). A 2020 assessment, using a revised methodology, highlighted the city's native biodiversity, identifying 142 bird species, 554 butterfly species, 288 bee species, 55 herpetofauna species, and 3,389 plant species. Additionally, 19.62% of Curitiba's territory is protected by conservation units.

The Jardins de Mel project aims to promote native stingless bees, responsible for the pollination of around 90% of Brazilian plants. The five species used are: guaraipo (Melipona bicolor), manduri (Melipona marginata), mandaçaia (Melipona quadrifasciata), jataí (Tetragonisca angustula) and mirim (Plebeia sp.). Bees live in rational breeding boxes, placed inside a coating that guarantees greater protection and welfare from insects. There are more than 50 locations in the city with boxes that house colonies of native social bees without stingers, integrating the Honey Gardens project and composing the pollen paths between the green areas in the city.

Another project, the Fazenda Urbana (Urban Farm) is a space dedicated to education for sustainable agricultural practices. In an area of 4,435 sqm, next to the Cajuru Regional Market, Fazenda Urbana brings together the most modern methods of planting healthy foods, without pesticides. There are more than 60 organic agricultural varieties cultivated, with the production of fruits, vegetables and greens, as well as herbs, spices, teas and non-conventional food plants (PANCS).

Example of financial resources available to deliver the commitment

- Municipal budget
- National and international financing
- Public-private partnerships

As mentioned in this document, the Municipality, through the Municipal Secretariat for the Environment, establishes an agreement/partnership with nongovernmental civil society organizations that provide environmental services aimed at the conservation of nature and natural areas.

Additional Resources

Projeto 100 Mil Árvores

Guadalajara

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

- Generation of five shaded spaces in public spaces through landscaping interventions.
- Planting of 67,000 trees, to reach more than 1 million in the city.
- Two courses to train gardeners and tree technicians with the correct techniques for caring for, managing trees and promoting new jobs.
- Consolidation of the urban garden programme in alliance with DIF Guadalajara and Inmujeres, to reach 15 in operation.
- Planting of 50 pollinating gardens
- 400 workshops through multimedia platforms on caring for trees and gardens, for citizens

The city of Guadalajara has the "Guadalajara, Fresh City" Programme, which has the 2020 Woodland Comprehensive Management Programme, which has the purpose of caring for and increasing green areas and reducing the risks for city residents during the storm of rain. This is done through a comprehensive maintenance of trees such as pruning, demolition of dry specimens or at risk of falling. It is important to highlight that each removed specimen is replaced by a new tree from the region, in order to guarantee the continuity of environmental services. Meanwhile, the City's nursery cares for and produces native trees, which seeks to give continuity to the plantation of endemic trees. Known for being the tree city of the world, Guadalajara has the 2020 Planting Programme which has the goal of planting more than 18 thousand trees at different points. To reach the goal, in three years, of having 70 green corridors, the City is prioritising the connection between urban forests and parks, which will include the Connecting with Wings Programme for the addition of pollinating gardens, which will have species of pollinating plants. During the 2018-2021 administration, the goal of planting more than 55,000 trees will be reached.

Another programme is creating urban gardens to create spaces for coexistence and meeting so that the people of the city can get involved in agricultural work and preservation of the environment. Guadalajara will continue working hand in hand with DIF Guadalajara and Inmujeres, implementing urban gardens in the care centers, managing to provide food to be used in the public kitchen of this institution.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

- Georeferencing of all green areas that the municipality has, information that will serve to make a plan to increase these spaces, in all areas of the city, especially in those with a shortage of trees and / or heat islands.
- 60% of a characterization of green public spaces
- Physical tree census of 25% of the territory.
- Generation of new green areas with the construction of 40 pocket parks

The city of Guadalajara in 2018, through LIDAR technology (https://visorurbano.com/lidar) carried out the Census of Trees of the City of those located in Parks, Gardens, public roads and in some blocks. In addition to these results, physical tree censuses are carried out in the city, which are integrated into georeferencing. Likewise, based on the information on land use planning, the geomatics area of the Environment Directorate, in coordination with the Public Space Projects Directorate, is carrying out a georeferencing of the green areas that the municipality has. This information will serve to carry out a plan to increase green areas in all areas of the city, especially those with a scarcity of trees and / or heat islands. Similarly, a characterization of the current green public spaces will be carried out

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

- Mitigation and compensation measures for new real estate projects focused on green areas.
- Permanent communication route through Social Networks of the "Good Citizen" focused on raising awareness of the importance of caring for the environment
- Each year, neighbours and the government will be involved in the 100 parks programme.
- Participation in the metropolitan Environmental Tables, positioning the trees as a fundamental and patrimonial element of the City.

The municipality of Guadalajara consists of 13 departments, each facilitating closer and more organized engagement with citizens to participate in events and environmental conservation campaigns. An illustration of this is the annual tree planting activities conducted during the rainy season, where citizens are actively involved and neighbors are summoned to participate.

Since 2020, the city has been operating the 100 parks programme, which includes public spaces of the municipality. In addition to generating new green spaces, the programme improves and takes care of the current spaces.

Another governance endeavor entails the formulation of the Municipal Development Plan, with sustainability positioned as one of the overarching pillars.

Ongoing collaboration with IMEPLAN has led to the development of the Metropolitan Climate Action Plan (PACmetro) in partnership with C40. This plan will outline the strategies to mitigate climate change, with contributions from government, academia, and nongovernmental organizations. Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

- Georeferencing of all the new green areas of the municipality - information that will serve to make a plan to increase these spaces, in all areas of the city, especially in areas with a scarcity of trees and/or heat islands.
- 100% characterization of green public spaces
- Physical tree census of 50% of the territory.
- It will intervene with the greening of the area of 100% of the parks together with neighbors and the government in the 100 parks programme.
- Construction of 80 Pocket Parks, converting paved spaces into permeable spaces and 80 parklets

In this context, as previously mentioned, the City utilizes LiDAR technology to conduct a digital tree census, and both the system and the resulting data are freely accessible.

Physically, tree censuses are conducted in various areas of the city, assessing the phytosanitary conditions of each individual.

Additionally, annual maintenance activities, including pruning of hazardous trees and reforestation efforts, are carried out, with the corresponding data meticulously integrated into the city's tree inventory.

Concerning green areas, a publicly accessible land use map identifies their locations. Moreover, in collaboration with the Directorate of Public Spaces, this information is regularly updated to reflect any additions to the city's green spaces.

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

- Sustainability as a transversal axis of the Metropolitan Development Programme
- Development and implementation of a local Certification of green building, with benefits for the citizen and the City
- Total accounting of the ecosystem services generated by the trees of the municipality
- Training for students and teachers to implement a garden in each school

Other supportive actions

Join the green corridors with the efforts made in terms of sustainable and scalable mobility at the metropolitan level

Example of financial resources available to deliver the commitment

The city of Guadalajara has a tree compensation formula based on Art 21 of the Municipality's Green Areas and Forest Resources Regulation, through which resources are obtained for the development of green areas; Likewise, there is an annual budget for parks and gardens for the implementation and maintenance of green areas.

In addition, through the Judgment for the execution of urban projects, the City obliges the promoter to make compensation for the impact of his project and among the measures is the delivery of a certain amount of plants and trees, depending on the magnitude of the growth

Additional Resources

https://visorurbano.com/lidar

100 Parks Programme

Metropolitan Development Programme

Municipality's Green Areas and Forest Resources Regulation



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Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

The nature goals are made public through the Local Climate Change Plan of the province of Lima 2021-2030 (PLCC Lima). There is an ecosystem and urban green strategy including indicators for actions with measurable goals.

Among the actions in ecosystems are:

- Develop the Master Plan of the Regional Conservation Area (ACR) "Lomas de Lima System" to ensure the conservation of five coastal hills (Lomas de Amancaes, Lomas de Villa María, Lomas de Ancón, Lomas de Carabayllo I and Lomas de Carabayllo two).
- Increase trees in Metropolitan Lima through the implementation of the tree planting programme "Trees for Lima," including the systems established by the Metropolitan Programme and the Citizen Programme.
- Implement green corridors along bicycle lanes and areas with high traffic for cyclists and pedestrians to promote the use of sustainable mobility, and generate shaded spaces from heat waves.
- Count the trees in Metropolitan Lima with an integrated system of district inventory of three-year urban trees, to be able to monitor them and ensure the availability of water for irrigation.
- Conserve the avifauna of the province of Lima by conducting ornithological studies in zonal clubs and metropolitan parks in order to establish birdwatching routes in the city.
- Conserve and protect the wetlands of Lima through the preparation of technical studies.
- Improve the Management of green areas through the development of manuals for Urban and Periurban Forestry and Green Areas as instruments

to improve their design, management and conservation, including the development of methodologies for economic valuation. It will be reviewed and updated every five years.

- Prepare an Ordinance that recognizes an Environmental Conservation Area in the province of Lima.
- Prepare the Ordinance that establishes measures to strengthen the conservation of ecosystems in the province of Lima
- Develop the Comprehensive Green Areas Management Plan for the Province of Lima.
- Recover, protect and monitor the water infrastructure in the Villa Pantanos Special Regulatory Zone (ZRE PV), including control activities in the ZRE PV
- Implement ecotourism as a source of economic income for the conservation of the Pantanos de Villa Metropolitan Ecological Area, taking as input the scientific information generated in environmental, biological and hydrological monitoring, environmental education and environmental surveillance.
- Network of Environmental Monitoring of Ecosystems and Natural Infrastructure.
- Implement hydrometeorological sensors in these ecosystems and natural infrastructures, to monitor their dynamics for the purpose of their development, sustainability and measurement of associated ecosystem services. Through specific agreements with district municipalities.

Likewise, these goals will be made public through the portal of the Metropolitan Environmental Information System (SMIA), a platform that facilitates the systematization, access, dissemination and distribution of environmental information, in order to establish and guarantee an exchange of information for decisionmaking and environmental management processes in the jurisdictional scope of the province of Lima. Platform link: http://smia.munlima.gob.pe/ Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Lima will have an inventory of green areas of the 43 district municipalities by 2023 Likewise, through the Biodiversity and Ecosystems map of the SMIA portal (<u>https://sit.icl.gob.pe/</u> <u>biodiversidad_smia/</u>), the places where new green areas and opportunities for improvement of existing spaces are needed will be identified and published.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Within the framework of implementation of the Metropolitan Environmental Management System, the operation and sustainability of the Metropolitan Environmental Commission (CAMET) and its Metropolitan Technical Group for Ecosystem Management and Conservation will ensure participation is open to all stakeholders of the public, private sector, academia and civil society who are involved in the management of green areas. They will be able to work in an articulated way through technical proposals and joint interventions since it is one of the priority issues for the city.

The MML will promote multi-stakeholder spaces so that municipalities can present their projects and find financing mechanisms. It will also coordinate with the Ministry of the Environment (MINAM) and the Ministry of Economy and Finance (MEF) to train municipalities on financing mechanisms.

In order to address governance barriers:

- Continue to promote spaces for participation where vulnerable groups are included.
- Prepare management instruments that go through participatory processes where contributions are received from vulnerable groups, civil society and other stakeholders.
- With transparency, disseminate Information through the SMIA Portal or other means.
- Reduce climate injustice in the city through the Climate Governance measures of the PLCC.

- Continue to attend environmental complaints about logging, severe pruning, risk of tree fall, and impact on the green areas of the city; through the environmental complaints portal: <u>https://</u> <u>aplicativos.munlima.gob.pe/extranet/denuncias-</u> <u>ambientales/</u>
- Report the actions in environmental matters publicly through CAMET and the Metropolitan Technical Group for Management and Conservation of Ecosystems.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

- Implement new or improved green public spaces and green urban landscapes, in the areas with the greatest impact for the most vulnerable people to achieve at least 50% of the 2030 goal. Commitment to 2030 is to reach 5.2 sqm/hab, the city commits to reach 50% by 2026.
- Develop a base inventory of natural vegetation
- Develop an inventory of hill and wetland species

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The Metropolitan Environmental Commission (CAMET), created by Ordinance No. 2256, promotes dialogue and agreement between local actors from the public and private sectors, academia, and civil society, summoned by Services Management to the City and Environmental Management.

In this framework, CAMET's permanent function as the main governance space of the city is being ensured. Through CAMET's Environmental Governance and Citizenship Technical Group, the creation of new spaces, methodologies, and mechanisms for participation and coordination will be promoted. This ensures that private sector actors will act as part of their social responsibility and in compliance with the Objectives of Sustainable Development, contributing effectively to the management of the city's green areas.

Similarly, the involvement of professional associations (Colegio de Arquitectos del Perú and Colegio de Ingenieros del Perú), NGOs, and academia will be highlighted for their support and expertise in natural solutions in urban form, buildings, and infrastructure design that offer direct human, ecosystem, and climate services to achieve the goals by 2030.

In addition, incentives such as public recognition and certifications will be established for actors who contribute to the management of green areas and nature-based solutions. Furthermore, the implementation of the Municipal Environmental Commissions (CAM) in the districts of Lima will continue to be promoted, seeking replicability and articulation with CAMET.

Other supportive actions

Pantanos de Villa - Inclusion: The implementation of the Park of the Senses in the Cercado de Lima district aims to enhance the quality of life for over 5,000 residents. Spanning a green area of over 15,000 sqm, this park will benefit not only the local residents but also those from surrounding areas. The city has refurbished this public space to ensure complete inclusivity, featuring amenities such as games and tactile floors for individuals with disabilities, along with access ramps for older adults. Within the framework of article 44 of Ordinance No. 2256, which updates the Metropolitan Management SystemEnvironment (SMGA) of the province of Lima, through the Metropolitan Technical Group for Environmental Governance and Citizenship of CAMET, criteria have been designed to measure inclusive participation in the design and implementation of public policies on environmental matters, taking into account the Gender approach

Increase green areas in the city: conditions of equality between women and men), intergenerational (boys, girls and young people), intercultural (indigenous communities, among others), and the participation of citizens with disabilities. In this sense, annual goals will be established and compliance with equality in access to green spaces will be evaluated within the framework of the implementation of the SMGA. Maintenance of parks and increase the number of parks in the province of Lima.

One of the actions in the Lima PLCC in this matter is to improve the Huiracocha, Cápac Yupanqui and Huayna Cápac Zonal Parks with the construction of wastewater treatment plants, modernized irrigation, public lighting with solar panels and LED lights.

It is also planned to improve 12 parks in Cercado de Lima.

Example of financial resources available to deliver the commitment

For the development of the support action for the improvement of 12 parks in fenced off Lima; the budget comes from the municipality's own resources. For the implementation of the actions, most of them are framed within the Institutional Operational Plan (POI) and the Institutional Strategic Plan 2020-2023 - Year 2020 specifically within the OEI.03. Implement sustainable environmental management and the conservation of ecosystems in the province of Lima.

Additional Resources

http://smia.munlima.gob.pe/nosotros#:~:text=El%20 Sistema%20Metropolitano%20de%20 Informaci%C3%B3n,en%20Ia%20provincia%20de%20 Lima.

https://sit.icl.gob.pe/biodiversidad_smia/



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SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

The goals, programmes, projects and indicators in matters of nature and renaturation will be established in the Renaturalization Plan currently being developed by the Ministry of the Environment. The idea is to finish it this year (2021). But it all depends on hiring professionals who are part of the team to finish the five components that are part of the plan. Ideally, the city would like to finish the plan this year (2021).

The Medellín Renaturing Plan 2020-2030, was born from the Urban GreenUP project of International Cooperation of the European Commission. Its purpose is to generate methodologies to green cities, mitigate the effects of climate change, improve air quality, water management and green to increase the sustainability of our cities through innovative nature-based solutions (nature based solutions). Medellín is the only city in Latin America to participate in this project and it does so as a follower city. Its development is under the control of the Secretary of the Environment of the Mayor's Office of Medellín.

Renaturation is a process of space transformation based on SbN nature-based solutions, implanted in green, blue and gray infrastructures, to strengthen, among other things, the ecological structure.

The Renaturalization Plan seeks to be a supportive instrument for the city to preserve, generate, restore, and be able to sustainably use its urban and rural green spaces. It should function as a channel to generate synergies between existing plans and projects.

It proposes to develop an institutional management model by:

- Identifying actors, defining functions, roles and competencies for green management,
- Developing a prioritization model for the spatialization of potentially critical areas of the city, which will need to be incorporate natural solutions,

 Developing a financial strategy to determine the economic instruments with greater viability in the long term, which allow the generation, maintenance and recovery of green spaces.

The plan will establish a monitoring and follow-up system for implementing nature-based solutions and a participation strategy through co-creation processes with private actors, institutions, citizens and academics.

The contributions of this project establish a route to act on urban greenery addressing major city challenges and framed in Agreement 47 of 2015 to maintain, conserve, generate and monitor green.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

To carry out this action, the city worked on the Protocolized Map 12 of the POT - Projected public space for recreation and meeting. There are some projects that are currently being developed associated with the generation of green areas:

1. Creek Ecoparks - Green Zones Generation

This is based on the ecological and environmental point of view associated with the creek eco parks. An example of this is the project in collaboration with the Secretary of the Environment and the Administrative Department of Planning, in order to review areas in the Ana Diaz and La Hueso streams to retake potential areas for the generation of green areas of public space in the stream retreats and to consolidate creek eco parks as established by the POT.

2. Analysis of Fragmentation and Possibilities of Improving and Generating Green Corridors in the Ecological Connectivity Network

• Agreement of new corridors and validation in conjunction with DAP.

- Definition of terminology to be used, guaranteeing the concordance between the POT language, the Urban Forestry Manual and the AMVA Functional Ecological Connectivity Study.
- Justify and plan the strategy to be implemented to maintain, conserve, enrich and value ecological corridors in forest terms.
- Work with biologists to ensure the diversification of actions to be implemented in the corridors.
- Develop a strategy for entering information into the SIB database.
- Propose inventory and monitoring of birds and the management of invasive birds.
- Definition of actors or co-managers. This will be developed in detail with the regulation of Agreement 41 of 2015.

3. Qualification of Public Space - Opportunities to Improve Green Spaces

The Ministry of Physical Infrastructure has a Siro portal system where the resume is shown with the inventory of the public space associated with the parks, roads and roundabout to qualitatively evaluate, this information allows analysis to identify if there is a possibility of areas to generate new green areas and qualify existing ones.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The Renaturation Plan has two components. One is the financial strategy: its objective is to determine the most appropriate instruments, through which stable and sufficient long-term resources can be generated that allow the generation, maintenance and recovery of green spaces and the implementation of nature based solutions.

This financial strategy becomes important as the budget for green financing increases, it becomes a challenge for municipal administrations, since the greatest resources come from current income, which may limit the objective of increasing this type of space, and even more, to enjoy stable resources for their maintenance and qualification. Therefore, a review of the instruments that would allow the City to increase the green areas within the municipality, as well as those that would contribute to their maintenance, is necessary in order to specify a proposal where different tools are articulated (from public resources and private) that allow creating synergies around the common goal of increasing and maintaining green spaces.

Another of its components is the management model to work on governance issues: The purpose is to consolidate a proposal for an organizational structure for the implementation of the Medellín 2030 Renaturation Plan. For this plan, it is necessary to consolidate the mapping of actors and management instances of the green in the city, based on which to propose a scheme or model of institutional organization and operation for the implementation of the Plan.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

When considering a comprehensive natural vegetation inventory for the city of Medellín, it must account for all existing vegetation. This endeavor necessitates a substantial budget and a proficient technical team to execute, which the city currently lacks. However, the city can work on the accounting of natural capital, with the following inventories:

- SAU Urban Tree System: since 2011 an Inventory has been made of the trees that are planted in the different public works projects. It is possible to begin to evaluate the existing species and evaluate some of the associated ecosystem services.
- 2. Inventory of green areas, urban and rural areas: with this input, natural capital can be evaluated to some extent, analyzing the different elements of green infrastructure and their co-benefits.
- 3. From the component of the monitoring and follow-up system that is framed in the Renaturalization Plan: the goal of this administration is to implement various typologies of Nature-Based Solutions in various projects that are part of the Medellín Futuro Development Plan. The purpose is to carry out a minimum monitoring in two years to evaluate the co-benefits specifying which Ecosystem Services the nature-based solutions can be associated with.

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

To work on all these issues the City has:

- Sustainable construction policies of the Metropolitan Area and its five associated guides.
- Decree 113 of 2017. Public space manual that regulates in detail the standard for the components and constituent elements of public space in the municipal territory.
- Decree 895 of 2018. Urban Forestry Manual for Medellín - Management, Planning and Management of Green Infrastructure.
- Work is being done on the regulation of Agreement 41 of 2015 "Ecological Corridors for Avifauna", Agreement 47 of 2015 "Maintain, Conserve, Generate and Monitor the Green Zones", Agreement 46 of 2015. This regulatory framework needs to be reviewed to mainstream these instruments and facilitate the regulatory framework to be able to apply them through nature based solutions.

Example of financial resources available to deliver the commitment

There is no budget for the implementation of the Renaturation Plan and most of the actions indicated here. The city lacks resources, and to date, securing funding has not been considered. In the current Development Plan - Medellin Futuro 2020-2023, there is no budget allocated for the Renaturalization Plan. The idea is to seek resources through alliances and cooperation during its implementation. The hope is that by regulating Agreement 47, this issue can gain more traction.

For implementing nature-based solutions in strategic city projects, there is the Medellín Futuro Development Plan under the ECOCIUDAD Line. This plan includes a budget for strategic projects such as Metro de la 80, Parques del Rio Norte, Cycle Ruta Norte Sur, and the development of SbN topologies like green walls, green facades, and eco-gardens. Additionally, it highlights the Green Infrastructure Maintenance programme with the Green Corridors project.

Additional Resources

https://www.urbangreenup.eu/cities/followers/ medellin.kl

https://www.medellin.gov.co/irj/portal/medellin?N avigationTarget=contenido/8896-Atlas---Planos-Protocolizados-POT

https://www.medellin.gov.co/sau/

https://www.medellin.gov.co/irj/portal/medellin?Na vigationTarget=contenido/6899-Plan-de-Desarrollo-2020---2023--Gaceta-oficial---Medellin-Futuro





The Quito Climate Change Action Plan (PACQ) is a roadmap that has the vision of achieving carbon and extreme threats neutrality by 2050, and contemplates a Nature-based Solutions (NbS) approach. It aims to:

- Reduce greenhouse gas emissions by 30% by 2030, 50% by 2040, and net neutrality by 2050.
- Reduce climate vulnerability conditions and increase the adaptive capacities of urban and rural areas.
- Have an informed citizenry that is sensitive to climate change and promote local climate governance.

By 2022, it is planned to carry out a participatory process to strengthen climate change capacities with community actors. Additionally, the city will develop a general guideline for Nature-based Solutions (NbS).

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Based on the Heat Island, Climate Change Risks and Adaptation Criteria Analysis for resilient public space (urban standards), the priority places for intervention with Nature-based Solutions (NbS) will be determined. This will be done in conjunction with the respective municipal institutions through the review and qualification of sectors established in the aforementioned documents. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The Climate Change Committee is a political decisionmaking body of the city whose objective is to ensure compliance with the actions contemplated in the PACQ. Likewise, the development of an NbS Plan is contemplated through participatory co-creation and co-design approaches that may contain an analysis of mechanisms for NbS financing.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The city continuosly updates the vegetation coverage map of Quito, which includes both the urban and rural areas of the Metropolitan District of Quito. The current vegetation cover map and a layer of Threats and Susceptibility is available at the following link: <u>http://</u> <u>geoportal.quito.gob.ec/smig/</u>

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

Through co-creation and co-design practices, the NBS guide will be developed together with community actors (neighborhood: San Enrique de Velasco), institutions (Municipality of the Metropolitan District of Quito), academics (Universities located in Quito) and civil society (Organizations such as Grupo Faro, FONAG, FFLA, PMA, among others.



Other supportive actions

- One of the objectives of the PACQ in adaptation is: Increase investments in adaptation projects and nature-based solutions by 25% by 2030. The indicator of this policy is: Increase in the budget allocated annually for the various projects/ programmes/ adaptation initiatives and naturebased solutions.
- Co-creation and co-design of the NbS Plan.

Additional Resources

Quito Climate Action Plan

Rio De Janeiro

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

On June 6, 2021, Rio de Janeiro published its Sustainable Development and Climate Action Plan - PDS, an instrument that materializes and updates a collectively constructed city vision that presents projections and scenarios that should support public policies within the scope of municipality until 2050. Among the commitments established, it is worth highlighting the maintenance of 3,400 hectares already reforested and the consolidation of another 1,206 hectares of Atlantic Forest.

In addition to climate ambitions, the PDS seeks to reduce income inequalities through the creation and formalization of jobs with a positive impact on the environment. The goal is that 40% of jobs in the city will be green by 2030. Hortas Cariocas, an existing programme that hires people from nearby communities to produce organic food, is a good example of green jobs that should be encouraged and expanded in the coming years. By 2030, food production through the programme will be doubled, ensuring food security, green income and environmental education in the territories that most need it.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The Sustainable Development and Climate Action Plan of the City of Rio de Janeiro established sustainability corridors. Among them, the green corridors stand out, which are priority areas for the expansion of green infrastructure through actions of reforestation, urban afforestation, creation, protection and connection of conservation units, encouragement to the maintenance and expansion of agricultural areas, as well as areas greens of relevant scenic and historical interest, with a view to their proper maintenance and

conservation.

The Green Corridors are structured according to three main axes: Urban Afforestation, Connection between Fragments of Native Vegetation and Cultural Heritage of Humanity.

For its definition, different databases were used, among which: green area indices; surface temperature studies; comparison between land use bases of different years, classification of treetops from orthophotos and location of urban parks and areas relevant from the landscape point of view.

Significantly accelerate action to address governance parriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

On June 6, 2021, the City of Rio de Janeiro established the Rio de Janeiro Forum on Climate Change and Sustainable Development, which is a consultative body that aims to integrate organized civil society into the city's climate governance structure.

The Sustainable Development and Climate Action Plan itself provides for the implementation of the Municipal Planning, Sustainability and Resilience System, which should have mechanisms for its integration with the instruments that govern the municipal budget. Another goal of the PDS establishes that in 2030 a minimum annual investment of 350 million reais is reached, with resources collected from the application of urban and environmental instruments, for the sustainable development of the City and for the implementation of structuring projects.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The Sustainable Development and Climate Action Plan also provides for:

- Until 2022: Promote the updating and publication of the list of endangered fauna and flora in the municipality every five years, through a partnership with research and teaching institutions, evaluating the conservation status of the species based on the Union standardInternational for Nature Conservation -IUCN;
- Until 2022: Define Action Plans to be prepared annually for endangered species of fauna and flora, prioritizing endemic species in the municipality, as well as the procedures for implementation and evaluation, in line with the National Plan for the Conservation of Endangered Species - Pro-Species, providing the participation of different segments of society to enhance efforts and results;
- By 2022: Establish a fire prevention and control programme in natural environments;
- Until 2026: Create and manage databases on fauna and flora with information systems aimed at supporting the planning of actions for the conservation and preservation of endangered species;
- Until 2026: Define priority areas in the municipality for the control of invasive alien species and implement a programme in partnership with educational and research institutions, and with other spheres of government;
- Until 2026: Identify the priority natural areas of the municipality for the reintroduction, translocation and population reinforcement of native wild fauna, as well as for the enrichment of the flora, considering the different ecosystems that make up the Atlantic Forest biome in the city.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target. The digital platform Participa. Rio aims to ensure an opportunity for the participation and engagement of the population of Rio de Janeiro in city planning, as well as bringing knowledge and information about the actions and plans developed by the city.

The platform is an important instrument for consolidating the process of citizen participation in the construction of city planning. It admits the hosting of different participation campaigns, consolidating itself as a tool with great potential for the promotion of popular participation, guaranteeing transparency and improving the dissemination of the City's planning actions. Strengthening the culture of participation in short, medium and long-term plans is fundamental to building a city with better quality of life for its citizens.

The PDS establishes that in 2030 up to 50% of the suggestions or prioritizations of the population received through Participa. Rio are incorporated into the city's planning and that 100% of the research is analyzed and disseminated through the transparency channel. The PDS also foresees the establishment of the Rio Cidade Educadora Programme for the engagement and awareness for the Preservation of the City and Healthy Living to be started in 2021. This consists in the creation of a territory that bets on education as a tool for social transformation, mobilizing and articulating local education agents in the proposition and development of knowledge and values from different instances and municipal services, with citizen education resulting in action and social interaction in the city's public spaces.

The City Hall's Reforestation Programme, active for 34 years, is Latin America's largest initiative of its kind. It emphasizes local community labor and environmental education, guided by the Municipal Atlantic Forest Plan and the Master Plan for Urban Tree Planting. The Strategic Development Plan (PDS) aims to maintain 3,400 hectares of reforested land through the program and consolidate an additional 1,206 hectares of Atlantic Forest.

Another remarkable goal of the PDS is that by 2030, the City of Rio de Janeiro will build nature-based solutions to the challenges of urban space. Thus, 300 km of roads and public spaces will be revitalized, with sustainable urban drainage and extensive afforestation, integrating mobility with the need for infrastructure that is resilient to climate change.

Additional Resources

https://participario-pcrj.hub.arcgis.com/

Salvado

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Salvador made its goals public in relation to nature in the Mitigation and Adaptation to Climate Change Plan (PMAMC), with the objective of reaching 36 sqm of green area by 2032 and the goal of expanding universal access to green areas. No criteria revolving around equity were created for this goal in the PMAMC.

In the next two years, the city proposes to:

- Empower vulnerable populations for subsistence crops and income generation, while also promoting urban agriculture—an initiative already underway with support from GIZ. The aim is to bolster food security, a critical concern exacerbated during the pandemic, particularly in the most vulnerable communities. Additionally, this approach can help generate income for populations adversely affected by the financial strain of COVID-related social restrictions.
- limplement an Environmental and Climate Education programme - which has already been created and is being implemented in vulnerable communities by the Civil Defense of Salvador (CODESAL). It will be implemented in Schools by CODESAL and the Directorate of Resilience and Civil Defense of the Municipal Secretariat of Sustainability, Innovation and Resilience (SECIS).
- 3. Create two new parks and new green spaces in the city, prioritizing areas of greater social vulnerability.
- 4. Expand urban afforestation and plant plantations with communities.
- Encourage sustainable construction through and encourage the adoption in buildings and public works - a project is also already underway with support from GIZ.

 Prepare the Law establishing the Climate Change Policy, which establishes mechanisms for governance and monitoring and participation of society in the goals and policies of the PMAMC, which include goals in relation to nature.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The city, through SECIS, will map existing green areas in the city, identifying gaps and places where it is necessary to plant trees and create new green spaces in the next two years, as indicated in the Strategic Planning 2021-2024. This mapping will be revised every four years.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

SECIS is starting the process of reviewing the Green IPTU, an instrument that encourages sustainable constructions and EbE by granting up to 10% discount on IPTU and Onerous Grant. With the review, the city government aims to increase adherence to the programme and make more businesses adopt sustainability and EbA actions and practices. In addition, SECIS is also drafting a law to determine the use of EbA in municipal public works.

The city also intends to create and implement a Payment Programme for Environmental Services with a plan to encourage the environmental protection and preservation of natural resources. Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

As mentioned, the City, through SECIS, will map the existing green areas creating a kind of inventory of green areas. This inventory/mapping will be revised every four years, and the idea is that it will be available online to all citizens through a website.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The city, through SECIS, has an initiative to encourage residential, commercial, mixed or institutional real estate projects to carry out and contemplate sustainability actions and practices in their constructions called IPTU Verde. For this, it offers discounts of up to 10% of the IPTU, according to your score in the programme criteria.

In addition, the City Government carried out some studies and projects to include AbE and SBN in public works, and now aims to make a bill to make the use of these solutions mandatory in public works.

The city also has programmes such as Disk Mata Atlântica, Caravana da Mata Atlântica, community gardens and Horta em Casa, which encourages the population to plant/develop gardens in their homes and communities in order to expand afforestation and green spaces in the city.

Finally, the city is launching the booklet "Green and Ecosystem-based Solutions in Buildings" to expand the knowledge of people and builders about natural solutions that they can adopt in their homes and construction.

Other supportive actions

- Reach 36 sqm of green area/inhabitant by 2032.
- Expand universal access to green areas by 2032, providing universal access to safe, inclusive, accessible and green public spaces, in particular for women and children, the elderly and people with disabilities.
- By 2032, double the agricultural productivity and income of small food producers in the city through sustainable urban agriculture.

Example of financial resources available to deliver the commitment

The City has its own budget resources to develop urban afforestation programmes, Disk Mata Atlântica, Caravana da Mata Atlântica, Community Gardens and Horta em Casa. The green IPTU is within the Law No. 8474, of October 2, 2013, which grants in its art. 5th discount of up to 10% (ten percent) of the IPTU value to owners of residential and non-residential properties that adopt measures that encourage the protection, preservation and recovery of the environment. So, the resource for its execution is a fiscal waiver of the Urban Property Tax of Salvador, being within the regulatory guidelines of the city. Similarly, the city intends to modify land use policies and building codes to expand and encourage the use of nature-based solutions in the city, including urban agriculture.

Additional Resources

http://iptuverde.salvador.ba.gov.br/

http://sustentabilidade.salvador.ba.gov.br/wp-content/ uploads/2020-/12/PMAMC_Ebook_ingles.pdf
São Paulo Milli

SIGNATORY SINCE 2023

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

This will be achieved through the following actions:

- Present the commitments of this Accelerator in the councils linked to the Green Areas and Environment Affairs Secretariat (SVMA).
- Publicise on SVMA's website and social media.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

- Continue the implementation of the parks proposed in Table 7 and the Conservation Units in Table 15 of the Strategic Master Plan of the Municipality of São Paulo (LM 16.050/2014 and LM 17.975/2023).
- Implement actions foreseen in PLANPAVEL, especially actions 10 and 13.
- Complete the evaluation of parks foreseen in the scope of the Viva o Verde SP project in partnership with UN-Habitat.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

 Continue the preparation of SVMA's annual budget linked to the 2030 Agenda, prioritising resources in the most deprived areas of the city.

- Promote projects linked to the municipal environmental policy to be financed in FEMA.
- Special Fund for Environment and Sustainable Development.
- Regulate the Municipal Parks Fund (FMP).

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

- Carry out a tree inventory of the municipality, according to the actions foreseen in the Municipal Urban Afforestation Plan.
- Continue incrementing planting in the municipality, with a target of at least 30,000 trees per year.
- Carry out monthly vegetation monitoring in order to target enforcement actions and environmental licensing.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

• Strengthen and make society aware of the municipality's Climate Action Plan, in order to encourage everyone's commitment to fulfil the actions

- Strengthen São Paulo's environmental councils, namely the Municipal Council for the Environment and Sustainable Development, the Regional Councils for the Environment and Sustainable.
- Develop the Management Councils of municipal parks.

Example of financial resources available to deliver the commitment

Resources can be used from the Treasury itself and from municipal funds, namely the Special Fund for the Environment and Sustainable Development - FEMA, the Municipal Sanitation and Infrastructure Fund -FMSAI and the Urban Development Fund - FUNDURB.



SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

The City of Austin's mission is to manage the urban and natural ecosystems in a coordinated and sustainable manner through continued public investment in green infrastructure, incentivize and/or require private investment in green infrastructure, maximize ecosystem function and services provided by green infrastructure on city-owned land, and improve inter-departmental collaboration and coordination in the management of city-owned lands.

Other objectives include:

- Continue to make our nature goals public and update progress towards green space goals via various departmental plans and public indicator dashboards (Imagine Austin & SD23).
- Continue to grow the Austin Civilian Conservation Corps and Equitable Green Jobs Grant programmes and look to implement more of the green jobs recommendations outlined in the proposed Austin Climate Equity Plan (ACEP).

Low income communities and communities of color were centered in the ACEP update process and that cocreation with communities is expected to continue with the implementation of those recommendations.

The city expects to ontinue working with marginalized communities impacted by the Urban Heat Island effect to capture lived experience to ground-truth heat mapping and inform municipal investments. Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

A Green Infrastructure Strengths & Gaps Assessment and supporting atlas of maps was recently completed. This report looks at the topics of conservation, access, and systems through the lenses of connectivity, biodiversity, resilience, climate change, health, equity, and smart development. Staff will use that information to identify areas of success to grow and areas of weakness to improve related to the quantity and quality of green spaces across the city.

Additionally, departments such as Parks & Recreation, Watershed Protection, and the Forestry Division are incorporating social equity and equitable access into their recent and upcoming planning efforts.

The draft Austin Climate Equity Plan, pending Council adoption seeks to break down silos and remove barriers to local climate action, including naturebased solutions. The work to implement the climate plan recommendations will continue in the coming years. After the finalization of the Green Infrastructure Strengths & Gaps Assessment noted in the previous section, the next steps will seek pathways to implementation. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The Austin Climate Equity Plan seeks to break down silos and remove barriers to local climate action, including nature-based solutions. The work to implement the climate plan recommendations will continue in the coming years.

The Green Infrastructure Strengths & Gaps Assessment noted in the previous section, seeks pathways for process improvements and implementation.

Additionally, City staff are represented in the Biophilic Cities Network, a global networking and information sharing group around urban nature. Staff are also currently serving the group's Funding Biophilic Urbanism Working Group, which will address and provide recommendations around ways to fund and implement urban nature solutions.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The City of Austin is currently inventorying green assets via the Green Infrastructure Strengths & Gaps Assessment and is raising awareness around the value of urban nature via many public platforms including the Green Infrastructure Storymap and the Imagine Austin Indicators Dashboard and many other programmes across the city.

The inclusion of Natural Systems in the Austin Climate Equity Plan showcases the important role that naturebased solutions play in climate resilience, mitigation and adaptation. A baseline estimate of the increase in carbon sequestration that could be realized via natural systems was done as a part of that process.

The city currently has information around the natural capital of our tree canopy via the My City's Trees platform. Additional natural capital accounting could be created in future, and likely would be a valuable exercise that could be useful for many departments.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The City actively collaborates with external stakeholders, both public and private entities, through a variety of programmes and initiatives that seek to incorporate green elements into the urban form and fabric.

Existing Programmes: Green Streets, Great Streets (developer partnering/matching), Connecting Children to Nature (CCCN), multiple programmes by the Parks & Recreation Department, Watershed Protection Dept, and Forestry Division promoting native landscapes, habitat and tree planting on private property, Public Works Neighborhood Partnering Programme, Urban Forestry Grants, Bright Green Futures Grants.

Existing Regulations for private Development: Tree Preservation and Planting requirements, Parkland Dedication requirements, Environmental Criteria Manual and Subchapter E code requirements, Planned Unit Development (PUD) environmental and parkland superiority requirements, Green Building Policy for City Assets (including Public Private Partnerships).

Additionally, Functional Green is a proposed commercial development code tool for meeting a standard of ecological function on constrained sites, such as urban sites with a high percentage building area and low percentage pervious area (>80% impervious cover). It is the hope to have this adopted and being used by / applied to urban developments and redevelopments soon.

Other supportive actions

The Office of Sustainability coordinates efforts across multiple internal and external stakeholders to showcase the multi-benefits and value of urban nature for industries that have not traditionally been involved in these kinds of conversations, such as economic development and public health. This link often reveals additional sources of funding.

Example of financial resources available to deliver the commitment

Financial resources include: existing departmental budgets that continue the work they are already doing to support these commitments, Tree Mitigation funds collected on a regular basis through fees collected from private development projects, City Forest Credits programme created to provide carbon offsets and funding for City, County, and community-based treeplanting, grant opportunities (especially in partnership with local universities and community groups), potential future city budget allocations funding climate plan actions, and other nature based solutions and/or green infrastructure.

As the city is rapidly growing, requiring implementation of green infrastructure and other urban nature projects with new development is a major opportunity, via P3's, City CIP, and private redevelopment that must adhere to the requirements and regulations noted above.

Additional Resources

Austin Civilian Conservation Corps and Equitable Green Jobs Grant programmes (ACCC)

Green Stormwater Infrastructure: A Catalog of Infrastructure, Initiatives, and Next Steps

The City of Austin Green Infrastructure overview

Biophilic Cities Network

Imagine Austin Green Infrastructure Priority Programme

Natural Systems in the Austin Climate Equity Plan

Great Streets | Green Streets

Connecting Children to Nature

Functional Green

Austin Climate Vulnerability Mapping

Austin Heat Mapping

Google Labs Tree Canopy



Los Angeles SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

- Public goals: Maintaining and strengthening LA's urban ecosystem is a critical component to the city's sustainability plan LA's Green New Deal. The 17 milestones and 51 urban ecosystems initiatives made publicly available in LA's Green New Deal are reported on annually and championed publicly by the City. In addition, the City will share the C40 Urban Nature commitment on social media, in public presentations, and with the LA City Council to further promote the City's pledge to this work.
- **Green jobs:** Support green career pathways programmes such as Hire LA's Youth, LA College Promise, LA Rise, LADWP and City Plants "green collar" jobs partnerships with local nonprofits, LA Cleantech Incubator APC Fellowship Workforce Development Programme, and many others.
- **Public engagement:** Work with the City Council to establish a Climate Emergency Commission that will work on amplifying the voices of underserved communities and engage them in the development of climate action plans. Launch a Community Taylor Yard Equity Strategy around the centerpiece Taylor Yard project site for L.A. River restoration that will engage the community in identifying potential effects of the open space investment and recommend actions to address them.

to create new wildlife corridors, enhance existing connections, mitigate pinch points, and direct greening.

- Initiate critical components of LA's first ever Urban Forest Management Plan, such as public outreach to identify goals for the maintenance and expansion of a healthy, sustainable, and equitable urban forest.
- In 2022, the Department of Recreation and Parks will create a dashboard tracking capital project expenditures and investment for the department. Projects reflected on the dashboard include new green infrastructure projects.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

- Develop a set of land use regulations for public and private property via a Wildlife Ordinance.
- Conduct an Urban Forest Financing Study to identify costs, benefits, and funding strategies for a comprehensive urban forest programme.
- Pursue federal, state, local, and philanthropic grants to fund projects and programmes related to trees, biodiversity, river revitalization, and green space.

Complete a baseline natural vegetation inventory and

undertake natural capital accounting to raise awareness

of the associated value of urban nature with particular

integrated citywide park and street tree inventory, continue to assess and update LA's City Biodiversity

Index mapping; and support updating the Loyola

• Natural Vegetation Inventory: Complete the LA's

Marymount University Tree Canopy Map.

emphasis on climate hazard risk reduction.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

- In 2022, complete LA's integrated citywide park and street tree inventory, including identifying locations available for tree planting.
- Develop a citywide wildlife connectivity layer to existing mapping to help identify opportunities

 Form the Climate Emergency Commission, convene Climate Emergency Assemblies, and Update LA's Protected Tree Ordinance to enhance protections and removal mitigations for protected tree and

shrub species

2030 target.

 Identify existing funding and prioritize funding for parks in areas of LA that are park-deficient through a cross-departmental Park Equity working group.

Natural Capital Accounting: Assess existing

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or

incentivize both the private sector (residents, businesses and institutions) and link cross sectors

within public services; to increase and enhance

natural solutions in our urban form, buildings and

ecosystem and climate services towards achieving the

infrastructure design that provide direct human,

potentially be applied to LA.

accounting such as the LA integrated citywide

street tree and parks inventory and collaborate with

C40 on a common framework for cities that could

• Develop and implement the Wildlife Ordinance as part of the Department of City Planning Wildlife Pilot Study and assess its application to other areas of ecological significance within LA.

Other supportive actions

- Ensure proportion of Angelenos living within half mile of a park or open space is at least 65% by 2025; 74% by 2035; and 100% by 2050
- Develop 30 additional parks by 2025
- Establish 25 joint-use parks in underserved communities by 2025
- Implement the Cool Neighborhood programme, combining nature-based solutions with cool pavement to mitigate the urban heat island effect
- Pilot 10 cool neighborhoods by 2025 in vulnerable communities incorporating urban greening like shade trees in public right-of-way.
- Engage the public in supporting urban nature and biodiversity

78 Urban Nature Declaration

- Encourage public participation in the National Wildlife Federation Community Wildlife Habitat programme, which engages the public in creating wildlife habitats.
- Host the annual bioblitz as part of the City Nature Challenge and encourage public participation using the community science apps
- Track and share publicly indicator species as part of the LA City Biodiversity Index
- Host monthly "Lunch and Learn" webinars with City
 Forest Officer Rachel Malarich
- Engage the public and key stakeholders, including the City Forest Advisory Committee, in developing policies for the Urban Forest Management Plan
- Host an annual Tree Summit that's open to the public to educate and engage them in urban forestry
- Through extensive community and stakeholder engagement, develop the Taylor Yard Equity Strategy

Example of financial resources available to deliver the commitment

In support our urban nature goals, LA will continue to apply for and utilize funds from a variety of sources including:

- CalFire California Climate Investments/Urban and Community Forestry grants
- California Natural Resources Agency grants
- TCC/Strategic Growth Council grants
- Measure A: Los Angeles County Safe, Clean Neighborhood Parks and Beaches Measure
- Measure W: Safe, Clean Water Regional programme
- Park Fees (Quimby Funds)

Montréa

SIGNATORY SINCE 2022

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Make our nature goals public:

The signature of the C40 Urban Nature Accelerator and the commitment to follow both pathway were adopted at the August 22, 2022 City Council and were made public by press release on August 23, 2022. Since Montréal joined the international initiative CltiesWithNature in 2019, the City has finished gathering and started uploading documents demonstrating our numerous goals and actions regarding greening, biodiversity protection, park enhancement, etc. Montréal should complete CitiesWIthNature's entire Nature Pathway in 2022.

From our strategic plan Montréal 2030: Our priorities to accelerate ecological transition by nurturing nature in the city, putting biodiversity, green spaces, and the management and development of natural riverside and aquatic heritage at the heart of decision-making

Several other targets concerning nature in the city have been published in the Climate Plan (2020-2030), in the Nature and Sports Plan and/or in the Montréal Urban Agglomeration Land Use and Development Plan:

- 500,000 tree plantings by 2030, especially in zones vulnerable to heat waves
- 10% of the land territory in protected natural environments
- 25% canopy in the agglomeration
- rehabilitating 10 km of shoreline of the large parks network
- developing new large parks (including The Grand parc de l'Ouest, The Parc-nature de l'écoterritoire de la falaise and A nature hub in eastern Montréal) and finalizing the design of Parc Frédéric-Back.

The Urban Agriculture Strategy 2021-2026 targets a 33% increase in cultivated area, from 120 to 160 hectares.

Develop support and skills building programmes for green jobs:

- The City of Montréal supports through an annual financial contribution the activities of the Alliance de la forêt urbaine, a group of 50 organizations created in 2012 to implement the private and institutional component of the City of Montréal's tree planting targets.
- Established in 1995 by the City of Montréal and funded since then, the Éco-quartier programme, an environmental action and education programme rooted in local communities and based on the concepts of awareness, information, training and citizen participation. For example, the «Green Patrol» hires and train 50 youth every summer to raise awareness about protection and promotion of the urban forest and procedures to follow during heatwaves.
- NGO partners of the City who, through agreements/ grants, are located in large parks and provide environmental education, outdoor equipment rentals, etc.
- Develop a process for involving vulnerable and marginalized communities in design:
- The project QIR 2030 (Integrated and Resilient Neighborhoods) aims to transform living environments through an integrated, participatory and collaborative territorial approach in which a variety of concerted actors are mobilized at a local level. It is also based on territorial equity, prioritizing the most socially, economically, culturally and environmentally vulnerable sectors.
- Climate Plan: Various public consultations and work with the Montréal Climate Advisory Committee, composed of 19 members from diverse backgrounds, have inspired the Climate Plan and influenced its implementation. People's vulnerabilities will be taken into account in the implementation of the actions set out in the plan.

Engage vulnerable populations in climate planning and updates:

Montréal's Participatory Budget: process involving citizens and community organizations at three stages: 1) Ideas provided by the community; 2) Development of the ideas into projects that will be done by a joint committee including representatives of civil society; 3) Projects approved are voted on by the citizens.

Implementation and monitoring of our nature targets:

Montréal has selected four adaptation/resilience indicators for the annual Climate Plan progress report: Number of trees planted by the city and its partners (with a prioritization for vulnerable areas); Percentage of land area in protected natural areas; Status of various climate hazard shown on vulnerability maps; and Heat islands areas. An experts committee examines the appropriateness of refining or adding certain indicators related to resilience and adaptation

Within the framework of the Nature and Sports Plan, the monitoring of internal indicators makes it possible to prioritize interventions and investments, while mobilizing the teams towards common objectives. Attendance at the various large parks in the network is also regularly monitored.

The new indicators needed to monitor the two pathways will be added to the regular monitoring.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

- In order to prioritize the areas most vulnerable to heat waves for tree planting and other greening measures, Montréal is developing a map based on several important data: vulnerability assessment, urban heat islands, land use and populationbased data on selected public health and social disadvantage criteria.
- Update climate change vulnerability assessment (every five years), including heat islands map and urban canopy (in progress)
- Explore integration of adaptive capacity in Montréal vulnerability assessment.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

- Climate test gradual integration of greening indicators into investment projects and programmes to inform decision makers
- Integration of natural infrastructures to the Ten-Year Capital Expenditures Programme
- Since 2019, the city's financial report has also included an unaudited section intended to make financial information related to climate change transparent
- Representation to include natural asset in accounting standards to the Public Sector Accounting Board

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

- The inventory and georeferencing of natural infrastructure is an ongoing challenge, to allow for proper management of those assets. Good IT tools to achieve this have yet to be developed.
- The quality and availability of databases depends on the type of infrastructure. The data is fairly up-todate for public green spaces; but remains perfectible for urban trees. For other natural infrastructures such as green roofs and green road infrastructures, there is still a lot of development to do in order to have structured databases with a good tracking mechanism.
- The Ecosystem Management Programme in the large parks provides ecosystem knowledge, ecological assessment, monitoring of components of interest, and on-the-ground intervention to protect and enhance biological diversity. Ecosystem management maintains a balance between public access and protection of the ecological integrity of the large parks.
- Floristic inventories are conducted in our nature parks and parc du Mont-Royal every ten years. They pay a particular attention to plant communities, plant species at risk and invasive plant species of concern to the parks.

- The City of Montréal has given a mandate to assess the ecosystem service value by species of newly planted and mature trees. Among the services evaluated were: reduction of stormwater runoff, reduction of electricity used by the building for heating and cooling.
- Develop partnerships and collaborate to inventory and quantify the ecological services provided by the various natural infrastructures in Montréal.
- Explore integration of risk analysis to vulnerability assessment.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

- <u>Partenariat Climat Montréal</u> aims to mobilize economic, philanthropic, institutional and community forces to accelerate the decarbonization of the metropolis and strengthen its resilience.
- Experts committee formed by the city examines the appropriateness of refining or adding certain indicators related to resilience and adaptation, and improve adaptation strategy.
- Collaborative agreement between Montréal and Regional Public Health Department : reach out quickly to those who are vulnerable to climate disruptions, green our neighbourhoods and protect natural spaces, develop public and active transportation and improve living conditions.
- The 2050 City Vision: is a document that identifies the main intentions of the future Land use and Mobility Plan (PUM) to be adopted in 2023. The City Vision emphasises on the fact that Montrealers, businesses, community and non-profit organizations and public institutions will all have to mobilize to ensure a ecological transition that lives up to their ambitions.
- Montréal's Office of Public Consultation is an independent organization that carries out public consultation mandates entrusted to it by City Council or the Executive Committee of the City of Montréal. Several mandates concern the requalification and redevelopment of neighborhoods or the creation of new parks.

- The City of Montréal annually supports the Alliance de la forêt urbaine which runs and promotes important programmes to engage the private sector in tree planting efforts. Some of their flagship projects include:
 - 1. <u>Urban Forest Leaders Committee</u>: made up of major Montréal companies that are actively involved in greening and trying to convince other companies to follow suit.
 - 2. <u>Trees for My Neighbourhood programme</u>: invites Montrealers to plant trees on their private property by providing several species at a low cost and also offering delivery and planting services.
- In order to involve citizens in the greening of their neighborhoods, many boroughs have developed a programme to adopt a tree pit or other green spaces on the street. The citizens then take charge of the development and maintenance of the assigned space.
- Several boroughs accompany and support citizens in the realization of their green alley project («ruelles vertes»).
- The City intends to strengthen the Participatory Budget over the next few years to make it a flagship tool for public participation and citizen engagement. The City wishes to make even greater use of collective intelligence to create the city of tomorrow, a city where citizens participate in the decision-making process. to create the city of tomorrow, a city where citizens participate fully in the improvement of their living environment, a city that reflects the people who live there.

Other supportive actions

- One of the Nature and Sports Plan's major objectives is the development of new large parks. This will result in increased vegetation and improved accessibility for Montrealers to green and blue spaces. For example, the Lachine Waterfront Park project, located near densely populated areas, aims to transform a marina into a park focused on water. Revegetation, shoreline stabilisation and wetland creation are at the heart of the initiative.
- The network or green corridors is intended to connect parks, living environments and public spaces by contributing to recreational mobility. The development of green corridors will encourage the demineralization of neighbourhoods.
- Water retention component (resilient parks and green infrastructure on roads)

- To help the City continue to develop innovative techniques that not only protect citizens from surface flooding during heavy rainfall, but also meet citizens' recreational needs, reduce heat islands and promote greening.
- The development of the resilient parks will create 9,000 m3 of available water retention between 2022 and 2025, while the deployment of green infrastructure on the roadway will correspond to an area of 8,500 sqm.
- Enhance land-use planning and regulation tools to favour the development of districts on a human scale and adapted to climate change.
 - Amend the urban planning regulation to take into account the intensity, frequency and increasing duration of climate disruptions on its territory, including heavy rain, heat waves and floods.
- Encourage greening and stimulate densification by transforming open-air parking lots.

Example of financial resources available to deliver the commitment

 The 2022-2031 ten-year capital works programme provides for investments that will total \$19.54 billion, of which 14.6% is dedicated to Parks, green space and playgrounds. Among theses many projects and programmes related to greening or accessibility to green and blue spaces: \$45M for green drainage infrastructure, \$10M for urban agriculture, \$281.7M for the urban forest plan, \$268.1M for the protection and acquisition of natural environments, \$102.1M for the rehabilitation of the banks of large parks, \$51.7M for green corridors, \$233.4M for the development of three large parks, etc.



- Financial assistance to boroughs for demineralization through the creation or repair of tree pits (up to \$300,000 per year per borough).
- Agreement with Provincial Government, a funding:
 - to contribute 50% of the needs over the period 2022-2024 to achieve the planting and maintenance of 94,200 trees in parks, public spaces and on private property.
 - dedicated to the water retention component (resilient parks and green road infrastructure)
- Several funding requests for provincial and federal programmes, Montréal stays alert to any new potential funding. For example, several projects have been submitted to the Disaster Mitigation and Adaptation Fund, pending grant response. This federal programme intended to support public infrastructure projects, including natural infrastructure, designed to mitigate current and future climate-related risks and disasters triggered by climate change. A grant announced in 2021, to rehabilitate and secure some 10 km of shoreline using bioengineering-inspired techniques, such as planting shrubs and vegetation, which will help better manage the impacts of erosion and protect shoreline ecosystems and communities. Montréal is also awaiting a response from the Federal Government 2 Billion Trees Programme for funding over ten years for several plantings projects.



Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Utilize existing grant funding to develop a robust blue/ green infrastructure workforce training pipeline that prepares high school youth, and provides opportunity for youth and adults who are people of color and people with low incomes, for high-wage jobs in the city's growing water management sector. Advance publicprivate partnership with local non-profits, namely SOUL, to expand green spaces and tree canopies citywide. Further engage with the City's Climate Action Equity Task Force to fund and implement community-driven, nature-based projects. New Orleans continues to work with this group to determine and prioritize projects they would like to fund with grant dollars. Significantly accelerate action to address governance parriers to implementation, and mobilize access to nvestments and resources that support the Accelerator cargets; this includes sharing approaches and learnings n recognising funding and governance mechanisms for delivering urban nature solutions.

In 2010, the City set a goal in its master plan to increase the tree canopy to cover 50% of the city by 2030. Now in 2021, 11 years later, City officials signed an agreement with SOUL, a local non-profit, as part of a public-private partnership to develop a \$140,000 reforestation plan. The agreement signed was to inform and develop an upcoming Comprehensive Reforestation Plan. The City will continue to form partnerships with organizations seeking to promote tree planting and expand access to green spaces, with an emphasis on native species and an equitable distribution of green space.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The City's Department of Parks & Parkways funded a tree inventory in 2019 of trees in public spaces such as neutral grounds and parks. The City's Master Plan, "The Plan for the 21st Century," sets a goal of 50% citywide tree canopy coverage by the year 2030 . The City's Parks Department in coordination with local non-profit SOUL and the City's Department of Public Works are utilizing these initiatives to inform an upcoming Comprehensive Reforestation Plan. The City will also seek to engage with Google's tree canopy pilot to better understand existing green space. Tree canopy coverage has not been determined but could be part of the City's potential work with Google. Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The City will determine an appropriate partnership and methodology to complete a baseline natural vegetation inventory in coordination with our Hazard Mitigation Administrator, Department of Parks and Parkways, and the Office of Resilience and Sustainability.

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

Continue to explore potential stormwater fees to ensure the private sector and tax-exempt properties contribute to green infrastructure funding citywide. Engage residents in resilience decision-making through the Climate Action Equity Project. The Climate Action Equity project is an existing mechanism for resident engagement with pre-selected community members and resident climate experts. The city has an existing agreement/grant with them that allows for public engagement meetings in each Council district.

Example of financial resources available to deliver the commitment

- \$5M JPMorgan Chase Advancing Cities grant to boost job creation and new businesses in water management and other environmental sectors.
- \$141 million through the National Disaster Resilience Competition from the Department of Housing and Urban Development to create the city's first-ever resilience district.
- Various funding available through FEMA's Hazard Mitigation Grant Programme (HMGP) for green infrastructure/stormwater management projects.



Additional Resources

https://www.gnof.org/taking-steps-together-on-equityclimate-change-a-report-by-and-for-new-orleanians/

https://www.nola.gov/getattachment/Parks-and-Parkways/Trees/Total-Tree-Inventory-Summary-Reportupdated.pdf/?lang=en-US

San Francisco

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

On April 18, 2018, the San Francisco Board of Supervisors unanimously passed the San Francisco Biodiversity Policy, a "resolution establishing local biodiversity as a citywide priority, with a framework for interagency collaboration for nature-based initiatives." The forthcoming 2021 San Francisco Climate Action Plan (CAP) has six chapters/sectors, including a comprehensive Healthy Ecosystems (HE) chapter that lists seven strategies and 32 actions. all devoted to nature-based solutions for climate resilience, biodiversity, and carbon sequestration. The HE chapter represents the most complete articulation by the City of San Francisco of its nature goals to date. The CAP underwent significant stakeholder and public vetting and will be completed by the end of 2021, when the final plan will be made public. The whole CAP has been subjected to a thorough racial equity analysis, as part of City Departments' compliance with direction from the Office of Racial Equity. Thus, the actions reflect a deep commitment to equity and justice, including for workforce development among vulnerable populations. The CAP is accompanied by a Racial Equity analysis that includes principles and actions to be followed in the implementation of the CAP.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

San Francisco was the first US city to achieve 100% of the population living within a 10-minute walk of open space. While this metric is a strong proxy for equal access, considerations to ensure equitable access (acres/population) to high quality open space continue to drive decisions in planning, acquisition, development, renovation, and expansion of green spaces. San Francisco has created and

deployed several different analytical tools to guide the development of new open space through an equity lens. The Recreation and Parks Department has developed a set of equity metrics to measure the allocation of recreation and park services and resources in order to identify gaps, mitigate deficiencies, and maximize equitable resource allocation decisions. For example, about 20% of census tracts are identified as "disadvantaged" residents (due to poverty, health outcomes, nonwhite racial identity, etc.) yet 78% of capital budget is allocated to parks in those areas. This equitable allocation of resources recognizes and mitigates historical bias. Evaluations of park quality show nearly identical scores, with parks inside disadvantaged areas scoring 92.4% while parks outside this area score 91.6%. This shows current operational balance in allocating new plantings, maintenance and repair, and special features.

In Central SOMA, one of the greyest neighborhoods in the city, the new plan for development provides substantial development fee funding for new open spaces. The State of California uses very strict criteria for its funding, so that CalFire grants for urban forestry can only be spent in environmental justice communities. The San Francisco Department of Environment created an Unprotected Lands GIS that will help prioritize land preservation and conservation action, and the Urban Forestry Council has created a more San Francisco-nuanced map for prioritizing tree planting in high need areas throughout the city. The Planning Department is creating an environmental justice framework for the City's General Plan, including a more updated mapping tool that is more nuanced than the California Environmental Protection Agency's Enviroscreen tool. The implementation of the Climate Action Plan will optimize use of these various tools in order to bring nature and greening to everyone to be able to connect to nature every day.

Significantly accelerate action to address governance parriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

San Francisco funds nature and greening work across several different land-owning departments, as well as through the City's Capital Plan and through state and federal grants. In general, however, nature-related funding is insufficient to keep pace with the ongoing degradation of our city's biodiversity and for the restoration of local ecosystems for plants, wildlife and carbon sequestration. Implementation of the Healthy Ecosystems Chapter of our CAP will require a significant increase in funding across multiple City departments for the city to accomplish its goals. The city has an existing Biodiversity Interagency Working Group, and the City recently allocated \$300K to study and build a funding process for the Climate Action Plan

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The Climate Action Plan has an action devoted to creating a Carbon Sequestration and Ecosystem Restoration Strategy, a key component of which will be to establish a baseline inventory of natural vegetation and urban forestry cover citywide.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The CAP harbors many actions devoted to creating policies and programmes that bring biodiversity with greening and ecosystem services into the built environment through our Strategy 6: Maximize greening and integration of local biodiversity into the built environment.

Other supportive actions

Example actions include:

- Incorporate carbon sequestration and biodiversity conservation findings into a Carbon Sequestration and Ecosystem Restoration Strategy for City land and watershed management, consistent with agencies' existing plans and policies.
- Establish an inter-jurisdictional working group comprised of the American Indian community, federal and state parks agencies, and local non-profits, educational and research institutions, dedicated to nature-based solutions, focused on resilience and biodiversity conservation.
- Maximize, where woody vegetation is appropriate, planting coast live oak and other native trees and arborescent shrubs throughout the entire public realm.
- Create a City-managed and -dedicated street tree nursery.
- Explore expansion of the City's natural areas preservation system through land transfers and acquisitions of undeveloped/unprotected private and public lands

Example of financial resources available to deliver the commitment

As noted above, more funding is needed for the City to be able to implement the strategies and actions in the Healthy Ecosystems chapter of the Climate Action Plan, which contains the strategies and actions that embody the implementation of the commitments of this declaration, in addition to those that have already been accomplished or that will be accomplished as a matter of course with existing resources. At least ten City departments participate in the Biodiversity Interagency Working Group, in which context (hopefully enhanced with additional funding), the city will develop a process for implementation of the Healthy Ecosystems chapter of the CAP.

Additional Resources

Updated mapping tool Recreation and Parks Department

Seattle

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Cultivating and caring for urban nature is a core element of Seattle's environment, health and social justice commitments. These goals are publicly included in the City's Comprehensive Plan elements and several key sustainability initiatives, investment frameworks, and programmes including, but not limited to: Seattle's Climate Preparedness strategy, Equity and Environment agenda, Green New Deal Executive Order, Outside Citywide programme, Parks and Open Space acquisition strategies, Urban Forestry Management plan, Grow Green Stormwater Infrastructure Initiative, Green Factor development requirements, and Future of Work and Green Jobs initiatives. Seattle's urban nature targets include elements such as tree canopy goals, park accessibility, and gallons of stormwater managed through green stormwater infrastructure.

Seattle's Equity and Environment agenda outlines key environmental justice goals and priorities for the City that include but are not limited to: ensuring healthy environments for all; creating opportunities for local green careers through jobs, local economies and youth pathways to green jobs; and increasing community access and decision making in City environmental programmes. Development of this agenda was a community-led process by Black, Indigenous, People of Color, immigrants, refugees, and people with low incomes. The Environmental Justice Committee was a recommendation in the Agenda that was actioned and is now in its fourth year. This body works to ensure that those most-affected by environmental inequities have opportunities to guide the City's nature and environmental targets while better connecting government to community-based solutions.

Over the next two years, Seattle's key commitments to advance nature goals, green jobs, and equitable engagement will include:

 Updates to Seattle's Comprehensive Plan and its many elements (including the Parks and Open Spaces Plan) including an extensive inclusive outreach and public engagement process that will incorporate new knowledge and perspectives and further integrate urban nature and equitable engagement work across City agencies.

Implementation of Seattle's Green New Deal Executive Order–Building off the Equity and Environment Initiative, Seattle's Green New Deal aims to create jobs and advance an equitable transition from fossil fuels to renewable energy by prioritizing investments in communities historically most harmed by economic, racial, and environmental injustices. Seattle is currently developing a Green New Deal Oversight Board that will center the expertise of Black, Indigenous, People of Color, immigrants, refugees, people with low incomes, youth, elders, and workers harmed first and worst by climate change. This board will develop recommendations for policies, programmes, planning efforts, and legislation that advance a Green New Deal for Seattle.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Seattle's Outside Citywide programme develops comprehensive maps of Seattle's blue-green spaces across all forms of ownership and analyzes in detail which areas of the city are better and worse served by these assets. Using this analysis combined with racial, social, and health equity considerations, the programme also identifies priority neighborhoods for new blue-green space investments. The latest iteration. currently under development, will factor in climate risk factors such as sea-level rise and our recently developed heat mapping as well. Relatedly, Seattle Parks and Recreation measures gaps in access to their properties through the Parks and Open Space Plan. This analysis identifies gaps in two parallel metrics: households within a 10-minute walk to a park citywide, and households within designated Urban Villages (typically denser areas) within a 5-minute walk to a park.

Over the next two years, Seattle's commitment to specifically advance these efforts will include the following:

- Expand blue-green space access and bluegreen infrastructure in the city, with a priority on equity considerations. Update and improve open space analyses and continue to enhance the ability of this work to identify shared priorities across departments and agencies and guide new equitable green investments. Continue to improve existing parks and nature experiences through Seattle Parks and Recreation's acquisition programme purchases of new property and City nature based/nature enhanced capital improvements (i.e. green stormwater infrastructure, tree planting) prioritizing areas with the greatest disparities and urban heat island risks.
- Identify ways to evaluate the quality of existing green spaces and assess people's experience in them. This site-specific outreach and analysis will provide information about disparities in park experience and help to ensure that people do not just have access to green spaces, but that they feel welcome in them and that these public spaces provide the opportunities and benefits they seek.
- Sustain and enhance opportunities for local stewardship and enhancement of bluegreen spaces and functioning through green infrastructure job corps development, support of community-led efforts, incentivizing riparian restoration, etc.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Seattle has made significant progress to align urban nature and blue-green space access and acquisition strategies across departments, and an Interdepartmental Team (IDT) is in consideration to formalize this cooperation (including utilizing the Comprehensive Plan). Seattle also has many existing development standards and incentives to encourage the use of green roofs, green stormwater infrastructure, and open space into both public and private investments.

Over the next two years Seattle's commitment to specifically advance these efforts will include the following:

• Identify shared combined funding opportunities, priorities, and creative agreements to support

this work. In particular, the City of Seattle is in conversations with Seattle Public Schools to incorporate schoolyards through an expansion to the Joint Use Agreement between Schools and Seattle Parks and Recreation.

 Evaluate best practice opportunities to expand or revise development policies, standards and incentives to support creative ways to further integrate nature and nature-based infrastructure into the city's public and private developments and rights of way including rainwater capture and reuse, natural drainage systems, green roofs, food production, tree planting, etc.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Over the coming years, Seattle will work with others to further integrate mapped urban nature inventories and analyses of natural assets to inform vulnerabilities and equitable and just prioritization and investment opportunities. Elements to be considered include, but are not limited to:

- Tree canopy
- Impervious surface
- Urban heat
- Water quality
- Species health and diversity
- Carbon sequestration potential
- Natural shoreline/floodplain habitat and functioning
- Environment and public health disparities/ outcomes mapping

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The City has several existing frameworks for mandating and incentivizing the inclusion of green space and green stormwater infrastructure in private development. Requirements include the Seattle Green Factor and the stormwater code's onsite stormwater management. Seattle Green Factor is a score-based code requirement that increases the amount of and improves the quality of landscaping in new development. The on-site stormwater code requirements ensure new development projects manage new or replaced impervious surfaces through distributed practices, primarily with green stormwater infrastructure, where feasible. Incentives include a host of green stormwater infrastructure incentives programmes, some existing and some in development, for partner agencies or private development to go beyond code. SPU's GSI incentives programmes pay for these voluntary improvements, which may include approaches like a enhancement of an existing yard to include a rain garden, or constructing centralized bioretention facilities in a former parking lot area to manage extra public and/or private runoff. Seattle also has designations in place as a Bee City and an Urban Bird Treaty City, through which City departments work with other community organizations and partners to enhance habitats in both natural areas and developed landscapes. They also create frameworks through which additional species protections can be incorporated such as bird-friendly building practices.

Over the next two years Seattle's commitment to specifically advance these efforts will include continued to work to optimize the existing programmes for maximum impact, and the launch of new GSI incentives programme, RainCity.

Other supportive actions

Equitable access to blue-green spaces is central to Seattle's approaches and is informed by the City's race and social equity index mapping which geographically identifies priority areas for addressing racial, environmental, and public health inequities in the City.

Over the coming years, Seattle will continue to prioritize investment in these areas while also working to develop and implement strategies for preventing green gentrification.

Example of financial resources available to deliver the commitment

Parks District Funding, possibly REET funding, General Fund, Drainage and Wastewater utility funding.



SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Toronto Biodiversity Strategy

Progress will be made towards 23 actions that enhance biodiversity and increase awareness of nature in Toronto under the themes of protect, restore, design and engage. Progress will be reported annually on the Biodiversity Strategy website.

Pollinator Protection Strategy

The Strategy identifies a set of guiding principles, six priorities and 30 actions that the City and community can take to protect our diverse native pollinator community. A total of 33 projects will receive funding to undertake pollinator stewardship activities in their community in 2021 through PollinateTO Community Grants, including 31 Neighbourhood Improvement Areas

Ravine Strategy

Progress will be made on the 20 short, medium and long term actions identified in Toronto's Ravine Strategy that guides the management, use, enhancement and protection of 11,000 ha of ravine protected lands.

Toronto Green Standard

Toronto will update the Toronto Green Standard (TGS) to enhance performance measures for new development that benefit the environment and nature including reducing greenhouse gas emissions, reducing bird

Toronto is certified as a Bird Friendly City under Nature Canada's Bird Friendly City Certification Programme. The certification criteria are public.

Involvement of Vulnerable and Marginalized Communities in Nature Targets As part of implementation of the Ravine Strategy, Toronto is working with Park People to ensure communities experience, celebrate and champion our one-of-a-kind ravine system. InTO the Ravines will provide:

- Innovative public programming that shines a light on the ravines
- Micro-grants to spur events and activities about our ravines
- Training to establish InTO the Ravines Community
 Champions

With a focus on individuals and communities that have not visited these natural areas previously, including underserved communities, Neighbourhood Improvement Areas, and racialized and BIPOC communities.

As part of developing Toronto's Green Streets programme, the City of Toronto has partnered with two local Employment Social Enterprises, RAINscapeTO and Building Up, to hire and train individuals from local Neighbourhood Improvement Areas or those experiencing barriers to employment for the maintenance of bio-swales, pollinator gardens and other green spaces that are critical to increase the neighbourhoods' climate resilience and biodiversity. Over two dozen sites have been identified for maintenance as part of this pilot. Many are located in neighbourhoods, which are identified as Neighbourhood Improvement Areas and subject to flooding events.

Also, Toronto is a partner City in the Biophilic City network and will report annually on five self-identified indicators to assess and evaluate Toronto's biophilic progress over time. The Toronto Resilience Strategy includes an action to reduce the urban heat island through the installation of green infrastructure. This action is supported by Official Plan policies that promote green infrastructure as part of designing the public realm, new mixed use development and institutional areas. In addition, the Toronto Green Standard addresses Tree Canopy, landscapes and Biodiversity, Climate Positive landscapes for new development.

Toronto uses nature "to help mitigate the effects of heat on human health due to heat waves or local heat island effects". The city is setting targets for tree canopy cover at the neighbourhood scale to address tree canopy inequity, which includes access to the benefits trees provide, including carbon sequestration and shade provision.

The Policy for the Provision of Shade at Parks, Forestry and Recreation Sites from February 2007 may be relevant. The policy statement, in part, speaks to the provision of shade providing co-benefits of reducing greenhouse gas and air pollutant emission, mitigating urban heat island effect and reducing energy costs through energy savings. The policy objectives are to increase opportunities for UVR protection at PFR sites and facilities. No specific targets are mentioned. https://www.toronto.ca/legdocs/mmis/2008/pe/bgrd/ backgroundfile-10540.pdf

Related to the above is the Shade Guidelines Summary which talks about natural shade and tree canopy density as it relates to UVR protection: <u>https://www.tcdsb.org/FORSTUDENTS/</u> <u>HealthandSafety/hotweather/Appendix-D-City-of-</u> <u>Toronto-Shade-Guidelines.pdf</u>

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The Parkland Strategy

Parkland supply and distribution was assessed in consultation with stakeholders. Gaps were identified in park supply, size, and function. The 20-year plan will guide long-term planning for new parks and expansion and improved access to existing parks.

Ravine Strategy - Priority Investment Areas (PIA)

Priority investment areas have been identified as part of the implementation plan of the Ravine Strategy. These areas are the highest priority across 105 ravine segments because they have combined ecological health and sensitivity, planned capital work, anticipated population growth in adjacent neighbourhoods, and access to other green spaces for nearby neighbourhoods, as well as other equity factors.

The first ten PIAs were assessed to determine the need for investment in three main categories: enhancing access; creating new boardwalks, lookouts and seating areas, improving trails and formalizing access points; protecting and restoring ecological features; creating wetlands, managing invasive species, and restoring forests; increasing resilience: stabilizing river banks from erosion. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Ravine Strategy

Multiple City divisions, TRCA, other partner organizations, along with other levels of government are working together to address the challenges facing Toronto's ravines including park enhancements; storm damage repair and reconstruction of ravine parks; multi-use trail, cycling, pedestrian and public realm improvements; bridge state-of-good-repair work; watercourse erosion mitigation projects and channel stabilization to protect water mains and sewers and other assets.

Green Streets Governance Model & Asset Management

An interdivisional governance model has been established and will oversee the implementation of Right-of-Way Green Infrastructure: The Green Streets Steering Committee provides strategic high level oversight from 5 key divisions (Toronto Water, Parks, Forestry & Recreation, Engineering and Construction Services, City Planning and is chaired by Transportation Services) to the staff level Green Streets Working Group. Similarly, Green Street's assets are co-owned by Transportation Services, Toronto Water, and Parks Forestry and Recreation (Urban Forestry). Asset management and maintenance of Green Streets assets are primarily performed by Transportation Services, with support from Toronto Water and Parks, Forestry, and Recreation.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Strategic Forest Management Plan (2012-2022)

The existing plan will be updated, building on six strategic goals: increase canopy cover, achieve equitable distribution, increase biodiversity, increase awareness, promote stewardship, and improve monitoring.

Tree Canopy Study

Prepare for the third city-wide urban forest assessment due in 2028. Previous Tree Canopy Studies provided a snapshot of current urban forest conditions, provided information about broad changes and trends in the urban forest over time, and included information about the extent, size, class, and composition of the urban forest. The Study includes information on the amount and dollar value of several key ecosystem services provided by the urban forest.

TRCA Climate Vulnerability Assessment

Use data layers, developed by the Toronto and Region Conservation Authority for terrestrial ecosystem climate change assessments, to help identify key areas where enhancements can be made to existing natural heritage systems or where specific management actions are needed to build long-term resilience of the natural heritage system to a future climate.

Vegetation Sampling Protocol

In collaboration with the University of Toronto, continue to monitor 314 permanent ecological monitoring plots within Toronto's ravines and naturalized areas. Initial results of this project are being used to help define baseline ecological conditions and derive indicators of ecological integrity. Longer term monitoring will enable evaluation of ecosystem changes over time and will contribute to a more detailed assessment of ecological goods and services provided, including carbon sink analysis.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

Toronto is developing a Master Plan for the Toronto Island Park that includes Indigenous participation to develop an Indigenous approach to design based on land stewardship centred around recognizing the rights of landscape as a living being first and considering our responsibilities to a place now and into the future. The Master Plan is scheduled to be completed by mid 2022.

Through the Ravine Strategy, Toronto has established two new student internship programmes. The Ravine Youth Team, offered in partnership with the TRCA, provides paid summer employment, along with opportunities to develop job-related and professional skills and learn about career opportunities in ravines. Toronto is leveraging existing programmes and networks to promote the opportunities to youth in Neighbourhood Improvement Areas and equityseeking groups. In 2021, Toronto will also pilot a new partnership with local non-profit LEAF to offer a free ravine-focussed mentorship and training programme that will provide 20 youth with tangible skills, the chance to build connections in their communities, mentorship from LEAF staff, as well as guest lectures and networking opportunities with ravine leaders and experts through virtual training sessions, and through outdoor, hands-on ravine engagement (COVID-19 regulations permitting). This programme will seek to support Toronto youth from underrepresented groups within arboriculture and urban forestry, including but not limited to women, non-binary people, Indigenous peoples, newcomers, LGBTQ+ people and racialized individuals and will prioritize the selection of youth from Neighborhood Improvement Areas.

Continue with PollinateTO Community Grants to provide funding for pollinator gardens located in Toronto.

Continue with Urban Forest Grants and Incentives - Fourteen projects received funding in support of tree planting and stewardship on private land in 2020. Over 13,000 trees and shrubs will be planted through these projects. They will engage and educate communities through planting events, educational workshops, citizen science, and youth programming. New projects will be selected for funding in 2022.

Other supportive actions

- Live Green Toronto engages residents and businesses in greening our city and protecting our environment
- The Green Line is a proposed new linear park system in an active hydro-electric corridor that will connect neighbourhoods and expand the broader open space network in midtown and west Toronto.
- The Meadoway Toronto and Region Conservation Authority (TRCA) and the Toronto and Region

Conservation Foundation in partnership with the City of Toronto and Hydro One are working to transform a hydro corridor in Scarborough into a 16-kilometre stretch of urban greenspace and meadowlands that will become one of Canada's largest linear urban parks. The park will provide an east west green space connection between the Don Valley east branch and the Rouge Valley which is home to Canada's first National Urban Park.

- Working jointly with other levels of government; accessing infrastructure funds
- Don Mouth Naturalization and Port Lands Flood
 Protection Project
- Evergreen Loop Trail working with TRCA and nonprofit organizations
- Guidelines for 'Greening' Surface Parking Lots provide specific strategies and measures which developers, designers and reviewers of surface parking lots can apply to help environmental targets.
- Development of Standard Drawings, Construction Specifications and Guidelines for the Implementation of Green Infrastructure in the Right-of-Way (ROW)

Example of financial resources available to deliver the commitment

Ravine Strategy

In 2021, the City will invest approximately \$82.5 million towards implementing Toronto's Ravine Strategy across a variety of City divisions including Park Forestry and Recreation, Transportation Services and Toronto Water as well as the Toronto and Region Conservation Authority. This estimated investment will be used to support establishment of Ravine unit for implementation of the Strategy, new and realigned Operating funding to support ravine litter picking, additional invasive species management, and new engagement and student internship programmes. Direction to seek funding of other levels of government and establish a Ravine campaign to generate additional funds.

Additional Resources

www.toronto.ca/explore-enjoy/parks-gardens-beaches/ravinesnatural-parklands/biodiversity-in-the-city/

https://www.toronto.ca/services-payments/water-environment/ environmentally-friendly-city-initiatives/reports-plans-policiesresearch/draft-pollinator-strategy/

https://www.toronto.ca/services-payments/water-environment/ environmental-grants-incentives/pollinateto-community-grants/

https://www.toronto.ca/city-government/data-research-maps/ neighbourhoods-communities/nia-profiles/

https://www.toronto.ca/wp-content/uploads/2017/10/9183-TorontoRavineStrategy.pdf

https://www.toronto.ca/city-government/planningdevelopment/official-plan-guidelines/toronto-green-standard/ toronto-green-standard-version-3/mid-to-high-rise-residentialall-non-residential-version-3/

https://naturecanada.ca/bfc/#aboutprogram

https://parkpeople.ca/opportunity/into-the-ravines/

https://parkpeople.ca/opportunity/into-the-ravines-grants/

parkpeople.ca/meet-our-2021-into-the-ravines-community-champions/

https://www.toronto.ca/services-payments/streets-parkingtransportation/enhancing-our-streets-and-public-realm/greenstreets/

https://www.buildingup.ca/

https://www.tcdsb.org/FORSTUDENTS/HealthandSafety/ hotweather/Appendix-D-City-of-Toronto-Shade-Guidelines.pdf

https://www.toronto.ca/legdocs/mmis/2008/pe/bgrd/ backgroundfile-10540.pdf

https://www.toronto.ca/city-government/accountabilityoperations-customer-service/long-term-vision-plans-andstrategies/parkland-strategy/

https://www.toronto.ca/city-government/accountabilityoperations-customer-service/long-term-vision-plans-andstrategies/strategic-forest-management-plan/

https://www.toronto.ca/legdocs/mmis/2020/ie/bgrd/ backgroundfile-141367.pdf

https://www.toronto.ca/city-government/planningdevelopment/construction-new-facilities/parks-facility-plansstrategies/toronto-island-park-master-plan/

https://www.toronto.ca/services-payments/water-environment/ environmental-grants-incentives/pollinateto-community-grants/

https://www.toronto.ca/business-economy/partnershipssponsorships-donations/partner-2/parks-environment/urbanforestry-grants-and-incentives/

https://www.toronto.ca/business-economy/partnershipssponsorships-donations/partner-2/parks-environment/livegreen/

https://themeadoway.ca/

https://trca.ca/conservation/green-infrastructure/don-mouthnaturalization-port-lands-flood-protection-project/

https://www.evergreen.ca/blog/entry/loop-trail-connecting-and-protecting-torontos-ravines/

https://www.toronto.ca/city-government/planningdevelopment/official-plan-guidelines/design-guidelines/ greening-surface-parking-lots/

https://www.toronto.ca/city-government/planningdevelopment/construction-new-facilities/parksfacility-plans-strategies/green-line-implementationplan/#:-:text=Approximately%20five%20kilometres%20in%20 length,in%20midtown%20and%20west%20Toronto.



Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

- Develop more public parks & community parks
- Start an inventory of existing green spaces and their actual current size in square meters
- Survey easements, open spaces and other potential green spaces
- Conduct community-based monitoring system
- Develop and implement an information, education and communication campaign and prioritize the relocation of informal settlers in danger zones for possible conversion to green spaces

With regard to green jobs, the city would open opportunities for green jobs through its Strategy 5, given the various actions and initiatives, both for unskilled and skilled, such as construction workers, farmers, forest management and park workers, architects, project engineers, technical consulting, geological services, environmental engineers, those engaged with surveying and mapping, conservation scientists and other related professions. Significantly accelerate action to address governance parriers to implementation, and mobilize access to nvestments and resources that support the Accelerator targets; this includes sharing approaches and learnings n recognising funding and governance mechanisms for delivering urban nature solutions.

- Form a Technical Working Group (TWG) under the Environment Policy Management Council to monitor key indicators and milestones to ensure compliance with the Urban Nature Accelerator Commitment
- Ensure inclusive and multi-stakeholder participation in terms of planning and project implementation

With regard to the Technical Working Groups (TWGs) to be developed for the C40 Urban Nature Accelerator, Quezon City also has an Environment Policy Management Council (EPMC) created through an Executive Order to streamline policies and strategies on climate change and sustainability related programmes as well as projects and activities that require interdepartmental collaboration. The city has similar TWGs under the EPMC to ensure compliance to technical assistance and international commitments and declaration. A TWG for this initiative will be created through an EPMC Resolution composed of relevant Departments/Offices.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

 Conduct a gap analysis workshop with all relevant stakeholders (City Government, National Government, Private Sector, Academe, etc.). For the most vulnerable groups, as part of the City's flood and drainage management, the City is also pursuing the improvement of the state of the City's waterways and prioritize the relocation of those living in these danger zones in in-city housing units. The city also plans to create linear parks and breathing spaces for its citizens. Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

- Conduct a Green Space Inventory and establish a Green Space GIS map/database in collaboration with various Departments and National Government Agencies
- Formulate a Comprehensive Greening Masterplan
 and Green Network Plan
- Formulate an Urban Biodiversity Strategic Action
 Plan

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

- Facilitate the finalization of the Green Building Code Amendment and enact ordinances on green corridors and inter-connectivity of green spaces
- Formulate a Comprehensive Greening Masterplan
 and Green Network Plan
- Formulate an Urban Biodiversity Strategic Action
 Plan
- Formulate design standards for parks and green spaces



Other supportive actions

- Formulate a Comprehensive Greening Masterplan and Green Network Plan
- Strategy 5 Promotion of Nature-Based Solutions to Reduce Heat and Drought Pressures. This is an integral strategy on climate change adaptation as the Enhanced LCCAP performed a qualitative assessment of the climate impacts experienced by the City in the following areas: (i) natural (ecological and environmental stability, water sufficiency), (ii) social (human security, knowledge and capacity development), and (iii) economic (sustainable energy, infrastructure, and transport, food, and industries and services). These are based on the key climate risks identified in Quezon City (i.e., heat, cyclones and floods, and drought) and the impacts on three overarching sectors (social, natural, and economic).

Example of financial resources available to deliver the commitment

City general funds and possible financial assistance from donors.

SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

- The Greening Sydney Strategy (draft) includes our nature goals and targets. This document has just finished the community consultation process and is due for Council adoption in July 2021.
- A review and update of our Urban Forest Strategy is due by mid-2022 and our Urban Ecology Strategic Action Plan is also due for review within the next two years. During this process the City will work to develop the process for involving vulnerable and marginalized communities in the design and implementation of the targets.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The City has completed comprehensive mapping and analysis of greening and tree canopy cover, including where greening is needed to deliver our strategic outcomes. The City also has a comprehensive asset management plan for existing green spaces that require capital work upgrades. The City measures and updates its overall canopy and greening every two years. Our individual tree asset / parks data is updated daily when inspections or work is undertaken to give ongoing insight of management or operational issues, and to respond to local needs. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

The implementation of the Greening Sydney Strategy will assist the City to address governance barriers. This includes;

- Portfolio targets new targets for greening in parks, streets and private property will encourage and hold the various departments across Council who manage / oversee or impact greening on that land category accountable.
- Developing a new Greening Sydney Fund where developers pay the City a compensation fee to remove trees (as a last resort) and this fund will provide monetary assistance to private property owners to green their property.
- Developing a Green Factor Score to assist developers to provide sufficient quality and quantity of greening during the development / planning process.
- The City is also updating its planning controls to make the canopy cover targets easier to understand and implement. This has been drafted, and is ready for Council approval in late 2021, and implementation by late 2022 (subject to state government approval).

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

- The City has a complete and extensive inventory on our trees and urban forest canopy cover. A baseline inventory on our parks and open space assets is being finalised. Baseline data on natural vegetation is available as part of the city's urban ecology programme (noting the City of Sydney local government area has little natural vegetation / bushland.)
- The City values these natural assets as part of its asset management programme for managing and allocating funding for the maintenance and renewal of these assets.
- The City will investigate a natural capital accounting methodology as part of the Urban Forest Strategy and Urban Ecology Strategic Action Plan to assist in raising awareness of the value of nature in the City.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

As outlined above, the City is:

- Developing a new Greening Sydney Fund where developers pay the City a compensation fee to remove trees (as a last resort) and this fund will provide monetary assistance to private property owners to green their property.
- Developing a Green Factor Score to assist developers to provide sufficient quality and quantity of greening during the development / planning process.
- Updating its planning controls to make the canopy cover targets easier to understand and implement. This has been drafted, and is ready for Council approval in late 2021, and implementation by late 2022 (subject to state government approval)

Other supportive actions

The City's Greening Sydney Strategy has an overall vision to increase greening to create a cool, calm and resilient city. The Strategy outlines six directions, and 20 supporting actions.

- Direction 1 Turn grey to green
- Direction 2 Greening for all
- Direction 3 Cool and calm spaces
- Direction 4 Greener buildings
- Direction 5 Nature in the city
- Direction 6 Greening together

The City of Sydney will prioritise greening initiatives to address any inequities, to provide the greatest benefit, and to assist our most vulnerable communities. The Strategy outlines the benefits, opportunities and obstacles to greening in the city and how the city plans to implement and provide a cool, calm, beautiful and resilient place to live, work and visit.

Example of financial resources available to deliver the commitment

The City has costed the delivery of the Greening Sydney Strategy, and has allocated sufficient resources to its implementation. This includes an increase in budget of about \$3M per annum.

Additional Resources

https://www.cityofsydney.nsw.gov.au/strategiesaction-plans/greening-sydney-strategy

https://storymaps.arcgis.com/ stories/2118910623af422a87b521adb66a79f4



Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Tokyo will revise the biodiversity regional strategy and plans to develop various measures based on the strategy in the future.

The current Climate Action Plan (Zero Emission Tokyo Strategy) has a green infrastructure perspective, as it:

- Sets the goal of "not reducing the total amount of greenery in Tokyo anymore", including private green spaces.
- Operationalises a greening plan.
- Defines conservation areas of about 100 ha to be expanded by 2050.
- Promotes participation in nature activities in conservation areas.
- Defines parks' expansion:
 - 1. Metropolitan park: 130ha new opening by 2030
 - 2. Marine park: 107ha new opening by 2028

Goals related to green employment / skill acquisition programmes include:

- Certification of the Tokyo Nature Guide for promoting ecotourism in Tokyo.
- Implementing a human resources development system "ECO-TOP" programme.
- Implementing green volunteer leader training course.
- Implementing seminars to promote greening while considering ecosystem dynamics.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The city plans to protect and expand existing greenery through:

- Policies to protect existing greenery based on A comprehensive policy for securing greenery.
- Development of new parks and green spaces, including city planning park / green space maintenance policy: <u>https://www.toshiseibi.metro.</u> tokyo.lg.jp/seisaku/kaitei koen ryokuti/

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Green bond: Conservation of the natural environment (promotion of greening in waterside spaces, maintenance of parks, etc.) <u>https://www.zaimu.metro.tokyo.lg.jp/bond/tosai_ir/</u> <u>tosai_ir_gb.html</u>

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

A wildlife species (Red List), important for the protection of biodiversity in Tokyo, has been formulated, as well as an existing vegetation map for both mainland and island. This might be used as basic information to confirm whether vegetation is changing due to the changing climate.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors

businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

- Obligation:
 - Based on the "Ordinance on the Conservation and Restoration of Nature in Tokyo", when building a new building, extension or renovation, etc. on a site of a certain size or larger, a notification of a greening plan is obligatory and greening guidance is provided. https://www.kankyo.metro.tokyo.lg.jp/nature/ green/plan_system/plan_system.html
 - Based on the "Ordinance on the Conservation and Restoration of Nature in Tokyo," when developing residential land on land of a certain size or larger, the development will be regulated with the permission or consultation of the governor.
- Incentive:
 - A system to ease the floor area ratio for a good architectural plan (urban development systems, see more <u>here</u>)
 - Support for park maintenance for municipalities
 - Financial support for expenses related to ecosystem conservation for municipalities

Example of financial resources available to deliver the commitment

- Establishment of the Tokyo Fund (30 billion yen)
- Regional environmental power revitalization project in collaboration with Tokyo's municipalities (subsidized by municipalities)

Additional Resources

https://www.kankyo.metro.tokyo.lg.jp/nature/green/ plan_system/plan_system.html

https://www.toshiseibi.metro.tokyo.lg.jp/seisaku/ midori_kakuho/index.html

https://www.toshiseibi.metro.tokyo.lg.jp/seisaku/ kaitei_koen_ryokuti/

https://www.toshiseibi.metro.tokyo.lg.jp/seisaku/ midori_kakuho/pdf/houshin_202006_02.pdf_

https://www.toshiseibi.metro.tokyo.lg.jp/seisaku/ midori_kakuho/index.html

https://www.kankyo.metro.tokyo.lg.jp/nature/animals_plants/red_data_book/redlist2020.html_

http://gis.biodic.go.jp/webgis/sc-025.html?kind=vg

https://www.toshiseibi.metro.tokyo.lg.jp/cpproject/ intro/description_1.html

https://www.reiki.metro.tokyo.lg.jp/reiki/reiki_honbun/ g101RG00005097.html ADDREAD SIGNATORY SINCE 2023

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Making nature goals public:

The Greater Amman Municipality (GAM) operates through its strategic plan, which encompasses Amman's Climate Plan and the Amman Green City GCAP, to educate and engage the public on its strategic environmental goals. These goals focus on preserving resources and restoring ecosystems through various initiatives and projects planned for 2022-2026:

- An initiative to preserve historical ancient and veteran trees more than 500 years old and trees that are more than 100 years old in the city of Amman; through that awareness campaigns will be launched to raise awareness about the importance of trees.
- An initiative to rehabilitate five urban farming parks within existing neighborhood parks in Amman, with the aim to transform societal behavior from consumerism to productivity. By encouraging residents to utilize setbacks, roofs, and balconies for planting productive plants, this initiative seeks to empower communities, particularly in poor and marginalized neighborhoods, thereby enhancing community resilience and self-sufficiency.
- An initiative to use grey water from restrooms to irrigate plants in five neighborhood gardens, aligning with goals to preserve natural resources, reduce costs, and transform these gardens into sustainable spaces.

Developing skills and building capacities for green jobs:

• A large number of staff and workers in fields of planning, executing and sustaining urban open green spaces have been trained over the past

five years through ILCA project, funded by The German Agency for International Cooperation GIZ. In addition to that, GAM'S Training Centre works on building capabilities of employees through various courses related to green jobs.

- Students and graduate training programme: about 20 to 30 candidates per year apply through different Jordanian universities and the Jordanian Agricultural Engineers Association, and are being trained by GAM's staff as part of their graduation programme and their post-graduate training programme on:
 - Preserving natural resources, particularly water and energy.
 - Creating green jobs necessary for the sustainable design, construction, implementation, and maintenance of green spaces.
 - Implementing methods to protect green spaces from vandalism by securing necessary security measures, including surveillance cameras.
 - Focusing on practical designs that address water scarcity, and utilize green building materials and criteria.
 - Ensuring the needs of minorities, marginalized, and vulnerable groups, including those with special needs and refugees, are met.

Involving vulnerable and marginalised communities:

Amman is involving the local community as key strategic partners in creating, rehabilitating, and maintaining green spaces by taking their suggestions and complaints seriously, and collaborating with them to find solutions and implement ideas. GAM offers a creativity platform on its external and internal websites to receive community input and ideas. Additionally, the international competition "Students Reinvent Cities," organized by C40, which highlights successful community engagement interventions, had Amman announced as a winner in the competition's first edition.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The city has implemented strategic policies to increase green public open spaces, raising the proportion owned by GAM from 1.6% to 2.5% of the city's area. This goal involves planting approximately 7,000 donums of new green land to increase the per capita green space from 3.22 sqm in 2022 to 5 sqm by the end of 2026. The percentage of open green public spaces within Amman's built-up area is projected to grow from 5.5% in early 2022 to 8.4% by the end of 2026. Currently, gap analyses and maps are not available, but they could be included in our action plan if the necessary funding is secured.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Greater Amman Municipality (GAM) is an independent governmental institution responsible for municipal services and economic development, including Public Transport and Infrastructure, Public Facilities and Gardens, Solid Waste Management, Agriculture and Forest Management, Community Development, Planning, Master Planning and Zoning, Building Control and Licensing, among others. However, the national government remains a key stakeholder in the delivery of these municipal services. Implementation of GAM's plans requires adherence to national directives and active involvement of relevant national government departments.

Most of GAM's actions and policies are driven by and aligned with national policies and visions, necessitating continuous collaboration with the Ministry of Agriculture and the Ministry of Environment, particularly in urban agriculture.

GAM adopts a participatory approach with the local community, establishing and rehabilitating gardens and green spaces in cooperation with local entities such as banks, institutions, and associations through memorandums of understanding and agreements. Examples include:

 Signing an MOU with the National Agricultural Research Centre under the Jordanian Ministry of Agriculture to exchange experiences and knowledge as part of an initiative to preserve historical and ancient trees.

- Signing an agreement with Ahliyyah & Mutran School to rehabilitate and maintain Jabal Amman Al Mutran Garden in Zahran/Amman.
- Signing an agreement with Alkawneyah Company to rehabilitate Alhawooz Garden in Buhtori Street, Zahran district.
- Signing an MOU with Seven Hills Co. to rehabilitate and sustain Sameer Al Rifaai Garden in Abdali district.
- Signing an agreement with the Directorate of General Security to protect and maintain security in public parks and gardens.
- Signing an agreement with Capital Bank to construct Geeran Garden in Zahran district.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Some parts of this baseline natural vegetation inventory have been accomplished, including:

- Documenting all parks and gardens data and incorporating them into a Geographical Information System (GIS).
- Publishing the ILCA project manual, "Guide to Species Selection for Amman Public Open Spaces (POS)," by GIZ and GAM.

The city has plans from 2022 to 2026 to create an inventory of trees on sidewalks and medians across all districts of Amman and integrate this data into a specialized GIS layer.

Develop new inclusive governance frameworks,

practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

GCAP Public Engagement Plan:

Stakeholder input has been a crucial aspect of the GCAP process in Amman. At the start of the GCAP process, stakeholders were identified through a mapping exercise, leading to the establishment of two governance bodies and the development of a Stakeholder Engagement Plan.

Additionally, a Public Engagement Plan was created, and a series of pilot engagement activities were conducted to promote the GCAP and establish a standardized public engagement framework for future programs in Amman.

At the project's outset, GAM formed a Steering Committee of political representatives and a Technical Committee comprising GAM's departmental experts.

Beyond the Steering and Technical Committees, an extensive stakeholder identification process commenced at the project's beginning. Nearly 275 unique stakeholders were identified and included in the Stakeholder Engagement Plan. For further information, please refer to the <u>Amman Green City</u> <u>Action Plan</u>, page 30.

Other supportive actions

- Developing Al Qadeseyyah nursery and increasing production through 2022 -2026.
- A project to rehabilitate six parks within Amman through 2022-2024.
- Greening and rehabilitation Telal Alphosphat Project (located at the border between Amman & Rusaifa) through 2022 -2026. It aims to improve the environmental conditions of the area and protect the residents from the challenges and difficulties of pollution caused by throwing waste and debris of a phosphate Company. Through this project, 600 dunums will be planted in two phases.
- Building an Educational Botanical Garden in Mogabalain district to educate and raise awareness of nature and Amman's native vegetation and enhancing biodiversity (looking for funding).
- Converting a set number of parks into environmentally friendly parks by applying the principles of sustainability (looking for funding)
- Projects funded by the German Agency for International Cooperation (GIZ) that will be finished by 2025:
 - Cash for work where green spaces are rehabilitated by qualifying and providing green jobs to vulnerable groups in society.
 - Improving Living Conditions in disadvantaged Areas of Amman via the implementation of Green Infrastructure (ILCA) for the development and improvement of public open spaces, access to services, community participation, and capacity development for GAM and MoE employees; with a link to global agendas and National strategies. The project was funded by GIZ for the first five locations in east Amman.





Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Chennai plans to:

- Involve local communities in rejuvenation of lakes and waste lands into vibrant public spaces, giving them the responsibility of managing lakes/open spaces as a common resource of the neighbourhood/city.
- Create public spaces/parks/open spaces in marginalised and low income neighbourhoods.
- Conduct open space audits and prepare open space plans through participatory exercises at ward and neighborhood levels.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

As per an open spaces study conducted by Care Earth Trust in 2018, out of the 426 sq km of Greater Chennai Corporation (GCC) area, only 64.06 sq km (15 per cent) accounts for green cover, against the target of 33 per cent stipulated in National Forest Policy. The survey revealed a total of 9,041 tree species are located alongside roads and avenues of Chennai. Greening may be taken up on road sides, OSR (Open Space Reservation) lands, canals and lake sides.

As the third Master Plan for Chennai is being prepared, a number of baseline studies are being conducted. This would include mapping of green cover and audits of existing situation as well as linking them to climate risk and impact assessments in order to identify nature based solutions. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Chennai will tackle this through:

- Creation of coordination structures between city departments for better planning, implementation and management of open spaces.
- Involve local communities in the management and protection of open spaces.
- Increasing open spaces through town planning tools like Green Cess, TDR, etc.
- Mobilise funding from State Government departments like Ministry of Environment, Climate Change and Forests and State Planning Commission.
- Greening up common spaces through publicprivate partnerships can be encouraged by schemes such as 'Nammakku Name Thittam,' where the private sector contributes at least one-third of the project cost, and the remaining funding is provided by the government.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

As the 3rd Master Plan for Chennai is being prepared, a number of baseline studies are being conducted. This would include mapping of green cover and audits of existing open spaces like parks, gardens, lakes etc. An existing land use will be prepared which will document spatial extents and areas of open spaces in Chennai. The master plan will identify new open spaces to be developed in the next 20 years for the city at various scales. Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

- Promote projects that focus on the creation of parks and rejuvenation of lakes through Corporate Social Responsibility and Institutional Social Responsibility.
- Create programmes which allow citizens, RWAs, CSOs to manage and maintain natural resources likes lakes, parks etc.Incentivise these programmes through awards and recognition events.



Other supportive actions

- The Tamil Nadu State level Climate Action Plan mandates protection of lakes and tanks of the city through inclusive and participatory development frameworks.
- The 3rd Master Plan of Chennai which is in preparation stage will provide a holistic plan for creation and development of accessible open spaces for the citizens of Chennai.

Example of financial resources available to deliver the commitment

- State Government funding and grants
- State and City level green funding
- Corporate Social Responsibility and Institutional Social Responsibility
- Fines collected from polluters



Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Dhaka North aims to:

- Create some public spaces in parthernship with communities, social enterprises, etc in Dhaka North City Corporation (DNCC) area, keeping harmony with nature.
- Identify public spaces in DNCC area in close coordination with other agencies such as Public Works Department (PWD), Roads and Highways Department (RHD), Water Development Board (WDB), etc.
- Carry out public consultation and the public in planning and design processes (Kobo Tool, Minecraft tool, etc), engaging public space experts
- Explore corporate social responsibility (CSR) funds from private corporate agencies
- Prepare a public space management guideline

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

There is no study about gap analyses, but Rajdhani Unnayan Kartripakkha (RAJUK), the Capital Development Authority, has prepared an existing land use map for the city that depicts the information about built up spaces and open spaces. Furthermore, a proposal has been developed for mapping of wardlevel land use and subsequently a plan for greening the city. This analysis and mapping will be conducted by DNCC within two years and will include:

- Updated ward-level base map
- Temperature data collection and mapping
- Green space mapping
- Led lighting (energy saving)

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

To address challenges around lack of awareness, lack of resources and skilled manpower, etc, adn support implementation of projects on urban nature, DNCC will adopt the following incentives:

- Holding tax exemption to promote rooftop gardens at building level
- Exploring public private partnerships for financing of adaptation projects
- Capacity building and knowledge enhancement of various organisations involved in implementation of projects like RAJUK, Dhaka Water Supply and Sewerage Authority (WASA), Deptartment of Environment, Department of Public Works, etc.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

A baseline natural vegetation inventory is being prepared by the Green Saver project, funded by USAID. The project is ongoing but after completion will be handed over to city corporation. DNCC will monitor, manage and update the green space inventory within five years.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

Few efforts have already been initiated such as city bond and tax exemption for rooftop gardens. DNCC will undertake the following activities to incentivise urban nature solutions in the next five years:

- Engagement with the private sector and local communities to maintain and conserve playgrounds, parks, canals, etc.
- Establishment of blue network throughout the city in cooperation with related agency.



Other supportive actions

• Urban Greening and Park and Playground development in Dhaka North City Corporation

Dhaka South

SIGNATORY SINCE 2022

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

Dhaka South City Corporation (DSCC) is currently preparing an "Integrated City Master Plan for Dhaka (2020-2050)" that will include a city-level strategy and targets for the development of green and blue areas in the city. The master planning exercise is expected to be completed by end of 2022. Along with several objectives, the ongoing master plan includes ward level master plan on significant components likeward (smallest and core entity of DSCC) level solid waste management plan, drainage, disaster, land use, transportation plan etc. for accelerating better service provision.

DSCC has developed and reconstructed 26 parks and 12 playgrounds from 2018-2022 (source-DSCC PND department). DSCC is targeting to develop at least one park or playground in each ward (total of 75 wards) as announced by the Honourable Mayor in 2020-2021.

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The Integrated City Master Plan (2020-2050) would include a mapping of existing land use in the city including green cover & open spaces and identify gap areas for future greening. Right now, riverbanks (like Buriganga, and Balu River belt) are being considered for greening. DSCC has also initiated a Canal Restoration project to develop four out of the 11 canals in its jurisdiction. These initiatives would comply with urban green and water logging safety initiatives jointly. Apart from greening, sidewalks will be developed alongside the canals for ensuring accessibility for pedestrians. With the application of the "placemaking" concept, beautification including street furniture, and small coffee shops would be included as well. Besides, several parks are being renovated to improve open spaces' coverage and quality. As part of both these projects, open spaces and green belts are being identified for restoration, development and upgrading by 2024. These restoration and development activities are being implemented through the Planning and Design Department (PND), Environment, Climate and Disaster Management wing of DSCC.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

Several initiatives are already underway to address the challenges posed by the lack of technical and financial capacities required for implementing urban projects. The Dhaka South City Corporation (DSCC) has established a specialized group called the "Environment, Climate, and Disaster Management Circle" to spearhead these efforts. Key activities include:

- Capacity Building of DSCC Staff: As part of the Urban Resilience Project, which aims to enhance urban resilience against natural and man-made disasters, several training programs are being organized to build the capacity of DSCC officials.
- Development of Database and Mapping: This is being pursued under the Urban Resilience Project and the Integrated City Master Plan for Dhaka (2020-2050) to improve data management and urban planning.
- Involvement of the Private Sector: Engaging private sector stakeholders to contribute resources and expertise to urban projects.
- Tax Exemptions
- Alignment with National Programmes to secure financial support.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The following table consists of the data from the Detailed Area Plan (2022-2035) for Dhaka and the ongoing Integrated City Master Plan for Dhaka (2020-2050). The table highlights the available existing information of vegetation and water body coverage in DSCC area. Please note that this information would be updated finally after the completion of ongoing master plan.

Туре	Area (Acre)	%
Canal	384.56	27.30
Lake	57.91	4.11
Park	195.19	13.86
Playground	63.06	4.48
Pond	375.46	26.65
River	322.78	22.91
Stadium	9.72	0.69
Total	1408.67	100.00

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

A few initiatives are being carried out through the ongoing master plan such as participation of communities and coordination with relevant government departments at city/national levels. Detailed information would be shared after the completion of the master plan.

Other supportive actions

The ongoing Integrated City Master Plan for Dhaka (2020-2050) would guide the possible course of actions and locations for green areas, open space development which could be accessible to all citizens. DSCC's ongoing projects on urban greening and canal restoration are specifically focusing on improved access to green areas, especially for children and the youth (e.g. Rosulpur playground)

Example of financial resources available to deliver the commitment

DSCC's ongoing projects are financed through DSCC's own resources besides funding and grants from the national government through the Ministry of Public Works. Regular maintenance activities are usually conducted through the regular revenue generation of DSCC. Apart from that, several projects like the Dhaka City Neighbourhood Upgrading Project are being funded by the World Bank. DSCC is open to international collaborations for a few upcoming projects.



Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

The Karachi Metropolitan Corporation (KMC) aims to develop Karachi's Nature Restoration Plan (KNRP) to fulfil the pledged declaration targets of C40 Urban Nature Accelerator, which has been committed by the Municipal Commissioner of KMC and Mayor of Karachi. The KNRP will be comprising with short- and long-term goals to make the city greener, natural and climate resilient. The document would enable the KMC to chalk out a plan and move towards the ultimate goal of prosperity and development. Superficial details of the actions are given below:

- KMC will build a partnership with the different institutions in order to launch various skill building programmes addressing the climate change, at the onset, following are the target institutes;
 - University of Karachi
 - SZABIST
 - Sindh Technical Education & Vocational Training Authority (STEVTA)
 - Hunar Foundation
 - AmanTech

KMC will liaise with these institutes and record the number of individuals trained for the green jobs' applications.

- KMC will develop a process to involve vulnerable and marginalized communities in design and implementation and monitoring of KMC's schemes or projects.
- The KMC's Ecological Restoration Programme will be launched, which will create jobs opportunities and will enhance community resilience against climate change, the programme will be focusing on:
 - Rehabilitation and enhancement of green spaces
 - Cleansing of city's streams
 - Improvement and establishment of heatstroke/emergency centres

Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

The KMC will establish a liaison with the Forest Department of Government of Sindh and IUCN to conduct a detailed gap analysis and to propose an implementation strategy for this goal. The report will enable KMC to identify the identified the opportunities for the green urban spaces, plantation locations for the Miyawaki Forests, appropriate indigenous species, plantation time and maintenance requirements. In the first target, at least 50,000 plants will be planted in the FY 2021-22, and 100,000 in the FY 2022-23.

Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

KMC is currently assembling a preparatory programme for dealing with climate impacts. Therefore, the priority of KMC's Project Implementation Unit (PIU) will be addressing the key barriers causing hindrances in maintaining open green areas, urban plantation and the overall implementation of KNRP. The PIU-KMC will continue to prepare reports to the higher management giving a status and gap analysis for the KNRP and present possibilities for new green initiatives. The analysis presented by the PIU will be included in the annual city budget. The KMC wants to promote urban environmental and climate issues at the head of its priorities. Therefore, in accordance with existing measures and priorities, budgets will be allocated to realize the mayor's vision in environmental aspects.

Moreover, in order to remove financial barriers and obtain financial assistance for new projects, Karachi intends to build a network with the Sindh Environmental Protection Agency, Industrial and Trade associations. Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

The KMC will undertake a comprehensive inventory of natural trees and vegetation in collaboration with the Forest Department. This process will be conducted by end of the FY 2022-23 and engaging the expert firm in the field. The inventory will help to the management of Karachi to protect and conserve the indigenous and endangered urban species of Karachi as well as to enhance the greenery within the city. The findings of the baseline will be integrated into the urban planning processes in order to avail the opportunities for managing the urban nature. To conduct this study financial assistance will be required for which different donor agencies will be approached.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

In line with the development of a comprehensive inventory of natural trees and vegetation, there will be citizen involvement including the private sector, e.g., the industries, trade and industrial associations, NGOs, academia and others. The KMC would provide the possibility for collaboration to all stakeholders who initiate local initiatives to increase green spaces, biodiversity and encourage to create more and better urban nature.

Moreover, in order to develop new inclusive governance system, the KMC is intends to perform following:

- Formulate sustainable construction policy and guidelines; design standards for parks and green spaces; and health & safety guidelines for municipality workers.
- Launch Green Streets, Zero Emissions Streets, Connecting Children to Nature (CCCN), multiple programmes by the Parks & Recreation Department.
- Promoting native landscapes, habitat and trees, and preventing the spread of invasive species.

Other supportive actions

Karachi intends to develop future green spaces in a more inclusive and equitable manner. This includes:

- Ramps for differently able people.
- Segregated washroom facilities.
- Drinking water fountains.
- Strongly promoting local community ownership of green spaces.

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SIGNATORY SINCE 2021

Make our nature goals public, develop support and skills building programmes for green jobs, and develop a process for involving vulnerable and marginalized communities in design and implementation and monitoring of our nature targets.

A ten-member Climate Task Force has been appointed to monitor and evaluate the targets set by the Mumbai Climate Action Plan. This plan includes mitigation targets focused on conserving existing green spaces and increasing the urban forest percentage. Additionally, it outlines efforts to reduce flooding in the city. The proposal also includes the appointment of Climate Fellows to develop actionable programmes within the city. Significantly accelerate action to address governance barriers to implementation, and mobilize access to investments and resources that support the Accelerator targets; this includes sharing approaches and learnings in recognising funding and governance mechanisms for delivering urban nature solutions.

All the stakeholder state departments of Government of Maharashtra are working with the Municipal Corporation of Greater Mumbai to address governance barriers by aligning their climate goals and resource sharing.

Complete a baseline natural vegetation inventory and undertake natural capital accounting to raise awareness of the associated value of urban nature with particular emphasis on climate hazard risk reduction.

Mumbai's partnership with Cities4Forests aims to protect, conserve, and promote nature-based solutions. An inventory and baseline data of trees and mangroves across the entire city will be conducted to create a comprehensive GHG inventory, recommend policy interventions, and develop a framework to increase per capita urban green cover. Additionally, heat analysis and identification of hotspots will be carried out using this nature inventory, offering valuable insights for adaptation strategies.

Develop new inclusive governance frameworks, practices and programmes (1) to mandate or incentivize both the private sector (residents, businesses and institutions) and link cross sectors within public services; to increase and enhance natural solutions in our urban form, buildings and infrastructure design that provide direct human, ecosystem and climate services towards achieving the 2030 target.

The State Department of Environment and Climate Change has introduced the 'Tree Act,' emphasizing the conservation of old trees and enforcing strict regulations on tree felling in urban areas. To protect mangroves, all mangroves on government land have been designated as 'Reserved Forest,' granting them higher protection status. Additionally, My Earth Mission collaborates with various stakeholders, including civic bodies, to ensure the implementation of diverse climate solutions.

Other supportive actions

Urban Forest Thickets in Low Income Neighbourhoods is currently on its planning stage under the Cities4Forest initiative.



Conduct a gap analysis and mapping of where new greening is needed and opportunities for existing green spaces to be upgraded to respond to local needs.

Mumbai has partnered with Cities4Forest with WRI as their knowledge partner agency with whom an analysis will be conducted to form an actionable policy framework & target the enhancement of urban green areas in Mumbai. This will also be addressed in the Climate Change Risk Assessment developed as part of the city's Climate Action Plan.

Example of financial resources available to deliver the commitment

The Brihanmumbai Municipal Corporation (BMC) has a dedicated Tree Authority focused on tree plantations. For the 2019-2020 fiscal year, the department's budget is estimated at approximately \$13.5 million. Additionally, state and national funds will be allocated and communicated in due course.

