



Washington, DC – a living lab for sustainability and innovation

A summary of presentations about DC

Washington, DC
January 14-17, 2020



Global
Platform for
Sustainable
Cities

Resource
Team

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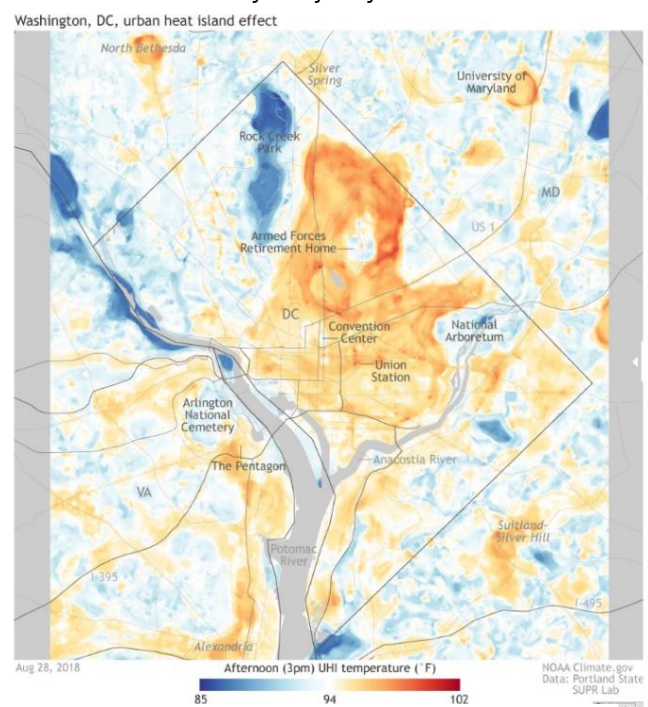
Context

Washington, DC is a compact city, encompassing just under 70 square miles and nearly 700,000 residents. It is home to all three branches of the United States government, 170+ embassies of foreign nations, and global headquarters for major international institutions including the World Bank and the International Monetary Fund.

With its many majestic historical neoclassical monuments and buildings, built during the City Beautiful Movement from the late 18th century; 19 world-class [Smithsonian Museums](#), gardens, galleries and zoo; rich history, unique culture, musical legacy and burgeoning culinary scene, Washington, DC, also known as the D.C., attracts tens of millions of tourists a year.

In recent years, the District has witnessed a major shift in its real estate market, moving from low to high-value real estate and towards focused in-fill development and revitalization efforts. The city has also seen a rise in income; DC has the fourth highest median income among the country's 50 largest cities. This growth has triggered both positive and negative impacts.

In the wake of an urban regeneration that has transformed the physical form as well as the city's population, through gentrification and displacement of the formerly majority African American population, the city is taking strides to confront and counteract negative externalities while adapting to climate change and bolstering the city's resilience. These concerns are being mainstreamed into sustainability initiatives that foster targeted public engagement efforts in the planning process; housing reform that maintains and increases the number of affordable and energy efficient housing units in all neighborhoods; a massive pipeline of residential development projects that allow low-income families to stay in DC while bringing back those that have been displaced; new plans and policies that prioritize and honor cultural heritage, diversity, and social inclusion; leading building efficiency policy and plans to meet ambitious emission targets that protect vulnerable communities. All of these reforms and initiatives have been anchored within a comprehensive and inclusive sustainability plan.



Source: [NOAA](#)

Agencies across the District are acknowledging the threat of climate change. The District Department of Energy and Environment (DOEE) recognizes the city will continue to see

increasingly “warmer average temperatures; up to two to three times as many dangerously hot days; longer, hotter, and more frequent heat waves; more frequent and intense heavy rain events; and higher tides as a result of rising sea level.” In response to the climate crisis, the District has affirmed its commitment to the Paris agreement, and currently is on course to meet its ambitious target of (1) reducing greenhouse gas emissions 50% by 2032 – at present down 29% from the 2006 baseline – and (2) to become carbon neutral by 2050.

Commitments and innovations, such as these, have transformed the city into a living lab of sustainable policies and innovative technologies that seek to advance social, economic and environmental priorities and that carry global relevance.

In order to learn from the myriad initiatives that Washington, DC is pushing forward, the city and the World Resources Institute hosted a delegation of six SC-IAP cities: Asuncion, Brasilia, Hue, Johannesburg, Lima, and Recife to learn about some of the groundbreaking work taking place across DC as it strives to become more sustainable. Participants had an opportunity to share experiences from their own city and learn from peer cities.

Learning objectives

- Discover the innovative approaches DC has taken to increase sustainability across the city
- Learn how DC has used integrated, urban planning to promote sustainability
- Share experiences and lessons learned from SC-IAP cities
- Contextualize and apply learning to participant’s respective city

The peer exchange brought 7 city participants and 2 implementing agency participants from six GPSC cities: Hue, Vietnam (2), Johannesburg, South Africa (1), Lima, Peru (1), Recife, Brazil, (1), Brasilia, Brazil (1), and Asuncion, Paraguay (3). The program of the peer exchange is in Annex 1 and biographies of participants and speakers follows in Annex 2.

The following sections detail the content of each session in chronological order. Full presentations are also provided through links.

Sustainability and Urban Planning in the District and Abroad

Opening

Ani Dasgupta, WRI

Ani Dasgupta, Global Director of WRI Ross Center for Sustainable Cities, set the scene for the peer exchange by sharing WRI’s vision for successful cities. In order for cities to be successful, cities must be economically productive while decoupling resource consumption and carbon emissions and promoting quality of life for all. The IPCC report notes that in order to limit global temperature rise to just 1.5 degrees Celsius, every city must reach carbon neutrality by 2050. This

task is insurmountable if cities are not managed differently and people do not consume and interact in a different way. Cities will play an important role in greening energy, because cities cannot decarbonize unless energy is decarbonized. Important sectors to decarbonize include buildings, transport, materials and waste. WRI tackles this by focusing on congestion, sprawl, and energy inefficiency and works cross-sectorally to ensure seamless, clean and safe transit and mobility options for all and livable neighborhoods and complete streets.

Washington, DC

Stephen Gyor, DC Office of Planning

Stephen Gyor, Senior Sustainability Planner at DC Office of Planning, outlined the challenges the District faces as its population, currently 572,000, is projected to rise to one million residents by 2045. Rapid population growth will impact the city's education system, social services and natural environment. Housing and social inequality are two areas in which the District is focusing their resources. However, urban planning restrictions such as single-home zoning and building height restriction have made accommodating population growth challenging.

The city's 20-year comprehensive plan outlines the vision of how the District will work to improve housing supply, respond to climate change, and reduce inequality. The process to draft the comprehensive plan was iterative and inclusive. The city hosted community meetings about the plan and allowed residents to write public amendments to shape it—the city received over 3,000 public amendments. The comprehensive plan influences other District plans including [Sustainable DC](#), [Clean Energy DC](#), and [Climate Ready DC](#). While priorities do not always align, the city is working to increase alignment by creating liaisons within each department to coordinate with other departments, for example there is a transportation planner in the DC Office of Planning that liaises with the District Department of Transportation (DDOT).

Dan Guilbeault, District Department of Energy & Environment

The [Sustainable DC 2.0 plan](#), presented by Dan Guilbeault, focuses on equity, economy and environment. Through its sustainability plan, the city aims to make the District the healthiest, most livable, green city for all. Similar to the District's comprehensive plan, community engagement was elemental in drafting the plan. The second version focused on intentional inclusion of people of color to ensure their voices were both heard in the process and their priorities reflected in the final draft. The process of drafting the Sustainable Plan was iterative, where the DOEE would draft, incorporate comments and then re-draft the plan. Important lessons emerged through the process: (i) community engagement is important strategically and to promote equity—DOEE worked with trusted community organizations to extend communications to a broader subset of residents and build relationships in communities; (ii) sustainability should be broadly defined to include jobs and affordable housing; (iii) transparency is essential; (iv) using data and analysis to

monitor the plan is necessary to inform an evidence-based plan; (v) sustainability plan should be ambitious but implementable.

Brasilia, Brazil

Letícia Carvalho, Secretariat of the Environment of the Federal District

Brasilia, like Washington, DC, is a federal district of Brazil. They have instituted long-term strategic planning for 2019-2060. However, the original plan for the city failed to anticipate the degree population growth the city has experienced. In the 1950's planners projected population growth to equal 500,000 by 2000 but Brasilia's population is now close to 3 million and has become the 3rd largest city in Brazil. Brasilia's population growth encroached on green spaces through the establishment of informal settlements and threatened solid waste management. Currently, Brasilia is working to improve their participatory methods for community engagement in producing the strategic plan since the strategic plan provides guidelines for the city's budget. Brasilia's city officials work to promote transparency, fight corruption, and create inclusive processes for effective planning.

Hue, Vietnam

Phan Thien Dinh, People's Committee of Hue

Hue, the center of the Buddhist community in Vietnam, is situated on Huong River with 128 kilometers of coastline. Tourism in Hue has thrived due to the city's natural landscape. Currently, the city is addressing challenges related to population growth, development and transportation and balancing growth with cultural preservation and environmental protection. Since Hue is situated on a river and near the coastline, disaster resilience and adapting to rising sea level is prudent. Ecological and environmental protection has been a primary focus of urban planning efforts in Hue including managing riverbanks, developing eco-villages, increasing urban tree cover, instituting monitoring stations to monitor and improve water quality, and planning natural infrastructure such as mangroves to mitigate sea level rise. Another major project for the city includes its endeavor to become a smart city. Hue is building a smart city control center at the request of the Vietnamese government to become a model smart city in Vietnam. The Hue government has created applications so residents can easily connect with governmental authorities, used technology to monitor pollution, and increased resident awareness of pollution.

Asuncion, Paraguay

Alejandra Kemper, United Nations Development Programme and Juan Pablo Nogues, United Nations Development Programme

The GEF-funded project in Asunción aims to reduce greenhouse gas emissions through effective planning, sustainable transportation and mobility, solid waste and chemical substances

management and urban green area management. Asunción is working to strengthen municipal urban planning and disaster management capacity. Paraguay has an excess of clean energy that it sells to other countries. The focus of the Asunción project has been on decreasing carbon emissions from transportation. The city is working to implement electric buses, increase recreational bike lanes, and create more sustainable bus stops. In terms of solid waste management, Asunción is promoting recycling and raising awareness regarding the importance of segregating waste. Lastly, the city is focusing on increasing the quality of urban green areas by creating a biodiversity baseline, removing invasive species, and identifying an urban green corridor.

Advancing Clean Energy and Building Efficiency

Debbie Weyl, WRI

Debbie Weyl, from WRI gave a brief introduction to the session and set the scene highlighting the significant role building efficiency and clean energy play in reaching the Paris Climate Agreement of only 1.5 degrees Celsius warming by 2050. Clean energy systems and building efficiency are closely linked; 40% of energy is produced by buildings and 28% of global CO2 emissions come from building operations. the primary pathways to decarbonize energy systems are: 1) resource optimization and increase efficiency; 2) switch from fossil fuels to electrification in transportation and buildings or 3) decarbonization or transition to clean energy sources for electricity such as solar or wind. The aim for the buildings sector is to decarbonize all buildings by 2050.

Since buildings offer the most cost-effective carbon mitigation strategy and buildings have a long lifespan once built (40-100 years), targeting energy efficiency of new buildings is key. When it comes to implementation of zero carbon buildings, there are policy and planning barriers such as historic preservation guidelines, zoning etc., that should be addressed. Public-private partnerships (PPP) can mitigate policy barriers to enable more efficient buildings. One example of a PPP initiative includes the [Building Efficiency Accelerator](#), a global public-private collaboration led by WRI Ross Center's Buildings Initiative, which partners with cities and countries to improve building efficiency policy and practices. Decarbonizing buildings does not necessarily mean all buildings need to be net zero, because some buildings might be net positive and could send energy back to the grid to offset emissions of less efficient buildings.

Washington, DC

Kate Johnson, District Department of Energy & Environment

Kate Johnson, from DOEE, discussed the city's energy and climate goals, the [Clean Energy DC](#) plan and green building policies. By 2032, the District aims to reduce energy use by 50%, switch from fossil fuel powered electricity to 100% clean electricity and reduce greenhouse gas (GHG)

emissions by 50%. By 2050, the city aims to be carbon neutral. The city started tracking GHG emissions in 2006 and has demonstrated that it is possible to decouple emissions from population and economic growth. After nearly a decade of data, the city has learned what policies and incentives have been successful; for example, the largest reduction of emissions came from the city greening the electrical grid (70%). However, warmer summers, floor area growth and colder winters have increased the District's emissions.

Based on the most recent greenhouse gas (GHG) inventory of the District, buildings emitted almost 75% of the District's emissions. Clean Energy DC aims for DC to adopt a Net Zero Energy building code by 2026, improve energy efficiency of existing buildings, and reach 100% renewable electricity by 2032. The Clean Energy DC Omnibus Act of 2018 was a major policy that advanced clean energy in the District and established a building performance standard for all buildings larger than 50,000 square feet. These metrics and standards are currently being developed and will be enforced starting in 2021. The city also offers incentives that promote clean energy including special tax assessments, rebates, community solar projects, low-income benefits for solar, credit enhancements, and loans and investments from the DC Green Bank.

Sustainable Transport for All Initiatives

Washington, DC

Transportation planners from the District, Anna Chamberlin and George Branyan and a policy expert from a non-governmental organization DC Sustainable Transportation, Caitlin Rogger, discussed the District's sustainable transportation initiatives.

Anna Chamberlin, District Department of Transportation

The mode share of commuters in the District has shifted to become less car-dependent in the last 10 years. Anna Chamberlin noted the number of people biking to work more than doubled between 2008 to 2018—DC became the second-highest share of bike commuters in major US cities and aims to increase its non-automobile modal split to 75% by 2040. The [2005 Bicycle Master Plan](#), [Sustainable DC Plan](#) and [move DC Plan](#) reflect the city's vision to increase non-automobile commuting. Additionally, the District adopted the [Complete Streets Policy in 2010](#), that emphasized the importance of shared right-of-way including pedestrians, bikers, etc. The city has an electric fleet of buses (14) and some public curbside chargers. Recently, the city has successfully hosted an Open Streets event where 3 miles of road closed to vehicular traffic, and opened to walking and cycling demonstrating how roads can be used as vibrant public space with minimal impact to traffic. Lastly, the city has been working to beautify streets through tactical

urbanism¹, a low-cost endeavor to improve road safety. While tactical urbanism can be considered low-hanging fruit, this and the Open Streets event proved challenging in the capital of the US due to federal oversight.

George Branyan, District Department of Transportation

The District has 1,100 miles of streets, 78 miles of bike lanes, and 2,300 bike share bikes and 300 docks and aims to expand the number of bike lanes and multi-use trails. DC was the first large US city to launch a bike share program, called Capital Bikeshare, in 2008 and became the largest bikeshare system in the US in 2010. Capital Bikeshare is owned by the district but is operated by contractors, however, only 80% of the Capital Bikeshare system has been financed through revenue. Overall, the bikeshare system has been successful, but the city has faced some challenges, including expanding demographics of users, balancing bikes and docks, and providing bike access in all areas of the city. Ridership of the bikeshare has steadily increased since 2008 until the city introduced other dockless micro mobility options such as electric bikes and scooters.

Dockless micromobility options were launched as a pilot in late 2017, the operators were limited to 400 vehicles each during the demonstration period. Some of the challenges with dockless micromobility included improper parking, confusion about whether to dock the vehicle, and that the geographic area of dockless trips was contained to certain neighborhoods within the city. Since the pilot concluded, the city has continued regulating micromobility by only allowing 6 companies to operate in the District with a maximum of 4200 vehicles and by using a 10 miles per hour maximum velocity restriction. The companies are required to have an application program interface, communicate that micro mobility vehicles cannot be ridden on sidewalks in the central business district, provide safe riding tutorials and encourage helmet usage. All micromobility services need to also offer a cash payment option and access to micro mobility vehicles in all neighborhoods to broaden the demographics of users and to promote equitable access.

Additionally, the city has required that all vehicles have on-board GPS technology and must submit granular usage data to the city. In conclusion, while the city's bikeshare system experienced lower ridership, the micromobility pilot was successful because the District has been able to set policy and parameters to encourage safe and equitable ridership in the district while providing the city with current data about rides.

Caitlin Rogger, DC Sustainable Transportation

DC Sustainable Transportation (DCST), which is comprised of business groups, advocacy groups, and government entities, aims "to make DC a global leader with frequent, rapid, safe, affordable,

¹ Tactical urbanism includes low-cost, temporary changes to the built environment, usually in cities, intended to improve local neighborhoods and city gathering places. Tactical urbanism is also commonly referred to as guerrilla urbanism, pop-up urbanism, city repair, or D.I.Y. urbanism.

and reliable transportation to, from, and around DC job centers.” DCST works to improve bus services by discussing and advocating for bus priority corridors, signal priority and off-board fares. DCST has monthly coalition meetings and advocates for sustainable transportation by sending letters to Council and the Mayor based on their discussions. They also discuss questions related to curbside management and how to manage congestion with new demand for package delivery, and emerging technologies such as dockless bikes and scooters. DCST uses media, policy, advocacy and community engagement to improve sustainable transportation in the District. Their efforts involve a combination of actors, such as businesses, government actors, non-government actors, and intentional public engagement, to achieve this.

Asunción, Paraguay

Gilda Torres, Ministry of the Environment and Sustainable Development

Gilda Torre’s presentation focused on Paraguay’s air quality regulations specifically related to transportation. In 2014, a new institution (Dirección Nacional del Aire) was created, part of the Ministry of Environment and Sustainable Development, with a regulatory function over air quality and in charge of determining AQ parameters. The newly passed regulations were based on studies that identified the transport sector as the main contributor to atmospheric pollution and included parameters for mobile and fixed sources and diesel production.

American Geophysical Union Building Site Visit

Cristine Gibney, American Geophysical Union

The [AGU building](#), the only net zero building in Washington, DC, is still under construction. About five years ago, AGU’s board chose to renovate the building instead of moving to a new location, to demonstrate AGU’s pioneering spirit by piloting an approach in the district to positively impact energy consumption and climate change. While renovating to reach net zero carbon emissions has a higher upfront cost, as it may take almost 10 years to recover the investment, the AGU building has become a pilot for Washington, DC and has taught the city about how to enact better green building policies.

The AGU building has some interesting features including its green roof and rainwater capture tank. Captured rainwater undergoes ultraviolet treatment and is used for the hydroponic phytoremediation wall, irrigation for plants on the roof and for the building’s toilets. In as many places as they could, the AGU building re-used building materials to reduce their carbon footprint. For instance, the floor is terrazzo made of old building materials and the exterior of the building is 96% reused. There is a living wall of plants, called a hydroponic phytoremediation wall

installed to improve air quality and ventilation. Since the plants are grown in water instead of soil, their capacity to improve to filter and oxygenate air increases by 200-300%.

In terms of energy efficiency, the AGU building has electrochromatic windows that use electricity to shade the windows to improve energy efficiency—the windows are tinted based on the exterior weather patterns and controlled by an algorithm. The building has a radiant cooling system, that uses chilled water rather than a forced-air system, to moderate the building's temperature. The building's roof is in the process of having 13,200 square feet of solar panels installed and AGU installed a direct current electrical system to harness solar energy directly. Additionally, the building generates its heating and cooling from the District's sewer water through a Municipal Sewer Heat Exchange System. Since this technology was not readily found in the US, AGU staff worked with European companies to install it. The building includes a state-of-the-art engineering command center to monitor that the building functions properly.



Urban Regeneration

Mariana Orloff, WRI

The presentation focused on the Anacostia Waterfront Initiative case study, one the cases featured in the book [Regenerating Urban Land: a practitioner's guide to leveraging private](#)

[investments](#), that presents tools to cities to identify a sequence of actions for leveraging public assets and attracting private sector investments for urban regeneration projects. Urban regeneration can be considered as a strategy that combines multiple benefits for cities, including economic, social and environmental: economic development in the area targeted for regeneration by intensifying the use of vacant or underused parcels; densification of the core area of the city, which can help to prevent unnecessary growth in the peripheries, reduce GHG emission, and improve health indicators.

The Anacostia Waterfront Initiative is a paradigmatic case in Washington DC, that allowed to city to start bridging economic opportunities and development in areas that had traditionally been neglected. The case study showcases a series of tools used by the city to steer private investment, including the use of bonds (TIFs and PILOTs), unprecedented coordination between federal and local government regarding land in the area; participatory planning approaches; use of anchor developments to spur development; collaboration with the private sector, including the creation of a BID, soil remediation and green infrastructure required from developers, to name a few. The project, which was anchored on the Waterfront Framework Plan, a strategic plan for the entire area around the Anacostia river, provides some lessons learned that are applicable to any city embarking on similar projects: it was based on a clear vision of integration for the city, pushed by the city leadership consistently and utilized participatory planning approaches that incorporated the population's desires and concerns, including affordable housing solutions.

Urban Regeneration through Transit-Oriented Development (TOD) and Business Improvement Districts (BID)

Washington, DC

Steven Segerlin, Washington Metropolitan Area Transit Authority

Steven Segerlin discussed WMATA's role in transit-oriented development across the greater DC metropolitan area. WMATA, the agency that operates the metro system and bus services for the District, Maryland and Virginia capital metropolitan area, initiated TOD and joint development efforts in 1975 and has become one of the most active TOD programs in the US. The metro is an economic engine of the region. The economic importance of TOD in the area can be seen in different ways. For example, properties located within a 0.5-mile radius of a metro station have higher values than properties located further away from metro. Connected to that, WMATA generates \$3.1 billion USD a year in property taxes revenue for the region. Additionally, ridership is higher at metro stations with real estate development and 54% of jobs in the region are accessible within a 0.5-mile radius of metro stations and bus stops.

WMATA aims to leverage the land they own around their metro stations to promote mixed-use developments including a mix of retail, residential and commercial land uses. It conducts feasibility studies and uses decision trees to determine where to invest. While the deal structure differs based on the project, WMATA typically uses long-term ground leases (98-99 year), fee simple sale, and rent resets, to promote development near their stations.

Michael Stevens, Capitol Riverfront Business Improvement District and Jesse London, NoMa Business Improvement District

In the United States, business improvement districts (BIDs) were created about 60 years ago in response to the decline of urban centers. In the District, BIDs have become proven partners that enhance city services and help guide development in their neighborhood. BIDs are non-profits, funded by the private sector, that maintain and operate parks within their district, organize community events, attract retail, and contribute to strategic plans through research and feasibility studies. Both Capitol Riverfront and NoMa were low-income areas with almost no new investments. While BIDs have led and managed revitalization, major public infrastructure investments, great urban planning and public-private partnerships have made these areas places people want to visit and live. In the case of NoMa, a grocery store has anchored and spurred development in the neighborhood. As with any neighborhood level economic revitalization strategy, gentrification can be one the unwanted outcomes. While BIDs do not have the ability to stop gentrification, they can advocate for incentives such as inclusionary zoning and the inclusion of affordable housing in mixed-use developments.

Recife, Brazil

João Domingos Azevedo, Instituto da Cidade Pelópidas Silveira

Recife is a port city comprised of 15 municipalities and represents 40% of the Pernambuco State's population. As Recife's population has increased, the city sprawled outward. Inequality is expressed in the real estate market with formal and informal land markets. Wealthier residents rely on private cars rather than public transportation. Recife's presentation focused on an economic development project, Porto Digital. As the city realized talent was leaving the city center, they opened PortoDigital, an IT/technology park to attract the population back to the city center. However, so far, there is limited opportunity for housing. Trying to solve this limitation, the city is working on improving mixed-use development near PortoDigital and is considering ways to increase housing availability and connect it with an improved public transportation so that more residents utilize the service.

Johannesburg, South Africa

Liana Strydom, City Transformation and Spatial Planning

Johannesburg is a city of contradictions with intense inequality. It is a sprawling, largely inefficient city with varying levels of density from 2,000 people per square kilometer to 80,000. Development planners aim to make the city more compact so that low-income residents do not spend nearly 30% of their income on commutes that can last over an hour. With planning for transit-oriented development, the city has faced NIMBYism². Johannesburg has partnered with the Johannesburg Development Agency and City Improvement Districts to advance transit-oriented development across the city. Through their efforts, development planners have learned that it takes years to redevelop precincts (neighborhoods) and continued engagement with partners and the community. Additionally, the context of the place is vital, as such, interventions should cater to this. Planning and design for ongoing maintenance contributes to the longevity of the intervention.

Greening Cities through Urban forestry and Green infrastructure

Washington, DC

Suzanne Ozment, WRI

Suzanne Ozment, of WRI, initiated the session by framing some of the challenges cities around the world are facing with increasing frequency such as stormwater flooding, coastal flooding and erosion, river flooding, water insecurity, water pollution, landslides and extreme heat. Well-designed, implemented and managed green infrastructure projects can help mitigate these challenges and these initiatives can be more cost effective than traditional gray infrastructure approaches. Additionally, they can be designed to be resilient, flexible and reversible. Other advantages of green infrastructure projects include the ability to attract green investors and provide a host of co-benefits including sustaining livelihoods, improving food security, carbon sequestration, and air quality, and protecting biodiversity and habitat.

Earl Eutsler, District Department of Transportation

Washington, DC maintains all public trees. The urban forestry department sits within the transportation department. Originally, this department only managed street trees but has expanded to include trees in parks, schools and public land. The city plants, prunes, and removes trees and responds to public requests for service. DC's urban tree canopy equals 38.7%, the city's goal is to reach 40% by 2032. The city has enacted policies and programs to achieve this goal. For example, the Urban Forest Preservation Act of 2002 charges a fee to developers and residents who remove trees. The fee is based on the size of the tree, however some trees are protected and cannot be removed and some invasive species are exempt from a fee. Fees are channeled to a tree fund that is used for tree planting and maintenance. The city has a Special Tree Replacement Program where an arborist will meet with homeowners to provide guidance on

² Not in my backyard behavior, where residents do not want a development near their homes

planting trees on their property. Additionally, the city has removed financial barriers to make all private tree planting free. The District has done this by raising the cost to remove trees and using revenue from this program to support private tree planting. To raise awareness of the free private tree planting offer, the city has advertised on city buses to broaden the demographics of residents who utilize their tree services.

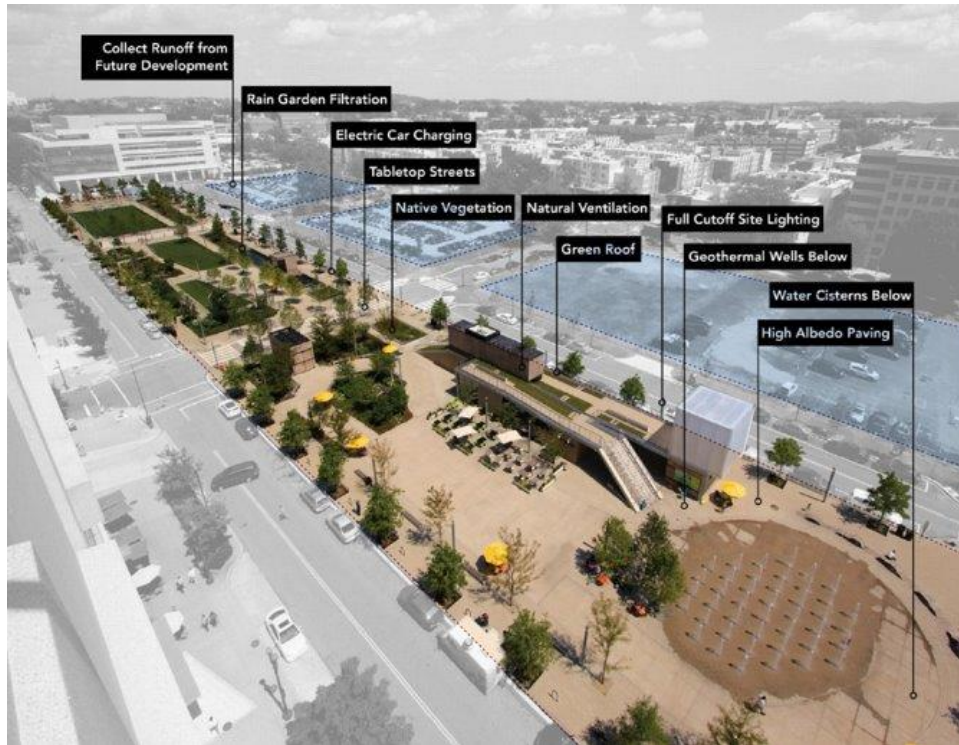
Matthew Espie, District Department of Energy & Environment

Approximately 43% of the District has impervious surfaces and 2/3rds of its sewage discharges directly in the rivers without treatment. Tackling this challenge would require a \$7 billion green infrastructure investment. The city has worked to improve stormwater retention in an affordable way by utilizing green infrastructure of development projects to capture water in the ground rather than discharge and pollute the city's rivers. The city passed a Stormwater Rule in 2013 that requires all developments to have green infrastructure and creates a Stormwater Credit trading system, through which 50% of the water retention requirement can be met off site. This trading scheme has increased water retention, improved water quality, reduced cost, increased flexibility for green infrastructure installation and provided additional socioeconomic benefits.

Beth Wangaard, EXP

Beth Wangaard, an engineer who helped design Canal Park, located in the Capitol Riverfront BID, presented the history of the park and how it has influenced the neighborhood. Originally conceived as a canal to move people and goods, the canal was built too shallow and instead became an open dumpsite. Years later two 14' brick tunnels were built to bring the canal underground, resulting in annual combined sewer overflows events which deteriorated water quality in the receiving Anacostia River. With the announcement of plans to develop a baseball stadium in the neighborhood, interest in the area grew and developers conceived the idea of a Canal Park to attract people to the area in a part of the city that had largely been forgotten.

During the site visit that followed her presentation, Beth highlighted the green infrastructure features in the park and surrounding buildings. The park development represents a PPP model with a public investment in the park infrastructure and private developers' collaboration through the park design. While Canal Park seems like a neighborhood convening site with open green space, it has many green infrastructure design elements above and below ground. It helps manage stormwater, the park's green infrastructure captures water, treats it and then uses water for toilets, the seasonal ice rink, and to irrigate the plants. Nearby development can also connect to Canal Park's stormwater system. Below is a rendering to demonstrate the green infrastructure features of Canal Park.



Lima, Peru

Gonzalo Llosa, GEF Project Coordinator for “National Platform for Sustainable Cities and Climate Change in Peru”

Lima has doubled its population in the last 50 years and has almost 9 million inhabitants. It is located in a desert along the coastline and bordered by the Andes mountains. Through a GEF-funded project, the city aims to improve biodiversity and maintain its ecosystems, draft a coastal adaptation plan, and manage stormwater. Gonzalo Llosa discussed a major flooding event in 2017 that re-activated dry ravines, decimated homes, and cost \$3.1 billion in damages. Llosa noted that green infrastructure could be used to rebuild devastated areas to make the city more resilient to natural disasters through governmental financial incentives and a robust communications strategy to engage residents.

Closing session

Uwe Brandes, Georgetown University

Brandes concluded the peer exchange by underlining an important aspect of sustainability—that cities need to function for everyone. The racial division and socioeconomic disparity in the District are high, and affordable housing is limited. Brandes argued that the city has an affordability

challenge and is nearing a housing crisis. The city needs to take action to ensure development is sustainable for all, some suggestions include inclusionary zoning, using land value capture to subsidize housing, a housing production trust fund, or public housing. This is the District's next major challenge. As the nation's capital, Brandes noted the city has a responsibility to act as a lab to improve cities elsewhere. The District has operated as an urban lab in the past through, for example through its micro mobility pilots, because the city is flexible and able to act quickly.

Conclusion

The peer exchange gave GEF city participants a chance to network with one another and learn about sustainability initiatives from Washington, DC.

Following the peer exchange with Washington, DC, participants attended WRI and the World Bank's annual Transforming Transportation conference. Below is a list of recommended sessions. WRI also organized an optional session for participants to visit the National Museum of African American History and Culture.

Annex 1 - Agenda for the event

Tuesday, January 14, 2020				
Time	Location	Activity Description	Speakers	Objectives
8:30 am-9:00 am	Hyatt Place Conference Room 33 New York Ave NE, Washington, DC 20002	Coffee and breakfast		
9:00 am-9:30 am	Hyatt Place Conference Room	Welcome remarks and Urban Sustainability	Welcome remarks <ul style="list-style-type: none"> Mariana Orloff, WRI Aloke Barnwal, GEF Lincoln Lewis, World Bank City delegate introductions 	<ul style="list-style-type: none"> Welcome from WRI, GEF, World Bank, and brief review of two-day agenda. Explore the meaning of urban sustainability and how it is materializing in SC-IAP cities.
9:30 am-11:15 am	Hyatt Place Conference Room	Sustainability and Urban Planning in the District and Abroad	Moderator Rogier van den Berg, WRI Urban sustainability introduction <ul style="list-style-type: none"> Ani Dasgupta, WRI Stephen Gyor, DC Office of Planning Dan Guilbeault, District Department of Energy & Environment Leticia Carvalho, Brasilia, Brazil Phan Thien Dinh, Hue, Vietnam Alejandra Kemper, Asunción, Paraguay 	<ul style="list-style-type: none"> Explore how planning is done in Washington, DC including major planning initiatives Gain insights about the implementation of DC's sustainability plan and how it informs other agencies and plans GPSC city perspectives on sustainability and urban planning
11:15 am-12:15 pm	Hyatt Place Conference Room	Advancing Clean Energy and Building Efficiency	Moderator Debbie Weyl, WRI <ul style="list-style-type: none"> Kate Johnson, District Department of Energy & Environment 	<ul style="list-style-type: none"> Learn what cities around the world are doing to address emissions from energy and buildings Understand DC's goals, programs and policies around energy and building efficiency
12:15 pm-1:15 pm	Hyatt Place Conference Room	Lunch		

1:15 pm- 3:00 pm	Hyatt Place Conference Room	Sustainable Transport Initiatives for All	<p>Moderator Vineet John, WRI</p> <ul style="list-style-type: none"> • Anna Chamberlin, District Department of Transportation • George Branyan, District Department of Transportation • Caitlin Rogger, DC Sustainable Transportation • Juan Pablo Nogues and Gilda Torres, Asunción, Paraguay 	<ul style="list-style-type: none"> • Learn about major sustainable mobility initiatives in DC • Understand how the public and private sector work together to test new mobility initiatives and shape policies • Learn about a non-profit organization's role in working with the public and private sectors and civil society to advance sustainable transportation • GPSC city perspectives on sustainable transport initiatives
3:00 pm- 3:45 pm	Metro	Travel to Site Visit # 1		
3:45 pm- 4:45 pm	American Geophysical Union building	Site Visit to American Geophysical Union building	<ul style="list-style-type: none"> • Cristine Gibney, American Geophysical Union 	<ul style="list-style-type: none"> • Gain a deeper understanding about net-zero building technologies including their costs and trade-offs • Learn how the AGU building has increased DC's building efficiency ambition
4:45 pm- 5:30 pm	Metro	Travel to Hyatt Place		
5:30 pm- 6:00 pm	Hyatt Place	Day 1 Wrap-up	<ul style="list-style-type: none"> • Terra Virsilas, WRI 	<ul style="list-style-type: none"> • Reflect on day one themes
6:30-8:00 pm	Ethiopic Restaurant 401 H St NE, Washington, DC 20002	Dinner		

Wednesday, January 15, 2020

Time	Location	Activity Description	Speakers	Objectives
8:30- 9:00 am	Hyatt Place Conference Room	Coffee and Breakfast		
9:00- 10:00 am	Hyatt Place Conference Room	Recap of previous day and Introduction to Urban Regeneration	<ul style="list-style-type: none"> • Terra Virsilas, WRI • Mariana Orloff, WRI 	<ul style="list-style-type: none"> • Icebreaker • Understand how sustainability and urban regeneration are linked and how urban regeneration has occurred in DC

10:00-10:45 am	Metro	Travel to Navy Yard		
10:45 am-12:15 pm	Capitol Riverfront Business Improvement District Conference Room 1100 New Jersey Avenue, SE Washington, DC 20003	Urban Regeneration through Transit-Oriented Development (TOD) and Business Improvement Districts (BID)	<p>Moderator Robin King, WRI</p> <ul style="list-style-type: none"> • Steven Segerlin, Washington Metropolitan Area Transit Authority • Michael Stevens, Capitol Riverfront Business Improvement District • Jesse London, NoMa Business Improvement District • João Domingos Azevedo, Recife, Brazil • Liana Strydom, Johannesburg, South Africa 	<ul style="list-style-type: none"> • Learn how TOD has shaped urban regeneration in DC • Gain a deeper understanding about how business improvement districts facilitate urban regeneration jointly with the private and public sectors • GPSC city perspectives on urban regeneration and TOD
12:15 pm-2:00 pm	Agua 301 301 Water St SE, Washington, DC 20003	Neighborhood Walk and Lunch		
2:00 pm-3:30 pm	Capitol Riverfront BID Conference Room	Greening Cities through Urban forestry and Green infrastructure	<p>Moderator Suzanne Ozment, WRI</p> <ul style="list-style-type: none"> • Matthew Espie, District Department of Energy & Environment • Earl Eutsler, District Department of Transportation • Beth Wangaard, EXP • Gonzalo Llosa, Lima, Peru 	<ul style="list-style-type: none"> • Explore urban forestry and green infrastructure initiatives in DC • Learn how green space and green infrastructure has been incorporated into DC plans including how the public and private sector have collaborated on implementation • GPSC city perspectives on urban forestry and green infrastructure
3:30 pm-4:15	Canal Park	Site Visit to Canal Park	<ul style="list-style-type: none"> • Beth Wangaard, EXP 	<ul style="list-style-type: none"> • Gain a deeper understanding about the social and technical green infrastructure amenities at Canal Park
4:15 pm-5:00 pm	Metro	Travel to Hyatt Place		

5:00 pm-6:00 pm	Hyatt Place Conference Room	Closing session	<ul style="list-style-type: none"> Uwe Brandes, DC Climate Change and Resilience Commission 	<ul style="list-style-type: none"> Reflect on the application of sustainable initiatives in participating cities
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Thursday, January 16, 2020

Transforming Transportation – Recommended sessions

Time	Title
9:45 am-11:15 am	Plenary 1: Economic Empowerment Through Accessibility for All
11:30 am-1:00 pm	Plenary 2: Private Sector as a Driver of Sustainable Mobility?
2:00-3:00 pm	Breakout 2: Global Roadmap of Action Toward Sustainable Mobility: The Future is Now
2:00-3:00 pm	Breakout 5: Decarbonization and Economic Inclusion Through Decent Work in Urban Public Transport (ITF)

Friday, January 17, 2020

Optional Site Visit	National Museum of African American History and Culture **Please meet at the H Street entrance of the World Bank at 12:15 pm
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Transforming Transportation – Recommended sessions

Tentative time	Title
9:00 am-11:00 am	Plenary 4: Sustainable Growth through decarbonizing transport and mainstreaming resilience
11:15 am-12:45 pm	Breakout 7: Financing Innovation and Impact: Investing in Sustainable Mobility Enterprises
1:45 pm- 3:15 pm	Breakout 12: Towards Zero Emissions: The Role of Walking and Bicycling
1:45 pm- 3:45 pm	Breakout 13: Energizing Electric Mobility Through the Private Sector
3:30 pm- 5:00 pm	Plenary 5: Managing Bold Mobility Reforms to Improve Social and Economic Impact

Annex 2 - Participant Biographies

City delegates

João Domingos Azevedo

Recife, Brazil

President of Instituto da Cidade Pelópidas Silveira

Architect and city planner (2001), with a Masters in Urban Development (2019), both from the Federal University of Pernambuco (UFPE). Is founding partner of Metro Arquitetura Ltda. Held several class representative positions at the Institute of Architects of Brazil - Department of Pernambuco (IAB/PE), from 2002 to 2010. Member of the Board of Directors of the Architecture and Urbanism Council for the State of Pernambuco (CAU/PE), from 2012 to 2017. From March, 2015, is President of "Instituto da Cidade Pelópidas Silveira - ICPS", the urban planning institute for the city of Recife. Has been conducting the revision of the city's masterplan and the development of its urban mobility plan. Has experience in the design of buildings, urban design and city planning, with special interest in Transit-Oriented Development.



Letícia Carvalho

Brasilia, Brazil

Special Advisor at Secretariat of the Environment of the Federal District

Letícia Carvalho advises on strategic planning to mainstream the SDGs into local development plans. For 18 years she served at the Ministry of the Environment of Brazil since 2001. On February 2013 she was appointed Director of Environmental Quality at the Secretariat for Climate Change and Environmental Quality. In her role as Director of Department, Mrs. Carvalho is responsible for policy making and coordinating the implementation of the chemicals and waste policies. She acts as President of the National Commission for Chemicals Safety and SAICM and chemicals and waste conventions Focal Point. She also oversees the implementation of actions to reduce air emissions of pollutants from transportation and industry, promoting air quality strategies and urban development. Before this current position, she was Coordinator of Oil Spills Contingency Planning at the Marine and Coastal Division (2008-2019) and Head of the Division of Chemical Safety (2011-2012), at the Ministry of the Environment of Brazil.

She has also served as Coordinator of Sustainable Fisheries at National Fund of the Environment (2004-2007). Previously her career at the Ministry of Environment of Brazil she served as marine researcher at the Oceanography Institute of University of São Paulo and at University of Rio Grande. Mrs. Carvalho has published nationally and internationally on issues relating to chemicals and waste management, air emissions, fisheries, marine and coastal management and international law. She is Bachelor in Oceanography by the University of Rio Grande and has a Master in Sustainable Development by the University of Brasília.



Gilda Maria Torres
Asunción, Paraguay
General Director of Air Quality for the Ministry of the Environment and Sustainable Development

Ms. Torres has more than 34 years of work experience since graduation from the Faculty of Engineering and more than 25 years of experience in the environmental area. She has given and attended several courses and workshops. Some of them I was the Diplomat of CIDIAT - Center of Water and Land of Venezuela in Formulation of Hydraulic Resources Projects. The courses I have taken include: Tokyo-Japan Drinking Water Supply, Solid Waste by the University of Mayagüez -Puerto Rico, from Agenda 21 in Sweden and Costa Rica, from Cold in Frankfurt Germany, from Environmental Impact Assessment, Public Policy and Anti-Corruption at the Catholic University of Paraguay.

Gonzalo F. Llosa
Lima, Peru
Coordinator of the GEF Project, "National Platform for Sustainable Cities and Climate Change in Peru"

Born in Lima, Peru. Gonzalo has a Bachelor's degree in Biology from the University of Brasilia, and Master's in Marine Ecology from the University of Paris VI.

He has served as the Director of the Aquatic Ecosystem Program of the Peruvian Amazon Research Institute and also as the Director of Conservation International - Peru. Gonzalo is a biodiversity project consultant for the World Bank, IDB and UNDP, particularly evaluating GEF projects. Additionally, he serves as an advisor to the Peru Ministry of Environment on the follow topics: oceans and fisheries, sustainable cities and mountains. More recently, he was the Program Director in the Ministry of Fisheries and Aquaculture and is currently Coordinator of the GEF Project "National Platform for Sustainable Cities and Climate Change in Peru."





Liana Strydom
Johannesburg, South Africa
Assistant Director: Regional Planning
City Transformation and Spatial Planning

Liana Strydom is an urban planner and has been in the planning profession in local government (Gauteng Urban region) for more than 20 years. Her experience includes municipal governance, affordable housing, urban regeneration, transit-oriented development, strategic spatial planning and land use planning, as well as planning and coordination of large-scale development programmes for implementation.

Currently employed at the City of Johannesburg as an Assistant-Director responsible for regional spatial planning, which includes formulation of spatial plans at various urban scales and coordination of key development programmes in the City. Current projects include initiatives such as the formulation of the City's first Green Building Policy and developing guidelines and standards for sustainable precincts.

Firmly grounded in the realities of a dual city, Liana loves sci-fi and the endless potential of possible futures.

Phan Thien Dinh
Hue, Vietnam
Vice Chairman of the People's Committee

Mr. Phan Thien Dinh's qualification include Bachelor of Law, Bachelor of Economics, Master of Public administration management. He has nearly 20 years of experience in the area of socio-economic inspection; 15 years of experience in the area of planning and investment. He has great experience in the consultation of orientations, plans for socio-economic development; investment promotion; investment management; land management; planning; communication.



He was appointed as vice chairman of the People's Committee of Thua Thien Hue province in December 2018. Prior to this position, he had been director of the provincial Department of Planning and Investment. Currently, Mr. Phan Thien Dinh is the vice chairman in charge of natural resources, environment, land management; planning and construction management; science and technology; industry and trade; information and communication of Thua Thien Hue province.



Vinh Xuan Phuong
Hue, Vietnam
Head of Department of Foreign Affairs

Phuong holds a B.A degree in English language, Hue University of Education. He has worked for Department of Foreign Affairs of Thua Thien Hue province, Vietnam, since 2002. He is now head of division under provincial Department of Foreign Affairs. He has 15 years of experience in translation and interpretation.

Implementing Agency Participants

Alejandra Kemper
Asunción, Paraguay
Project Manager at United Nations Development Programme

Environmental Engineer from the Catholic University of Asuncion, with a Masters Degree in Environmental Engineering and Sustainable Development from Imperial College London, England and a Specialisation in Environmental Management from the Technical University of Dresden, Germany. She is currently coordinator of the project “Asuncion Green City of the Americas – Pathways to Sustainability” in Asunción, Paraguay. In addition, she has worked as an environmental specialist in water and sanitation and infrastructure projects at the national level, as an environmental consultant in the areas of territorial and land-use planning, analysis of environmental and social impacts and climate change in projects from the World Bank, the Interamerican Development Bank, the Japan International Cooperation Agency (JICA) and the United Nations Development Programme and as a university lecturer. She is a member of the International Association for Impact Assessment (IAIA) and the International Water Association (IWA).





Juan Pablo Nogues

Asunción, Paraguay

Transportation Consultant for United Nations Development Programme

Juan Nogues has 8 years of experience as an environmental consultant and researcher in projects dealing with mitigation of greenhouse gas emissions from the transportation sector, as well as projects involving adaptation to climate change in urban areas. He currently is coordinating the Transportation activities of the project "Asunción Ciudad Verde de las Américas", a 5-year project funded by the Global Environmental Facility (GEF) and implemented by the United Nations Development Programme (UNDP). Juan holds a PhD

in Civil and Environmental from Princeton University, a Master of Science in the same field from Stanford University and Bachelor of Science in Civil Engineering from the University of Kansas. He currently lives in Asuncion.

Organizers

Mariana Orloff

Urban Development Associate II

WRI Ross Center for Sustainable Cities

Mariana provides technical and policy support to help cities develop integrated planning approaches for land use, infrastructure systems, and economic development, which help them advance their social and economic objectives in the most resource-efficient way. Mariana's work includes managing the Resource Team of the Global Platform for Sustainable Cities, a partnership program with ICLEI, C40 and the World Bank, which brings together participating cities to create a shared platform for global knowledge on urban sustainability. She also contributes to research on policy, design and governance related issues of urban planning, transit-oriented development and housing; develops knowledge products and organizes learning events for cities in global south.



Mariana holds a B.A. in Political Science and International Relations from the Catholic University of La Plata, Argentina, and Master's Degrees in Public Policy and Urban Planning from the University of Michigan.

Terra Virsilas
Urban Development Associate
WRI Ross Center for Sustainable Cities

Terra supports the Global Platform for Sustainable Cities (GPSC) and Cities4Forests, both city-based networks dedicated to capacity building, knowledge sharing and supporting cities in setting and realizing ambitious goals. Under GPSC, Terra leads a webinar series on sustainable and integrated urban planning, coordinates capacity development planning for the 28 cities and serves as financial manager for the project. Terra is the Cities4Forests Inner Forests Manager and the focal point for engagement with Baltimore, Honolulu, Los Angeles, Philadelphia and Washington, DC. She contributes to research products on policy, design and governance issues at the intersection of urban forestry, urban ecology and integrated urban planning.



Terra is certified in green infrastructure construction, inspection and maintenance. She holds a B.S. in environmental management from the University of Maryland and an M.A. in community planning from the University of Maryland.



Beth Olberding
Research Analyst
WRI Ross Center for Sustainable Cities

Beth is a Research Analyst on the Urban Development team at WRI Ross Center for Sustainable Cities. She provides support on the production of knowledge products for the Sustainable Cities Impact Program including technical notes on various topics related to urban sustainability. She also assists with project management and coordination of grant deliverables.

Beth holds a B.A. in Biology with a concentration in Environmental Conservation from the University of Virginia and Master's degrees in Urban and Regional Planning and Natural Resources from Virginia

Tech.

Debbie Valencia
Program Coordinator
WRI Ross Center for Sustainable Cities

Debbie is an Urban Development Program Coordinator III, for the WRI Cities Program. Her work supports the Urban Development Team efforts to provide advance solutions for today's environmental challenges. She supports the team through financial planning and administration, project management, as well as contracts and subcontracts management.

Debbie holds a Bachelor's degree in International Development from Virginia Tech and a Master's degree in International Development from Tulane University.



Speakers and Moderators



Alope Barnwal
Senior Climate Change Specialist
Global Environment Facility (GEF)

Alope joined the GEF Programs Unit in May 2018 as Senior Climate Change Specialist to work on sustainable cities and climate change adaptation programs. He is a climate change and public policy professional with 15 years of hands-on experience in climate change mitigation and adaptation, natural resources management, and sustainable livelihoods in developing and least developed countries. During his career, Alope has extensively worked in non-profit, private sector and donor organizations on a wide range of environmental and development issues at grassroots as well as national and regional policy levels.

Alope is a Ford Foundation Fellow and holds a master's degree in Public Affairs from Indiana University, Bloomington, United States, and a bachelor's degree in Civil Engineering from Jalpaiguri Government Engineering College, West Bengal, India.

Lincoln Lewis
Urban Development Analyst
World Bank

Lincoln Lewis is a Singapore licensed architect and staff member of the World Bank's Urban, Disaster Risk Management, Resilience, and Land Global Practice based in Washington, DC where he works for the Global Platform for Sustainable Cities. Previously over a period of 10 years in Singapore, Lincoln was a civil servant with the Ministry of National Development focusing on architectural and urban design policy, a researcher at the Future Cities Laboratory, and he practiced as an architect designing and implementing campus plans, institutional buildings, and housing projects around Southeast Asia.



Lincoln obtained a Masters of Advanced Studies in Architecture (Urban Transformations in Developing Territories) from the Swiss Federal Institute of Technology Zürich and a professional Bachelors of Architecture from the University of Kansas, USA



Ani Dasgupta
Global Director
WRI Ross Center for Sustainable Cities

Aniruddha (Ani) Dasgupta is the Global Director of WRI Ross Center for Sustainable Cities, WRI's program that galvanizes action to help cities grow more sustainably and improve quality of life in developing countries around the world. Ani guides WRI Ross Center in developing environmentally, socially, and financially sustainable solutions to improve people's quality of life in developing cities. Ani leads the program's team of global experts in sustainable transport, urban development and building efficiency, as well as its engagement across low-carbon energy, governance, water risk, and associated areas as well as serves as a member of WRI's global management team, helping to shape the institute's overall strategy and growth.

Ani holds master's degrees in City Planning and Architecture, both from Massachusetts Institute of Technology (MIT). His PhD work, at the planning school at MIT, focused on services for urban poor. He received a bachelor's degree in Architecture with an emphasis on low Income Housing from the School of Planning and Architecture in India.



Rogier van den Berg
Director of Urban Development
WRI Ross Center for Sustainable Cities

Van den Berg is an urban planning and urban development specialist, architect, former entrepreneur and academic who most recently led UN-Habitat's Urban Lab, which he set up in 2014. It was created to respond to urban planning demand in cities, and rapidly expanded its scope to become a multidisciplinary urban project and integrated planning facility working in 80 cities globally. Van den Berg led global teams working at the intersection of infrastructure, urban planning, urban resilience, climate change adaptation, technology, recovery and reconstruction, and public space. Partners included many local and national authorities, the World Bank, United Nations High Commissioner for Refugees, Green Climate Fund, Adaptation Fund, United Kingdom Foreign Office, Caribbean Development Bank, Dutch Enterprise Agency, Airbus and Microsoft. He has established and implemented development projects and programs together with cities and partners in Europe, Africa, Latin America, the Caribbean, the Middle East and Asia.

He holds an Executive Master's Degree in International Negotiation and Policymaking from the Graduate Institute of International and Development Studies and a Master of Science in Architecture from Delft University of Technology

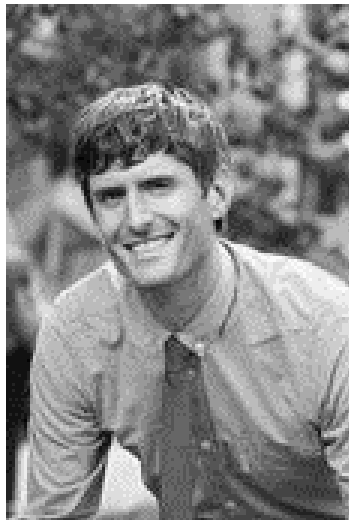
Stephen Gyor
Senior Sustainability Planner
District of Columbia Office of Planning (OP)

Stephen Gyor currently serves as the Lead Sustainability Planner for the District of Columbia Office of Planning (OP) in the Citywide Strategy and Analysis Division. At OP, Stephen is responsible for formulating urban planning policies relating to environmental protection, resilience, and public health. Specifically, Stephen is charged with updating the District's Comprehensive Plan, as well as its overarching sustainability plan, Sustainable DC.

Previously, Stephen worked in OP's Development Review Division, where he evaluated development projects for their adherence to best planning, urban design, architecture, and sustainability practices.



Stephen earned a Master of City and Regional Planning from the University of Pennsylvania, as well as a Master of Business Administration, Bachelor of Arts in International Affairs, and a professional certificate in Landscape Design from the George Washington University.



Dan Guilbeault

Chief of the Urban Sustainability Administration's Sustainability & Equity Branch

District Department of Energy & Environment (DOEE)

Dan Guilbeault is the Chief of the Sustainability and Equity Branch in the Urban Sustainability Administration at the District of Columbia Department of Energy and Environment (DOEE), where he is lead on developing and implementing Sustainable DC, the District's plan to make DC the healthiest, greenest, most livable city in the country (www.sustainabledc.org). Dan coordinates with District Government agencies and community partners such as universities, international institutions, and health care providers to increase the sustainability of their operations. He also focuses on community engagement and

works to better incorporate equity into existing programs and policies.

Dan received a Masters of Urban Planning at NYU Wagner School of Public Service, where he concentrated on sustainability and affordable housing. Before DOEE, Dan spent time at the DC Office of Planning, the DC Department of Housing and Community Development, Smart Growth America, and the Office of Congressman Ron Kind (WI).

Debbie Weyl

Manager for the Buildings Initiative

WRI Ross Center for Sustainable Cities

Debbie leads an expanding global partnership to accelerate building energy efficiency in cities around the world. She also contributes to program management and development, research, and knowledge exchange for urban energy efficiency and sustainability.

She holds a Master of Science in Environment and Development from the London School of Economics and Political Science, and a B.A. in Politics (Political Economy and International Relations) from Princeton University.





Kate Johnson

Chief of the Green Building and Climate Branch in the Urban Sustainability Administration District of Columbia Department of Energy & Environment

Kate Johnson manages a team working to address climate change and advance green building through planning and policy development. Her team leads implementation of Climate Ready DC, the District's award-winning plan to prepare for the impacts of climate change and is leading the development of the District's strategy to achieve carbon neutrality by 2050. Prior to joining DOEE, Kate worked for the American Council for an Energy-Efficient Economy providing technical assistance to cities. Kate received a

Master of Public Administration degree from Columbia University's School of Public and International Affairs.

Vineet John

Urban Mobility Associate

WRI Ross Center for Sustainable Cities

Vineet is an Urban Mobility Associate with WRI Ross Center for Sustainable Cities. He is a transport and urban planner with experience in road safety, sustainable urban transport and safe infrastructure design. At WRI, he coordinates the global health and road safety program, and manages large urban mobility grants and activities across 15 countries. He focuses particularly on creating safe, livable, and accessible cities for all through safer streets and safer mobility.



Vineet has a Master's degree in City and Regional planning from Cornell University with a research focus on Bus Rapid Transit systems in the Global South, and a Bachelor's Degree in Architecture from the National Institute of Technology, Calicut.



Anna Chamberlin
Manager, Neighborhood Planning Branch, Planning and Sustainability Division
District Department of Transportation (DDOT)

Anna has worked at DDOT for over 12 year starting as a Capital City Fellow, where she wrote the first Complete Streets policy for the agency. She managed the program to install the first level 2 EV chargers in public space. Currently, she created the first Open Streets event in the District this past October and manages the livability program along with public space permitting and review for the agency, and the development review program. Under her leadership, DDOT adopted an award-winning Comprehensive Transportation Review (CTR) Guidance for the review of private development projects that emphasizes TOD developments and the reduction of off-street parking. In addition, she is currently working to increase the use of ground murals and tactical urbanisms approaches to DDOT safety projects. Anna received a Master of Public Policy degree from George Mason University.

George Branyan
Active Transportation Manager
District Department of Transportation (DDOT)

George Branyan manages the Active Transportation Branch in the Planning and Sustainability Division of the District of Columbia Department of Transportation (DDOT) where he oversees a variety of planning, design, and implementation projects, ranging from filling sidewalk gaps to school zone safety to off-street trails to major corridor protected bikeways. Mr. Branyan served as DDOT's Pedestrian Program Coordinator 2005 to 2018 and development of DC's first Pedestrian Master Plan in 2008.





Caitlin Rogger
Policy Manager
Greater Greater Washington

Caitlin Rogger engages policymakers, business leaders, advocates and communities on shared priorities for sustainable and equitable transportation policy in the Washington region. She manages GGWash's road pricing projects and DC Sustainable Transportation, and organizes capacity-building exercises for community leaders to advocate for sustainable transportation. Prior to joining GGWash, Caitlin worked for the World Health Organization's regional office, drafting policy recommendations and building capacity to advocate for healthy urban settings and health equity in Latin America and the Caribbean. She brings a background in policy change, DC-based networks, technical knowledge of road pricing, and an appreciation of "all transportation is local" perspectives through work with her Advisory Neighborhood Commission in Capitol Hill.

Cristine Gibney
NetZero Building Operations Specialist
American Geophysical Union

She is currently pursuing dual graduate degrees in Sustainable Design, as well as City and Regional Planning at the Catholic University of America (CUA) School of Architecture and Planning.

After her experience as a U.S. Army Strategist, where she focused on Security Cooperation and Planning, Cristine was well-suited to transition to building science and sustainability. Cristine's path to AGU is an example of the building's goal to serve as a beacon for progress in achieving sustainability and embracing learning and collaboration. She was inspired by the net zero energy renovation project in a class, joined the building team, and now gives tours of the award-winning building while describing how it embodies AGU's mission of science for the benefit of humanity.



Robin King
Director of Knowledge Capture and Collaboration
WRI Ross Center for Sustainable Cities

In this role, Robin promotes collaboration across WRI's international network to better integrate urban planning, land use, and sustainable transportation using her experience working in policy matters in the Americas and Asia.

She holds a PhD in Economics from the University of Texas at Austin, and a BS in Foreign Service from Georgetown University. She spent a year as a Rotary Exchange student in Oruro, Bolivia, and more than a year as a Fulbright Scholar in Mexico.



Steven Segerlin
Washington Metropolitan Area Transit Authority (WMATA)
City Planner

Steven Segerlin is a city planner for the Washington Metro (WMATA) specializing in zoning, economic development, and financing strategies for infrastructure and real estate. He is a licensed urban planner and transport planner, and holds a B.S. in Urban Planning and MBA in Finance from Auburn University. Steven supports municipalities and transit authorities to create inclusive, connected, livable cities that are financially sustainable. This includes the design and delivery of programs for urban revitalization, urban infill and densification, activation of public spaces, circulation and mobility, and transit-oriented development (TOD). His client experience includes local and national governments in the United States and worldwide. For these clients Steven prepared land use, real estate and transport plans to guide the smart growth of large cities from New York and Seattle to Dar es Salaam and Surabaya. He has also produced strategies to enhance central business districts (CBD) and to establish innovation districts, greenways, logistics and mobility hubs, and special economic zones (SEZ) located around transit systems in places such as Los Angeles, Bogota, Johannesburg and Paris.

Michael Stevens
President
Capitol Riverfront BID

As president of the BID, Michael has worked for the past 13 years to achieve the vision of a vibrant waterfront Capitol Riverfront community, which will contain 37 million square feet of development at build-out. His efforts led to the 2007 establishment of the BID, which is currently in its third 5-year operating cycle. Michael is responsible for overseeing a staff of 8 full time professionals, a 21-member board of directors, all external relations, development of work programs, and budget oversight.



He helped coordinate the Center City Action Agenda of 2007 & 2010 – a new strategic plan and framework to guide development and public investment in the center city neighborhoods of Washington, DC. From 2000-2006 he served as the President & CEO of the Washington, DC Economic Partnership and built that organization from a start-up to a full partner in the District's economic development initiatives.

He holds a Master's degree in Urban Planning/Urban Design from Virginia Tech in Blacksburg, VA, and a BA in Urban Sociology from Millsaps College in Jackson, MS.



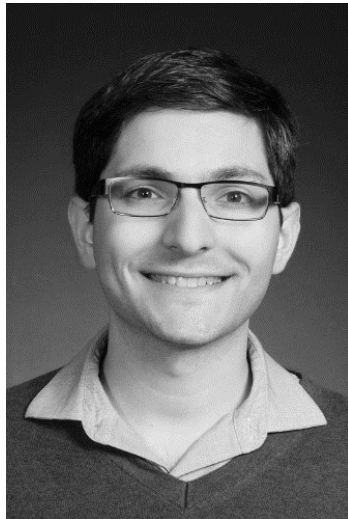
Jesse London
Planning & Economic Development Manager
NoMa BID

Jesse has been working at the nexus of urban planning and economics for the past eight years and currently leads Planning and Economic Development programming at the NoMa Business Improvement District. He has previous experience working on both private and public sector projects, focusing on topics such as parking policy, brownfield revitalization, long-range planning, and economic development strategies. Jesse holds a Master's Degree in Urban Planning and a BS in Economics, both from the University of Washington, in Seattle.

Suzanne Ozment
Senior Associate
Natural Infrastructure for Water at WRI

Suzanne is Senior Associate with the World Resources Institute's (WRI) Natural Infrastructure Initiative, where she researches the design of profitable nature-based solutions to water insecurity and climate change. She works with business, financial institutions, government, water utilities, and civil society to scope out smart investment opportunities to protect and restore watersheds, and to advance policies that enable strategic watershed management.

Suzanne earned her Masters of Environmental Management degree from Yale University and her B.A. in Environmental Science and Government from Lawrence University. She is a Yale Fox International Fellow and a Kinship Conservation Fellow.



Matthew Espie
Manager of the District of Columbia's Stormwater Retention Credit (SRC) Trading Program and Stormwater Database
DC Department of Energy & Environment

Manages first-of-its-kind Stormwater Retention Credit (SRC) Trading Program to leverage private investment in green infrastructure.

Matthew holds a BA in International Studies, Economics from American University and a MA in Global Environmental Policy from American University.