

## WUF11 SESSION CONCEPT NOTE

# CLIMATE ADAPTATION AND NATURE-BASED SOLUTIONS FOR RESILIENT CITIES

### 1. List of Partners Contributing to the Session:

- UNEP
- Polish Ministry of Climate and Environment

### 2. Key Words:

Climate Change, Adaptation; Resilience, Nature-based Solutions, Ecosystem-based Adaptation, Blue/Green and Hybrid Infrastructure, Urban Basic Services, Integrated Urban Water Management, Urban Heat, Urban Climate Action, Equity and Justice.

### 3. Objectives of the Session:

This special session will discuss and promote an integrated approach to climate change adaptation. It will raise awareness of the importance of resilience strategies in cities like nature-based solutions and ecosystem-based adaptation, blue/green infrastructure, water and sanitation services and infrastructure, adaptation funds and investments, multi-level governance and partnerships and local knowledge and capacity-building. The session will also be an opportunity for leading stakeholders from different backgrounds to build an inclusive discourse on climate resilience for cities.

### 4. Summary:

68% of the world's population is predicted to live in cities by 2050. At the same time, urban areas and their growing population are at the frontline of climate impacts. With global warming, extreme weather events have become more frequent and intense. Heatwaves, droughts, floods, storms, and cyclones are increasingly felt in cities affecting livelihoods and urban infrastructure. These climate change impacts exacerbate the underlying socio-economic challenges that come with urbanization, as they hit the hardest vulnerable communities where adaptive capacity is limited. The Covid-19 pandemic has also impacted cities' capacity to adapt, increasing inequalities.

Nature-based solutions (NBS), blue/green and hybrid infrastructure, and other integrated approaches offer a transformative opportunity to enhance climate resilience, while delivering a host of co-benefits, supporting basic urban services. In drought-prone areas and coastal cities affected by sea-level rise, the reuse and recycling of wastewater mitigate water scarcity while providing recreation spaces. Trees, vegetation, water bodies, and green surfaces can mitigate the Urban Heat Island Effect (UHI) and improve thermal comfort in cities, while simultaneously bringing social cohesion, higher quality of life, and health benefits.

Although many cities have developed adaptation plans and incorporated nature-based measures, challenges in implementation remain evident. Climate action efforts in cities focus predominantly on mitigation, only 10% of overall climate finance is channeled to

adaptation and only 10% of climate fund investments reach the local level. Nature-based solutions are, on average, 50% more cost-effective than 'grey' alternatives and deliver 28% more added value, yet in 2021 they received just 0.3% of overall spending on urban infrastructure.

This special session will highlight the benefits of nature-based solutions for climate resilience in cities. It will be an inclusive dialogue to urge an integrated approach to adaptation. The session will also explore the challenges countries face when translating their adaptation plans into action.

## **5. Guiding Questions for Discussions:**

- What appropriate governance frameworks can be adopted based on resource management, environment protection and sustainability with cities articulating global responses? What successful examples exist?
- How can nature-based solutions be more widely adopted within integrated urban planning frameworks to protect crucial ecosystem services for cities?
- What policy tools, governance strategies, and financing arrangements can enable more inclusive and effective climate adaptation in cities and human settlements?
- What solutions are available for cities to reduce, reuse and recycle resources such as water, nutrients, and energy? How can cities build on innovative approaches and nature-based solutions to leapfrog to a sustainable circular economy?
- While 90% of climate finance goes to mitigation, resilience and adaptation only draw about 10%. What needs to change to increase funding for adaptation, and especially nature-based solutions, to increase resilience to climate risks at the scale and speed required?
- Worldwide ecosystem services are worth an estimated \$125 trillion annually. What are the barriers that green, blue, or hybrid infrastructure face to help bridge the multi-trillion-dollar financing gap for global resilient infrastructure?
- How can cities implement nature-based solutions and other measures to halt and reverse the loss of biodiversity and restore urban ecosystem services?
- How can different actors across society be empowered to pursue climate resilience?
- How can adaptive changes at the urban level integrate both rapid emission reduction and community protection?

## **6. Expected Outcomes and Impact:**

This special session will set the framework for future discussions and action on climate resilience. The panel will set the tone for local and global debates on climate adaptation including nature-based solutions and ecosystem-based adaptation, urban basic services, blue and green infrastructure, multi-level governance, finance and local knowledge.

## **7. Session Format:**

The dialogue will take advantage of its hybrid format to become highly interactive through both virtual and in-person interactions. The 2-hour session will allow the audience to take part in polling questions.

The three main themes to be discussed are:

1. Climate finance
2. Biodiversity and ecosystems value

### 3. Resilient infrastructure

Agenda:

1. Welcome and introduction
2. Two rounds of questions
3. Third round of questions including interactive activity with audience
4. Remarks