## CEPA 24th session - Dedicated observer consultation

## Leveraging key advances in building strong institutions and governance for climate action, focusing on clean energy transition (item 9)

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- The expert paper strongly advocates for green infrastructure as a heat mitigation strategy
  and clearly addresses the vulnerabilities of marginalized populations. However, urban
  greening often reproduces existing inequalities as part of urban redevelopments, instead of
  reducing it, for example, minimizing disproportionate impact of extreme heat on vulnerable
  populations.
  - This can result in what is called "green gentrification", which makes greening a tool for segregating through the production of green zones. Because there is growing evidence of this problem, green gentrification could be explicitly addressed in the expert paper.
- 2. Best practice tip (use cases): Discussing socio-technical or socio-economic challenges among governmental institutions and the research community can lead to problems (researchers want to find an <u>explanation</u> of the problem; governments want to <u>obtain a solution</u> for the problem). Creating interfaces that address the cause of a problem <u>and include insight in possible solutions can overcome this conflicting situation. Let me give two examples currently implemented in Rotterdam:</u>
  - The HitteLab ("heat lab") is a coordination and interaction effort among ongoing, heat-related research projects and field lab activities around Rotterdam. After all, projects focus on a variety of topics, for which the "heat lab" creates opportunities to find more synergies (and to exchange knowledge). The "heat lab" is not only focusing on research or solutions; it creates a pool of knowledge and experiments, leading more likely to real solutions. Therefore, coordination in the "heat lab" is concentrating on inter- and transdisciplinary approaches.
  - Developing Energy Communities with Intelligent and Sustainable Technologies (DE-CIST): The team of this scientific project develops a so-called "Energy Demand Simulator", which is an AI-driven tool that creates building renovation scenarios for individual houses in Rotterdam. Besides building properties and weather data, the simulator includes also socio-economic information to address challenges in the energy domain, such as cost of energy, energy security, energy saving and energy poverty. The simulator is developed in close cooperation with the municipality of Rotterdam. At the end of the project the simulator will be handed over to the municipality, who will use it to assess optimization scenarios, for example, focusing on cost-reduction or maximizing GHG emission reduction. This will lead to more equitable and inclusive building renovation measures for all Rotterdammers, independently whether they are owners or renters.