Riverside Development Project, Addis Ababa, Sheger River

The Addis Ababa Riverside Green Development Project, otherwise known as the “Sheger Beautifying Project” was launched in February 2019 with the aim of cleaning the city’s rivers and creating a walkable and green public realm.

The project runs alongside a total 56 km stretch, starting from Entoto and ending at the Akaki wastewater treatment plant. In the Students Reinventing Cities competition, teams should focus on the outline 5km site area (Figure 2), whilst considering the context of the project as a whole.

The project presents an important step to address river pollution, caused by ineffective waste management and illegal dumping, which threatens the environment and the health of local communities.

The project was also expected to give the city a new face by redeveloping the underutilised river and waterfront. Based on these numerous organisations and countries, including the People’s Republic of China, the African Development Bank (ADB), the Italian government, the South Korean government (KOIKA), HN-Habitat, and others, have pledged to make this green development initiative a reality.

Now in the second stage of development, the city is seeking tangible ideas through the Students Reinventing Cities Competition to enhance urban greenery and effective waste management services in the final areas of the project under development.

Approx. site area:
The general scope of the project is to redevelop a stretch of the inner-city river that spans from Entoto Mountain to Peacock Park
For this challenge, teams should focus on
  1) A 5 KM area of their choosing
  OR
  2) The identified 5km site (Figure 2) particularly between bridges 8 and 5) which is currently undeveloped.

Key Information:
Surrounding the project site there are a number of makeshift, informal settlements, which have been disrupted by construction taking place around them. Participants should consider the impacts on this community in their planning, and ensure that their solutions are accessible and inclusive of all.

Priority areas & main expectations:
The development of the site should include the incorporation of riverside greenery, as well as the establishment of an organic waste composting facility. The city is looking for tangible ideas that will be considered in the next steps towards developing the area.
Presentation of the site and development expectations

Over the last 20 years, there has been rapid urban growth and an expansion of new multi-storey buildings in the city. However, little attention has been given to the creation and maintenance of public spaces and facilities (e.g. public toilets). Many public areas have been claimed for private vehicle parking, which has contributed to the deterioration of the city’s image and urban character.

In addition, ineffective waste management threatens the environment and the health of local communities. Rubbish spills into local rivers, unmanaged waste releases harmful emissions into the atmosphere, and landfill mountains are prone to deadly landslides. The city experiences problems with the lack of appropriate services for desludging, transportation and treatment of wastewater, along with unsafe containment and open defecation.

In light of these challenges, the city has outlined a vision in its Master Plan (operational until 2027) to “create an attractive, vibrant and competitive main city centre fully equipped with quality services on par with an African centre”. Beautifying the Sheger River through this riverside project is a significant manifestation of this vision. The project aims to
transform the current urban landscape into a walkable, green public realm. Interventions include integrating stormwater retention ponds, cleaning riverbeds, and developing parks, green spaces and community gardens.

Whilst much of the project has already been completed or is under development, the specific 5km area identified for this competition is currently undeveloped. Therefore, the city is seeking an implementable proposal for this section of the river, with a specific focus on the following objectives:

- Create a pedestrian-friendly and attractive walkway, rich in urban greenery and tree cover. Teams should consider flora that works to clean the river as well.
- Integrate a mechanism to clean the river from sewage and monitor water pollution.
- Improve public facilities to ensure that they serve the residents of today, whilst being adaptable for generations to come.
  - Improve the area’s recreational purpose, through a recreational corridor with children’s playground areas).
  - Improve the sense of public ownership of the area, to foster a sense of pride and community.
  - Incorporate public toilets and other public facilities.
- Optional - Integrate an easily managed organic waste composting facility that aligns with the recommendations of the city's Climate Action Plan.
- Integrate solutions to increase the permeability of the area to retain water and minimise the impact of flooding.

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The project will also act as a new development for the city facilitating the city’s goal to redevelop inner-city slum areas, as seen by the new development demand along Friendship Park, where the land value increased by more than double in a short period of time.

**City climate priorities and specific environmental challenges**

Major climate hazards affecting the city include flooding, landslides and earthquakes. Reductions in rainfall, increases in the duration of periods between rainfalls and rainfall variability all contribute to drought events in the City17. Over the last 60 years, Addis Ababa has experienced 20 years of below-average rainfall, which has led to significant water shortages.

Rapid population growth and recent urban development have resulted in rivers being used as sewers and garbage disposal sites. Waste is retained in stagnant non-perennial (non-flowing) rivers, which results in a poor smell and pollution. During rainy seasons, the absence of effective soil conservation and planned drainage infrastructure means that streets are regularly flooded with this contaminated water. Extreme rainfall events contribute to the risk of landslides and can result in the loss of human lives.

Addis Ababa Environmental Protection Authority (AAEPA) identified that 90% of the pollutant industries in the city discharge their toxic wastes directly into local river systems without any treatment. In addition, a nitrate concentration level of 112 mg/l was reported in some waters in central Addis Ababa, which is more than double the maximum recommended by the World Health Organization.
Addis Ababa developed its first Paris Agreement Compatible Climate Action Plan (CAP) in 2021 which depicts the city’s commitment to tackle climate change and build resilience. The city aims to build a carbon-neutral and resilient nation by 2050.

The Addis Ababa CAP was developed as part of the Climate Action Planning Africa programme, which was initiated in 2017 by C40 Cities Climate Leadership Group. As part of that programme, Addis Ababa signed up for C40’s ‘Deadline 2020’, pledging to reduce GHG emissions to net zero by 2050. This CAP responds to the specific requirements of the C40 Climate Action Planning Africa programme as it is to address the Pathways towards delivering GHG emissions neutrality by 2050 (at the latest) with interim targets for the year 2030. In relation to this site, relevant objectives that the city is committed to include:

- Enhance urban greenery with heat and drought-tolerant vegetation to combat the loss of green spaces.
- Increase green vegetated buffers between urban settlements and hazardous areas prone to flooding, landslide and subsidence.
- Protecting rivers from solid waste, debris and harmful diffuse / pollution discharges.
- Expanding efficient wastewater treatment and stormwater management

Specific planning rules and regulations

Addis Ababa's Master Plan has been in place since 2017 and will be operational until 2027. Proclamation No. 295/2002, provides for the establishment of the Environmental Protection Council and Environmental Protection Authority (EPA) at the federal and regional levels. Students therefore consider the rules and regulations outlined in this plan.

Language requirements

Proposals must be submitted in English or Amharic. If you submit your work in Arabic, please include a translated copy in English too.