

Enhancing Green Infrastructure as a Climate Change Adaptation Strategy in Addis Ababa: Unlocking Institutional, Socio-Cultural and Cognitive Barriers for Application

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Abstract : In recent years with an increase in the concentration of Green House Gases (GHG), Climate Change (CC) externalities are mounting, regardless of governments, are scrambling to implement mitigation and adaptation measures. With multiple social, economic and environmental benefits, Green Infrastructure (GI) has evolved as a highly valuable policy tool to promote sustainable development and smart growth by meeting multiple objectives towards quality of life. However, despite the wide range of benefits, it's uptake in African cities such as Addis Ababa is very low due to several constraining factors. This study, through content analysis and key informant interviews, examined barriers for the uptake of GI among spatial planners in Addis Ababa. Added to this, the study has revealed that the spatial planners had insufficient knowledge about GI planning principles such as multi-functionality, integration, and connectivity, and multiscale. The practice of implementing these holistic principles in urban spatial planning is phenomenally nonexistent. The findings also revealed 20 barriers categorized under four themes, i.e., institutional, socio-cultural, resource, and cognitive barriers. Similarly, it was identified that institutional barriers (0.756), socio-cultural barriers (0.730), cognitive barriers (0.700) and resource barriers (0.642), respectively, are the foremost impending factors for the promotion of GI in Addis Ababa. It was realized that resource barriers were the least constraining factor for enshrining the GI uptake in the city. Strategies to hasten the adoption of GI in the city mainly focus on improving political will, harmonization sectorial plans, improve spatial planning and implementation practice, prioritization of GI in all planning activities, enforcement of environmental laws, introducing collaborative GI governance, creating strong and stable institutions and raising awareness on the need to conserve environment and CC externalities through education and outreach mechanisms.

Keywords : Addis Ababa, climate change, green infrastructure, spatial planning, spatial planners

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