Data Management Framework for Climate Change Adaptation with Blue-Green Infrastructure

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Blue-Green Infrastructure (BGI) has been brought forward for sustainable adaptation of climate change in the urban environment, where water and green elements of high quality are central. The BGI should be based on solutions specific to the context, e.g., local urban environment, local need for adaptation, and local visions and plans. One important obstacle reaching this goal relates to adequate provisioning of data to ensure good governance of BGI, i.e., appropriate planning, design, construction, and maintenance. We have explored the gap between data availability and implementation of BGI in urban planning authorities in Sweden. Through interviews with urban planners and experts on Geographical Information System (GIS) and BGI, we have developed a framework for structured and user-friendly data collection and use (Fig. 1) that has been validated in workshops with professionals. Identified challenges concern data availability, data management, and GIS knowledge. There is a need to improve the organisation of data management and the skills of trans-disciplinary cooperation to better understand and interpret different types of data. Moreover, different strategic goals require different data to ensure the efficient planning of BGI. This calls for closer interactions between the development of strategic political goals and data collection.

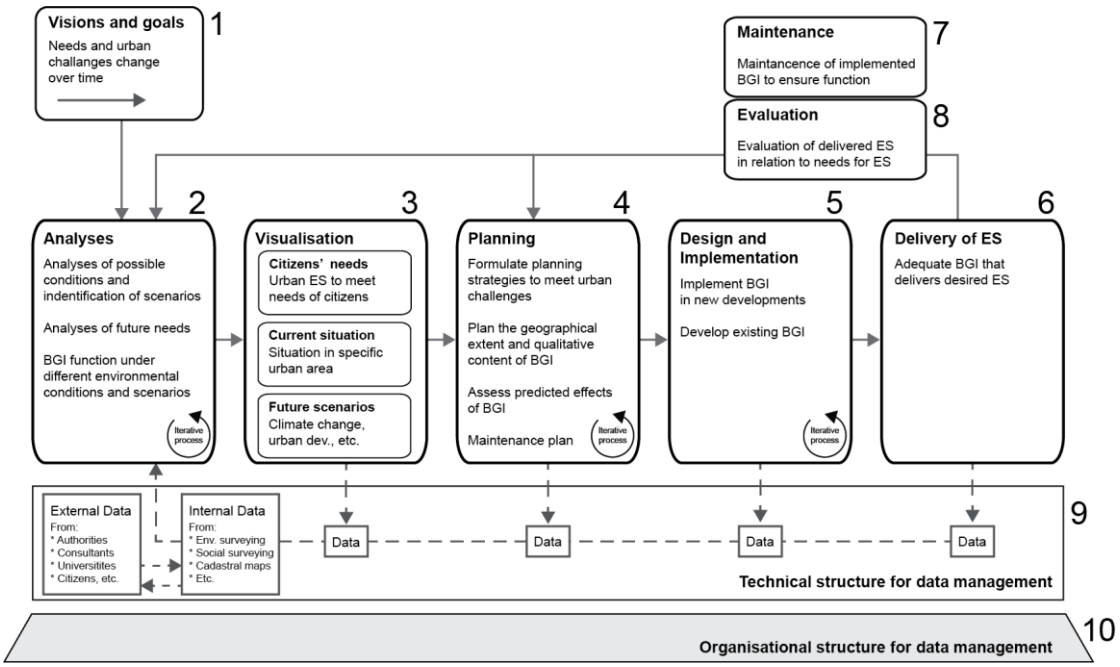

Figure 1. Part of the framework for improved information flows in urban planning of BGI.

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Consent: The presenting author is acting on behalf and with the consent of all authors of this contribution.