

Environment Planning and Management

The natural environment has become a fundamental component of planning and policy making. Thanks to the current awareness of climate change and the corresponding risks, the threat of natural disaster and the need to provide sufficient resources to sustain a growing population, integration of the natural environment into urban and territorial planning policy and processes is now seen as essential in developing resilient cities. This is of importance at all scales of urban and territorial planning, particularly considering trans-boundary resources and situations where the number of stakeholders are amplified.

The integration of climate adaptation and natural resource management has been exemplified in the **Melbourne, Australia** and **Toronto, Canada** case studies, where urban design and land use processes have seamlessly incorporated the environment, providing a sustainable future vision for the respective cities. In Melbourne, the City Council responded to harsh drought conditions and a declining natural urban environment by developing an ecosystem-based climate adaptation programme that was integrated into urban planning. In doing so, the city has harnessed opportunities in the development process, such as water sensitive urban design, while also countering the negative impacts of development, demonstrated by their Urban Forest Strategy.

Trans-boundary regions are increasingly being considered under supra-national planning policies, as is the case for the **Great Lakes Region** bordering **Canada** and the **United States of America**, and the **Sengwe-Tshipise Wilderness Corridor** crossing **Zimbabwe, Mozambique** and **South Africa**. The importance of incorporating blue, green and biodiversity corridors into planning strategies is essential in natural resource management and uniting key stakeholders. The Great Lakes Region used the technique of scenario analysis to build consensus across diverse stakeholders and secure the future of the shared resource.

Planning Compact, Integrated and Connected Cities and Regions

Compact and connected cities and regions are fundamentally more productive and less taxing on the environment than sprawling, disconnected cities and regions. Coordinating urban and territorial planning strategies with sectorial interventions is vital in this regard. Such development leads to increased job opportunities for citizens and fosters a socially inclusive urban environment.

The importance of compact planning in influencing infrastructure development and supporting a well-connected city is demonstrated in **Ahmedabad, India** and **Fukuoka, Japan**. The latter has been praised for adopting a 'Compact City Model'. Using city development frameworks to entrench the compact and connected principle in its design has reaped long term benefits in economic development, quality of life and environmental improvements.

The **Imbaba** Project in the **Greater Cairo Region** that seeks to regenerate the airport area to provide transportation, services and housing is an excellent example of compact city principles in action. Using renewal sites to achieve compact development strengthens existing cores and transport corridors, economizing on existing urban structures while creating a more integrated municipal area.

The value of graphics and mapping to highlight the integration of cities is embodied by the basic plan approach of **Lichinga, Mozambique** and **Santa Fe, Argentina**, as well as by the Rules of Land Use Development in **Yekaterinburg Russia**. Using graphic representations of current realities helped, in the case of Yekaterinburg to better integrate contrasting functions through identifying intensity of use of infrastructure, an important element to achieving sustainable economic development and quality of life.