

Introduction: The concept of smart and sustainable cities has gained significant attention in recent years as urbanization continues to accelerate worldwide. The implementation of this vision will not only enhance the quality of life for Omani citizens but also position the country as a leader in the region in terms of sustainable urban development. By integrating advanced technologies, such as Internet of Things (IoT), data analytics, and artificial intelligence (AI), Oman aims to create efficient systems for managing energy, water, waste, and transportation, thereby reducing resource consumption and minimizing environmental impacts. With its ambitious Oman Vision 2040, the country envisions transforming its urban centers into smart and sustainable cities that are equipped with cutting-edge infrastructure, efficient resource management systems, and a high quality of life for its citizens. By leveraging technology, innovation, and citizen engagement, Oman aims to transform its urban centers into vibrant, efficient, and environmentally conscious hubs. The Oman Vision 2040 serves as a comprehensive roadmap that outlines the country's long-term goals and strategies across various sectors, including urban development. Firstly, the country seeks to enhance the livability of its urban areas by improving infrastructure, transportation networks, and public services. These cities aim to leverage technology and innovative solutions to enhance the quality of life for residents while minimizing their environmental impact.