

GCC Cities Could Save \$138 Billion Between 2020 And 2030 With A Circular Economy

Cities in the GCC house 85% of the region's population—in the UAE, Dubai and Abu Dhabi contribute 83% of GDP. As a result, the GCC construction market could grow to a value between \$350 billion and \$400 billion by 2023, up 60% to 100% from its present value.

These large sums, coupled with increasing urbanization, could move the region towards a different economic model—namely a circular economy, which ensures sustainability and the efficient use of resources. Between 2020 and 2030, the GCC could save almost \$138 billion through a circular model, while reducing emissions by 150 million tons.

A circular economy creates a closed-loop material cycle across production and consumption, which avoids waste.

The model has three essential principles: it optimizes the consumption of finite resources, extracts the maximum possible use from products, and recovers waste. Making this transition requires transforming the way we source, design, manufacture, distribute, use and discard materials, with the involvement of all stakeholders and industries. There are opportunities for a circular economy in three key components of a city: the built environment, mobility systems and households.

To calculate the economic benefits in the GCC, Strategy& built an economic-environmental impact assessment model following the essential principles of the circular economy, listing the opportunities for all components of cities. These opportunities were prioritized and measured based on their relevance, the size of their impact and the expected savings in money and carbon emissions.

A circular built environment could produce benefits worth more than \$23 billion between 2020 and 2030. Sharing space can increase the use of floor space by up to 30%, reducing demand for new buildings and other additional burdens on existing resources. In the commercial sphere, multi-purposing could entail two or more companies sharing the same office. Broader adoption of modular construction, using 3D printing for building components and the adoption of renewable energy sources would also reduce waste.

A circular mobility system could achieve cumulative benefits of \$69 billion from 2020 to 2030 by reducing costs from congestion, accidents and fuel consumption. This represents savings of up to 15% on mobility expenditure. In this regard, intermodal transportation systems, which comprise multiple connected modes of transport for a single journey, are vital in reducing dependence on passenger cars. Intermodal systems rely on a digital interface that enables people to move easily between personal, shared and public transport.

Vehicle sharing, spanning short-term rentals and peer-to-peer sharing, would also reduce the number of personal car journeys. Increased adoption of electric vehicles, including battery-powered and plug-in hybrid vehicles, would cut fuel consumption and pollution significantly, and improve safety.

Finally, changing the behavior of households to reflect the goals of a circular economy is critical to minimize the use of finite resources (such as water, gas and food), reduce emissions and extract value from recycled waste. Up to \$46 billion could be saved from 2020 to 2030. Domestic fittings that consume little energy, such as LED lights, can reduce energy consumption drastically. Efficient fittings for showers and faucets can similarly cut water consumption. Even simple measures, such as turning off lights in vacant rooms or unplugging unused appliances, can bring down energy use if such behaviors became the general norm.

To change public behaviors, it is essential to have a comprehensive national framework that ensures everyone is moving in the same direction. This would encompass priorities, such as a coordinated implementation at the national and local levels, with tax and financial incentives to encourage the right behaviors.

The GCC could benefit greatly from moving towards a more sustainable path of development. To set the transition in motion, a comprehensive national framework could ensure that all stakeholders contribute towards a holistic solution. Governments can take the lead in the transition, incorporating circular behaviors within their own institutions.

Marwan Bejjani is a partner and Dr. Yahya Anouti a principal with Strategy& in the Middle East, part of the PwC network. This article is based on a World Government Summit paper—Putting GCC cities in the loop: Sustainable growth in a circular economy—developed in collaboration with Strategy&, part of the PwC network.

<https://www.forbesmiddleeast.com/gcc-cities-could-save-138-billion-between-2020-and-2030-with-a-circular-economy>