# Exploring the GCC Progress Towards United Nations Sustainable Development Goals

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#### **ABSTRACT**

The United Nations' 17 Sustainable Development Goals were agreed upon in 2015 by all the member countries to be achieved by 2030. The results of several reports reveal that some countries are making good progress to achieve these goals while the progress of others is low, and most likely, they will not be able to achieve these goals by the deadline if serious actions are not taken. The purpose of this article is to explore the progress of the Arabian Gulf region towards these goals and identify the goals in which the region has major challenges. A qualitative research approach using PRISMA compliance is adopted to extract the region's progress and commitment from 91 different documents. The results show that the region has major challenges in four goals. Specific issues associated with these goals and the GCC countries' plans to overcome these issues are discussed in the paper.

#### **KEYWORDS**

Clean Water and Sanitation, Climate Action, Environment, Fossil Fuels, GCC Region, Renewable Energy, Responsible Consumption and Production, Sustainability, Sustainable Development Goals, Zero Hunger

#### 1. INTRODUCTION

The approach of sustainability was first truly appeared in the Brundtland Commission Report, published in 1987. This report was submitted to the United Nations 42<sup>nd</sup> General Assembly session. This report truly aimed to warn the countries about the negative environmental impact caused by economic development and globalization. The report further aimed to provide solutions to the problems arising from industrialization, urbanization and population growth (Brundtland Commission, 1987). The idea of sustainability developed in the early 1980s as reported in the International Geosphere-Biosphere Programme can be defined as "meeting fundamental human needs while preserving the earth natural environment" (IGBP, 1999). Since the earth's population is increasing, it is putting pressure on the earth's resources. According to the World Economic Forum, it is estimated that food production will need to double by 2050 to feed 10 billion people on the earth (WEF, 2018). Today, sustainability has three essential pillars including environmental protection, social development, and economic growth and sustainable development can be been defined as a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Sachs, 2015). The need for sustainable development is truly recognized by all countries and thus in

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2015; the United Nations was able to introduce seventeen Sustainable Development Goals (SDGs) to be achieved by 2030 (UN-SDG, 2015; Umar et al., 2020). These goals along with its target and leading indicators that help to assess the progress of each goal are summarized in Table 2 in the Appendix. Most of the United Nations SDGs are closed to the engineering profession or in other words, the engineering profession and community have a wider role to achieve these goals. Many professional engineering organizations have already incorporated the requirement of sustainable development in professional engineering practices (Cruickshank and Fenner, 2007; Head, 2009). For instance, in 1994, the American Association of Engineering Societies issued a statement titled "The Role of the Engineer in Sustainable Development" which proclaimed that sustainable development requires "dramatic changes in the culture of engineering (McIsaac and Morey, 1998). Similarly, the Institution of Civil Engineers in the United Kingdom has incorporated the 'Sustainable Development' as one of the attributes which need is mandatory for Chartered Engineer registration. Under this attribute, the candidate required to demonstrate, (i) a sound knowledge of best practice in sustainable development, (ii) manage engineering activities in a way that contributes to sustainable development and (iii) lead continuous improvement in sustainable development (ICE member attributes, 2019).

There has been some significant progress on the United Nation SDGs made globally as reflected in the SDGs Report for 2018, however, some commitment towards some goals have also been dropped which may have an impact on the overall achievement by 2030 on those specific goals (TSDGR, 2018). For instance, some goals and indicators reflect good progress at a specific country level. For example, in the United States, the annual mean level of fine particulate matter (PM2.5) dropped to 9 micrograms per cubic meter, which was 15.7 micrograms per cubic meter in 2016 (EPA, 2017). On the other hand, the performance of some goals and their indicators has drooped down when compared at the global level. For instance, the progress of the goal 6, which aims to "ensure availability and sustainable management of water and sanitation for all" reflect that the funding commitments to the water sector dropped by more than 25% from 2012 to 2016. Similarly, the progress of the goal 11, which is related to sustainable cities and communities, reflect that between 2000 and 2014, the proportion of the world's urban population living in slums declined by 20% (from 28.4 to 22.8%). However, the rate of new home construction lagged far behind the rate of urban population growth, and the number of people living in slums increased from 807 million to 883 million over this period. The majority of those living in slums are located in three regions: Eastern and South-Eastern Asia (332 million), Central and Southern Asia (197 million) and sub-Saharan Africa (189 million). Similarly, Data from 214 cities or municipalities in 103 countries show that about three-quarters of municipal solid waste generated is collected. In sub-Saharan Africa, less than half of all municipal solid waste generated is collected, with adverse effects on the health of residents. Moreover, even when waste is collected, it is often not treated and disposed of in a sustainable and environmentally sound manner. Managing such waste continues to be a major challenge facing urban areas in several regions (Figure 1).

#### 1.1. An Overview of the GCC Region

According to the SDG Index and Dashboards Report, no country is on track towards achieving all the United Nations SDGs while countries with conflicts are experiencing the sharpest reversals in their progress (SDGIDR, 2018). At the outlook of the Gulf countries, they are normally recognized as high consumer of the earth resources and as the main contributor to CO<sub>2</sub> emission, and their low progress towards SDGs, however, some countries in gulf region have recently demonstrated their commitment towards these goals (Salahuddin and Gow, 2014; UAESDG, 2019). The GCC consist of six different countries in the Arabian Gulf including the United Arab Emirates, Saudi Arabia, Qatar, Oman, Bahrain and Kuwait (Umar et al., 2019-a). In relation to high consumption of natural resources, a study conducted by Umar and Wamuziri (2016), while exploring the wind and solar energy resources in Oman, particularly noted that energy consumption in GCC (Gulf Cooperation Council) is more than the double of the consumption in China and United Kingdom. Due to the high level of energy consumption, the average CO<sub>2</sub> emission per capita is GCC countries is (= 25.36)

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