THE PLASTIC CONVERSION OPPORTUNITY IN THE GCC: MOULDING A SUSTAINABLE FUTURE

TOWARDS A PLASTICS CIRCULAR ECONOMY
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EXECUTIVE SUMMARY

The GCC polymer industry has grown dramatically over the past decades as the region benefited from growing demand in overseas markets. Regional production capacity has soared to 28.2 million tons in 2020, growing by 3.6% CAGR since 2010. GCC polymers account for about 18% of the total, regional chemical capacity. As a result, the polymers segment has a major influence on the growth of the entire chemical industry in the region.

The years of 2019 and 2020 were challenging for the global polymer industry as a result of uncertainties in the trade war between China and the US and the rise of a global pandemic. Despite all the concerns, the GCC polymer industry still had its eyes firmly fixed on growth. In 2020, polymer capacity in the region grew by 3.6%, higher than the global growth rate of 2.1% in the same period.

Polymer supply from the GCC is driven by growing demand in end user market segments and applications, such as packaging, construction, consumer goods/products and automotive, etc. In addition, Saudi Arabia is the largest polymer producer in the region, accounting for 68% of the region’s total output. While Saudi market share in the region was declining over the past decade, its product portfolio is the most diversified, compared with other GCC countries. In 2019 it was producing about 30 products, which is the highest in the region.
Export of polymers is the fastest growing segment of the GCC chemical industry, in line with production growth. It grew by 8.3% CAGR between 2009 and 2019 reaching 24.4 million tons. Polymers represented one third (32%) of the total chemical export, up from 20% in 2008. Recognising its strategic geographical location on key global trade routes, the region has invested heavily in transport infrastructure and is striving hard to improve the ease of cross-border trade.

The GCC plastic conversion industry is gaining momentum as the region is looking to further diversify downstream in the hydrocarbon value chain. The regional plastic conversion market is relatively fragmented with the majority of the plastic converters being small, family-owned businesses. There are an estimated 1,800 plastic converters in the GCC but only a handful can be considered as large-scale businesses. Majority of the polymer product supply is being exported out of the region.

The GCC local supply and consumption of polymer products to the conversion industry in 2019 stood at 4.4 million tons, representing only 15% of total GCC polymer production in 2019. Saudi Arabia is leading local consumption representing the majority of total polymer products consumed locally at 53.4%, followed by the UAE at 45% and Oman and Kuwait at only 1.7%.

Polymer supply in the GCC is driven by growing demand in end user market segments and applications and the industry is looking to further diversify downstream to meet its growth targets. Polyethylene (largely HDPE, LDPE and LLDPE and other grades in smaller quantities) comprises the largest consumption block, representing more than half of total plastics demand in the region at 2.2 million tons, or about 50% of total polymer output supplied locally. HDPE is the most widely consumed locally of the three major PE polymer types accounting for 34.3% of the regional supply of polymers.
Saudi Arabia is the largest local polymer supplier to converters in the region. Local polymer supply to converters in Saudi Arabia, like the UAE, is driven by polyethylene (PE) and polypropylene (PP). Total supply to local conversion industry in 2019 amounts to 2.4 million tons and representing 53% of total supply to converters in the region.

For decades, the GCC region was and is associated with one image – crude oil. At the same time, the GCC governments have been working to achieve economic diversification. They have invested considerable efforts and resources in this direction, through the formulation of transformation programs and industrialization objectives. However, the continued dominance of oil and inefficiencies of past initiatives have led to the discussion about underlying challenges that slow down these ambitious plans. Every GCC economy faces various domestic challenges, but which ones are the most troublesome for the plastic conversion industry? Some of the key challenges for the regional plastic conversion industry include a limited and fragmented end user market, low manufacturing attractiveness and high logistics costs.

However, the GCC industrial development is at a turning point as the GCC governments seek to diversify economies to meet the aspirations of future generations. Much of the efforts are focused on creating and capturing value from product exports and stimulating the development of downstream industries, including the plastic conversion industry. The pressure to develop the plastic conversion industry is reaching a breaking point. Several enablers are emerging in the GCC region that create unique opportunities for the downstream industries. There is a strong alignment between a need to act and the ability to act in the region. These enablers include:

- Workforce
- Technology Acquisitions
- Acquisitions of Polymer Converters
- Government Support/Policies
- Join Ventures with Polymer Converters
- Industrial Clusters Development
- Investment in R&D and Innovation
- Support OEM Manufacturing

The plastics industry plays a crucial role in supporting sustainability and the circular economy concept in various sectors. Some of the most important contributions are in the transport, construction and food industries. Closing the circular economy loop in plastics can boost industry competitiveness and address climate change issues. In the context of plastics production and conversion, this means that plastics never become waste. Therefore, re-entering the system as valuable elements and feedstock for other products. With that, plastic leakage into natural ecosystem can be controlled and less fossil feedstocks will be utilized in the production process.

While the circular economy is still at a nascent stage, in many developed economies from which it originated, significant opportunities exist to adopt a more circular approach in the Arabia Gulf region. A move to a more circular approach can retain and increase value creation. It can also reduce our dependence on scarce natural resources and achieve alignment with the GCC national visions of sustainable long-term growth (economic).

With a focus on circular economy, up to 95% of plastics material value can be saved along its life cycle. However, the transition into circular economy will not happen overnight and requires time. This transition will require not only the design of new products that make it easier to reuse and recycle but also new business models and service offerings and strategies for adoption.

Like any big transformation, adoption of the circular economy concept in the plastics industry is easier said than done. While we are at the beginning of the journey, we must be aware that the journey is more crucial and more difficult than we could have imagined. Business, government and people need to be actively engaged in this journey with their ideas, products, business models and investments. On this transformation journey, there are many current and future challenges as the transformation process continues to evolve. In this report, we outline the most prevailing obstacles of adopting a circular economy in the plastics industry in the current time.
While challenges to make the circular economy a reality in the GCC region hinder its progress, opportunities of adopting it make it even more promising. GPCA has identified three key opportunities of adopting the business model in the Arabian Gulf. As part of the shift to a more circular business model, the industry would need to enhance the sustainability of products and applications throughout their lifecycle. To make the circular economy a reality, the industry would need to establish a multi-stakeholder approach to plastic waste reduction and management through collaboration, innovation, regulations, and consumer education. Also, further integrating the GCC petrochemicals and chemicals value chain to create and economically sustain a market for recycled materials is also a part of the vision to achieving a circular economy.
The Gulf Petrochemicals and Chemicals Association (GPCA) represents the downstream hydrocarbon industry in the Arabian Gulf. Established in 2006, the association voices the common interests of more than 250 member companies from the chemical and allied industries, accounting for over 95% of chemical output in the Gulf region. The industry makes up the second largest manufacturing sector in the region, producing over US$ 108 billion worth of products a year.

The association supports the region’s petrochemical and chemical industry through advocacy, networking and thought leadership initiatives that help member companies to connect, to share and advance knowledge, to contribute to international dialogue, and to become prime influencers in shaping the future of the global petrochemicals industry.

Committed to providing a regional platform for stakeholders from across the industry, the GPCA manages six working committees - Plastics, Supply Chain, Fertilizers, International Trade, Research and Innovation, and Responsible Care - and organizes five world-class events each year. The association also publishes an annual report, regular newsletters and reports.

For more information, please visit www.gpca.org.ae

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