Persian Gulf nations hit hard by the latest oil market downturn are planning major investments in their downstream petroleum sectors as they seek to export higher value products in place of crude while achieving economic diversification. Successful petrochemicals expansion, however, is easier said than done amid intensifying global competition, delegates at the region's premier petrochemicals conference heard Monday.

"The competitive landscape is shifting beneath our feet," Gulf Petrochemical Association chairman Yousef al-Benyan, who is also vice chairman and CEO of Saudi Arabia Basic Industries Corp., said in his keynote presentation to the annual GPCA forum in Dubai.

"Feedstock availability is no longer an advantage," he said, highlighting one of the region's key rationales for establishing large refining and petrochemicals complexes far from traditional centers of global demand.

Historically, Persian Gulf oil producers have viewed their vast reserves of relatively low-priced feedstock, derived from oil and natural gas, as a major advantage in developing their nascent chemicals industries. However, with the entire Middle East and Africa still accounting for less than 2% of global petrochemicals sales, that presumed advantage is dwindling towards irrelevance, Benyan argued.

"We are very exposed," he commented.

The emergence of US shale gas, in addition to its game-changing impact on the global upstream oil and gas industry, has triggered major changes in the global petrochemicals industry, Benyan elaborated. That is because the US shale gas boom has vastly increased North American supplies of ethane, a constituent of liquids-rich natural gas that is globally the most important feedstock for manufacturing polyethylene which, in turn, is the world's most important commodity plastic.

As a result, the US is becoming more self-sufficient in petrochemicals feedstock and products and is exporting more of both to key markets such as China, often in direct competition with Middle East suppliers, Benyan added. It now takes only 22 days to ship products by sea from Houston to Asia, versus 19 days from the Saudi Persian Gulf port of Jubail to Asia, eroding the Middle East's previous geographic advantage, he noted.

LIMITED INTERCONNECTION The Middle East region's other notable historical strength -- its possession of large state-owned petroleum and industrial enterprises with international market clout -- is also less compelling now than in the past due to increased competition from other petrochemicals producing regions. Some, including the big US Gulf Coast refining and petrochemicals facilities cluster, have succeeded in driving down manufacturing costs while increasing product innovation and improving their responsiveness to shifting product demand in a complex global market.
"Many of our complexes are standalone with limited or zero interconnections. This limits our ability to optimize configuration when prices move," Benyan said. He added that the Persian Gulf region was far more limited in this respect than either the US Gulf Coast or Europe, where refining and petrochemicals facilities are extensively interconnected by ethane supply networks.

Benyan further noted that the Gulf Cooperation Council, a loose political and economic alliance between Saudi Arabia, Kuwait, Bahrain, Qatar, the UAE and Oman, is not a member of any major international trade group, making it harder for the region’s major petrochemicals producers to penetrate new markets. While developing domestic markets is crucial to successful regional petrochemicals expansion, so is maintaining access to the international market, he said.

Describing the status quo as a "dead end," Benyan said diversification initiatives hold "a great deal of promise" for the Gulf region. Nonetheless, commodity and specialty markets are significantly different from each other, requiring "large and sophisticated organization," he cautioned.

Industry consolidation could be a better solution for the region, Benyan suggested, as it would lead to greater manufacturing and marketing efficiency through synergies and economies of scale as well as creating global networks and assets that could be leveraged.

"This might require mergers and acquisitions," he said. "We cannot continue to manage the business in the way we have managed it in the past because the environment is completely different."

REGIONAL REBALANCING

Saudi Aramco’s downstream business line head, Abdulaziz al-Judaimi, addressing delegates on behalf of Aramco CEO Amin Nasser, said there was a regional need to "rebalance" the region’s upstream petroleum sector with an expanded downstream sector, with more integration required between the two.

Undaunted by the "towering waves of change" faced by the region’s petroleum industry, Aramco was aiming to increase global petrochemicals production capacity to 34 million mt/year by 2040 from the current 12 million mt/year in concert with roughly doubling its global refining capacity to between 10 million and 12 million b/d.

"Keeping our current structure is not going to be sustainable," said Judaimi, agreeing with that mergers would be required to bolster the global competitiveness of the Gulf region's emerging petrochemicals sector.

Developing specialist production capacity for a range of new petrochemicals products is the way to go, he continued. However, as most Gulf oil producers have limited supplies of ethane, Aramco is seeking to utilize naphtha, derived from crude oil, as a major petrochemicals feedstock. In partnership with Sabic, it also hopes to pioneer new technology for direct crude-to-chemicals conversion, Judaimi said.
Belying any doubts about regional enthusiasm for downstream expansion, Abu Dhabi National Oil Co. CEO Sultan al-Jaber said the major opportunity facing the region's oil producers is the dramatic shift in trade flow of Middle East oil and petrochemicals products towards the East rather than the West.

ACCELERATING GROWTH

Predicting that demand for plastics and derived products would double by 2030 due to continued Asian demand growth, Jaber said the only way for Middle East producers to take advantage of the trade shift is to accelerate growth.

"At ADNOC, that is what we intend to do. By 2040 we will nearly triple (petrochemicals) capacity to 11 million mt/year from 4.4 million mt/year," he said. "We will also expand beyond ethane, utilizing naphtha."

Jaber said petroleum sector partnerships will become more critical than ever before.

"The most powerful partnership opportunity is right here on our own doorstep, within the GCC. By working together, aligning our interests, we can increase our reach, enter new markets and for sure grow our markets," he said. "Let us switch our focus to accessing markets. Through these efforts the GCC can and will become a petrochemicals powerhouse."

Presenting an outside view, Dow Chemical President and Chief Operating Officer Jim Fitterling agreed that the current operating model for the Gulf region's petrochemicals sector is no longer sustainable.

"The nature of competitiveness has changed, and not necessarily to the benefit of the Gulf region as a whole," he said.

Fitterling advocated developing interconnections and broader integration between all GCC production facilities, reducing the current focus on competition within the region in order to improve regional competitiveness in the global arena. He also advised GCC producers to form international and regional partnerships aimed at fostering innovation.

"You have to move beyond thinking about who owns what assets and build an environment that is more competitive for everyone," Fitterling said.

Benyan said that as CEO of Sabic, he was not so much concerned about global competition because Sabic already has a strong global footprint that allows the company to perform well. "But wearing the hat of the GPCA, we are going through a denial stage in the region. That's why we see consolidation as a big part of the future," he added.

A recent GPCA report on the GCC petrochemical and chemical industry found producers had emerged as "formidable players in the international market with rapidly expanding capabilities."
Nonetheless, the organization's secretary general, Abdulwahab al-Sadoun, noted a decline in industry profits between 2014 and 2015, which he attributed to low oil prices.

"Nevertheless, we continue to see an upward investment in research and development and growing employment figures created directly or indirectly by the downstream sector," he said. "With the chemical sector deeply embedded in the value chain of hydrocarbons, we firmly believe the industry can rebound with the normalization of oil prices."

Ironically, GCC governments are seeking to offset lower crude oil export revenue by fostering growth in countercyclical industries, with petrochemicals at the top of the list.