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Qatar

Strategic implications of economic diversification

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Introduction

The "Qatar National Vision 2030" sets the strategic goals for the State of Qatar.[1] Economic diversification and development, coupled with social advancement, and comprehensive environmental management are at the core of Qatar's current National Development Strategy.[2] Although Qatar's neighbors in the region put forward strategic goal systems for their national advancement as well,[3] Qatar differentiates itself in the way it executes those strategies.[4]

Qatar's economic policy portrays significant soft factors such as accountability, loyalty, and reliability. During the blockade imposed on Qatar as a result of the diplomatic rift between 2017 and 2020,[5] Qatar continued to deliver hydrocarbons to its Gulf neighbors via the Dolphin pipeline, thereby honoring its contractual obligations even in times of near-to-severe conflict.[6] By not reacting alike, Qatar has tried to gain the moral high-ground during the most recent diplomatic rift. This position was strengthened by Qatar's decisions to bring its case to the attention of institutions around the world, promoting the internationally accepted rule of law,[7] and engaging in multilateralism.[8]

Hydrocarbon export as the backbone of the economy

Qatar heavily relies on the global export of hydrocarbons, mainly Liquefied Natural Gas (LNG). Around 230 establishments are currently active in this economic sector. Qatar has stepped up its efforts to further capitalize on its vast North Field reserves.[9] The North Field East project is aimed at raising Qatar's LNG production from 77 million tons per annum to 110 million tons per annum by 2025. This is the

[1] For further background information, please refer to State of Qatar, Government Communications Office, at https://www.gco.gov.qa/en/about-qatar/national-vision2030/.
[2] For the National Development Strategy 2011-2016, as well as for the Second National Development Strategy 2018-2022, please see State of Qatar, Planning and Statistics Autority, at https://www.psa.gov.qa/en/nds1/Pages/default.aspx.
[3] For example, please refer to Kuwait Vision 2035, Saudi Vision 2030, and United Arab Emirates Vision 2021.
[4] For an overview of the current socio-economic landscape, also see the (forthcoming) collective volume from Zweiri, M., Al Qawasmi, F. (Eds.): Contemporary Qatar. Examining State and Society, Springer Science 2021 (ISBN 978-981-16-1390-6).
[5] A formal event during the 41st meeting of the Gulf Cooperation Council (GCC) in Al-Ula, Saudi Arabia, on January 5, 2021, ended a three-and-a-half year blockade imposed on Qatar by the „Arab Quartet" (Bahrain, Egypt, Saudi Arabia, United Arab Emirates).
[6] Hydrocarbons delivered via the Dolphin pipeline reach the United Arab Emirates, and continue on to Oman. While Oman remained neutral, the United Arab Emirates were a member of the "Arab Quartet".
[7] Qatar raised its case to counter the adversarial effects of the blockade to the United Nations (Security Council, General Assembly, and Human Rights Council), International Labour Association, International Court of Justice, International Maritime Organization, International Air Transport Association, International Civil Aviation Organization, World Health Organization, amongst others.
[8] On the occasion of the Doha Forum 2018 at the Sheraton Hotel, Qatar promoted global multilateralism as a key component of its foreign policy. While regional cooperation has remained integral, opening up across continents was discussed. Further please refer to https://2018.dohaforum.org/.
[9] In June 2020, Qatar reserved production capacity at shipyards in China and South Korea for the construction of 100 new LNG tankers. In March 2021, Qatar Petroleum issued a tender invitation to charter LNG carriers to spur further exports. See, for example, https://lloydslist.maritimeintelligence.informa.com/LL1136207/Qatar-Petroleum-tenders-charter-for-up-to-100-LNG-carriers.

world's largest LNG project to date.[10] The North Field South project takes this even further, by aiming to increase Qatar's LNG production capacity 126 million tons per annum by 2027.[11] Taken from a soft power perspective, another example of Qatar's distinct approach to national development is the utilization of the country's hydrocarbon reserves and the establishment of Ras Laffan Industrial City at a time when the global LNG market had not yet been developed – back then a courageous decision based on calculated risk.[12]

Despite the export of hydrocarbons having evolved into the backbone source of national income,[13] Qatar has experienced that these exports yield fluctuating financial returns.[14] Economic diversification therefore is aimed at risk-balancing the sources of overall national income in the long run.[15] Adding to this, hydrocarbon exports imply more than financial returns – they had secured the country from continued, deepened adversarial motivations during the 2017-2020 diplomatic rift.[16] Exporting LNG on a large-scale to Japan and South Korea, in particular, provided Qatar with a "protective layer" in multilateral negotiations during the dispute. In this light, economic diversification is believed to deliver financial and non-financial returns.

Developments in economic diversification

Qatar portrays a similar courage and drive to develop other industry sectors apart from the hugely successful LNG business, having invested more than 260 billion Qatari Rials until the end of 2020 to further diversify various industrial sectors.[17] Since the advent of the blockade in 2017, Qatar's overall industrial sectors have seen a comprehensive leap.[18] Investments in significant infrastructures for air transportation (Hamad International Airport), and sea transportation (Hamad Port, developed as a green-field solution) support further growth of key industries, such as food and pharma. To date, around 80 factories are already operational in the food and pharma sector, enabling Qatar to be independent from food imports in key supply areas.[19] Qatar established another "protective layer" by not being dependent

[10] See, for example, Murray, J.: Profiling North Field East, the world's largest-ever LNG project, in: NS Energy, February 10, 2021, at https://www.nsenergybusiness.com/features/north-field-east-project/#.
[11] Several mega LNG trains will be built in Ras Laffan for that purpose.
[12] Discovered in 1971, North Field, which is located about 80 km off the Qatar Peninsular in the Gulf, was brought on-stream in 1991.
[13] Alongside LNG, Qatar exports Liquefied Petroleum Gas (LPG), condensate, ethane, sulphur, and helium in this context.
[14] For further context, please see Foxman, S., Ratcliffe, V.: Qatar Lays Out Ambition to Be LNG King for At Least Two Decades, in: Bloomberg Markets, February 17, 2021, at https://www.bloomberg.com/news/articles/2021-02-17/biggest-lng-maker-aims-to-keep-its-throne-for-another-20-years.
Qatar Petroleum (QP) and its daughter company, Qatargas (QGas), typically seek long-term contracts with their export customers. Competition is increasing from others players such as Australia (Barrow Island Field in northwestern Australia), and the USA, for example. Therefore, QP is trying to control a larger proportion of the overall LNG supply chain. On March 30, 2021, QP announced that Qatargas (1) will become a 100% wholly-owned subsidiary of QP as of January 1, 2022. Qatargas (1), which stands for "Qatargas Liquefied Natural Gas Company Limited" is a joint venture between QP and affiliates of Total, ExxonMobil, Marubeni, and Mitsui. For further background on interorganization cooperation in hydrocarbon sectors in Qatar, see an alaysis from Qatar University at Al-Emadi, T.A.: Joint Venture Agreements in the Qatari Gas Industry. A Theoretical and Empirical Analysis, Springer Advances in Science 2019.
[15] Qatar Investment Authority (QIA) identifies investment areas to maintain the financial wealth.
[16] Contributing to this was the soft power that has arisen due to QIA's financial investments around the globe.
[17] For further information, please see State of Qatar, Ministry of Commerce and Industry, at https://www.moci.gov.qa/en/.
[18] Industrial Affairs at the Ministry of Commerce and Industry portray a high administrative efficiency and a sophisticated approach to economic diversification management.
[19] Food and pharma typically do not portray similar growth patterns, as pharma is more complicated to grow in terms of requiring patents and various property rights (developments).

on imports of key food supplies any longer.[20] In addition, the country diversifies (further) into petrochemicals, plastics, aluminium,[21] smart manufacturing, as well as medical supplies.

Due to FIFA World Championship 2022, construction and transportation have been major industrial sectors for the past ten years already, with around 250 factories in Qatar yet still. This is followed by around 180 production facilities for cement and building materials that are necessary to sustain massive urbanization of its capital Doha. FIFA 2022 also coincides with the advent of developing tourism as another means of national income.[22] Around 80% of the world's population lives within a 6-hour flight distance from Doha. In this sector, Qatar is trying to attract substantial Foreign Direct Investment (FDI), and foreign cooperation and commitment.[23]

Legal advancements and reforms

In order to spur the attraction of FDI, and to address social advancement in the labor market, Qatar has recently passed legislative and regulatory reforms. These will also support economic diversification efforts.[24] Both, the International Labour Organization, and the International Trade Union Confederation, have acknowledged the partial dismantling of Qatar's sponsorship ("kafala") system, and the introduction of a non-discriminant minimum wage for workers. Qatar is the first country in the region to establish a minimum wage rule, and it applies to all workers (regardless of their nationality) in all industrial sectors. The private sector is seen to be at the heart of economic diversification, and the government actively supports its growth.[25]

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[20] This is especially relevant for milk and dairy products, as well as poultry. Although Baladna ("Our Land") was established prior to the blockade already, its national significance rose sharply as a response to aborted milk and dairy product imports from Almarai (Saudi Arabia) in 2017. Today, Qatar is overly sufficient with milk and dairy products, (theoretically) being able to export these. Exporting (these) products requires these to be globally competitive, and it also requires excellent Logistics and Supply Chain Management capability (e.g. cool chain). Further adding to the food autonomy in Qatar is the establishment of the "Strategic Food Storage Facility" (SFSF) at Hamad Port. On this 530,000 square meters infrastructure, key food items will be stored to maintain the nation's food supplies for months in the event of possible hardship. SFSF comprises 51 storage silos with a total storage capacity of around 300,000 metric tonnes.
It is important to note that storage attributes to food autonomy, but not necessarily to food security. Food security can best be maintained by preventing monopolies to take place. Monopolies are dangerous for food security for that they potentially compromise on the quality of the food because of lack of competition.

[21] Already in 2004, Qatar Petroleum and Norsk Hydro ASA partnered in establishing a new primary aluminium plant which became fully operational in 2011. Qatalum, based in the Mesaieed Industrial Area in southern Qatar, is the largest plant of its kind ever built in one step.

[22] For an introduction, please see State of Qatar, Ministry of Foreign Affairs, at https://mofa.gov.qa/en/qatar/history-of-qatar/tourism.
The Qatar National Tourism Council focuses on establishing and diversifying Qatar as a tourist destination. The country has had prior experience in mass tourism, having welcomed more than 3 million tourists (mainly from Gulf Cooperation Council members nations and other Arab countries) before 2017. See further to this Kerbache, L.; Yadikar, B.: Getting Qatar's Tourism Sector Back on Track After COVID-19, at https://www.fairobserver.com/region/middle_east_north_africa/laoucine-kerbache-bahadir-yadikar-qatar-tourism-sector-recovery-covid-19-blockade-fifa-world-cup-news-99171/.

[23] For example, the arrival of Germany's „Mein Schiff 5" on October 22, 2019 at Doha Port's new cruise passenger terminal marked the beginning of intensified cruise tourism. Most of the cruise tourism stems either from Italian or German cruise lines.

[24] See Law 17 of 2020 (minimum wage for workers in Qatar, which affects around 400,000 workers). Further to this, see https://www.ilo.org/beirut/projects/qatar-office/WCMS_754880/lang--en/index.htm.
See Law 18 of 2020 (defining a minimum written notice required prior to termination of employment). Further to this, see https://www.ilo.org/beirut/projects/qatar-office/WCMS_754882/lang--en/index.htm.
See Law 19 of 2020 (change of jobs within Qatar without a previously-required Non-Objection Certificate from the previous employer). Further to this, see https://www.ilo.org/beirut/projects/qatar-office/WCMS_754881/lang--en/index.htm.

[25] For example, the Ministry of Commerce and Industry (MoCI) exempted around 400 factories from rental fees for their properties in 2020 to compensate for COVID-19 related hardships. The MoCI has oversight over Doha's industrial area, with Manateq being responsible to develop the country's infrastructures and economic zones (logistics parks, industrial zones, and warehousing parks).

The Qatar Free Zones Authority (QFZA) has established two free zones in Qatar,[26] which form a hub for FDI in research hubs, technical facilities, manufacturing plants, and corporate offices. The growing Qatar Free Zone at Ras Bufontas will be home to the first "Google Cloud Region" in the Middle East, as well as to DHL, which will operate a regional logistics and supply chain hub for the entire upper Gulf region. Volkswagen is developing a ground-breaking project for autonomous transportation, establishing a fleet of self-driving Level 4 electric shuttles to be operational by 2022. This falls under the new "Project Qatar Mobility".[27]

Strategic implications and challenges of diversification

Autonomous, electric mobility and sustainable transportation are among drivers going forward.[28] In general, ecological advancements are critical for further diversification. The reduction of food waste, the provision of safe energy, and the avoidance of waste of resources are important goals. In some cases, Qatar needs to find a new balance between traditional policies and current global best practices,[29] in order to achieve comprehensive sustainability management. Private households and private industrial sectors have to be engaged in these efforts. This requires sophisticated zooming-in and zooming-out of sustainable management instruments. Qatar and the entire Gulf region form a large ecosystem, where the actions of one neighbor have an immediate effect on other neighbors – on interconnected regional, national, and community levels.[30]

To further diversify its economy, Qatar constantly needs human capital on ample specialization levels. With around 300,000 of its population being citizens, and around 2.3 million being migrant workers and expatriates, "Qatarization" has become a popular strategic mindset which calls for a higher relative proportion of citizens being actively involved in (managing) the various economic activities. "Qatarization" potentially is crowding out expatriates. Here, Qatar also needs to find a new balance between the further development of a national identity[31] (which calls for more "Qatarization") versus the further provision of skilled labor – needed short-term – in all areas of diversified industrial activities (which – at the time – practically limits the implementation of "Qatarization").

Economic diversification calls for a knowledge-based economy,[32] built on education, innovation, and entrepreneurship. Qatar Foundation (QF), and its member universities,[33] as well as other Qatari

[26] Connected to Hamad International Airport is Ras Bufontas free zone, and connected to Hamad Port is Umm Al Houl free zone.
[27] Please see https://www.volkswagenag.com/en/news/2019/12/project-qatar-mobility.html# for this joint initiative of Qatar Investment Authority (QIA) and Volkswagen AG.
[28] A considerable amount of electric busses are scheduled to be operational for the FIFA World Championship 2022, for example. Mowasalat is developing theses capabilities.
[29] The traditionally established policy that entitles citizens to use electric energy free of charge – regardless of their overall energy consumption levels – nowadays potentially leads to a waste of energy in some private households. By the time this policy was introduced (several decades ago), current energy consumption levels were impossible to anticipate. This policy could therefore be translated into a modern cap and trade system that is aimed at reducing overall energy consumption over time. Private citizen households would be provided with a financial contribution from the State that could financially compensate their energy consumption bills. Only those households which consume overly large amounts of energy would need to "net pay" for the excess consumption by themselves.
[30] Qatar invests into seawater desalination, for greenhouse and human consumption. For example, see Rahman, H., Zaidi, S.J.: Desalination in Qatar. Present Status and Future Prospects, in: Civil Engineering Research Journal 6 (2018) 5, DOI: 10.19080/CERJ.2018.06.555700.
[31] The National Museum of Qatar, opened in 2019, is at the heart of preserving and "shaping" a national identity. See https://www.qm.org.qa/en/project/national-museum-qatar. Also see https://www.wernersobek.de/en/projects/focus-en/structures/national-museum-katar/.
[32] It seems evident that the country does not focus on labor-intensive industries, no matter how high the economic returns of that kind of labor might be.
[33] Education City is Qatar Foundation's (QF) flagship initiative. On this campus in Doha, Hamad Bin Khalifa University (HBKU) is its homegrown university, complemented by Carnegie Mellon University in Qatar, Georgetown University School of Foreign Service in Qatar, HEC Paris in Qatar, Northwestern University in Qatar, Texas A&M University at Qatar, Virginia Commonwealth University School of the Arts in Qatar, and Weill Cornell Medicine Qatar. While HBKU mainly focuses on graduate education in various Master's and PhD programs, the other universities mainly focus on undergraduate education in various Bachelor programs in Qatar. Education City forms a unique education hub, where these aforementioned institutions of higher learning are complemented by several schools and initiatives for pre-school, primary, as well as K-12 education.

universities,[34] further complemented by campuses from foreign institutions,[35] form an impressive backbone for higher education in Qatar. While higher education currently is largely conceptualized to be research-intensive, diversified industrial sectors might also require workforces at the level of education that typically requires an increased share of applied science[36] – as well as a system that fosters vocational training for larger layers of middle managers. In both scenarios, industry would cooperate closely with colleges and schools. College research on an applied science level would be more closely aligned with the needs of the newly diversifying industrial sectors in Qatar. This approach would work well with Small and Medium-sized Enterprises (SME), too.[37] To that end, economic diversification requires to calibrate a new balance between the quest for rigorous academic research missions that are channeled for peer-reviewed international publications (as a means to demonstrate "standing" and reputation)[38] on the one hand, versus applied scientific approaches that are aimed at helping homegrown companies to practically conquer the world market bottom-up – eventually helping SMEs via contributions from applied science to export products, innovations, and ideas from Qatar to the world (as a means to demonstrate "standing" and reputation) on the other hand.[39] This seems even more critical as SME might not be able to commit to substantial financial contributions to knowledge development that are required from corporate partners in current research contexts – some of which currently are overly commercialized to some extent.[40] Qatar Science and Technology Park (QSTP), also a part of QF's ecosystem for Research, Development, and Innovation (RDI), has attracted international expertise to Qatar. Focusing on the pillars Energy, Environment, Health Sciences, and Information and Communication Technologies, QSTP is home to a diverse group of multinationals such as ExxonMobil, Rheinmetall Barzan, Rosneft, SAP, Shell, Siemens, amongst others. To further coordinate RDI in Qatar, the Qatar Research, Development, and Innovation Council (QRDI) developed a roadmap for the future which was presented in early 2020.[41]

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[34] Community College of Qatar, Doha Institute of Graduate Studies, Lusail University, Qatar Aeronautical College, and Qatar University, for example.

[35] College of the North Atlantic Qatar, University of Aberdeen, University of Calgary, and Stenden Qatar University of Applied Sciences, for example.

[36] In Europe, this type of research is typically being provided by Universities of Applied Sciences. So far, the only University of Applied Sciences in Qatar, Stenden, is headquartered in the Netherlands.

[37] For example, in Germany the so-called „Mittelstand" has formed the backbone of economic activity for decades. Contrary to intuition, it has been the SMEs of the "Mittelstand" that deliver the majority of vocational training in Germany, some of which are global "hidden champions" in their chosen product categories.

[38] The current missions of some research universities in Qatar may be perceived as being very (if not overly) ambitious. However, Times Higher Education (THE) out of London indicates frequently that leading global universities (such as leading UK universities, or leading Ivy League schools in the USA) take several decades – at least – to develop a global reputation, footprint, and "standing" as an international best practice.
To better adjust to universities in the Middle East and North Africa (MENA) region, THE developed new Arab University Rankings in 2021. This is a region-specific ranking for MENA universities to better benchmark their performance amongst their peers. As compared to THE's flagship ranking "THE World University Rankings", the Arab ranking employs lower research criteria (for example, 500 publications over five-year period for the Arab Ranking as compared to 1,000 publications over a five-year period for the World Ranking). For further background, please see https://www.timeshighereducation.com/world-university-rankings/launch-new-arab-university-rankings.

[39] Smart technology also focuses on autonomous mobility in Qatar, for example. Ooredoo Qatar highlighted their 5G-enabled aerial taxi in early 2019. Please see https://www.ooredoo.com/en/media/news_view/ooredoos-5g-enabled-aerial-taxi-lands-at-mobile-world-congress/.

[40] While so-called in-kind contributions are accepted from companies in joint research efforts with academia, (substantial) financial contributions from companies are required to boost chances for proposals to be awarded research grants. For further background, please see Qatar National Research Fund (QNRF) at https://www.qnrf.org/en-us/, and its flagship research grant series called National Priorities Research Program (NPRP) at https://www.qnrf.org/en-us/Funding/Research-Programs/National-Priorities-Research-Program-NPRP. For co-funding policies, see https://www.qnrf.org/Portals/0/Co-funding%26Cost-sharing-policy-Final-Mar21-3_1.pdf – which details on QNRF's co-funding policy as per February 2021.
This derails from the fact that there is scientific disciplines and approaches that are hard to commercialize, for example in the Humanities and Social Sciences (HSS). Yet especially continued efforts in HSS are needed for Qatar with regards to developing contributions for its societal advancement.

[41] QRDI is chaired by the Deputy Prime Minister and State Minister for Defense Affairs, and vice-chaired by the Vice Chairperson and CEO of QF. QRDI members represent Ministry of Commerce and Industry (MoCI), Ministry of Transport and Communications (MoTC), and Ministry of Public Health, amongst others. MoTC is focusing on digitalization in Qatar, with assets under its impressive TASMU Smart Qatar program. For TASMU, please see State of Qatar, at https://www.tasmu.gov.qa/.

Qatar has developed world-class infrastructures in maritime, aviation, sports,[42] education, and healthcare.[43] From an RDI viewpoint, the country needs to attract – as well as educate and train from within – further talent on different qualification levels for a more robust innovation ecosystem, and a more robust SME environment – which will eventually feed into a more fully loaded utilization of these world-class infrastructures. A more diversified research landscape also contributes to Qatar enjoying increased levels of soft power in multilateral, public diplomacy and international politics.[44]

Outlook

Going forward, Qatar's economic policy will have to find balances to several newly emerging trade-offs. While economic diversification is financially aimed at balancing the risk-portfolio for sources of national income, it will also have to be calibrated how the newly created private sector wealth is being allocated and distributed, for example. In this situation, market monopolies are not the best solution – a "balanced" level of competition among newly established national suppliers in a "socially and environmentally balanced" market economy seems more adequate.[45]

Rather than following exclusively the traditional approach, which has imported knowledge from around the globe to Qatar (outside-in), the country could start exploring ways in exporting its knowledge gained in a diversifying economy from Qatar to the world (inside-out). All in all, the history of modern Qatar and its pragmatic policies, give reason to believe that the challenges presented herein will continue to be tackled in a forward-facing fashion.

[42] The eight stadiums for FIFA 2022, as well as Lusail racetrack, Aspire Academy, and Al Shaqab for equestrian sports, for example.
[43] Hamad Medical, and Sidra Medical and Research Center, for example.
[44] For example, Turkey was instrumental in helping Qatar to withstand pressures of the 2017-2020 diplomatic rift. This politically and economically close cooperation is enlarged by joint research efforts. The Qatar National Research Fund (QNRF) is cooperating with the Scientific and Technological Research Council of Turkey (TÜBITAK), for example in promoting joint research programs, to align research and private sector companies, in both countries. For more information, please see https://www.qnrf.org/en-us/Funding/Research-Programs/Thematic-and-Grand-Challenges-Research-Program/TÜBITAK-QNRF-Joint-Funding-Program.
[45] For example, competition ensures food security. While Baladna is the largest national provider of milk and dairy products, Ghadeer and Dandy supply that market, too.

Disclaimer
The views and opinions expressed in this article are those of the author and do not necessarily reflect the beliefs and positions of the Regional Program of the Gulf States at Konrad- Adenauer-Stiftung.

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