

Gaza's Port to Prosperity: Building a Sustainable Future Amidst Conflict

This paper explores a unique setting for port development to serve Gaza: one that seeks to balance Israel's security needs with Palestinian sovereignty aspirations. The paper presents five port options according to their locations: inside Gaza, on the border, and outside Gaza. The favored option, the South Gaza/Kerem Shalom plan, entails an autonomous Palestinian port to be constructed in Egypt, adjacent to Gaza's border. This port will be connected to the existing Kerem Shalom border crossing terminal via a dedicated 10-km port truck corridor. Then, Kerem Shalom will be expanded and turned into a logistics hub and special economic zone connected by rail to the West Bank. The chosen port solution not only addresses security concerns, but also holds promise for significant economic improvement, offering hope for Gaza and a stable peace for this war-torn region.

This paper marks the second of Dr. Kent's *For the Beauty of Logistics* series, consisting of short papers that aim to showcase how the principles of logistics can enable groundbreaking advancements, optimize processes, and revolutionize our understanding of complex systems. The first paper of the series, "From Nobel Laureates to the Cellular Supply Chain: Unveiling Logistics Concepts to Foster Wider Understanding of Scientific Research", can be accessed here: [From Nobel Laureates to the Cellular Supply Chain: Unveiling Logistics Concepts to Foster Wider Understanding of Scientific Research - Monument Economics Group \(megconsulting.com\)](https://www.megconsulting.com/monument-economics-group).

Gaza's Port to Prosperity: Building a Sustainable Future Amidst Conflict

By

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Authors' Note: The preparation of this article began before the ongoing Hamas-Israeli war and has its roots in a detailed 2016 study and summary report prepared by the Gaza Seaport Group of Experts, composed of port operations specialists, port planners and engineers, shipping executives, and geopolitical analysts.³ Co-author Dr. Asaf Ashar is a founding member of the Group. The intent of the study was to identify a permanent port solution to support Gaza's economic growth. While a range of options for creating a new port for Gaza is described in this article, we also explored other options not described here, among them using the Cyprus port of Larnaca as a logistics transit and inspection point for Israeli Navy-escorted inbound and outbound freight ferry shipments to and from Gaza.⁴ The Larnaca option requires the deployment of an Israeli security inspection team on-site at a storage facility and a pier dedicated to Palestinian cargo in Larnaca. Cargo would be placed on smaller ships for transferring between Larnaca and Gaza. However, the combination of port expansion required in Gaza, a dedicated Palestinian terminal in Larnaca, and the Israeli navy escorts rendered the concept economically infeasible for commercial freight.

A similar concept was recently introduced in Cyprus' Amalthea Initiative. It is based on establishing a temporary maritime corridor for humanitarian aid between Gaza and Larnaca. The Gaza freight will first be shipped to Larnaca by large vessels, where it would be consolidated, stored, and inspected, and then shipped by smaller vessels to a floating "mini dock" nearly 5 km off shore from Gaza; from there, shallow-draft vessels will shuttle the freight to a 550-meter floating pier built to accommodate these shallow-draft vessels.^{5,6,7,8} Since the Amalthea Initiative is focused on delivering desperately needed humanitarian aid at a time when land-based options have been

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³ Ashar, Asaf, Gaza Port Alternatives, 10 January 2019, available at [https://www.asafashar.com/Gaza%20Port%20Alternatives%20\(5.0\).pdf](https://www.asafashar.com/Gaza%20Port%20Alternatives%20(5.0).pdf).

⁴ This freight shipment option was introduced during former British Prime Minister Tony Blair's mediation of peace accord in 2015 and was reportedly approved by Hamas' Shura Council. See *Forward*, "Israel in Talks With Hamas for Long-term Gaza Truce", 17 August 2015, available at <https://forward.com/news/breaking-news/319229/israel-in-talks-with-hamas-for-longterm-gaza-truce/>.

⁵ The White House, "Joint Statement from the European Commission, the Republic of Cyprus, the United Arab Emirates, the United Kingdom, and the United States Endorsing the Activation of a Maritime Corridor to Deliver Humanitarian Assistance to Gaza", 8 March 2024, available at <https://www.whitehouse.gov/briefing-room/statements-releases/2024/03/08/joint-statement-from-the-european-commission-the-republic-of-cyprus-the-united-arab-emirates-the-united-kingdom-and-the-united-states-endorsing-the-activation-of-a-maritime-corridor-to-deliver-hum/>.

⁶ POLITICO, "EU throws weight behind Cypriot plan to ship aid to Gaza", 9 November 2023, available at <https://www.politico.eu/article/cyprus-humanitarian-aid-gaza-european-union-israel-hamas-shipments/>.

⁷ Myers, Meghann, *Navy Times*, "1,000 US troops deploying to build offshore port for Gaza aid", 8 March 2024, available at <https://www.navytimes.com/news/your-military/2024/03/08/1000-us-troops-deploying-to-build-offshore-port-for-gaza-aid/?contentQuery=%7B%22includeSections%22%3A%22%2Fhome%22%2C%22excludeSections%22%3A%22%22%2C%22feedSize%22%3A10%2C%22feedOffset%22%3A15%7D&contentFeatureId=f0fmoahPVC2AbfL-2-1-8>.

⁸ *The Maritime Executive*, "U.S. Releases More Details of Floating Port for Gaza", 21 March 2024, available at <https://maritime-executive.com/article/u-s-releases-more-details-of-floating-port-for-gaza>.

hindered, commercial viability is not a primary concern. On a commercial basis, we discarded the notion of establishing a Larnaca-based shipping system due to the extensive infrastructure that would need to be developed as well as the operational costs associated with the double-handling of ships, the additional sailing distance required by vessels detoured to Cyprus, and the costly Israeli navy escort. Humanitarian initiatives are not, and should not be, held to the same commercial viability standards as commercial freight ventures. Our dismissal of the commercially based ferry system option should not be interpreted as our lack of support for the Almathea Initiative's humanitarian efforts, but it should be understood the Initiative's effort is not the permanent port solution that Gaza needs to ensure trade and industrial growth.

Continuous political tensions, security issues, and related restrictions on the movement of people and goods have hindered Gaza's economic performance for many years. Gaza has been in a state of chronic military conflict, adversely affecting its economic performance. Before the ongoing Hamas-Israeli war, Gaza's unemployment rate was 46.6 percent, and even higher for young people (19-29 years of age) holding Associate Diploma Certificates at 75 percent.⁹ Gaza's poverty rate in 2020 is estimated to have reached 61 percent.¹⁰ The current conflict is expected to result in a 16-19 year setback to Gaza's level of human development, effectively returning Gaza to its state of human development as it was in 2004.^{11,12}

The ongoing Hamas-Israeli war undoubtedly will require an extensive recovery period, entailing substantial rebuilding in Northern, Central, and Southern Gaza. Reconstruction efforts will understandably prioritize essential infrastructure, including hospitals, schools, roads, and utilities, to lay the foundation for economic growth. While immediate reconstruction takes precedence, it is also opportune to begin planning for longer-term economic development, which involves reforming governance and government institutions, expanding international trade relationships, and enhancing workforce capacity for sustained employment and economic growth. The reconstruction efforts and expansion of international trade require the availability of a port in, adjacent to, or nearby Gaza.

Gaza's former port held a rich historical significance, dating back to Roman and Ottoman times, serving as a vital hub for trade and cultural exchange.¹³ For Palestinians, a port is not only vital for economic reasons, but is also critical to sovereignty, playing a role in the furtherance of peace efforts. The commitment to rebuild Gaza's seaport was enshrined in the 1993 Oslo Accords¹⁴ and the 1999 Sharm el-

⁹ PCBS Palestine Central Bureau of Statistics, "Press Release on the Results of the Labor Force Survey -- Third Quarter (July – September 2022) Round", available at <https://www.pcbs.gov.ps/site/512/default.aspx?tabID=512&lang=en&ItemID=4353&mid=3171&wversion=Staging>, accessed 12 December 2023.

¹⁰ See UNDP, "Gaza war: expected socioeconomic impacts on the State of Palestine -- Preliminary estimations until 5 November 2023", p. 8, available at [file:///C:/Users/pkent/Downloads/2301926E-Policybrief-GazaWAR-ESCWA-UNDP-English-4pm%20\(1\).pdf](file:///C:/Users/pkent/Downloads/2301926E-Policybrief-GazaWAR-ESCWA-UNDP-English-4pm%20(1).pdf), accessed 12 December 2023.

¹¹ *Ibid.*, p. 10.

¹² UNDP, Human Development Reports, Human Development Index, at <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>.

¹³ See, for example, Halevy, Dotan, "Being imperial, being ephemeral: Ottoman modernity on Gaza's Seashore" in *From the Household to the Wider World*, Universität Tübingen, Germany, February 2023, available at https://publikationen.uni-tuebingen.de/xmlui/bitstream/handle/10900/130886/Halevy_being-imperial_oa.pdf?sequence=2&isAllowed=y, accessed 8 December 2023. See also BBC News, "Gaza's archaeological treasures at risk from war and neglect", 7 January 2013, available at <https://www.bbc.com/news/world-middle-east-20853440>, accessed 8 December 2023.

¹⁴ See Israel Ministry of Foreign Affairs, "Declaration of Principles", 13 September 1993, available at: <https://www.gov.il/en/Departments/General/declaration-of-principles>.

Sheikh Memorandum¹⁵. Despite initial progress, construction halted with the onset of the Second Intifada in 2000, and the port was ultimately destroyed by Israel in 2002. The 2005 Agreement on Movement and Access could have kickstarted the port's construction, but security concerns and political dynamics hindered its realization. Today, the former port location is now impractical due to surrounding urban developments, road access, and insufficient land for port-related industries.

Absent its own port, Gazan cargoes today depend on Israel's Port of Ashdod and Kerem Shalom Border Crossing connecting Israel, Egypt, and Gaza, where cargoes encounter a series of impediments. These include exorbitant port charges, rigorous and time-consuming multiple inspections¹⁶, the need for truck changes at the border¹⁷, and a substantial truck transit charge amounting to approximately \$1,500 for the roughly 90 km Ashdod-Kerem Shalom route. Such non-tariff barriers place a significant financial strain on Palestinian cargoes and substantially increase the price of imports. The impact is substantial, with the average trade cost per transaction for a Palestinian firm nearly three times as high as that for an Israeli firm. Moreover, the average duration of the import process for a Palestinian firm is nearly four times as long as it is for an Israeli counterpart.¹⁸

The historical imposition of restrictions and border closures has markedly disrupted Gaza's trade links with the West Bank, East Jerusalem, and global markets. These trade barriers have created an imbalanced reliance on Israel as the predominant trading partner while also creating uncertainty for other country partners to receive Gaza's traded goods. Over the past two decades, Gaza's dependence on Israeli trade has steadily risen, escalating from approximately 35 percent in 2002 to a significant 72

¹⁵ See Israel Ministry of Foreign Affairs, "Sharm el-Sheikh Memorandum on Implementation Timeline of Outstanding Commitments of Agreements Signed and the Resumption of Permanent Status Negotiations" (Section 6. Gaza Sea Port), available at: <https://www.gov.il/en/Departments/General/sharm-el-sheikh-memorandum-on-implementation-timeline>.

¹⁶ For example, the Israeli Ministry of Defense charges between \$70-\$200 Kerem Shalom truck entrance fees for each truckload, depending on commodity and truck size. Kerem Shalom reportedly had about 8,400 trucks/month entering Kerem Shalom in 2018, with the Ministry of Defense collecting nearly \$16 million in entrance fees the same year. Palestinian authorities also impose fees and taxes on the Palestinian side of the crossing, including a "solidarity tax" of \$14-\$58/ton for about 100 different commodities; the solidarity tax is intended to protect local producers. Israel also restricts the height of shipments to 1.6 meters, requiring more trucks (and hence higher transport costs) to pass through the crossing. See Gisha, "Kerem Shalom Crossing", 3 March 2020, available at <https://features.gisha.org/kerem-shalom-crossing/>, accessed 13 December 2023.

¹⁷ In Kerem Shalom, the Israel/Gaza transfer of freight requires three trucks, with one designated as a "sterile" vehicle permanently staying within the Kerem Shalom complex. Israeli trucks carrying goods intended for Gaza undergo x-ray scanning, then the trucks are unloaded and their cargo staged inside a designated enclosed space for security and customs examinations. Subsequently, the items are reloaded onto the "sterile" truck within the terminal, which then proceeds to the Palestinian side to unload into a second enclosed space, controlled by Hamas. Once this area reaches capacity, the gates leading to the Israeli side are closed. For each subsequent load, a third Palestinian truck enters the process, facilitating the loading and delivery of goods to Gaza. See World Bank, *Unlocking the Trade Potential of the Palestinian Economy: Immediate Measures and a Long-Term Vision to Improve Palestinian Trade and Economic Outcomes*, 1 January 2017, p. 39. Available at <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/960071513228856631/unlocking-the-trade-potential-of-the-palestinian-economy-immediate-measures-and-a-long-term-vision-to-improve-palestinian-trade-and-economic-outcomes>.

¹⁸ United Nations Conference on Trade and Development (UNCTAD) -- Trade and Development Board, "Developments in the economy of the Occupied Palestinian Territory", 11 September 2023, p. 5, citing World Bank, "Economic Monitoring Report to the Ad Hoc Liaison Committee, April 2023." UNCTAD report available at https://unctad.org/system/files/official-document/tdbex74d2_en.pdf, accessed 9 December 2023.

percent of the overall Palestinian trade in 2022. Consequently, this has led to a bilateral trade deficit of \$5.3 billion, equivalent to 28 percent of Palestinian GDP.¹⁹

Past Efforts to Establish a Port in Gaza

In 2011, Israel's Transportation and Intelligence Minister proposed building a 534-hectare island off the Gaza coast with a port, airport, causeway, and power and desalination plants, to be administered by the Palestinian Authority (Figure 1). This port was ultimately rejected due to cost (now up from \$5 billion to \$12 billion at full buildout²⁰), limited market demand relative to the scale of the project, environmental concerns, and security control issues as well as opposition from Palestinian authorities. In 2015, an attempt by Hamas to use Gaza City's existing fishing port for international trade was blocked by Israel and Egypt.²¹ The Minister of Transport resurrected his island port plan in 2016, with the expectation that the project would be financed by other countries that held joint security interests with Israel;²² but this time the project again would be dismissed largely due to cost as well as security concerns, with Israel's insistence that the port should be under Israeli control, which would run against Gaza's sovereignty interest.²³ The fact that the Minister's plan would locate the port well offshore Gaza and would connect to the Gaza shore via a 4.5 km causeway also raises Israeli concerns about its security.

We now turn our focus to more pragmatic alternatives that to varying degrees hold the promise of economic growth, employment generation, and regional stability.²⁴ Five port options are described, and an assessment is performed based on a multi-criteria analysis, with one option clearly rising to the top in

¹⁹ Ibid., p. 5.

²⁰ For the sake of discussion, let's assume that 1/3 of the \$5 billion estimated cost of the Island's construction, or \$1.7 billion (5 x 1/3), is allocated to the port's basic infrastructure. An additional \$0.5 billion would be needed for the port's superstructure, which includes utilities, docks, yards, fences, gates, and equipment such as gantry and yard cranes. This brings the total investment required for the major port planned on the Island to about \$2.2 billion – almost 10 times the \$250 million estimated for the local ports considered in the South and North Gaza Plans (discussed below).

When considering the construction cost of the island, which could reach up to \$12 billion, the cost ratio between the Island and shore-based port may reach 20. Furthermore, in addition to the initial construction cost, an artificial island such as the one proposed, especially in open sea, requires costly periodic maintenance due to settlement and loss of fill material as well as for the highly exposed marine structures. Additionally, there would be periodic remedial costs for the affected shoreline.

²¹ Israel National News, "Hamas Ultimatum: Open Gaza Sea Port or Truce Ends", 7 August 2014, available at: <https://www.israelnationalnews.com/news/183837>.

²² *Newsweek*, "Israel Plans for Billion-Dollar Artificial Island Off Gaza's Coast", 21 June 2016, available at: <https://www.newsweek.com/israel-advancing-billion-dollar-island-gaza-palestine-airport-hamas-netanyahu-472781> and *The Times of Israel*, "Minister floats plan for Gaza seaport island to end blockade", 10 March 2017, available at: <https://www.timesofisrael.com/minister-floats-plan-for-gaza-seaport-island-to-end-blockade/>.

²³ *Israel National News*, "Katz: Gaza port would release us from Gaza", 22 June 2016, available at: <https://www.israelnationalnews.com/news/213970>.

²⁴ The brief descriptions for each option are provided in far greater detail in Asaf Ashar and Gaza Seaport Group of Experts, *Gaza Ports Alternatives*, 21 August 2019. The study was initiated in response to the 2016 publication of the Gaza Island Plan and is based on extensive interviews and site visits, reviews of past studies on ports in Israel and in the region, and an assessments of shipping services, trade statistics, and environmental issues. The Group of Experts was composed of seasoned port operations specialists, port planners and engineers, shipping executives, and geopolitical analysts, including renowned lawyer Joel Singer, the framer of Oslo Peace Accord.

Figure 1. Gaza 534-Hectare Island Plan



Source: The Times of Israel, “In new vid, Israeli minister promotes Gaza island plan”, 29 June 2017, available at: <https://www.timesofisrael.com/israeli-intelligence-minister-promotes-gaza-island-plan-with-new-video/>; video of the Gaza Island Plan available at <https://www.timesofisrael.com/israeli-intelligence-minister-promotes-gaza-island-plan-with-new-video/>.

our assessment. We emphasize, however, that the recommended option requires further assessment relative to economic and technical feasibility.

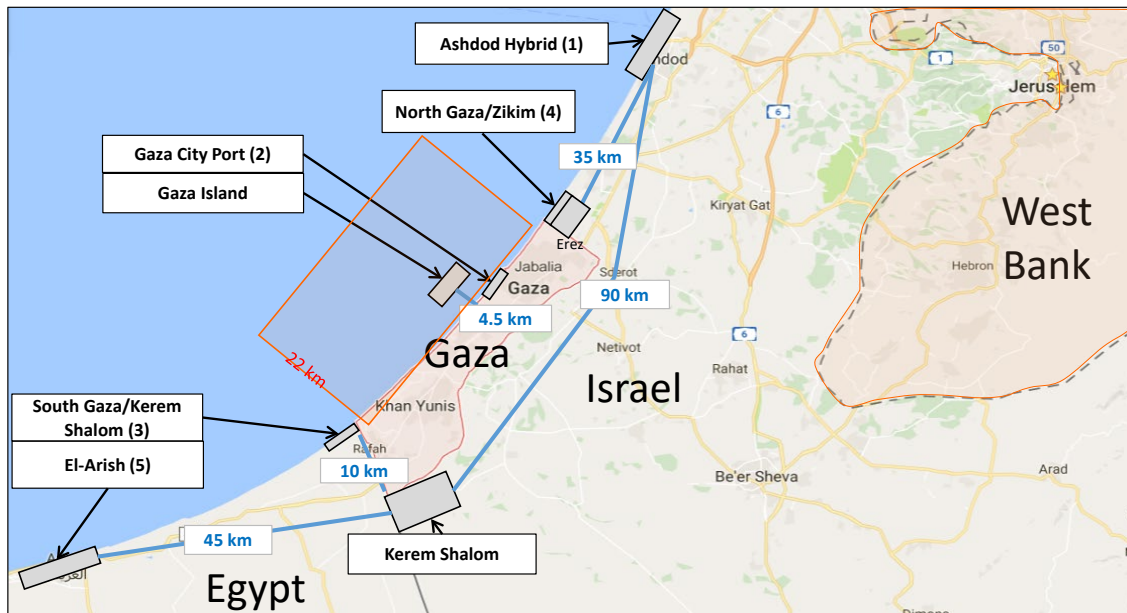
Dedicated Port for Gaza’s Reconstruction and Trade

Gaza’s reconstruction effort will have to continue to rely on Ashdod in Israel or possibly Egypt’s El-Arish port, located about 90 km and 45 km, respectively, from Kerem Shalom, Gaza’s freight border crossing (Figure 2). The institutional, security, and logistics arrangements for using Ashdod are already well established, while such arrangements would need to be developed for using El-Arish as an *ad hoc* remedy for handling Gazan reconstruction cargoes. Hence, the use of both ports imposes significant costs on Gazan shippers. Though El-Arish offers the advantage of being somewhat closer to the Egyptian-Gazan border crossing at Rafah (which, at the time of writing this article, was closed to goods shipments), it is also likely that Egyptian trucks will move Gazan international freight from El-Arish through Kerem Shalom in the same way that Israeli trucks move freight between Ashdod and Kerem Shalom, with the same change of trucks, security checks, and cargo processing as is currently in place for Gaza’s Ashdod-related cargoes. Figure 2 shows the location of the five options under consideration as well as the dismissed Island Port Plan.

1. Ashdod Hybrid Option

This option involves designating a pier in Ashdod solely for handling Palestinian cargoes and using the Erez border crossing in North Gaza located 35 km south of Ashdod, instead of Kerem Shalom, which is 90 km south. The option envisions the pier being under the administrative control of the Palestinian Authority with Palestinian Customs officers and labor from Gaza and the West Bank deployed for cargo

Figure 2. Port Options for Gaza



clearance and handling operations. Given recent and ongoing improvements to port facilities, dedicating a pier for Palestinian cargoes would not have a material impact on Ashdod's port capacity and performance.

It is worth noting that Israel, prior to the ongoing war, had established quotas for work permits allowing Gazans to work in Israel. In March 2022, Israel increased the permits from 12,000 to 20,000, with a pledge to further increase them to 30,000 at the request of the Qatari envoy. Many Gazans holding such permits stay in Israel for the entire week and only return to Gaza for weekends. Therefore, the concept of a marine terminal employing Gazans is not foreign to Israel.

However, the Ashdod option, while simple in concept, would likely face resistance from Israel in dedicating an autonomous operation to the Palestinian Authority inside Israel's largest port, which also hosts a significant Israeli navy base. Additionally, though the border crossing in Erez was used in the past to process Gazan cargoes, the increase in cargo volumes and the limited size of inspection facilities led to the consolidation of border operations in Kerem Shalom. Larger and more sophisticated facilities were constructed there, taking advantage of the available space. Furthermore, the Palestinian Authority rejected Israel's prior offer to dedicate an Ashdod pier for Palestinian cargo, viewing the arrangement as a superficial variation of the current procedures in Ashdod.

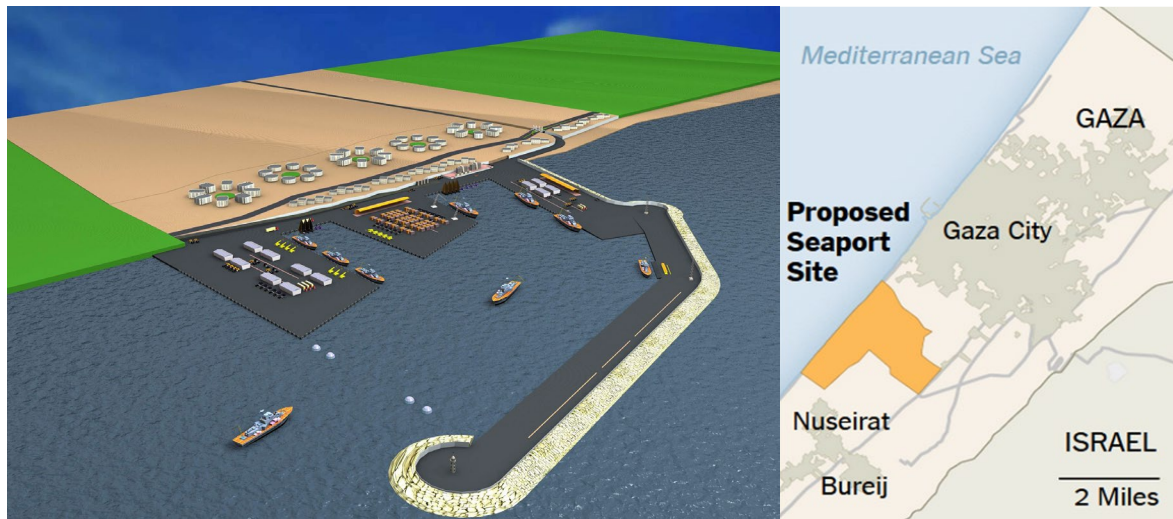
Israel's position is somewhat unclear. While benefiting from economic activities related to Palestinian traffic, Israel also prefers that, as part of its separation policy, Palestine severs its dependence on Israeli ports and establishes its own port. The Palestinian Authority considers the continuation of the present system as the least desirable option. However, due to a lack of other viable alternatives, the Palestinian Authority and Hamas have begrudgingly cooperated with Israel until the ongoing war began.

Egypt has not been involved in the debate on the Palestinian port. Hence, Egypt's position is unclear. However, it seems that since Egypt's main concern is its own security, it may just agree to a continuation of the current Ashdod/Kerem Shalom arrangement.

2. Nuseirat Gaza City Port

As previously noted, there has been some support for the development of a new Gaza City Port, located in the Nuseirat area adjacent to Gaza City's boundary about 3 km south of the existing small fishing port within Gaza City (Figure 3). This plan dates to the early 1990s, envisioning a port primarily designed for handling general and liquid bulk cargoes.

Figure 3. Gaza City Port Option



Source: Israelandstuff.com, "Report: Israel Allowing Turkey Plan \$5 billion Gaza Seaport, 6 February 2016, available at: <https://www.israelandstuff.com/report-israel-allowing-turkey-plan-5-billion-gaza-seaport>".

The construction of the port comes with several challenges and considerations. The estimated cost, factoring in requirements for larger ship sizes that affect the port's design, ranges from \$300 to \$400 million, though Turkey in its promotion of the port's development initially estimated a cost at \$5 billion.²⁵ The port's location poses a significant challenge due to its densely populated surroundings, including nearby refugee camps. These camps constrain the port's layout and especially its landside accessibility.

The proposed port also includes plans for a tank farm for oil storage, which raises environmental concerns and exposing the nearby population to potential hazards. Providing highway access for heavy trucks to the port through the refugee camps would require substantial demolition and evictions, adding to the difficulties of the port's development. Another concern is the port's limited capacity, which raises concerns about its ability to handle Gaza's entire import and export traffic effectively. This limited capacity could result in only a portion of Gaza's trade being handled by this port, with the remaining Gazan cargoes having to continue to rely on the existing Kerem Shalom crossing.

Israel views the Gaza City Port plan as a security risk, even with proposed international inspectors and security measures in place. Though the port aligns with Palestinian aspirations for an independent port, a key requirement in past negotiations, constructing and operating a standalone port of this scale comes with a substantial cost, and the limited capacity raises concerns about its economic viability. The

²⁵ See IsraelandStuff.com, "Report: Israel Allowing Turkey Plan \$5 Billion Gaza Seaport", 6 February 2016, available at: <https://www.israelandstuff.com/report-israel-allowing-turkey-plan-5-billion-gaza-seaport>.

potential economic impact is also limited by the port's size and facilities, especially when compared to the envisioned industrial parks at other potential port sites.

The port may be supported by Hamas as a political victory and as a potential revenue source, while the Palestinian Authority objects to its development, viewing it as an attempt by Hamas to create its own separate state. Israel opposes the plan due to security concerns, and Egypt is likely to support Israel's opposition due to shared security concerns in the region.

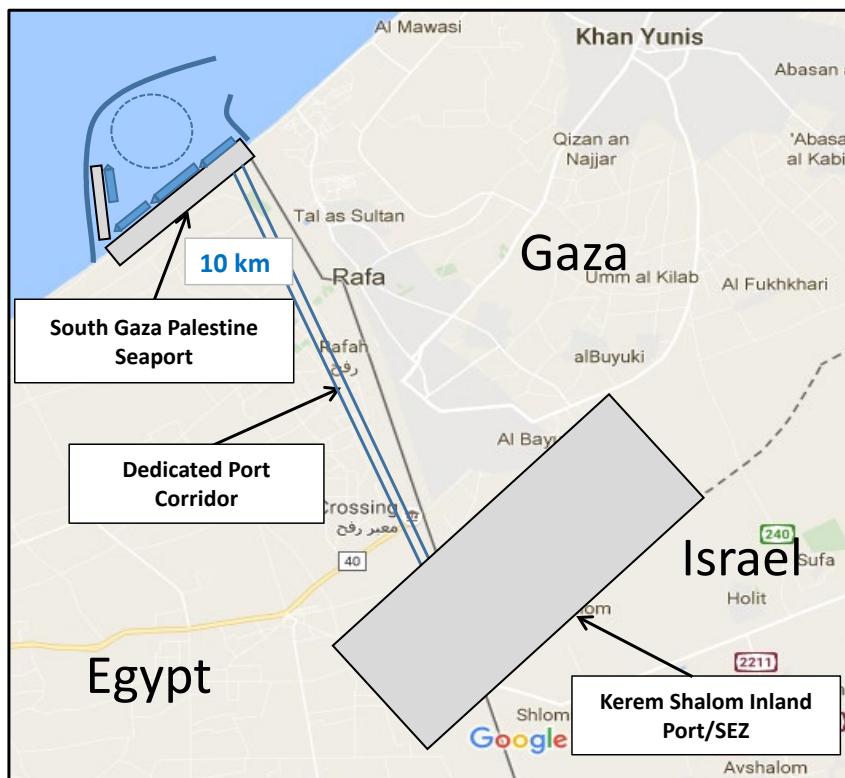
In summary, Hamas' proposal for the Gaza City Port presents various challenges and considerations, including high cost, environmental impact, limited capacity, and potential security risks. While it aligns with Palestinian aspirations for an independent port, the practicality and feasibility of such a project remain under scrutiny, particularly considering its economic viability and political implications.

3. South Gaza/Kerem Shalom

The South Gaza/Kerem Shalom plan is based on locating the Palestinian port on Egyptian land adjacent to the Gaza/Egypt border, functioning as a sea extension of an expanded Kerem Shalom (Figure 4). It emphasizes direct delivery of cargo to Kerem Shalom for “dry” port processing. In addition, the plan includes expanding Kerem Shalom to include logistics and industrial parks and special economic zone (SEZ). The plan addresses security, economic feasibility, and political concerns, offering a comprehensive solution for Gaza's port needs.

The South Gaza Port would be located on the Egyptian shoreline adjoining Gaza's south border, situated only 10 km from Kerem Shalom. The port would handle goods specific to Gazan needs, while also being open for potential use by West Bank shippers if land linkages are improved. Egypt would lease the port

Figure 4. South Gaza Port Option



site to either a Palestinian authority or a third party with a concession to operate it, generating lease revenue for Egypt.

A terminal operator awarded the concession would be responsible for the port's development costs, including breakwaters, the entrance channel, turning basin, docks, a paved yard, and cargo handling equipment. The port's initial development cost is estimated at \$200-250 million with a capacity of about 3+ million tons, to be completed in 2-3 years. Furthermore, the concession could potentially include rights to develop and operate the Kerem Shalom inland port, logistics park, and SEZ.²⁶

Ideally, the port would operate as a partnership between a Palestinian authority and a global port operator, with all Gazan traffic required to pass through the South Gaza Port. This arrangement would make it attractive to a global operator, while offering the potential to compete for other non-Gazan cargoes against Ashdod. The port's operations are designed for direct delivery, with no cargo storage in the port, which is on Egyptian land. Cargo would be transferred directly from ships to port trailers and immediately transported to Kerem Shalom for storage and processing. A dedicated and secured 10 km road corridor would connect the sea and the Kerem Shalom inland ports, exclusively for port trucks' use, facilitating efficient cargo transfer and obviating the need for Customs clearance within the port area.

Kerem Shalom's development involves transforming it into a Tri-State (Egypt, Israel, and Palestine) Logistics Hub and SEZ, focusing on manufacturing of construction materials, petrochemicals, and textiles, among other products. The expanded Kerem Shalom, particularly with the development of a dedicated rail connection to the West Bank for imports and exports, is expected to provide a significant economic boost for Gaza, the West Bank, Egypt's Northern Sinai region and possibly Southern Israel.²⁷

4. North Gaza/Zikim

The North Gaza Port Plan mirrors the South Gaza Plan, but with the port's location along the northern border of Gaza with Israel (see Figure 2 above). In this setup, marine facilities are situated in Israel, including landside facilities for cargo storage and inspection for the Gazan cargo. The focal point of this plan is the Zikim Border-Crossing Terminal, positioned on approximately 40 hectares near the Zikim military base.

One key difference between the North and South Gaza plans is the proximity of inspection facilities to the marine terminal in the former, resulting in transportation cost savings. Freight processing involves grounding Gazan cargo in cells at the Gazan-Israeli North Gaza border, then utilizing "sterile" trucks to transport the cleared cargo to the Jabalia Crossing, located within the Northern No-Go Zone.

²⁶ In fact, there are several cases where port operators have also developed SEZ or industrial sites with multiple tenants. These include Jebel Ali in Dubai, where DP World developed and operates the port and the adjacent Jebel Ali Free Zone. Another example is the Port of Salalah in Oman (operated by APMT), whose development and that of the special economic zone were originally managed by the Port of Rotterdam.

²⁷ The Kerem Shalom plan, with the border crossing terminal converting into a logistics hub and SEZ, is likely to require more land for production and processing. There is developable land adjacent to Kerem Shalom under Israeli control to accommodate Kerem Shalom's expanded role that can be made available via a land swap negotiated between Palestinian authorities and Israel. Past land swap efforts have been controversial as they were tied to Israeli settlements in the West Bank. As both Israel and Palestine can benefit economically from Kerem Shalom's further development, a land swap may be feasible.

This plan offers advantages, particularly from a political perspective for Israel, as it can move forward without requiring Egyptian consent. Additionally, its proximity to the West Bank and Israel could prove beneficial for trade relations. However, there is limited developable land on both sides of the border, restricting the potential for large-scale port-related industrial parks or facilities within Gaza, as envisioned for the Kerem Shalom site. Furthermore, the Zikim Crossing likely would not have the capacity to handle all the current traffic processed in Kerem Shalom.

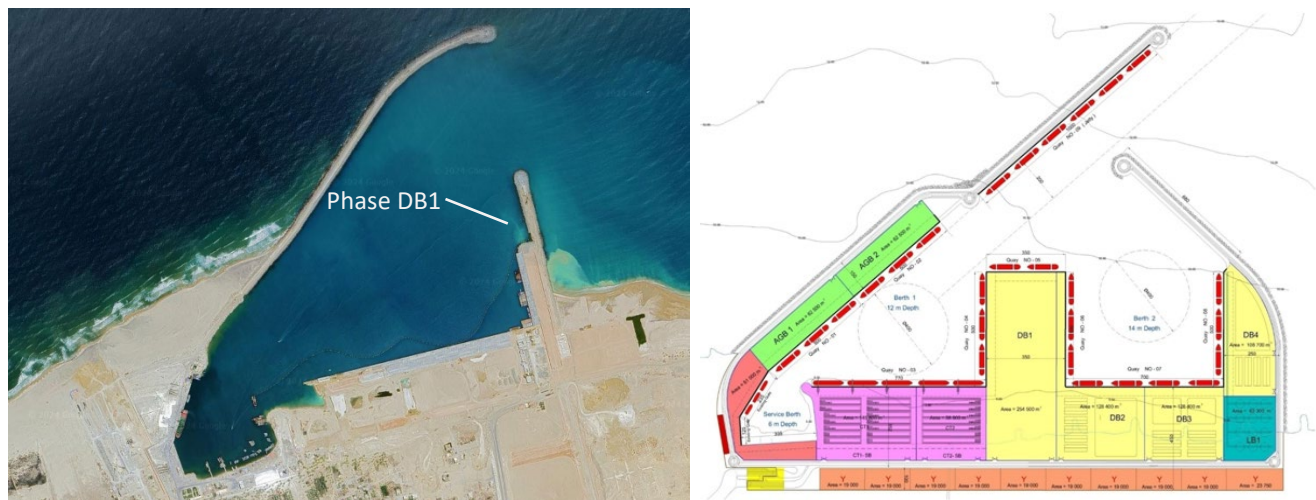
Israel's security considerations align with the current system based in Ashdod and Kerem Shalom. From the perspective of Palestinian aspirations, this plan is less appealing than the South Gaza option due to Israeli control. Despite these challenges, the North Gaza Plan remains economically viable due to its monopoly on handling Gazan cargo. However, its economic impact is constrained by the limited space available for industrial development.

Politically, the plan may be attractive to Palestinians for its potential for immediate implementation. However, Israel might object due to perceived issues surrounding land transfer. In short, the North Gaza/Zikim Plan is a variation of the South Gaza Plan, featuring marine facilities in Israel for cargo inspections and inland port operations in Gaza. While it provides political advantages for Israel in terms of implementation, it has limited expansion space for industrial development compared to the South Gaza Plan. Palestinians may find it appealing for its immediacy, but Israel's potential objections based on land transfer issues could pose challenges. Overall, the economic impact of the South Gaza Plan is substantially greater than the North Gaza Plan.

5. Autonomous Palestinian Terminal in El-Arish Port/Kerem Shalom

Central to this plan is the establishment of an autonomous marine terminal for the Palestinian Authority on Egyptian territory at the existing port of El-Arish (see Figure 5), situated about 45 km south of Kerem Shalom. The Gazan cargo will be trucked to Kerem Shalom for processing and inspection similar to the South and North Gaza plans.

Figure 5. Ongoing Expansion (Left) and Development Phases (Right) – El Arish Port, Egypt



Source: Left, Google Earth, image available at <https://earth.google.com/web/@31.15875628,33.83412929,-0.75643774a,4636.68320202d,35y,0h,0t,0r>; Right, SCZone, Al Arish Port Master Plan, showing four development phases, with ongoing development (Phase DB1) shown on left image.

This option hinges on providing a port concession on Egyptian lands, subject to Egypt's approval, in exchange for a fixed annual (lease) payment as outlined in a concession contract. Historically, Egypt has shown support for Palestinians, and discussions have included considerations of land transfers or leases involving Egypt, the United States, and the Palestinian Authority. Moreover, Egypt has utilized facilities at El-Arish Port for Gaza traffic and maintains security along Gaza's southern border.

Similar arrangements are seen globally, where neighboring landlocked countries are provided with autonomous terminals in coastal countries through long-term leases. Examples include Tanzania for Zambia, Tanzania for Malawi, and Peru for Bolivia, among others. Notably, Saudi Arabia provided Jordan with most of the land needed to expand Aqaba Port. It is important to note that in all these instances, the port land was granted under long-term leases, with no transfer of sovereignty—unlike the situation with the strategically located Red Sea Islands of Tiran and Sanafir, where the transfer has been delayed since the 2017 agreement by Egypt to cede the islands to Saudi Arabia.²⁸

A global port operator is anticipated to invest in and manage the Palestinian terminal, following similar approaches observed in other ports. For instance, all of Egypt's new ports at the entrances of the recently expanded Suez Canal were entrusted to foreign global port operators through concessions, typically consisting of long-term leases. Alexandria's main container terminal is under concession to HPH, based in Hong Kong, and Port Said to APM Terminal, headquartered in The Hague, Netherlands. More recently, the El Sokhna port, located at the southern entrance to the Suez Canal, was concessioned to Dubai-based DPW, a \$700 million investment. A similar model was implemented with Israel's new ports in Ashdod and Haifa, both of which were awarded to foreign concessionaires: Ashdod's new Hadarom Port concession was awarded to the Swiss-based Terminal Investment Ltd (TIL), and Haifa's Hamifratz Port concession to the China-based Shanghai International Ports Group (SIPG), with each concession involving investments of about \$500 million.

Israel's security concerns are centered on the plan's resemblance to the current system with Ashdod, where Palestinian cargo would pass through Kerem Shalom. However, there is apprehension about potential security breaches, particularly along the road between El-Arish and Kerem Shalom. Moreover, placing the terminal on Egyptian soil relatively far from Gaza may not fulfill the sovereignty aspirations of Palestinians, even with a dedicated terminal for Palestine. From an economic feasibility perspective, developing the port within a larger complex offers economies of scale cost-saving advantages. While Palestinian freight would still incur trucking costs between El-Arish and Kerem Shalom, these expenses would be lower than shipments over the longer distance between Ashdod and Kerem Shalom.

²⁸ The Biden administration has been pressing for the transfer of the islands, which form a component of the road map between Israel and Saudi Arabia for bolstering the Abraham Accords. Though the Biden administration secured Israel's approval of the island transfer, the transfer's finalization has encountered difficulties, not stemming from Egypt relinquishing its sovereignty over the islands, but rather Egypt's aim to secure economic and financial benefits in exchange for the islands at a time when its economy is reeling. See Arab Center Washington, D.C., "Geopolitics of Small Islands: The Stalemate of Tiran and Sanafir's Transfer Impacts Egypt-Saudi Relations", 29 March 2023, available at <https://arabcenterdc.org/resource/geopolitics-of-small-islands-the-stalemate-of-tiran-and-sanafirs-transfer-impacts-egypt-saudi-relations/>, and Axios, "Scoop: U.S. working on normalization 'road map' for Saudi Arabia and Israel", 22 June 2022, available at <https://www.axios.com/2022/06/22/israel-saudi-arabia-normalization-biden-administration>.

Egypt's approval is pivotal for the proposal's political acceptance. While the port could benefit Egypt economically, it might initially perceive the port as a security threat. However, due to similarities with existing port concessions granted to foreign operators, the port may eventually gain acceptance. The Palestinian Authority is likely to support the plan as it extends control and fosters development. Israel might view it positively as a step towards its pre-current war goal of separation from Palestinians.

Recommended Option

The evaluation of the five port options for Gaza was conducted based on these criteria: Israel's Security, Palestinian National Aspirations, Economic Feasibility, Economic Impact on Gaza, and Economic Impact on Egypt. The assessment, presented in Table 1, rates each plan, reflecting the authors' opinion on each plan's merits. While no relative weight is assigned to the criteria, we recognize that different parties may prioritize these factors differently. For example, Israel emphasizes security, while sovereignty aspirations are a priority for Palestinians. The South Gaza Plan emerges as the preferred option due to its degree of alignment with Palestinian national aspirations, economic feasibility, and economic impact on Gaza. This plan can be implemented quickly, building on the key role that Kerem Shalom plays in the ongoing conflict. Its simplicity allows for immediate construction, creating jobs and income. Moreover, it sets the stage for Kerem Shalom's conversion into a significant logistics hub and SEZ benefiting Gaza, Israel, and Egypt.

Table 1. Multi-criteria Assessment of Each Option

Port Plan		Criterion				
		Israel's Security	Palestinian National Aspirations	Economic Feasibility	Economic Impact on Gaza	Economic Impact on Egypt
1	Ashdod Hybrid Option	***	--	*	**	--
2	Nuseirat Gaza City Port	--	***	**	**	--
3	South Gaza/Kerem Shalom	***	**	***	***	*
4	North Gaza/Zikim	***	*	**	**	--
5	El-Arish/Kerem Shalom	***	*	***	***	***

Acknowledging the dire economic circumstances under which Gazans live with staggering unemployment and poverty at alarming levels, the chosen port option offers more than just a logistical solution. It represents a beacon of hope for a brighter future. By addressing immediate security concerns and fulfilling Palestinian national aspirations, the South Gaza/Kerem Shalom plan holds the promise of tangible economic improvement. It serves as a lifeline to a region desperate for economic growth and stability, presenting a transformative opportunity for Gaza's prosperity.