המכון ליחסי ישראל - אפריקה
Israel - Africa Relations Institute

A Bridge Over Troubled Water:

Israel and Sub-Saharan Africa Economic and Trade Relations in the Information Era (2000-2024)

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September 2024

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1. Introduction

In the ever-evolving landscape of international relations, the dynamics between nations are constantly shifting, influenced by myriad factors. This research paper delves into the intricate relationship between Israel and Africa, a bond that has seen significant transformations over the past two and a half decades (2000-2024).

The study aims to provide a comprehensive and objective analysis of this relationship, moving away from the somewhat romanticized view of ties during the 1960s and 1970s. It is our hope that this research will offer valuable insights and policy recommendations to Israeli decision-makers, aiding them in recalibrating their approach towards Africa in a world characterized by growing competition, instability, and the reformation of old alliances alongside the formation of new ones.

This research is the culmination of rigorous analysis and careful study, and it is our hope that it will serve as a valuable resource for those interested in understanding the complex relationship between Israel and Africa. The research delves into topics that have yet to be discussed in Israel, including Israel's strategy towards the new African Free Trade Agreements and African pension funds. It also sheds light on topics that have not gained enough attention but will shape the future, such as the urgent need for an Israel Development Finance Institution, African workers in Israel, and tech cooperation. We believe that a deeper understanding of these relations can pave the way for more fruitful cooperation and mutual growth in the future.

We invite you to delve into this research, to explore the intricacies of the Israel-Africa relationship, and to consider the policy recommendations that have been put forth. It is our hope that this work will contribute to a more nuanced understanding of international relations and inspire further research in this field.

2. Executive Summary

Israel's diplomatic, trade, defense and economic relations date back to the post-colonial era, during which Israel and many African nations gained independence. Against the backdrop of this historical connection, it is important to assess the current state of affairs and analyze the nature of relationships in the digital information era. By examining key subjects and trends over two and a half decades (2000-2024) we can move away from the somehow romantic view of relations in the 1960s and 1970s and offer Israeli decision makers important policy recommendations that would help recalibrate the relationship in a world that is characterized by growing competition, instability, reformation of old alliances and the formation of new ones, and more.

Our paper closely examines key international relations domains: Namely (1) trade, investment and economic relations; (2) finance; (3) diplomacy and defense; as well as a fourth domain, innovation, which has become a high priority for both Israel and Africa. The concluding section of this paper offers a brief review of four countries and their approach to Africa that serve as a basis for comparison to the Israeli approach. In each section we describe and analyze the main developments since 2000 and offer clear recommendations for Israeli decision makers and other stakeholders.

Our work shows that Israel should and can change the way it is crafting its relationships with Africa. On the trade and economic front, we believe that Israel should focus its efforts on exports of services rather than goods and strive to become a significant trade partner of a few selected countries in order to increase its influence on those countries.

As a long-term strategic play, Israel should begin to cultivate relations with Africa's Free Trade Area with an aim to sign a free trade deal with this regional trade block.

When it comes to investment and finance, Israel can tap into the growing assets under management of African institutional investors and encourage them to invest in Israel. On the other hand, in order to facilitate public-private partnerships and other projects in Africa, Israel must set up a development finance institution, similarly to most advanced economies. As an immediate step until a Development Finance Institution (DFI) is established, Israel should enhance the limited work it is currently engages in with development banks and reform ASHRA, its export credit agency.

Africa's rapid digital transformation offers Israel a unique opportunity to strengthen its ties with the continent. As a tech powerhouse, Israel's capabilities seem to match African needs better than at any moment in history. We show that Finance-tech, Agriculture-tech and Health-tech offer greater opportunity for Israeli startups than other sectors.

Materializing those vast opportunities require that Israel think strategically about what it aims to achieve from its relationship with Africa, plan long term plays in the continent and provide the operational arms of the government, as well as the private sector and nongovernmental agencies, with the means and the support they need to implement the strategy. Our analysis shows that countries as different as Iran, Finland, Turkey and UAE do exactly that and yield clear benefits.

3. Africa and Israel: Economic and Trade Relations in the Information Era (2000-2024)

A. Background

Israel is actively pursuing diplomatic efforts to strengthen ties with African nations, aiming for cooperation in various sectors including trade, energy and agriculture. These initiatives coincide with Israel's expanding global diplomatic network, presenting opportunities for multilateral partnerships.[1] However, outside of defense (see defense cooperation section in Appendix 2), Israel's engagement with Africa has been notably modest, lacking comprehensive strategic planning. Instead, it relies heavily on a minor diplomatic presence, non-governmental organizations spanning various sectors, and the diplomatic cachet of its alliance with the United States. Expanding these initiatives could enhance Israel's influence in Africa.

Currently, Israel has diplomatic ties with 46 African countries with whom it aims to deepen engagement through reciprocal high-level visits and agreements. In April 2024, for example, Israeli President Isaac Herzog visited Kigali to attend a ceremony commemorating the 30th anniversary of the Rwandan genocide, alongside numerous global leaders.[2]

So far, Israel has heavily relied on the defense sector to “open doors” to African leaders, however, bilateral relationships remain relatively one-dimensional for the most part. Therefore, acknowledging the complex array of challenges confronting Sub-Saharan Africa (SSA) – ranging from environmental sustainability and social harmony to food, water security, and public health[3] – it becomes clear that collaboration should extend beyond narrow security confines and counter-terrorism. This nuanced strategy, mirrored by the proactive approach taken by the United Arab Emirates and Turkey in Africa, accentuates the necessity for a holistic and interconnected approach to making partnerships stronger and lasting.

Since 2016, Israel has pursued a more active and visible strategy for engagement with Africa, under Government Decision No. 1585 dated June 26, 2016, for Strengthening Economic Relations and Cooperation with African Countries.[4] Prime Minister Benjamin Netanyahu embarked on three trips to Africa in less than 18 months during 2016-2017. Initially, he visited Ethiopia, Kenya, Rwanda, and Uganda in July 2016, accompanied by a large Israeli business delegation. Subsequently, in September, he held numerous meetings with African leaders during the UN General Assembly (UNGA). In December 2016, seven ministers and several high-ranking officials from West Africa participated in an agricultural conference in Jerusalem, co-hosted by Israel’s Agency for International Development Cooperation and the Economic Community of West African States (ECOWAS). President Reuven Rivlin paid a state visit to Ethiopia in 2018, along with a business delegation.

Unfortunately, this special focus on Africa lasted for only a couple of years. Since late 2019, Israel has turned its attention inwards, first to fight Covid-19 (while refraining

[1] https://besacenter.org/israel-in-africa-old-and-new-partners/

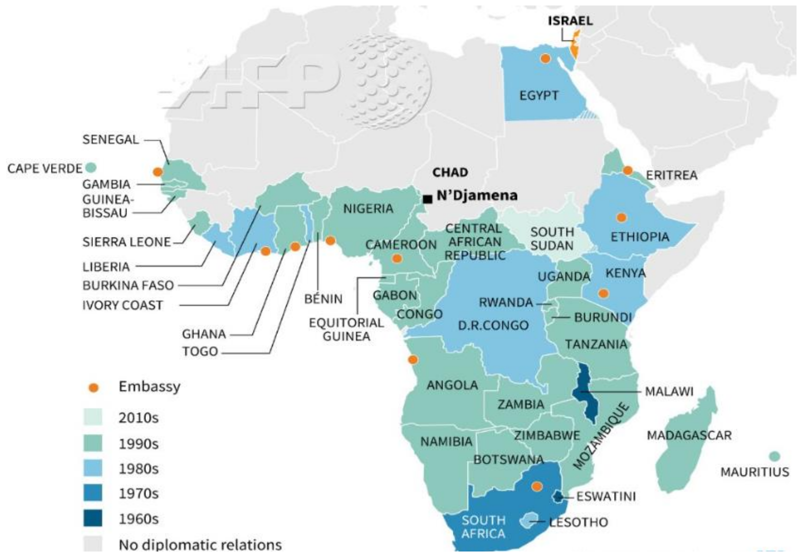
[2] https://www.timesofisrael.com/herzog-visits-rwanda-for-genocide-memorial-will-highlight-hostages-terrorism/

[3] https://www.washingtoninstitute.org/policy-analysis/israeli-startups-are-leading-efforts-combat-food-insecurity

[4] https://www.gov.il/he/pages/2016_dec1585

from supporting the global efforts to help poorer and more vulnerable African countries) and later to domestic issues – first the controversial judicial reform and later the war in Gaza and the North following the October 7 onslaught. Israel's foreign policymakers need to recognize that allocating more attention to SSA, even if directed primarily at strategically dominant countries, is likely to yield significant dividends over time. By expanding diplomatic outreach, among other things by appointing a high-level special envoy to Africa, a policy enacted by other countries, including the UAE5 and fostering partnerships across SSA, Israel can diversify its export and import markets, widen its political support network and enhance its resilience in times of adversity.

Figure 1: Israeli Embassies in Africa (1960s-2010s)



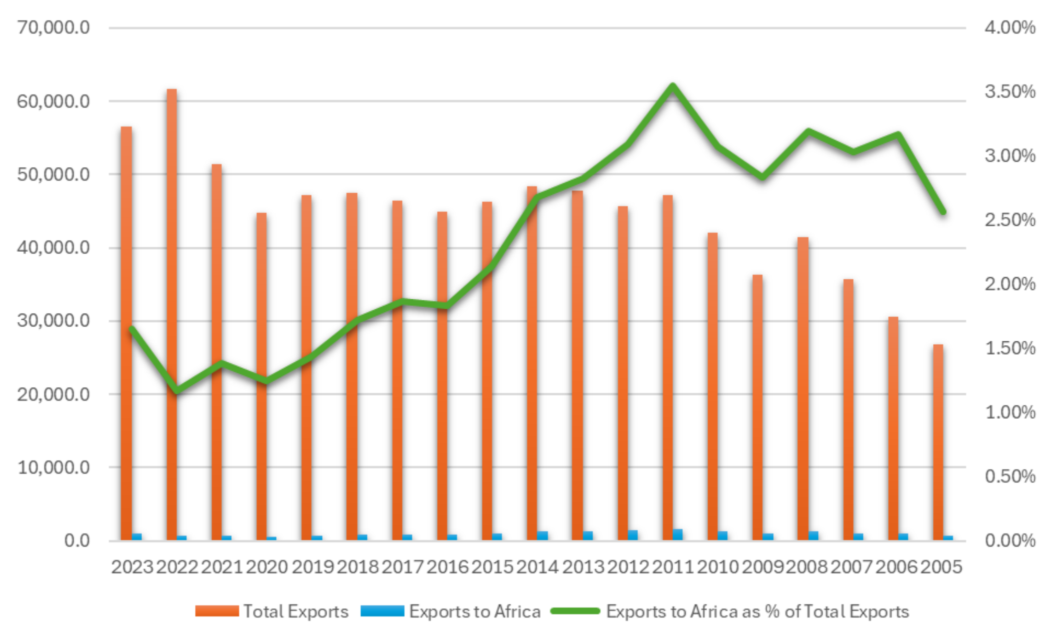
In addition to the Israeli embassies marked on the above map, Israel also has embassies in the Ivory Coast and Rwanda. **Source:** www.mfa.gov.il

B. Trade: Evolution of Economic Ties Between Africa and Israel Since 2000

While Israel's political relations with Sub-Saharan Africa have witnessed ups and downs over the past two decades, the trade and economic implications of those changes remain modest. This phenomenon may indicate a positive characteristic, namely that trade is resilient to external shocks. Yet, a negative view can also be applied, i.e., that trade is, and has been, so small that there is little room for deterioration. We will explore economic and trade relations in depth in the following sections.

[5] [The UAE has its eye on Africa after appointing a Minister of African affairs – Middle East Monitor]

Figure 1: Export of Goods to Africa as a Percentage of Total Exports ($M)



Source: Central Bureau of Statistics & authors' analysis

Our analysis of the trade relations shows that Africa's share in Israel's exports of goods remains low and steady throughout the years, with a mild downward trend to roughly 1.5% in recent years. The small hike around 2009-2011 can be attributed to the global financial crisis which hit rich economies and led to a temporary decline in demand in those export markets. Once the financial crisis was mitigated by generous stimulus plans, the demand for Israeli goods in Europe and North America picked up again, resulting in a decline in Africa's share.

Services have become Israel's main exports in the information era, reaching over 50% of total exports in 2022, thus surpassing goods. Data about trade in services is limited, yet data from Israel's Central Bureau of Statistics (CBS) shows that in most years between 2014-2021 exports of services to Africa ranged around $400M-$600M annually, or less than 50% of total exports, in contrast to the pattern we've seen in Israeli exports to the rest of the world. In other words, the boost in Israel's export of services – undoubtedly a result of its cutting-edge tech sector –has not manifested itself in Africa despite the continent's transition to digital and service-based economic activities.

Despite Sub-Saharan Africa's heavy reliance on imports, which encompass a diverse range of commodities from machinery and electrical equipment to food products, Israeli exports to these markets remain significantly limited. The proportion of Israeli goods within the import composition of leading African economies is remarkably small, raising questions about untapped potential and market dynamics. Furthermore, in over 50 years of diplomatic relations, Israel has not become a significant trading partner with any of the 54 African economies. This means that African countries might view Israel as less important– politically and economically.[6]

This notion is not new to Israeli decision makers. The Ministry of Economy published a similar observation back in 2011.[7] Later, in 2016, the Israeli government passed a resolution to strengthen ties with Africa and allocated some NIS 40 million to that end. Most of the approved budget was meant to support Israeli companies' access to Africa, including the opening of two new economic and trade missions, conducting needs assessment by the Israel Innovation Authority, expanding Mashav (Israel's aid agency) activities in the continent, and more. Unfortunately, many of those plans were not implemented. Furthermore, the government funded this initiative using the existing budgets of the line ministries instead of providing additional budgetary resources, which discouraged the ministries from implementing the government's decree.[8]

On the imports side, recent shocks in global value chains make the need to diversify import sources clear.[9] To demonstrate the point, we can examine whether Africa can be a source for some of the raw materials needed by Israel, thus replacing less reliable sources such as Turkey. In 2023, Turkey exported 735,822 tons of steel rebar to Israel primarily for use in the local construction and building industry, but also by notable clients such as the Israeli Ministry of Defense. According to the Turkish Statistical Institute (TUIK), cement exports to Israel amounted to $174 million in 2023, with $6.39 million exported from October 7 to the June 2024.[10]

One possible alternative could be South Africa with a production capacity of about 5.5 million tons of crude steel. In 2022, it exported approximately 3.5 million tons of steel, generating an estimated $3 billion. Cement exports were about 1.2 million tons, valued at around $200 million. Key export destinations outside Africa include the Netherlands, the United Arab Emirates, and India. South Africa also has a robust export infrastructure, shipping a diverse range of construction materials, including cement, timber, and construction hardware.

[6] https://www.jewishvirtuallibrary.org/israeli-cooperation-with-africa

[7] https://www.gov.il/BlobFolder/reports/sub-saharan-africa/he/X10681.pdf

[8] Disclaimer: Zafrir Asaf, among the authors of this paper, served as the director of emerging markets and development finance department at the Ministry of Economy between September 2016 and September 2020. He led the opening of the economic and trade missions in Kenya and Ghana and oversaw the Ministry's operations, including the implementation of Government Decree 1586 on the continent.

[9] pirsomim_Resilience-of-supply-chains-180224-EN.pdf (www.gov.il)

[10] https://thecradle.co/articles-id/24793

Alternatively, Nigeria has a steel production capacity of around 2.5 million tons annually and exports approximately 1.1 million tons of steel per annum, generating an estimated $700 million in revenue. Nigeria's cement production, primarily from *Dangote Cement*, stands at about 45.6 million tons per year, with exports totaling around 7.1 million tons, valued at approximately $900 million. Major export destinations for Nigerian construction materials outside Africa include Brazil, the United Kingdom, and the United States.

The steel and cement examples are by no means exhaustive, but they point to a broader change in approach which we recommend: Africa can serve as a valuable source of raw materials for Israel, such as construction materials, some agricultural commodities, and more. In a world plagued by supply chain disruptions, Israel should further develop this aspect of bilateral trade relations.

The absence of robust and well-established economic relations was clearly felt following the October 7 Hamas attack as Israel prohibited the entry of Palestinian workers. As a result, key sectors such as construction and agriculture currently lack crucial working hands. The demand for workers in those sectors is estimated at around 100,000, as of May 2024. The Israeli authorities have been easing regulatory requirements for recruiting foreign workers, yet only a handful of those who arrived since October are from Africa.[11]

At the same time, labor migration has been a primary concern for Africa. The African Union, together with international agencies such as the International Labour Organization (ILO), have dedicated significant resources towards creating policy frameworks and practical arrangements that have the potential to increase the share of legal and organized labor migration within Africa, and from Africa to other regions[12]. Remittances into Africa have been growing steadily for the past twenty years, thus becoming an important source of income for people and communities. In the past twenty years, Israel has made tremendous efforts to import foreign workers from Turkey and China – two countries that are now hostile – while neglecting to tap into an important economic and social trend in Africa.

Another important sector that has significant room for growth is tourism. Despite the geographic proximity between Israel and the continent, the increase in available

[11] Hundreds of African workers to join agricultural labor force (Hebrew)
https://ashdod10.co.il/%D7%9E%D7%90%D7%95%D7%AA-%D7%A2%D7%95%D7%91%D7%93%D7%99%D7%9D-%D7%96%D7%A8%D7%99%D7%9D-%D7%9E%D7%90%D7%A4%D7%A8%D7%99%D7%A7%D7%94-%D7%9C%D7%A2%D7%A0%D7%A3-%D7%94%D7%97%D7%A7%D7%9C%D7%90%D7%95%D7%AA/

[12] AFRICAN UNION (au.int)

income levels, and religious motivations, the number of Israeli tourists in Africa, and African tourists to Israel, remains low and struggles to grow.

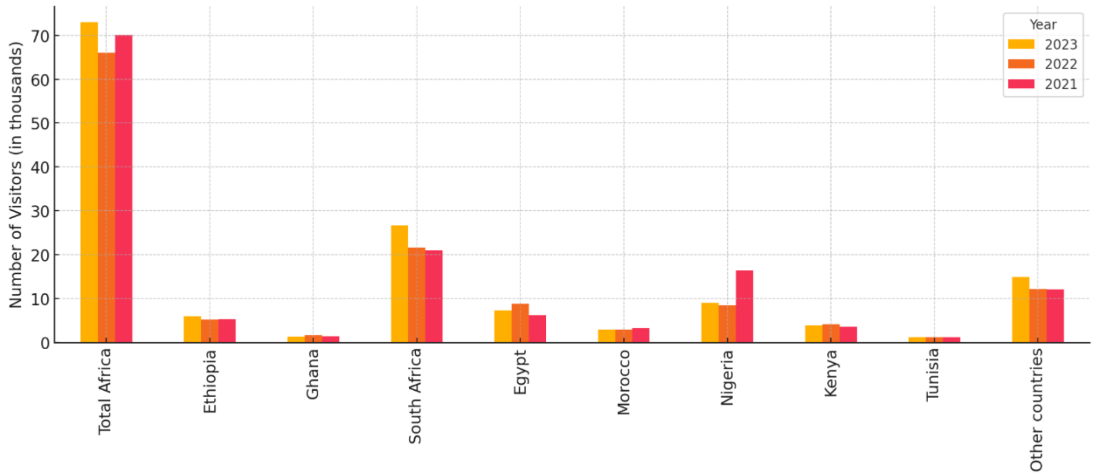
We have identified several barriers to an increase in two-way tourism:

- *Limited Flight Options:* The primary barrier is the limited number of airlines offering direct or convenient connections to Africa. With the Israeli national carrier El Al ceasing its direct flights to South Africa, travelers are mostly reliant on Ethiopian Airlines, which might not cover all desired destinations without multiple layovers and increased costs. Therefore, subsidizing commercial flights through a more robust incentive package than currently offered should be seriously considered.

- *Cost*: Flights are expensive, as noted, but in addition the cost of staying in Israel is extremely high and places a heavy burden on interested African tourists. If Israel is to build itself as a significant tourism destination for Africans, it should come up with ways to reduce the cost of stay. Some incentives that can be implemented rather quickly can include tax rebates for tour operators and tour guides that host Africans.

- *Lack of Awareness and Promotion*: There is a general lack of marketing and promotion for African destinations in the Israeli market. Apart from popular spots like Zanzibar for beach vacations and some safari destinations, there is little widespread knowledge about the variety of experiences available in Africa. The same gloomy reality applies in the other direction as well. Israel does not have a tourism attaché in Africa and, to the best of our knowledge, has not run a promotional campaign on the continent for many years.

Figure 2: Number of Visitors from African Countries to Israel (in thousands)



Source: Central Bureau of Statistics & authors' analysis

When evaluating the costs and benefits of promoting tourism to and from Africa it is important to remember that, in general, African people don't have a strong sentiment against Israel in times of escalated conflict. Some, for example, evangelical communities, have an inherent positive perception of the holy land and its people. Therefore, if Israel builds strong and established channels and infrastructure to receive such tourists, this may serve as a cushion for an important sector which is the first to be hit in times of crisis. There is a concern in Israel about visitors who come as tourists and overstay as illegal workers. However, we believe that Israel can and should be able to accommodate and handle a handful of overstaying tourists and that it is a reasonable risk when taking the potential into consideration.

C. Continental and Regional Trade Blocs

Israel has not directly participated in agreements with the African Continental Free Trade Area (AfCFTA) or with regional trade blocs in Africa. However, the growing significance and scope of these trade blocs and agreements indicate potential avenues for Israel to engage with Africa economies through trade and investment.

The AfCFTA, established in January 2021, is the world's largest free trade area in terms of participating countries, aiming to create a single market for goods and services across 55 African Union member states. Its objective is to eliminate trade barriers, boost intra-African trade, advance trade in value-added production, and promote industrialization and job creation across the continent. The agreement's implementation is seen as a step towards enhancing Africa's trading position in the global market and promoting sustainable economic development in the region.

The World Bank's report on AfCFTA highlights its potential to significantly boost economic development in Africa. If fully implemented, AfCFTA could increase incomes by 9% by 2035 and reduce the number of people in extreme poverty on the continent by 50 million. The agreement also aims to harmonize policies on e-commerce, investment, and intellectual property to attract more foreign direct investment, which is crucial for sustainable growth and diversification of African economies.

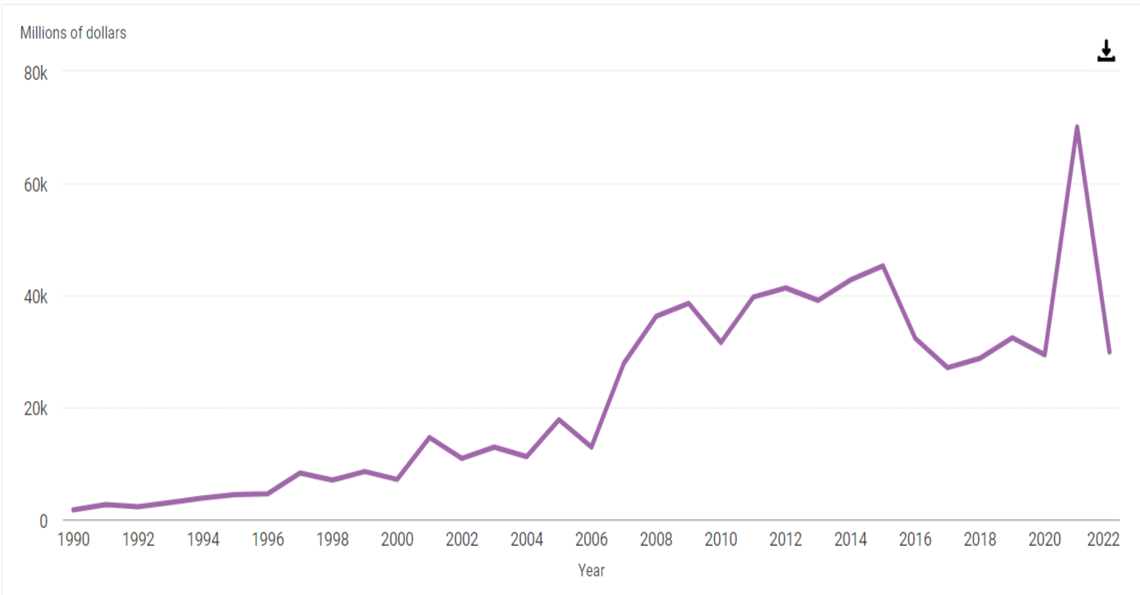
Israel's engagement with African economies through AfCFTA could focus on areas where Israel has strong expertise and competitive advantages, such as technology, agriculture, water management, and renewable energy. Such cooperation could include technical and technological partnerships, investment in value-added services, and collaboration on sustainable development projects. Moreover, enhancing economic leadership and pursuing mutually beneficial cooperation on trade and investment with African countries can also align with broader international efforts, such as those by the European Union, to support the objectives of AfCFTA and deepen integration.

In 2007 Israel was among the first countries to sign a free trade agreement with the South American trade bloc, Mercosur. This early move offered Israeli companies a significant advantage over competitors in South America We think that a similar impact can be achieved with AfCFTA and save Israel the challenge of negotiating a trade deal with each country separately.

The decision-making process within the AfCFTA framework typically involves consensus or majority voting, depending on the specific context, yet its charter does not explicitly mention the ability to sign trade agreements with non-African countries. This is a long-term play, but it is worth launching now and adjusting as AfCFTA evolves.

D. Foreign Direct Investments (FDIs)

Figure 3: Investment in Sub-Saharan Africa, 1990-2022



Source: UNCTAD

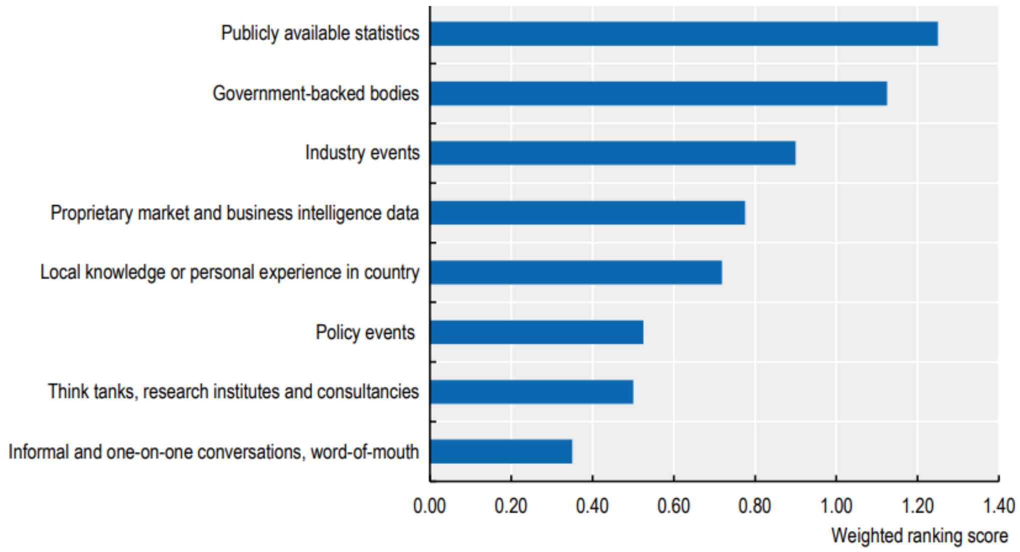
Part of the failure to increase trade volume can be explained by the other side of the global value chain: foreign direct investment. Despite relatively little available data,[13]

[13] "Direct investments of Israel abroad and foreign direct investments in Israel, by economic sectors and by countries."2019-2021", available at cbs.gov.il

it is safe to say that Israelis rarely make direct investments in Africa, and the same is true for Africans in Israel. However, while Africa enjoys steady growth in FDI inflows, as shown by data from the UN Trade and Development Organization (UNCTAD, see *Figure 3*)[14] , Israelis are missing this opportunity. It is important to note that, according to the OECD, FDI in Africa is recently going through troubled times mainly due to slow recovery from Covid 19, a high public debt burden, higher than usual returns in rich countries, and political and economic instability in some of the continent's leading economies such as South Africa. However, the long-term upward trend is clear, and therefore Israel should ask itself how it can tap into more opportunities.

According to an OECD survey, investors describe publicly available statistics, public events and government support as the main barrier to investing in Africa. The good news for Israel is that a number of those barriers can be lifted with relatively modest efforts. Israel has tried to address some of those concerns in the past, mainly between 2016-2019, but it seems that the lack of continuity and commitment on part of the government may be the reason those efforts were not able to significantly move the needle.

Figure 4: AUC/OECD investor survey question "Which sources of information should there be more of?"



Source: OECD

As we aim to enhance Israel-Africa investments, we should note a particular phenomenon that has not received much attention in Israel: African institutional investors are growing and accumulating wealth faster than ever. Assets Under

[14] https://unctad.org/data-visualization/global-foreign-direct-investment-flows-over-last-30-years

Management (AUM) of those institutions registered a 48% increase between 2017 and 2020, reaching an average of 25% of GDP – a ratio higher than that of Latin America.[15] With Africa home to a large portion of the world's children and young adults, pension funds on the continent will need to generate significant return on their investment if they are to meet their commitment to their members. Israel, as a developed economy with the highest economic and population growth in the rich world, can be an attractive destination for some of these African investments.

Israel should make a concrete effort and set a target of attracting such funds from Africa's institutional investors. This target may have a diplomatic benefit as well: 80% of AUM are currently held by South African investors. That share will decrease over time but is likely to remain high for the foreseeable future. South African labor unions, which have traditionally been hostile to Israel, control significant stakes in the major local pension funds. Yet, long term investments by such funds have lower public visibility, and investment decisions follow a strategic approach rather than immediate sentiment. Therefore, such investments by South African pension funds can serve as an interim bridge between Israel and South Africa. Other African funds may also be interesting targets for Israeli concentrated efforts to draw investment.

E. Recommendations

The Global Value Chain approach demonstrates the strong links between trade and investment. Israel and Africa's relations are a clear example of that: trapped in a vicious cycle of low-volume trade and minimal, if any, mutual investments. However, some major transformations offer a path forward towards enhanced economic and trade relations.

First, after failing to grow exports of goods, we believe that Israel should focus on boosting exports of services. This approach ties into shifts in Israel's export composition and the robustness of its high-tech sector as well as Africa's digital transformation (see innovation section for more detail). Within this shift in approach, special attention should be given to tourism, as a services sector with unique characteristics and significant economic implications. As most services do not require physical infrastructure, this push can be implemented quickly by supporting Israeli services exporters, increasing awareness on the African side and supporting African markets in upgrading required IT infrastructure through development finance mechanisms (discussed later).

Second, Israel should start working today on cultivating its relationships with Africa's Free Trade Agreement secretariat and its main proponents on the continent. The successful experience of Israel's FTA with Mercosur and the advantages it offered

[15] Chapter 1. Africa's sustainable investments in times of global crises | Africa's Development Dynamics 2023: Investing in Sustainable Development | OECD iLibrary (oecd-ilibrary.org)

Israeli companies should serve as a model for this strategic initiative. This is clearly a long-term play, yet it has significant implications. As a starting point, Israel can engage in discussion towards creating a framework to bring African workers to Israel in much higher numbers.

Last, Israel can boost its direct investment in Africa by developing much needed government backed financing mechanisms (see finance sector for more detail). At the same time, it should focus its efforts on African institutional investors who are looking to diversify their portfolio and invest in a growing rich economy.

4. Financing, Guarantees, and Policy Frameworks Analysis

A. Financing – Public Private Partnerships (PPPs), Project Finance and Development Finance

Despite stated ambitions to be more present in Africa and tap into the economic opportunities it offers,[16] Israel has never been a major player in the medium- and large-scale projects or Public Private Partnership (PPP) landscape on the continent. Over the past two decades, only a handful of Israeli companies have been active in planning and executing medium and large-scale projects that require financing in Africa. Most of those companies, including Mitrelli, LR Group, Green 2000 rely on non-Israeli commercial financing which, in many cases, requires the use of technologies, hardware and services that originate from the country of the financier or the insurer of the deal.[17]

There are generally three sources of financing for projects:[18] public financing, private financing, and blended finance – the use of public financing to unlock significantly higher amounts of private capital for the purpose of implementing a project. To date, Israel offers no public financing to projects in Africa, very limited private financing and only one mechanism for blended finance which is also extremely limited in scope.

As a result, Israeli companies have limited access to available capital and, in the context of the riskier profile of African economies, are reluctant to pursue significant long-term projects and struggle to compete with foreign peers for opportunities. The consequences of this market failure are two-fold: first, smaller Israeli companies, mainly high-tech companies who supply niche solutions to larger companies, do not

[16] Israel's Diplomatic Offensive in Africa: Observatoire of Arab-Muslim World and Sahel: Foundation for Strategic Research: FRS (frstrategie.org)

[17] More banks, ECAs back Côte d'Ivoire water project | Global Trade Review (GTR) (gtreview.com) Insuring Green 2000, a Dutch-Israeli company exporting to Ivory Coast (atradiusdutchstatebusiness.nl)

[18] Throughout this paper, when mentioning "projects" we refer to public projects, private projects and PPPs together, unless specified otherwise.

get the access they need to African markets. Second, Israel misses on important leverage tools to advance its geo-strategic objectives because it is not perceived as a partner that is supportive of African efforts to achieve sustainable development.

In 2019, a survey conducted by the inter-ministerial committee for international development revealed that 49% of the larger Israeli companies (annual turnover above $10M) said that they have tried to secure financing for projects in developing countries from Israeli sources; and 38% from international financiers. Of those who tried, 23% said they failed due to lack of Israeli financing sources (public, private or blended); 32% said that inter-alia, there was a financier who was ready to offer capital, but the terms were too difficult to comply with or the transaction costs were too high. Among smaller companies (turnover under $10 million), 21% indicated a lack of available financiers. In addition, 33% said they either didn't know of relevant financing sources, or it was too difficult for them to access financiers.

Financing and Guarantees Available in Israel

Public and Blended Capital

Israel's government does not invest directly and has never invested in projects in Africa. In addition, unlike many other OECD countries, Israel does not have a Development Finance Institution (DFI) – a financial intermediary which is partially or wholly owned by the government and provides a mix of financial solutions that aim to enhance economic activities in developing countries while achieving social and environmental positive impact.[19] In contrast to Israel, 15 European DFIs invested cumulatively 3.8 billion Euros in Sub-Saharan Africa in 2023.[20] This amount represents 36% of their total investment in developing countries, an upward trend from 29% in 2019 despite a spike in Africa's risk profile due to its mounting debt burden.

It is important to note that quite a few European countries of similar size to Israel have highly active DFIs. Those countries include The Netherlands, Finland, Belgium, Denmark, Portugal, Sweden and more. All those DFIs invest according to their respective government's geopolitical objectives, economic priorities and sustainable development agenda, and prioritize their own local companies with whom they have long standing business relationships. It is therefore clear that Israeli companies are

[19] Israel has funds for loans to SMEs which are provided by commercial banks and backed by sovereign guarantee. This fund has a designated track for exporters, offering up to NIS 500,000 NIS to SMEs with an export track record who wish to expand that activity. However, this loan is not large enough to be useful for significant projects in Africa, requires the SME to present a collateral and does not offer any protection from currency fluctuations which might affect the viability of the project. More details (in Hebrew): The Loan Fund for Small and Medium Businesses (govextra.gov.il)

[20] 2023-EDFI-Key-Investment-Figures_08_feb_2023_published.pdf (edfi-website-v1.s3.fr-par.scw.cloud)

at a significant disadvantage in terms of their ability to access public financing, either from foreign governments or from multilateral development banks for their project.

What would it take to establish an Israeli DFI? The core function of a DFI is to serve national strategic objectives (economic and geopolitical) by providing relatively more patient capital to companies and projects that aim to achieve the Sustainable Development Goals. DFIs do so by blending public and private capital through various financial mechanisms. Outlining the whole DFI model is beyond the scope of this paper yet suffice it to say that such models are not new to the world and have a decades-long track record. From a financial perspective, establishing an Israeli DFI would require allocating initial capital and providing it with government guarantees, in parallel to determining strategic priorities, investment criteria and impact measurement model. It is important to note that while the Israeli DFI should be an independent governmental agency, its mandate should be closely aligned with the government's strategic long-term objectives.

Multilateral Development Banks

Despite not having a DFI, the Israeli government has aimed to find alternative ways to make development finance more accessible for Israeli companies, though at significantly lower scale, through enhancing its engagement with Multilateral Development Banks (MDBs).

The Israeli approach, currently led by the Chief Economist at the Ministry of Finance, is founded on three main pillars: *Firstly*, definition of Israel's strategic priorities in emerging markets and engagement with MDBs in those priority sectors only; these sectors include energy, water, agriculture, healthcare, cyber and tech innovation as an overarching theme. *Second*, in recent years Israel has contributed to numerous trust funds that develop projects in the abovementioned strategic sectors. By becoming members in trust funds, Israel gains first-hand insights into developmental challenges and proposed solutions and supports the creation of projects that may later get funding from MDBs and other financiers, thus creating a business opportunity for Israeli companies, strengthening its relations with recipient countries and making its voice heard on crucial global matters. The third pillar of the Israeli strategy is placing Israelis as professional staff in MDBs. Some of those placements serve specifically the trust funds of which Israel is a member while others are placed in other divisions of the MDBs. This program enhances Israel's understanding of the MDBs' priorities and modus operandi which, in turn, leads to more effective engagement.

This strategy has yielded significant results in terms of investments of DFIs in Israeli tech companies, Israeli companies winning tenders by MDBs and influencing the global development agenda, as in the case of setting up cyber practices in development banks.

Yet, despite these notable achievements, budget and manpower constraints limit the Israeli government's ability to enhance its work, and the engagement of Israeli companies with MDBs. This gap is particularly notable in Africa, which is, by far, the main target of the World Bank and other DFIs. Though it is unlikely that Israel would join as full member to the African Development Bank (AfDB), a lot of work can be done with this bank through other channels and with the World Bank, European Bank for Reconstruction and Development (EBRD) and many other DFIs. Once again, relatively small additional budgets would be required to make a rapid and significant change and add an important layer of engagement that can enhance Israel's presence in Africa. Further analysis of the financial needs and the expected results of this strategy can be presented in a future paper.

Private capital

As mentioned earlier, Israeli private capital for projects in Africa is scarce. Israeli banks are practically barred from offering loans for projects in Africa.[21] Furthermore, in the absence of regulatory requirements or government support, Israeli private insurance companies and pension funds refrain from investing in Africa, as these investments are perceived as too risky.

While Israel is globally renowned for its robust high-tech ecosystem which, according to Startup Nation Central, featured 925 registered investors in 2023, only 11 investors (0.01%) refer to Africa in their disclosures or public communication, according to the organization's database.[22] In summary, very little private capital is available for Israeli companies seeking to finance projects in Africa or, for the country's 7,000 startups, to focus their market expansion strategy towards the continent.

B. Guarantees and Insurance

Like most advanced economies, Israel has a state-owned company – ASHRA – which is tasked with providing insurance for exports to clients with higher risk profiles and for projects in developing countries. About a decade ago, private insurers were granted permission to offer short-term export insurance; however, ASHRA remains the only provider of medium and long-term insurance. *Figure 5* shows the increase in approvals for insurance issued by ASHRA between 2000 and 2023. The number of approvals reflects *a)* the rising interest of Israeli companies in pursuing business opportunities in emerging markets, particularly in Africa; and *b)* the overall

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[21] The BoI requires that banks will recognize loans for projects in countries with high-risk profiles at 150% of their value, making it infeasible to lend to such projects. The banks can only lend if the project is guaranteed by ASHRA or an A- rated multilateral development bank.

A senior banker with one of Israel's leading banks who asked to remain anonymous has confirmed that Israeli banks do not lend or invest in projects in developing countries (conversation held in April 2024).

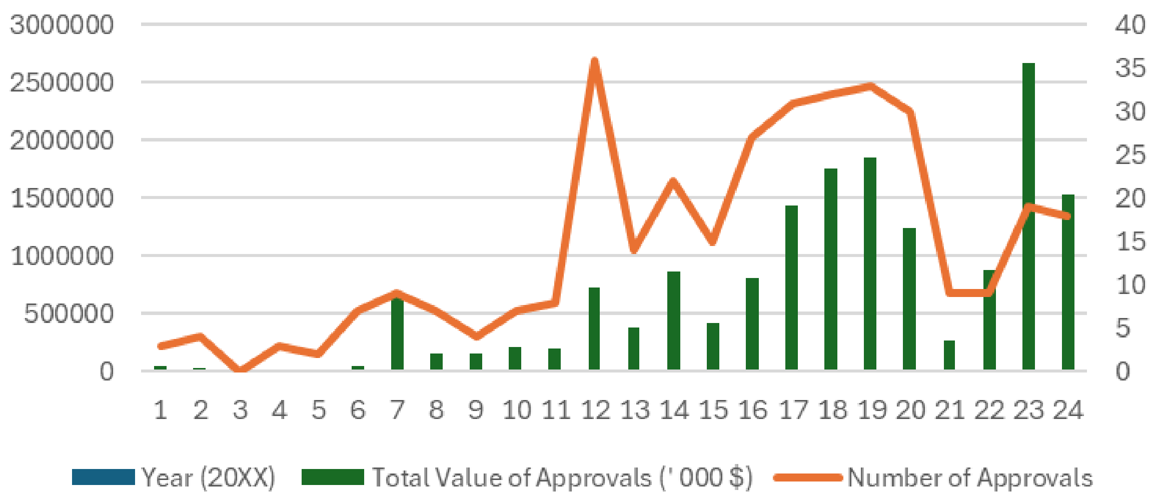
[22] Discover investors in the Israeli funding ecosystem | Startup Nation Finder (startupnationcentral.org)

commitments which ASHRA is allowed to issue, as directed by the *Accountant General at the Ministry of Finance*. This approval cap was increased to about $3.5 billion in 2015 and hasn't changed since.

Analyzing the data, one can see that the cumulative number of in-principal approvals[23] reached a record in 2016-2019, a period characterized by a very strong government focus on strengthening the relations with Africa[24]. The sum of approvals dropped during Covid-19 lockdowns but hasn't picked up ever since. The reasons, in our opinion, are twofold: *First*, the Israeli government has ceased investment in strengthening relations with Africa and the progress achieved before Covid 19 has lost steam. *Second*, ASHRA is very limited in what it can insure. Contrary to other ECAs (Export Credit Agencies), ASHRA can only insure deals with governments.

Since African countries are now financing less projects by themselves, because of their debt burden and because of concerted efforts to unlock more private capital, ASHRA has less relevant projects that it can insure. In addition, since ASHRA's exposure to each country is limited, it cannot guarantee the loans by itself and must buy additional insurance from global companies, in many cases. This practice increases the cost of insurance and complicates the process for Israeli companies.

Figure 5: ASHRA's Number and Total Value of In-Principle Approvals, 2000-2024



Source: ASHRA

It is important to note that ASHRA's mandate has not changed much in over a decade. To make things worse, in early 2023 the Israeli government announced it intends to

[23] In-principle approvals are an authorization that Ashra issues to an interested company, allowing it to negotiate financial terms with commercial banks. Only 10%-20% of in-principle approvals actually materialize and become projects.

[24] This period saw, for example, the passing of a government decree to strengthen ties with Africa, a state visit by President Reuven Rivlin to Ethiopia, official visits by then Prime Minister Benjamin Netanyahu and other ministers to several African countries, the opening of an Embassy in Rwanda and of economic and trade offices in Ghana and Kenya.

narrow ASHRA's scope of activities and merge it into another state-owned insurer. That hasn't happened yet; the company is still managed by an interim CEO and its future is unclear. At the same time, global interest in guarantees and insurance schemes has grown. The World Bank, for example, has recently announced a revamp of its guarantee agency –MIGA, to name just one recent example.

Recommendations:

Israeli companies are caught in a vicious cycle – they have little access to government-backed, patient and impact-aligned capital and thus struggle to develop and fund projects in riskier African markets. As a result, they are unable to establish long-term relationships with DFIs who favor companies from their own countries, nor do they have the internal capacity to bid for projects that are funded by MDBs.

At the same time, Israel is unable to build sustainable relationships with African governments since its main offering to those countries are weapons and assistance in counter-terrorism operations. Such cooperation is important, but most countries in Africa are concerned about achieving sustainable development goals, eradicating poverty, creating jobs and improving social services. Though a handful of Israeli companies do benefit from defense cooperation (see defense cooperation in *Appendix 2*), such projects cannot be funded by MDBs, so their size is limited and depends only on the ability of the client country to pay.

We recommend breaking this vicious cycle by introducing a number of new tools, and improvement to existing tools that, together, can move the needle on the number and size of Israel-led projects and companies in Africa:

1) Israel should establish a DFI that will be modest in size but send a clear signal as to the country's priorities and its interest in investing together with other DFIs. A thorough framework for a limited DFI of this nature was developed in 2020 by an inter-ministerial committee. That framework can be revised and adjusted to the current needs and strategy of the government.

2) Reform the way ASHRA does business and align it with global best practices. Such reform should focus on simplifying procedures, greater risk appetite, a permit to back privately owned projects and introducing Sustainable Development Goals (SDG) and/ or Environmental, Social and Governance (ESG) considerations into ASHRA's decision-making process. Without these suggested changes, ASHRA will not be able to effectively compete with its peers and, as a result, Israeli companies will buy their insurance from foreign insurers and will have to favor suppliers and service providers from those countries. Many of the required reforms can be implemented rather quickly as they will benefit the Israeli economy and have limited financial implications. They also do not present environmental risks and will be in line with global best practices.

3) In the long term, encourage institutional investors to offer finance for PPPs in Africa. When the government wanted to boost institutional investment in Israeli startups, it incentivized investors to invest through a dedicated Innovation Authority program. Though the success of that program can be debated, we want to highlight the approach taken by the government: achieving policy priority through a blending mechanism that unlocks private capital which was previously unavailable. We believe a similar approach can and should be taken to achieve Israel's priorities in emerging markets.

4) The increase in available capital that we hope to achieve must, in our opinion, be accompanied by robust impact measurement. We believe we should measure the outcomes of Israeli activity on two parallel levels – first, its impact on people and the environment, particularly in Africa, and, secondly, we should also measure the economic impact we achieve here in Israel, in terms, for example, of jobs created, IP developed, exports and more.

C. Technological Innovation in Emerging Markets

This chapter will focus on the policies that facilitate and support the development of domestic and bilateral initiatives encouraging innovation and technology in Sub-Saharan Africa. It will delve into the policies of selected countries that are actively promoting technological advancements within their borders, with a particular emphasis on the National ICT Policy framework as a catalyst. Additionally, we will examine the Israeli government's historical policy designed to facilitate business activity in Africa in innovation and technology realms.

Background

Over the past ten years, Africa has experienced a surge in innovative ventures, exemplified by the likes of the *M-Pesa* money app, *iCow* mobile advice service, *M-Kopa* mass-scale solar power, *MeQasa* real-estate platform, and the *Cardiopad* medical tablet, among others. This innovative landscape has spurred the rapid growth of tech hubs across the continent, with over 130 new hubs established in the last two years alone. As a result, there's been a clear surge in the importance of innovation policy, catching the attention of both national governments and international donors. This shift is significant, moving away from the past focus on traditional research efforts.

Sub-Saharan Africa significantly trails the rest of the world in research and development (R&D) investments. The region's overall Gross Domestic Expenditure on R&D (GERD) stands at 0.33% of GDP, which is notably lower compared to middle- and high-income countries. These countries typically allocate 2% to 3% of their GDP to public investment in R&D. The burden on African governments to fund R&D escalates due to competing demands such as climate change, poverty, and healthcare. Consequently, many African countries, institutions, and scientists rely heavily on foreign funding, perpetuating a cycle of dependency.

In 2015, the UN Member States adopted the Sustainable Development Goals, with one of them, SDG19, highlighting innovation to foster economic development and industrialization. This shift in focus has directed attention towards prioritizing investments in innovation policies and national innovation systems. Prior to 2010, only a few African countries, aside from South Africa, actively pursued innovation policies. Since then, several countries, including Rwanda, Kenya, Nigeria, and Morocco, have implemented funded innovation policies. For instance, Rwanda established the National Commission for Science and Technology and invested in Research, Development, and Innovation (RDI) centers, incubators, and technology parks, alongside structuring their intellectual property systems and providing incentives for researchers and innovation funds.

The national ICT policies act as guiding frameworks for integrating and maximizing technology investments across sectors. They aim to drive economic expansion, elevate educational standards, enhance healthcare services, and promote improved governance and social inclusivity. However, while nine out of 15 countries in West Africa for example, have explicit Science, Technology, and Innovation (STI) policies, only five have reported recent data on research trends. Furthermore, challenges persist in internet governance across Africa, including internet shutdowns, emerging social media taxes, and regulatory inconsistencies. While efforts are underway to protect digital rights and privacy, enforcement remains fragmented, hindering effective implementation of existing laws.

Over the past decade, international donors, development banks, and partners have increasingly focused on policy attention. Initiatives like the World Bank's Innovation Policy Platform and Gender Innovation Lab, as well as programs like XL Africa, support later-stage technology start-ups. Regionally, the African Development Bank launched the STI Forum and intends to invest in the Boost Africa Program with the European Investment Bank (EIB) to promote start-up growth. The African Union-EU High-Level Policy Dialogue on STI, founded in 2010, facilitates exchanges on research and innovation policy.

Over the past decade, Africa has witnessed significant improvements in internet accessibility and affordability, driven by substantial investments in digital infrastructure. With internet penetration reaching 43% by the end of 2020 and the cost of data decreasing by a third since 2018, Africa's digital economy is projected to contribute $180 billion to the continent's GDP by 2025, fueled by factors such as increasing digital connectivity, a youthful population, growing urbanization, and access to affordable handsets.

Despite these efforts, innovation activity remains concentrated in a few countries like South Africa, Ghana, Senegal, Rwanda, and Nigeria. While some countries, such as South Africa, Kenya, Mauritius, Egypt, Morocco, and Tunisia, boast relatively strong innovation systems, Africa as a whole faces challenges such as limited human capital, weak governance and regulations, inadequate entrepreneurial support systems, and financing constraints.

The Israeli Government Policy

Decision No. 1585, issued by the Government of Israel on June 26, 2016, outlines a comprehensive strategy to bolster Israel's economic ties and cooperation with African countries, with a specific emphasis on innovation. As part of this decision, the Israel Innovation Authority was tasked with expanding its Product Adaptation Program to target markets in Africa. This expansion involved conducting market analyses in African countries to identify relevant needs, focusing on existing and potential initiatives at national and local levels, as well as projects initiated by companies or large entities within the target countries.[25]

While this decision was meant to accelerate Israel's commitment to leveraging innovation as a cornerstone of its economic diplomacy efforts in Africa, and as a consequence promote the adaptation of Israeli products and technologies, its allocated budget – roughly $1 million at the time – and application were limited.

The Israel Innovation Authority (IIA) partnered with *PRIMA*, an organization that funds projects contributing to economic growth and stability in the Mediterranean region and Africa. This collaborative initiative involving Israel and 18 other nations, is geared towards enhancing research & development, and innovation in water, agriculture, and food sectors.[26]

Despite Africa's progress in technological fields, Israel has not capitalized on it. Israel has collaborated with other countries in innovative domains, such as international innovation funds like BIRD and KORIL and innovation programs with the European Union, however, the IIA operates minimally, if at all, to boost ties with relevant African counterparts. While collaboration with Western countries could seem more appealing, it is crucial not to overlook the rapidly growing continent.

Israel Innovation Authority's analysis of investment distribution in technology companies in 2023 reveals a trend similar to recent years, with investment in startups in the fields of enterprise software, cybersecurity, and fintech dominating the

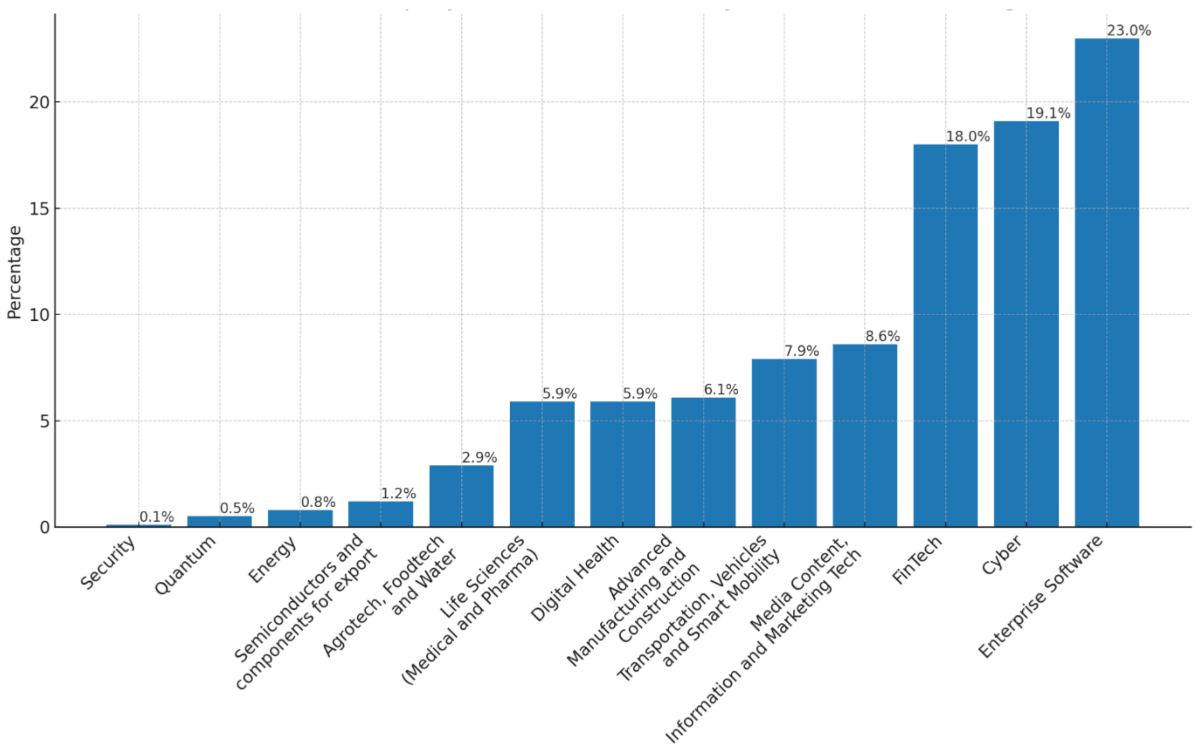
[25] https://www.gov.il/he/pages/2016_dec1585

[26] https://www.innovationisrael.org.il/ISERD/topic/prima-partnership-ri-mediterranean-area

majority of funds raised by technology companies in the past year, comprising 60% of the total capital raised.

In 2023, there was further growth in the centrality of these sectors compared to 2022, when 53% of investments were in these three areas. Concurrently with this growth, there was a decline in investments in areas such as telecommunications, life sciences, advanced manufacturing, as well as in agri-tech, food-tech, and water technologies. Additionally, it is worth noting that due to the increasing importance of quantum computing and its strategic significance for the future, investment in this field was highlighted for the first time in the review.

Figure 6: Focus of Tech Investments in Israel, by Sector, 2023 (Percentages)



Source: Israel Innovation Authority (IIA)

5. Tech investments in SSA and Israel (2020-2024), by sectors

To point out more clearly the specific fields in which, we believe, Israeli innovation can make strides, we reviewed the findings of Oxford Economics Africa[27]. This study pinpointed five sectors where Israel demonstrates significant prowess, and where, at the same time, Africa is expanding and creating exciting opportunities. By scrutinizing innovation investments in

[27] https://www.oxfordeconomics.com/region/africa/

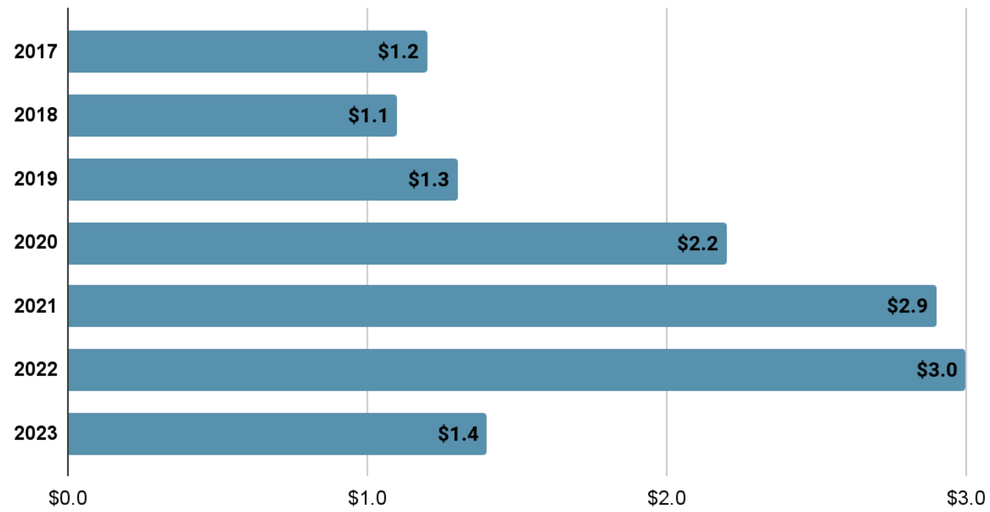
Israel and SSA, we aim to gain insights into existing gaps and untapped opportunities specifically for the tech-innovation sector in the previously identified sectors.

A. Health-tech

Israel

Public companies bounced back in 2024: The sector continued to see a downturn in private funding and the count of investment rounds. However, public companies showed renewed vigor with a slight recovery from the Q4 2023 lows, rallying to secure deals totaling more than $75 million.[28] Highlights of the quarter include: BiomX's $50M PIPE, DarioHealth's $22M PIPE, Vessi Medical's $16.5M Series A round.

Figure 7: Israel's Health-tech Investments ($ billion) by year, 2017-2024(Q1)



Source: Startup Nation Central

SSA

In 2023, the health-tech sector experienced a setback following several years of expansion in both the number of funded startups and the total capital influx; 41 health-tech startups (10.1%) received funding, down from 53 (8.4%) in 2022 and 55 (9.8%) in 2021. The combined funding for these ventures amounted to $135.8 million (5.6%), marking a 28.2% decrease from the $189 million (5.7%) raised in 2022. Despite this year-on-year decline, which was the first since 2016, the setback was not as severe as in other sectors.

Nigeria dominated the SSA health tech sector in 2023, with 14 funded startups (34.1%) raising the most funding. South Africa followed with eight companies (19.5%), Kenya with five (12.2%), and Egypt with four (9.8%). These "big four" markets accounted for 75.6% of

[28] https://finder.startupnationcentral.org/reports/snc-q1-2024-report

funded startups. Nigeria also led in total funding, with $53 million (44.4% of the continent's health tech funding) in 2023. Kenya and Egypt followed closely, each raising around $23-24 million.[29]

Conclusions:

Investments in the health-tech sector within SSA significantly lag behind those of Israel. In fact, the total investment in health-tech for an entire year across SSA is lower than Israel's quarterly figures. This stark contrast may signify several underlying factors. Firstly, it could suggest a regulatory landscape in SSA that poses significant challenges for foreign businesses, companies, and investors – potentially hindering investment flows and innovation. Moreover, the discrepancy may point to substantial entry barriers within SSA, such as limited infrastructure and/or bureaucratic hurdles. These barriers could pose challenges for Israeli companies seeking to establish a foothold in the region. However, once clearly mapped, these obstacles can be tackled by focused government support that would help Israeli companies to make strides in the continent. Furthermore, given the relatively modest levels of investment in Health-tech across the continent, these insights present fertile ground for strategic partnerships with African companies, funds and DFIs.

B. Agri-tech

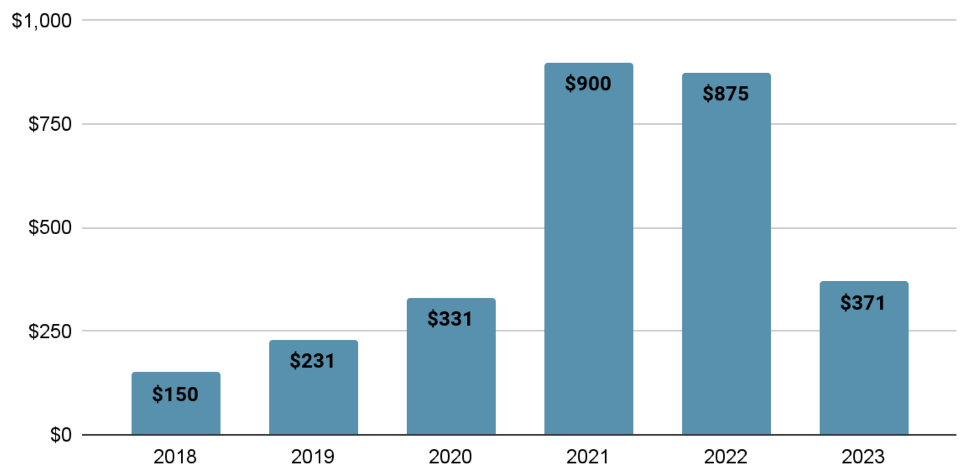
Israel

In Q1 2024, private funding surged to nearly **$100 million**: Private investment markedly recovered from a trough of $18 million in Q4 2023. Significant transactions that bolstered this resurgence included: SeeTree's $17.5M Series C, FreezeM's $14.2M Series A and WeedOUT's $8.1M Series A funding rounds.

> In 2023, Israel's Agriculture & Food Tech industry demonstrated remarkable resilience in the face of both global economic turbulence and local obstacles. Notably, there was a pronounced emphasis on cellular agriculture, automation, and alternative proteins. Although the sector saw a consistent number of companies, there was a reduction in funding rounds, dropping from 97 in 2022 to 76. However, amidst this overall decline, investment in Water and Irrigation enterprises surged dramatically, nearly tripling to $138 million, constituting 40% of the sector's private funding.

[29] The African Tech Startups Funding Report 2023, available at: https://disruptafrica.com/wp-content/uploads/2024/01/The-African-Tech-Startups-Funding-Report-2023.pdf

Figure 8: Israel's Agri-tech Investments ($ million) by year, 2018-2024(Q1)



Source: Startup Nation Central

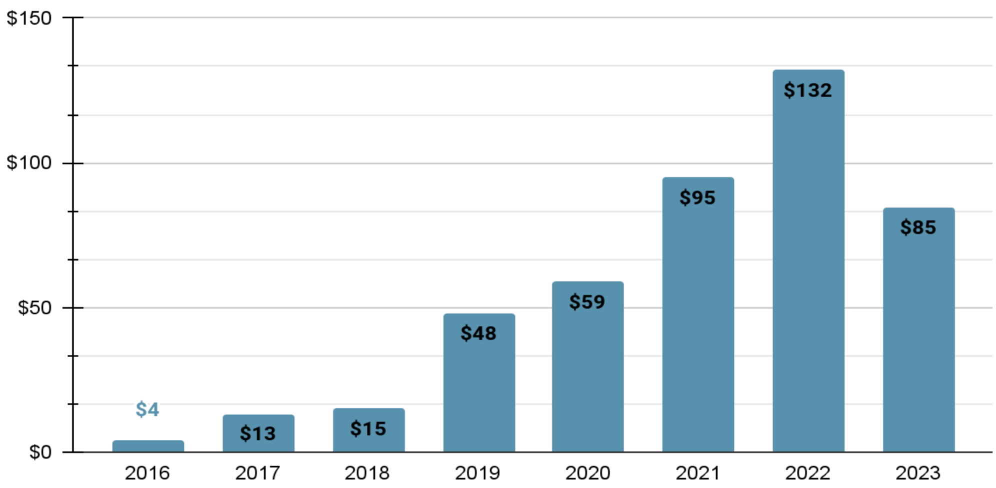
SSA

In 2023, the agri-tech sector, a longstanding pillar of Africa's startup landscape, encountered a notable shift as funding into the sector declined for the first time on record, reflecting prevailing economic conditions. In 2023, African agri-tech startups raised $84.64 million (3.5% of Africa's funding), down 36.3% from $132.83 million (4%) in 2022. This followed increases of 39.7% in 2022 and 58.5% in 2021. The number of funded startups remained stable at 24 (5.9% of Africa's total).[30]

Kenya emerged as the frontrunner in agri-tech funding in 2023, with seven startups raising a combined total of $48,730,000. Nigeria followed closely, with five startups securing $6,75 million, while South Africa had four funded startups, also raising $6,75 million. These three countries accounted for 79.2% of funded startups and 73.5% of funding.

[30] The African Tech Startups Funding Report 2023, see footnote 29.

Figure 9: Growth in SAA's Agri-tech funding, by year ($ million)



Source: The African Tech Startups Funding Report 2023

Conclusions:

Israel's advanced agricultural technologies, coupled with its expertise in areas such as precision farming, water management, and agronomy, could offer valuable offering to address challenges faced by SSA's agricultural sector. These solutions have the potential to enhance productivity, sustainability, and resilience in SSA's agriculture, ultimately contributing to food security and economic development in the region.

Despite the relatively slower increase in the number of agri-tech companies, the agri-tech sector in SSA witnessed robust growth in funding until 2023. This discrepancy between the stagnation in the growth rate in the number of companies to the increase in funding suggests that while the agri-tech ecosystem in SSA may be experiencing some challenges in expanding its number of companies, it is still attracting substantial investment interest. This could be indicative of several factors:

- Quality over Quantity: focus on quality rather than quantity. Investors may be more discerning in selecting high-potential startups to invest in, leading to larger funding rounds for those selected companies. This can pose a challenge for Israeli companies as smaller amounts of capital are allocated to stronger local companies. However, the diversity of Israeli agricultural companies can certainly be an advantage to tap into new submarkets in which local startups are absent.

- Maturation of the Sector: The agri-tech sector in SSA may be reaching a stage of maturity where existing companies are scaling up and attracting larger investments rather than a proliferation of new startups entering the market.

- Investor Confidence: The continued growth in funding levels despite a slower increase in the number of companies suggests a level of investor confidence in the potential of agri-tech startups in SSA. Investors may see value in supporting existing companies with proven track records and innovative solutions.

- Regional Focus: The concentration of funding in certain regions or countries within SSA may also contribute to the disparity between company growth and funding levels. Certain countries (Kenya, Nigeria, South Africa) with favorable business environments or government support may attract more investment, leading to larger funding rounds for companies operating in those regions.

Given the apparent robustness and maturity of the sector in SSA, the emphasis lies less on direct competition and more on establishing strategic partnerships, both commercial and technological, with local companies. By fostering synergistic relationships with local enterprises, backed by government support, Israel can leverage its expertise to enhance agricultural productivity, address food security challenges, and promote sustainable farming practices across the region.

C. Ed-tech

Israel

Unfortunately, we do not have specific data regarding the precise sum of investments in the ed-tech sector in Israel. However, we can estimate that investments in this sector have increased significantly with the growth and development of the industry in recent years.

SSA

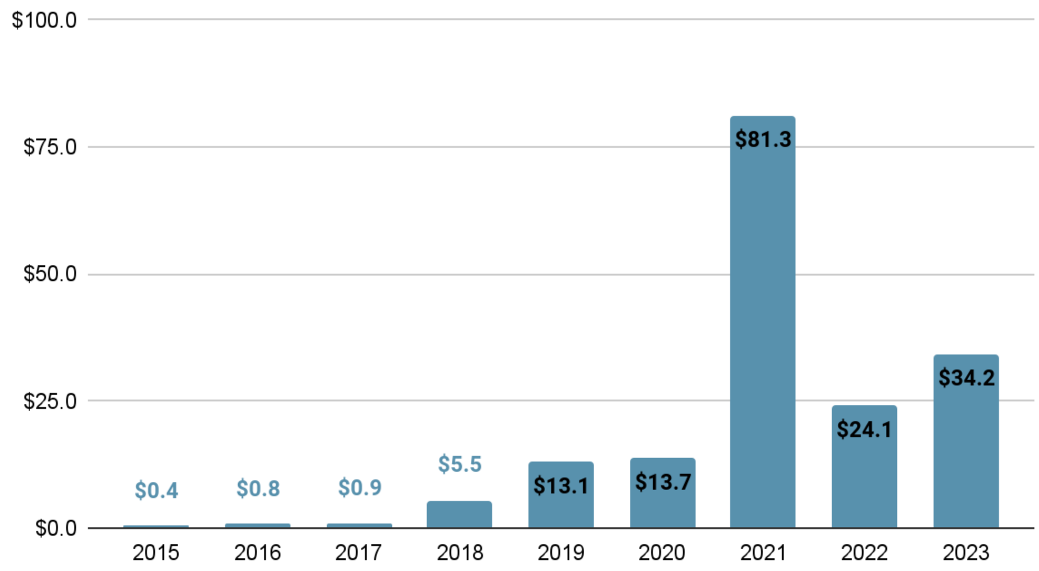
Ed-tech experienced a relatively positive year in 2023, witnessing a notable spike in total funding despite a decrease in the number of startups securing backing. Twenty-three ed-tech startups (5.7%) received funding, marking a 14.8% decline from 27 (4.3%) in the previous year. This drop followed a 6.9% decrease from 29 startups (5.1%) funded in 2021.

However, the total funding picture painted a more optimistic story, especially compared to 2022. Ed-tech startups raised a total of $34.6 million showing a significant growth of 40.7% from $24.6 million (0.7%) raised in the previous year. Notably, this figure was down by 69.6% from the peak year of 2021, when startups secured $81 million (3.8%) – a milestone yet to be matched.

Nigeria led in the number of funded startups in 2023 with seven (30.4%), followed by Egypt and South Africa with five each (21.7%). These three markets accounted for 73.8% of funded ed-tech startups, with the remaining rounds scattered across the continent.

In terms of total funds, Egypt took the lead, contributing $15.5 million including a $10 million pre-Series C raise for the E-learning platform Almentor. Kenya followed with $12 million, $11.5 million of which came from Ed Partners. Despite having the most funded startups, Nigeria raised only $4.42 million, indicating a prevalence of smaller pre-seed and seed tickets. Together, these three countries contributed $31.92 million, accounting for 92.1% of ed-tech funding.

Figure 10: SSA Ed-tech funding, by year ($ million)



Source: The African Tech Startups Funding Report 2023

Conclusions:

In Sub-Saharan Africa (SSA), the ed-tech sector holds immense potential for growth, driven by the region's increasing demand for innovative educational solutions. However, the broader education sector in SSA has traditionally not attracted significant investment or deep foreign involvement. This is partly due to challenges such as inadequate infrastructure, limited government funding, regulatory constraints, and cultural factors that impact the uptake of new technologies.

Despite these obstacles, there is a growing recognition of the importance of education and the transformative potential of technology in SSA. As awareness increases and stakeholders collaborate to address these challenges, there may be greater opportunities for investment and innovation in the ed-tech sector. Building trust, fostering local partnerships, and tailoring solutions to the specific needs and contexts of SSA will be critical for unlocking the full potential of ed-tech and driving positive change in education across the region.

D. Energy-Tech

Israel

Total investments in energy-tech in Q1, 2023 amounted to only $481 million, with private funding in the quarter amounting to $173 million, mainly in the energy transition subsector and food & land use. Public funding, however, drove investments with $300 million in the energy transition subsector.

In Israel's energy-tech landscape, giants like SolarEdge, valued at $15.5 billion, and Ormat, with a market cap of $5 billion, dominate the solar and geothermal sectors. In the hydrogen sector, H2Pro, raised $75 million for its E-TAC technology. Addionics, an energy storage startup raised $27 million to develop its battery technology.

SSA

The energy sector showcased remarkable performance in 2023, playing a significant role in offsetting the decline observed across the broader tech space, primarily due to substantial growth in total funding. A slight decrease in the number of startups securing backing was noted in 2023 (20 ventures) compared with 24 in 2022, and 22 ventures in both 2021 and 2020.

The highlight of the year was the staggering total raised, amounting to $655.8 million representing 27.2% of the African total and marking the second-highest contribution by any sector. The energy sector has consistently outperformed in funding terms compared to the number of startups raising funds, reflecting the nature of the business, which often requires substantial funding and attracts debt finance. Alongside the surge in total funding, the average round size also witnessed a significant increase, reaching $32.7 million in 2023 compared to $6.2 million in 2022, $4.7 million in 2021.

Geographically, there was a broader spread among funded startups in the energy space, with Nigeria and South Africa hosting four ventures each (20% each), three in Kenya (15%), and two each in the Democratic Republic of Congo (DRC), Egypt, and Uganda (10% each). Kenya dominated funding, raising $497.5 million (75.9% of the energy total), with significant rounds by M-KOPA and Sun King.

Conclusions:

Unlike some other sectors previously discussed, energy transition requires significant government support. Given the importance of government involvement in the sector, especially in SSA, where energy access and reliability remain significant challenges, it is crucial for Israeli stakeholders to collaborate closely with local governments and regulatory bodies. This collaboration can help navigate regulatory hurdles, access funding opportunities, and ensure alignment with national energy policies and priorities. Without such coordination, the chances of Israeli tech to break into African markets are slim. In that respect, an innovation-oriented Israeli DFI (discussed previously in the finance section) could offer critical support for Israeli startups by co-funding energy sector projects in the continent while setting clear priorities for these projects to favor innovative solutions.

E. Fintech

We included fintech in our research despite its absence from the original Oxford study based on several reasons. Firstly, fintech is a globally significant sector and its exclusion could overlook valuable insights for both Israel and SSA. Secondly, by analyzing fintech, we gain a comprehensive understanding of Israel's strengths vis-à-vis SSA's emerging markets. Thirdly, fintech's decline in Israel juxtaposed with its prominence in SSA prompts exploration of potential synergies or contrasting market dynamics. Lastly, evaluating fintech underscores its strategic relevance for SSA's development agenda, warranting consideration alongside other sectors for Israel's engagement in the region.

Israel

Fintech funding in Israel is significant, however the sector has seen a steep decline in investment since 2021, dropping from $6.8 billion in 2021 to $1.5 billion in 2023, according to an IVC report[31]. However, while the decline is significant, it represents a return to "pre-bubble" levels.

SSA

In 2023, fintech remained the top sector for investment in Africa, as in previous years, but it also faced a decline year-on-year, indicating vulnerability to economic downturns. 128 fintech startups secured funding, constituting 31.5% of Africa's funded startups, a 37.6% decrease from 2022's figure of 205 (32.4%) and 184 (32.6%) in 2021.[32]

Total funding for fintech startups in 2023 amounted to $963.55 million, constituting 40% of the continental total, representing a 33.4% decrease from the $1.4 billion raised in 2022. Nigeria continued to lead in Africa's fintech space, with 47 funded fintechs. Egypt followed with 18 fintech startups funded, while Kenya and South Africa contributed 16 and 12 respectively. Egypt secured the highest total funding of $529.6million, largely due to a single fundraising round by MNT-Halan.

Sub-Saharan Africa has made significant strides in developing its fintech ecosystem, with increasing mobile phone penetration and internet usage, supportive regulatory efforts in countries like Kenya and Nigeria, growing interest from venture capitalists, and a strong culture of innovation and entrepreneurship. However, challenges remain, including uneven technological infrastructure, regulatory inconsistencies, limited access to funding for early-stage startups, a shortage of specialized training and education programs, and concerns about data security and privacy. Despite these obstacles, continued efforts to improve

[31] Israeli Tech Review 2023, available at: https://www.ivc-online.com/LinkClick.aspx?fileticket=d0tSSB_wMH8%3d&portalid=0&timestamp=1705398553249

[32] The African Tech Startups Funding Report 2023, see footnote 29.

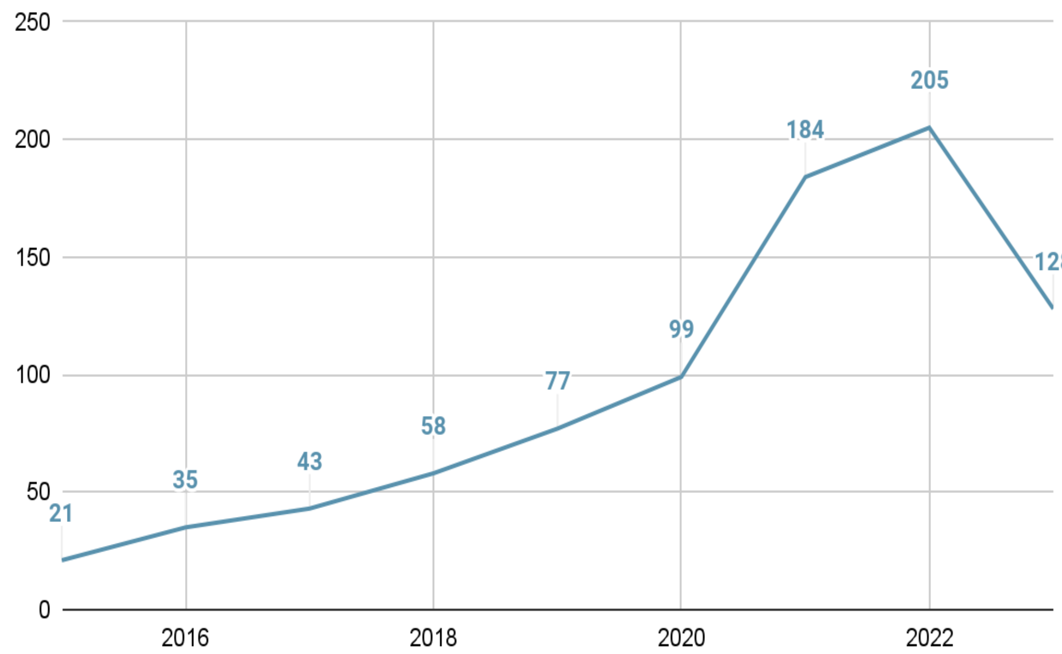
regulatory environments, enhance infrastructure, and foster collaboration between public, private, and academic sectors will be crucial for realizing the full potential of fintech in SSA.

Conclusions:

The gap in fintech investments between Israel and Sub-Saharan Africa highlights distinct market stages and investment climates. Israel's mature fintech ecosystem contrasts with SSA's regulatory challenges and economic volatility. Despite this, SSA shows significant funding in fintech, suggesting growing regional importance.

Israel's decline may be due to market saturation and internal factors, while SSA's decline could indicate vulnerability to economic downturns. However, the high percentage of funding and the presence of leading markets like Nigeria suggest potential opportunities for Israeli companies seeking to enter these markets. As fintech funding accounts for 31.5% of all start-up funding in the continent, it is clear SSA focuses on this sector to enhance sustainable development, with relatively low funding for the entire region with comparison to Israel’s fintech funding. Israel should consider investing in the fintech sector in SSA also due to the region's substantial financial growth potential and evolving digital landscape – two key elements that are the basis for fintech infrastructure. SSA has a large unbanked and underbanked population, creating a high demand for innovative financial services.

Figure 11: Funded Fintech startups by year, SAA



Source: The African Tech Startups Funding Report 2023

F. Conclusions

Based on the comprehensive analysis presented in this chapter across various sectors, it becomes evident that Israel stands to capitalize on more favorable prospects within certain industries in Sub-Saharan Africa compared to others. Among these sectors, fintech emerges as a primary focus area and a rapidly expanding domain within SSA, with growing domestic significance and relatively higher levels of funding compared to other sectors in the region. Despite this growth, however, funding for fintech in SSA still lags significantly behind that of Israel and Western countries, presenting an enticing business opportunity for Israeli firms.

Aside from Fintech, given the investment landscape and market readiness, agri-tech and health-tech emerge as promising sectors for Israel over the rest. Israel's advanced technologies, coupled with substantial investments in these fields in SSA, offer a strategic advantage for market entry and expansion.

By contrast, we think that Israel's position in both ed-tech and energy-tech is limited. For ed-tech, the investment landscape in SSA is unpredictable, and while there are openings for Israeli involvement, the sector's growth potential is uncertain and Israel's capabilities in the sector are not much superior and do not provide added value. As for energy-tech, while there is alignment between Israeli technology and SSA's energy challenges, the sector presents its own complexities. Navigating regulatory hurdles and forming partnerships can slow down market expansion and requires significant investments.

6. Selected Countries- Best Practices: High level Overview

A. Turkey

Turkey's approach to expanding its influence in Africa encompasses several key strategies[33]:

- Prioritized economic engagement, with bilateral trade surging from $5 billion in 2003 to over $40 billion in 2022, accompanied by substantial investments in construction projects totaling $85 billion.[34]

- Diplomatic and cultural outreach efforts, significantly increasing its diplomatic presence from 12 embassies in 2002 to 44 by 2022, with plans for further expansion.

- Turkey has positioned itself as an alternative to traditional Western and Chinese approaches, emphasizing state sovereignty and non-intervention, while maintaining a pragmatic, non-ideological stance in its Africa policy, focusing on fostering win-win partnerships, without imposing political conditions.

Since 2016, Turkey's Africa policy has evolved further to focus on strengthening its defense industry following arms embargoes from Western allies in response to military operations in Syria. The

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[33] For a comprehensive overview of Turkey's Africa strategy see "Turkey's Deepening Inroads in Africa", by Dr. Hay Eytan Cohen Yanarocak, available HERE.

[34]https://african.business/2024/02/politics/the-ankara-consensus-how-turkey-is-boosting-influence-in-rising-africa

development of the Bayraktar TB-2 drones, deployed in various global crises, has garnered attention for their cost-efficiency and effectiveness, attracting interest from African nations.[35]

> OECD data reveals a significant rise in Turkey's FDI outflow to Africa from $34.6 million in 2015 to $96.1 million in 2020.
>
> Most of Turkey's FDI still focuses on North Africa and selects large economies in SSA. This is particularly evident in the infrastructure sector where Turkish companies, like Summa, have secured major projects across the continent, including Guinea Bissau's international airport, Senegal's national stadium, and airport construction projects in Niger, Senegal, and Sierra Leone. In 2021, projects undertaken by Turkish construction companies in SSA amounted to $5 billion, comprising 17% of all Turkish building projects abroad, surpassing Europe and the Middle East, and positioning SSA as a significant destination for Turkish construction endeavors.[36]

B. United Arab Emirates

The UAE's strategy in Africa focuses on several key priorities[37]:

- Developing a unified national investment strategy to boost inward and outward investment flows.
- Assist UAE-based companies in global expansion, aiming to attract AED 550 billion ($150 billion) in foreign investment by 2031.
- Diversifying its economy by expanding into non-oil sectors like trade, logistics, financial services, manufacturing, and tourism in Africa.

As a result, the United Arab Emirates has seen substantial growth in trade relations with Africa, with Dubai emerging as a pivotal logistics hub facilitating this exchange. Notably, the UAE exports petroleum products to Africa and imports gold, precious metals, and other commodities, with total non-oil trade amounting to $25 billion, showcasing a robust economic partnership expected to expand further. Diverse sectors such as tourism, infrastructure, telecommunications, mining, and energy underscore the breadth of these economic engagements.

Projects like the expansion of Ethiopia's Bole International Airport and the construction of the Kigali Innovation City in Rwanda exemplify the UAE's commitment to Africa's development. The Dubai-based DEWA's partnership with the World Bank on the "Scaling Solar" program is a notable initiative aimed at promoting solar power across Sub-Saharan Africa, contributing to sustainable energy sources and addressing energy access issues, while positioning UAE as a rising donor in the international development arena.

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[35] https://afripoli.org/assessing-turkey-africa-engagements

[36] https://afripoli.org/assessing-turkey-africa-engagements

[37] For more information, see "Abraham Accords" in Africa? The Rise of the UAE's Influence on the Continent and Implications for Israel", by Dr. Asher (Asi) Lubotsky, available HERE.

C. Finland

Finland’s bilateral relations with SSA are limited. However, the Finland-Africa Strategy, which was approved on March 18, 2021, aims to deepen relations with African countries, the African Union, and regional organizations, focusing on political and economic connections. This strategy emphasizes the development of sectors like technology, renewable energy, and education, reflecting Finland’s commitment to a stronger partnership with Africa,[38] while tapping into the region’s clear growth engines.

The main two objectives of Finland’s strategy are:

- Combining Finnish expertise with the promotion of job-creating green growth and sustainable transition in African countries. Finland is interested in bringing into the continent scientific and research cooperation relevant to green transition, and enhancing interaction between Finnish and African businesses, experts and government agencies. To that end, Finland has clearly defined its goals, including allocating at least 50% of Finnfund's new funding decisions to investments in Africa promoting the participation of Finnish companies in EU-funded projects.[39]

- Double trade between Finland and Africa by 2030 while significantly increasing investments from both Finnish companies in Africa and African companies in Finland. As a small nation, Finland focuses on prioritizing countries (mostly Nigeria, South Africa, and Ethiopia[40]) and sectors with the greatest economic potential in collaboration with Finnish business. Finland has created larger export packages and supports small and medium-sized enterprises.

D. Iran

Iran has focused on economic cooperation with Africa, significantly increasing its outgoing trade volume to the continent. For example, during Hassan Rouhani's presidency (2013-2021), Iran doubled its outgoing trade volume with Africa to $1.7 billion by 2018. Iran has utilized soft power tactics, including development assistance through organizations like the Iranian Red Crescent Society and the Imam Khomeini Relief Foundation. These efforts expanded during Mahmoud Ahmadinejad's presidency (2005-2013) and continued under Hassan Rouhani.

To achieve the desired boost in trade, Iran has offered export incentives to approximately 30 African countries to sign large-scale trade deals. These incentives are aimed at promoting Iranian exports, including liquified petroleum gas (LPG), iron, steel, cement, and other products.

Iran maintains embassies and representations in several African countries, including Algeria, Côte d'Ivoire, the Democratic Republic of Congo, Egypt, Ethiopia, Ghana, Guinea, Kenya, Libya,

[38] https://um.fi/finland-s-africa-strategy

[39]https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162978/VN_2021_21.pdf?isAllowed=y&sequence=1

[40]https://www.finnvera.fi/eng/finnvera/newsroom/articles/countries-and-markets-32021-finland-aims-to-accelerate-exports-to-africa-nigeria-south-africa-and

Madagascar, Mali, Morocco, Namibia, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Sudan, Tanzania, Tunisia, Uganda, and Zimbabwe.

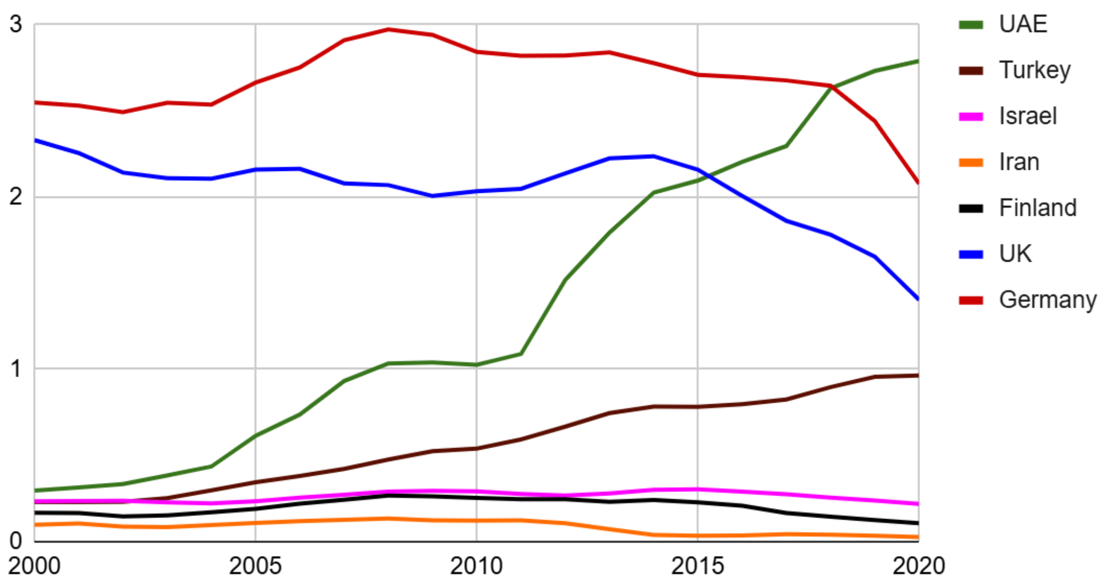
Iran's economic activities in Africa are primarily conducted through knowledge-based companies known as *Danyesh Bonyan*. While technically considered private-sector entities, these companies receive significant investment from the Iranian government. This involvement allows Iran to pursue economic projects in Africa that are less vulnerable to sanctions.

In parallel, Iran has invested in various development projects across Africa, focusing on sectors such as healthcare and education. Organizations like the Iranian Red Crescent Society and the Imam Khomeini Relief Aid have established clinics and educational institutions in several African countries. These projects not only contribute to development but also serve as avenues for building goodwill and influence.

E. The Formal Bilateral Influence Capacity (FBIC) index

While the scope of this paper does not allow for a thorough analysis of the outcomes of other countries' approaches to Africa, we do have some indication that their strategies bear fruit. The Frederick S. Pardee Institute for International Futures at the University of Denver developed the Formal Bilateral Influence Capacity (FBIC) index that measures the influence of one country over the other, or over a region. The FBIC score is made up of analysis of diplomatic, economic and defense-related influence.

Figure 12: Comparative Analysis of Selected Countries – FBIC Index (2000-2020)



Source: The Frederick S. Pardee Institute for International Futures at the University of Denver

We looked at the FBIC score of the analyzed countries over the past 20 years. Clearly, the UAE and Turkey have become more influential in Africa. It is important to note that their starting point was comparable to that of Israel around the year 2000. Finland's aggregated FBIC score is similar to Israel's, however, when looking only at economic influence (which has been Finland's main strategic priority in the region) it scores significantly higher than Israel. Iran's efforts are not yielding notable results according to the FBIC index, yet we should keep in mind that Iran's main foreign policy objective in the past decade has been breaking the sanctions regime. We do not have enough evidence to determine how successful those efforts were in Africa.

F. Conclusions

Analyzing the approach of this sample group of countries towards Africa, three key elements are clear:

- Setting clear and measurable goals, including deadlines to achieving them. This practice helps the multiple government agencies, private sector companies and nongovernmental organizations to align around a common framework.

- Long term planning, often articulated in government decrees. This planning includes agencies that are tasked with achieving a clear set of goals and significant budget allocations. These reviewed countries plan decades-long engagement with the African continent.

- Multidimensional approach: All the reviewed countries apply several methods to interacting with African countries, making use of trade, investment, international development, cooperation with multilateral organizations, political leadership commitment and more in order to achieve their goals.

Israeli decision makers should take examples from other countries' approaches to Africa. Many of those countries are not bigger or richer than Israel; however, unfortunately, their ability to set clear goals, plan accordingly and apply a multidimensional approach offers them a competitive advantage over Israel.

7. Conclusions and Policy Recommendations

This paper focuses on the question, "How can Israel improve its relationship with Africa and achieve its strategic goals?" By focusing our analysis on the past 24 years, we were able to offer an up-to-date perspective on what works between Israel and Africa and what doesn't, and on what is already in place and what needs to be created.

We can clearly see that Israel's efforts to strengthen ties with Africa suffer from a lack of strategic planning, consistency and continuity. This is a common characteristic of economic, trade, diplomatic and tech innovation relationships. These gaps translate into insufficient resources that cannot meet the needs of maintaining and strengthening multifaceted interactions with a continent that has transformed remarkably over the past two decades. At the same time, Israel's competitors, and even its enemies, in the global arena are making concentrated efforts and investing significant resources towards tapping into the vast opportunities offered by Africa.

Despite this somehow gloomy observation, a lot can be done. Concrete steps that can be implemented in the short and medium term include:

1. **Appointing a high-level special envoy for Africa**
2. **Enhancing Israel's services exports to Africa**
3. **Supporting exporters and investors by providing accurate information about the continent and offering hands-on deal support**
4. **Enhancing Israel's engagement with DFI and other development organizations that have robust presence in Africa such as the World Bank, EBRD, national DFIs and leading philanthropic foundations.**
5. **Reforming ASHRA, Israel's export credit agency**
6. **Determining specific high-tech sectors that can make strides in Africa and incentivizing startups in those sectors to develop their business in the continent.**

For the longer term, Israel can aim for a free trade agreement with AfCFTA, encourage bilateral investments, support PPPs through a new development finance institute, utilize its vast experience in fostering tech innovation to engage with leading African markets, develop a framework for employing Africans in Israel, cultivate financial investments by African pension funds, and more.

We are aware that as we present this paper, Israel's strategies and policies towards Africa may be subject to domestic and international pressures in the short term, given the increase in Israel's defense expenditures and the focus on pressing domestic issues, which could impact the scope of Israel's engagement. However, every dollar and every hour invested now may yield significant returns in the future. Israeli decision makers should look to the horizon and start working now. The potential for strong and mutually beneficial ties with Africa is there. It is time to seize it.

Appendix 1: Israel-Africa Relations in Action: Country Specific Focus on Ethiopia, Nigeria, and Kenya:

For the purposes of this research, we have opted to narrow our focus to several specific African nations with well-established bilateral relations with Israel: Ethiopia, Nigeria, and Kenya. Israel focuses its diplomatic and commercial efforts on key states that wield regional influence over neighboring countries, and these relationships extend beyond the realms of diplomacy and security, encompassing also relatively more robust economic ties than others.

Additional facets of these relationships pertain to collaborations in technology transfer, rescue and relief operations, agricultural development programs, advancements in healthcare, and educational initiatives. Such multidimensional engagements exemplify Israel's proactive approach in nurturing comprehensive ties with African counterparts, transcending conventional diplomatic frameworks and fostering mutually beneficial partnerships across a spectrum of sectors.[41]

Ethiopia

Year	**Agreement or Activity**
2004	Cultural, educational, and scientific cooperation agreement, as well as a convention eliminating double taxation
2013-2017	Surge in bilateral diplomatic activity, driven by trade
2019	Partnership between Ethiopia and Israel to address security concerns, facilitating postgraduate studies in various fields within Nigeria

Bilateral Agreements

In June 2004, Israel and Ethiopia signed an agreement for cultural, educational, and scientific cooperation, as well as a convention eliminating double taxation. Israel’s relationship with Ethiopia holds strategic significance due to the country’s proximity to key waterways – the Red Sea and the Indian Ocean. Additionally, the growing threat from Islamic fundamentalist groups such as al-Shabaab and other al-Qaeda affiliates in the region heightens the significance of Ethiopia as a buffer zone against extremism.

Ethiopia emerges as a natural partner for Israel due to its regional influence and positive relations with countries like Somalia and Sudan, where Israel lacks significant ties. Recent areas of

[41] https://www.gov.il/BlobFolder/reports/sub-saharan-africa/he/X10681.pdf

cooperation between Ethiopia and Israel include agriculture, particularly in cattle farming and dairy, as well as water management, local development, and aquaculture.

The recent surge in bilateral diplomatic activity is driven by trade, with Israel mainly exporting machinery and chemical products, while Ethiopia exports oily seeds and coffee. However, the trade balance heavily favors Ethiopia. From 2006 to 2016, Israel imported goods totaling $538 million from Ethiopia, while exporting $338 million. Despite being Israel's third largest trading partner in Africa (after South Africa and Egypt), accounting for 0.12% and 0.092% of Israel's imports, respectively.

In 2022, Israel's exports to Ethiopia totaled $31.6 million, with top products including orthopedic appliances ($6.11 million), sowing seeds ($3.84 million), and liquid dispersing machines ($2.21million). Over the past 27 years, Israel's exports to Ethiopia have grown at an annualized rate of 10.4%, ascending from $2.16 million in 1995. Conversely, Ethiopia exported $85.2 million to Israel in 2022, with key products being other oily seeds ($60 millions), dried vegetables ($10.3 million), and coffee ($4.78 million). Ethiopia's exports to Israel have seen robust growth at an annualized rate of 16% over the same period, rising from $1.55 million in 1995.[42]

Nigeria

Year	**Agreement or Activity**
2006	Memorandum of Understanding for bilateral discussions on political and economic collaboration, focusing on countering terrorism.
2013	Nigerian President Goodluck Jonathan's visit to Israel, emphasizing cooperation in combating terrorism and supporting peace efforts.

Bilateral Agreements

In 2006, Nigeria and Israel entered a MoU to establish formal bilateral discussions on regional and global political issues, with a particular focus on countering Islamic terrorism and expanding economic collaboration. Nigeria, among Israel's top 20 import destinations, annually imports approximately $250 million worth of Israeli products (2023).

Israeli Activity in Nigeria

Since 1992 Israel and Nigeria have enjoyed a friendly and mutually beneficial relationship, with more than 50 Israeli companies investing in Nigerian construction, infrastructure, technology, communications and information technology, agriculture, and water management industries.[43]

[42] https://oec.world/en/profile/bilateral-country/isr/partner/eth

[43] https://www.jewishvirtuallibrary.org/israel-nigeria-relations

Among these 50 companies are Motorola Israel Ltd., Solel Boneh International Group and TAHAL group.

However, relations have primarily centered around security concerns and defense. In April 2013, Nigeria awarded Elbit Systems a $40 million contract for their Wise Intelligence telecommunications surveillance system, granting the government extensive oversight of online activities. This move sparked criticism from human rights activists. In September 2019, Nigeria partnered with Israel to address security concerns, particularly the Boko Haram insurgency.

Nigeria demonstrates progress in numerous fields such as pharmaceuticals, industrial manufacturing, electronics, and mining - where Israel has a tech advantage that could elevate the aforementioned domestic sectors. Cooperation between the two countries remains limited also despite the Nigerian government economic reforms and policies to streamline investments and business making in the local tech ecosystem.

In 2013, Goodluck Jonathan became the first Nigerian president to visit Israel to meet then President Shimon Peres; a diplomatic highpoint in the bilateral relationship. Israel exported approximately $2 billion worth of goods to Nigeria from 2006–2016, including mineral products (mostly refined petroleum), machines and chemicals. Nigeria's exports to Israel totaled $41.9 million over the same period, mostly consisting of vegetable products (particularly oily seeds). With Nigeria boasting the second-largest economy in Africa, its re-emergent manufacturing sector, and playing a pivotal role in servicing West Africa - potential for deeper economic relations is yet untapped.

Kenya

Year	**Agreement**
1989	Technical and Scientific Cooperation Agreement
2009	Agreement on Water Resource Management and Technology
2011	Memorandum of Understanding on Cooperation in the Fishing Sector
2016	Bilateral Agreements and MoUs covering defense, security, health, technology, agriculture, and water resource management

The early protocols between 1989-2011 paved the way for relatively robust trade relations between the two countries. Further bilateral agreements and MoUs, covering defense, security, health, technology, agriculture, and water resource management, were signed in 2016, fostering increased military and economic interaction between Israel and Kenya.

Over the past decade (2013-2023), Israel has enjoyed a significant trade surplus, with exports to Kenya totaling $812 million, while imports amounted to $239 million. Despite being only Kenya's 73rd most significant trading partner, trade with Kenya constituted around 8% of Israel's total exports to Africa and 1.2% of its imports in 2015.

In 2022, Israel exported goods worth $64.2 million to Kenya, with top products including liquid dispersing machines ($7.02 millions), raw plastic sheeting ($5.44 million), and other heating machinery ($4.33 million). Over the past 27 years, Israel's exports to Kenya have seen an annualized growth rate of 3.75%, rising from $23.8 million in 1995. Conversely, Kenya exported $11.4 million to Israel in 2022, with key products being tropical fruits ($2.15 million), fish fillets ($1.65 million), and cereal flours ($1.51 million). Kenya's exports to Israel have experienced a slight decline over the same period, with an annualized decrease of 0.41% from $12.7 million in 1995.[44]

Kenya has been one of the largest beneficiaries of Israeli technical assistance to developing countries. Many Kenyans study in Israel and acquire specialized knowledge in areas as diverse as integrated pest management, organic farming principles and practice, food management and public health.

MASHAV, Israel's Agency for International Development Cooperation, has maintained a continuous presence in various SSA countries for several decades. In Kenya specifically, MASHAV has played a role in addressing key development challenges and strengthening bilateral ties between Israel and Kenya. Through projects such as medical assistance in 1996, emergency aid for refugees in 1998, and empowerment programs for women, MASHAV has contributed to improving health outcomes and advancing social equity. As MASHAV's activities have evolved over time, focusing on areas such as food security, public health, and gender equality, it is important to assess their impact on Israel's broader diplomatic and economic objectives, as well as their effectiveness in promoting global development goals.

Appendix 2: Africa Defense Cooperation

Given the ongoing security threats posed by both state and non-state armed groups in the Sahel region, Israel and numerous African nations are enhancing their military-security collaboration. Historically, Israel has maintained notable military connections with countries such as Ethiopia, DRC, Uganda, Ghana, and South Africa. Presently, SSA represents a potentially lucrative market for Israeli defense exports, albeit currently limited. At times, there is also a darker and less discussed aspect of security agreements with African nations, where Israel occasionally lends support to oppressive regimes. In certain instances, such as in South Africa, this practice had and still has detrimental effects, as prominent policy makers still blame Israel for closely working with the apartheid regime by providing military and technological assistance to the government in the 70s and 80s, including a $1.7 billion deal selling 60 Kfir fighter aircraft.[45] This historical perception has

[44] https://oec.world/en/profile/bilateral-country/isr/partner/ken

[45] https://www.haaretz.com/2013-12-10/ty-article/how-apartheid-saved-israels-defense-industry/0000017f-e3b7-d568-ad7f-f3ff053a0000

contributed to a deep-seated distrust of Israel among certain segments of South African society and has further fueled opposition to Israeli policies towards Palestinians.

According to the Stockholm International Peace Research Institute (SIPRI), several African nations received Israeli weapons during 2006-2010, with a notable increase in arms exports to African countries in 2014. In 2015-2016, Israel reportedly exported arms valued at $275 million to African clients, while in 2021, Africa accounted for 3% of Israeli defense exports, indicating the significance of this market for Israel's defense industry. Israeli-African defense cooperation has progressed, with recent developments including a MoU signed between Israel and Morocco in late 2021, formalizing intelligence-sharing, defense industrial cooperation, joint exercises, and arms sales.

Similarly, Kenya and Uganda agreed to reinvigorate defense ties with Israel through an MoU in 2022. Beyond conventional areas, cybersecurity cooperation is growing, with the Israel National Cyber Directorate collaborating with counterparts in Morocco, Kenya, and Uganda, among others, to bolster cybersecurity infrastructures in the face of escalating digital attacks. Israel has seen an increase in arms sales in conflict-ridden Africa, particularly in oil-rich nations like Nigeria and Angola. Nigeria, grappling with Islamist extremism and insurgency in its oil-rich southern region, purchased from Israel drones and patrol boats. Moreover, the Kenyan and Ugandan military have procured various Israeli-made weapons, including artillery, gunboats, aircraft, communication equipment, and electronic surveillance devices.

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