



The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem



Gaza Sky Geeks

Report
by: Gaza Sky Geeks

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Scope and Purpose of this Report

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About Gaza Sky Geeks

Gaza Sky Geeks, established in 2011 by Mercy Corps with support from Google, is Palestine's leading tech hub that trains, nurtures, and supports emerging tech talent to create a sustainable and inclusive digital job market in Palestine through establishing a sustainable and inclusive digital job market within Palestine. Gaza Sky Geeks' mission is rooted in empowering the resilient youth of Palestine, enabling them to realise their full potential and earn globally competitive incomes through high-value digital work. Gaza Sky Geeks aspires to shape a self-sustaining tech ecosystem, internationally recognized and respected by global tech employers and investors.

Foreword by Alan El-Kadhi, Director of Gaza Sky Geeks

The stated purpose of this report is to ascertain the impact of the October 7 2023 events and their fallout on Palestinian tech-services companies, the digital workforce and tech-ecosystem more broadly. This will in turn be used to inform future marketing campaigns and advocacy efforts focused on the post-conflict operating context. The report will include consideration of any reputational damage and concerns regarding business disruption, payment risks, and other factors that may affect the willingness of international clients and markets to engage with the Palestine tech sector, as well as how it may leverage the current focus and any goodwill that has been generated. In both cases, responding to the risk and opportunity immediately is paramount, but particularly so for the former, so as to avoid negative perceptions becoming too firmly entrenched. This will be critical to ensuring that the long-term potential of Palestine's tech sector is not irrevocably undermined.

This report has attempted to collect views and data from many players in the Palestinian tech ecosystem across West Bank, Jerusalem, and Gaza. We recognise that the situation in Palestine remains fragile and uncertain, and that much depends on wider geo-political decisions outside the control of the local tech ecosystem. Despite this, we aspire for this report to serve as a catalyst for collaborative ideas and strategies aimed at rejuvenating the sector. By amplifying voices from across the Palestinian tech landscape, we can gain deeper insights into the conflict's genuine ramifications. This report stands as a crucial resource in informing the development of impactful programs by Gaza Sky Geeks (GSG), Mercy Corps (MC) and other stakeholders within the evolving Palestinian context post-October 2023.

Gaza Sky Geeks is a key player in Palestine's tech sector and carries a duty for its revival. Established in 2011 by Mercy Corps, a global humanitarian aid organisation, GSG's mission initially focused on mentoring entrepreneurs in Gaza, expanding steadily in scope and outreach over the past decade. Prior to the events of October 2023, GSG operated multiple co-working spaces in Gaza and annually conducted hundreds of tech and employability training programs across Gaza, the West Bank, and East Jerusalem. GSG served as a haven for Palestinian tech enthusiasts, offering training sessions, boot camps, and a place to enrich themselves while pursuing online income. Beyond an office and training space, this created seedbeds for dreams, passion, and slaked the thirst for knowledge. Known for its inclusivity, vibrancy, comfort, and positive atmosphere, GSG proudly safe spaces for young Palestinian women, who made up more than 50% of its participants, to learn and work.

Enabling large volumes of young Palestinians to secure employment and earn respectable incomes through online work is paramount for the future of Palestine. GSG's integrated approach of capacity building of individuals and tech-services companies in specialist tech skills, combined with cross-regional ties and international market access, will help to improve the competitiveness of the Palestinian tech sector and deepen social cohesion and stability in Palestine.

In 2022 alone, GSG graduated 4,500 participants from its training programs, 8 tech startups completed its six-month acceleration program, and dozens of Palestinian tech services companies received interns, training support, and access to international markets. By tracking the income and employment of our participants for up to 24 months post-graduation, GSG forecasted that the 2022 cohort would bring in over \$20 million to Palestine through online work in 2023, not only bolstering the economy but also fostering hope and social cohesion within communities.

Despite promising progress to meet similar outcomes in 2023, the immediate aftermath of the October events compelled GSG to suspend all activities in Gaza, scale back operations in the West Bank, and prioritise the safety and well-being of its team members and their families. Consequently, GSG's operations have been severely affected, exerting a direct impact on the economy and society in Palestine. Presently, GSG is expanding its team and the volume of training programs across the West Bank while concurrently devising a tailored plan for the revival of its operations in Gaza. This document serves to both inform these efforts and signal our intentions to the wider tech ecosystem.

Drawing upon GSG's extensive understanding of both the global tech sector and the Palestinian context, GSG proposes the following broad messages for the revival of Palestine's tech sector.

1. The tech-sector is even more crucial and relevant to the livelihoods of individuals and the Palestinian economy than before October 2023. Digital work remains one of the few viable opportunities for sustainable and inclusive economic growth in Palestine by allowing individuals and companies to access external markets outside of the local restrictions and bring revenue into Palestine.
2. The tech-sector will be the fastest sector to revive. Other sectors, such as agriculture and manufacturing, require considerable investment and time to rebuild. Whereas the tech sector is agile, adaptable, and readily-able to re-launch; requiring only workspaces with internet, electricity, and laptops - much of which can be bootstrapped and (relatively) easily sourced.
3. Palestine already has a large pool of high quality tech talent of individuals and tech companies. Tech sector revival must focus on enabling this existing pool of human capital to quickly re-enter the global tech market and earn incomes by investment in the above, combined with connections to overseas markets.
4. The fastest path to economic revival is the delivery of services to overseas customers via the internet. But Palestine is not a low cost country. Palestinian individuals and companies must become specialists so they are selected by customers for their technical and business domain knowledge rather than low price.
5. Startups and tech product based companies are essential to creating a long term sustainable tech economy in Palestine, but this requires continuous and significant investment over many years. Conversely, any Palestinian tech services provider, whether an individual freelancer or company) can immediately generate revenues if they have in-demand skills and can access overseas markets.

We welcome and look forward to feedback and collaboration from all ecosystem players in our common goal to revive the Palestinian tech sector.



Voices on the Ground

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

By Rand Safi, Partnership & Community Manager at Gaza Sky Geeks - Ramallah, West Bank

Gaza and the West Bank are Indisputably Interconnected

The crisis that has been unfolding in Gaza over the past six months is unprecedented. All aspects of life have been impacted, and in addition to the unfathomable human loss, infrastructure, and all means of modern life have been totally destroyed. Universities, hospitals, schools, tech hubs and offices, homes, and everything in between have been damaged. Nothing is what it once was.

Meanwhile, the interconnectedness of Palestine has never been clearer. Palestinians from all walks of life have been impacted by the crisis. Even for Palestinians in the West Bank, everything has been flipped upside down. Road closures, the threat of settler violence, and cancelled permits have meant an end to normalcy. Even West Bank businesses have been impacted; either by cancelled work contracts or by being disconnected from Gaza-based team members.

The Road to Revival Must Be Paved by Tech Ecosystem Players

The reality of the situation has made it clearer than ever before that the future of Palestine lies in the field of technology. Not only does tech have the capability of recovering the fastest, but it also has the capacity to enable the recovery of many other sectors, such as education, health care, and humanitarian aid.

But where does the responsibility lie? The truth is, contributions should be made from all layers of society: from individuals, to communities, to tech enablers, to the governmental level. However, the reality on the ground is that Palestine has been left deprived of a functional national strategy for the tech and entrepreneurship scene. In its absence, the tech ecosystem is left vulnerable, and it is crucial that leaders from within the ecosystem come together and find ways of shouldering the responsibility, in order to find viable solutions.

West Bank universities, private companies, and tech ecosystem players will have to work closely together to identify and address key priorities and focus areas that may support rebuilding the Gazan tech ecosystem. Currently available and future resources must be organised in a way that supports the revival of Gaza.

Alternative Programming Needs

The Gaza crisis marks a new chapter for the Palestinian tech scene. Not just in terms of the need for increased collaboration amongst tech ecosystem players, but also with regards to future interventions and programmes. New challenges are emerging, and existing problems are worsening, meaning a successful revival of Gaza includes addressing:

1. The high number of people with physical disabilities who will depend on tech-enabled opportunities to rebuild their lives.
2. Single mothers who are left as sole providers for their families are on the rise, and the importance of financial and economic independence for women has never been greater.
3. Many Gazans have been displaced in Egypt and are looking for opportunities overseas.
4. The unemployment rate, which before the crisis was already around 50%, must be addressed - and very likely through remote work.
5. Mental health concerns for Gazans in general, and Gazan employees specifically.

By Saed Habib, Deputy Director at Gaza Sky Geeks - Rafah, Gaza Strip

Gazan Tech Talent is Plug'n'Play

Once a permanent ceasefire is reached, tech and tech-enabled work will be the quickest road to recovery for Gaza. Firstly, because it requires very few resources to get started. In fact, all tech companies or individual freelancers need in order to start making an income is a laptop, electricity, and an internet connection. Even amidst ongoing bombardments, you will find Gazan freelancers and remote workers soldiering on, either using the makeshift coworking space HopeHub in Rafah or powered by eSims and solar panels.

Secondly, Gaza is home to an enormous pool of tech talent. Prior to October 2023, thousands of Gazans were earning an income online by monetising skills like voice-over artistry, translating, graphic design, remote assistance, coding, cloud computing, etc. The significance of this is, that not only is there tremendous potential in online work, but Gazans are skilled, talented, and experienced. They're essentially plug'n'play!

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Leveraging International Solidarity to Create Market Access

Perhaps the greatest opportunity for the revival of Gaza lies in leveraging the massive international solidarity movement supporting Palestinians and Gazans. Once a ceasefire is reached, there will be tremendous potential for linking Palestinian tech talent with remote work and freelancing opportunities from overseas companies. Thanks to more than a decade of effort and dedication to enhancing digital skills amongst Palestinians, the tech talent is ready and able. And with actors like GSG in play, connecting with such talent would be straightforward.

Challenges, Obstacles, and Future-proofing Digital Work

There are, of course, challenges and obstacles that need addressing. These include logistics, retraining / upskilling talent, data security, etc. However, for every problem, there is a solution - and thankfully, GSG and other tech ecosystem players are experienced in providing solutions for:

1. Opening up pop-up coworking spaces in multiple locations across the Gaza Strip in order to host freelancers and remote workers, providing them with access to electricity, internet, etc.
2. Receiving payments. There are still viable solutions in place, but these need strengthening and should be made available to all digital workers.
3. Upskilling the thousands of people who lost their traditional jobs, and integrating them into the digital economy through short trainings, bootcamps, hackathons, etc.
4. Future-proofing business operations. This includes creating hybrid business models that make businesses less vulnerable to geo-specific incidents concerning talent, tech equipment, or even information and server storage.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

By Iyad Al Tahrawi, Startup Programmes & International Partnership Manager at Gaza Sky Geeks - Cairo, Egypt

Assistance for Displaced Palestinians

An emerging aspect of the crisis in Gaza is the movement of tech talent from Gaza to Egypt, highlighting the need for targeted support and assistance for displaced individuals. Many Palestinians have undertaken perilous journeys and paid exorbitant fees to escape the conflict in Gaza, seeking refuge in neighbouring countries. It is said that 50,000 Palestinians are currently residing in Egypt, with a significant number possessing valuable tech skills and expertise. These individuals face numerous challenges as they navigate life as refugees in Egypt. They lack legal documentation and residency permits, making it difficult for them to access basic services and employment opportunities. Moreover, they remain deeply connected to their families and communities in Gaza, grappling with the financial burden of supporting loved ones back home.

International Collaboration is the Key to Success

GSG recognises the importance of collaboration and partnership in addressing the needs of displaced Palestinians in Egypt. INGOs, local organisations, government agencies, and tech companies will need to work closely together to maximise the impact of initiatives and ensure comprehensive support for the displaced population. Their tech talent must be leveraged in order to create meaningful job opportunities. Funding, resources, and interventions must be redirected to address these needs by emphasising:

1. Technical skills development through workshops, online courses, and hackathons.
2. Support through mentorship programmes and community building efforts.
3. Individual economic empowerment through access to employment opportunities.
4. Group economic development through market access and business development support.



Overview of Terminology and Abbreviations

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1. BNP = Brutto National Product
2. CSR = Corporate Social Responsibility
3. Digital workforce = Freelancers, remote workers and all individuals earning an income online
4. ESCWA = United Nations Economic and Social Commission for Western Asia
5. ESG = Environmental, Social, and Governance
6. ICT = Information & Communication Technology
7. GIZ = Deutsche Gesellschaft für Internationale Zusammenarbeit
8. GSG = Gaza Sky Geeks
9. INGO = International Non Governmental Organisation
10. MC = Mercy Corps
11. Outsourcing company = Overseas businesses providing services a competitive value or higher quality
12. PITA = The Palestinian Information Technology Association of Companies
13. Product company = Businesses manufacturing and selling physical goods
14. Service company = Businesses monetising skills-based services such as software development
15. UNCTAD = United Nations Conference on Trade and Development
16. UNDP = United Nations Development Programme
17. UNICC = United Nations International Computing Centre
18. UNRWA = The United Nations Relief and Works Agency for Palestine Refugees
19. VC = Venture Capital



Pre Crisis Context

Palestine & Gaza's Economy Prior to 7th October 2023

Pre Crisis Context

Palestine & Gaza's Economy Prior to 7th October 2023

It is no secret that the conditions in Gaza, prior to the outbreak of the crisis, were challenging. Often referred to as an open air prison, the pre-October 2023 experience of Gazan people has recently been described by the UNDP as “already being in a heightened state of stress”. With 7/10 residents in the Gaza Strip being dependent on humanitarian

aid, job insecurity across Palestine estimated to be 53%, unemployment rates of 46% - and youth unemployment rates at 70% - the prospects of securing sustainable, meaningful employment for young Gazans were next to impossible.

The Potential of the ICT Sector

With limitations on movement of goods, money, and people, the one sector offering a glimmer of hope is ICT. From freelancers to startups to outsourcing businesses; the value of the ICT sector has been steadily growing over the past 20 years.

In a report created by PITA in May 2023, the ICT sector was estimated to contribute a modest 4% (\$641 M) of the total Palestinian BNP. On a surface level, this number might not sound like much, but it is important to recognise the potential magnitude of the unreported revenue earned by freelancers and small business owners that is not considered by this report. Taking Gaza Sky Geeks as an example:

The graduates and companies that participated in GSG's trainings in 2022 alone were forecast to earn a whopping \$20M in 2023 by selling their services online to overseas markets. So the annual income from the cumulative volume of the many thousands of GSG graduates from previous years will be many multiples of this.

(NOTE: For over 5 years, GSG has been tracking the incomes of its graduates. The survey data shows that approx. 70% of the GSG graduates earn an average of \$700 per month, one year after graduation, with certain skills earning significantly more. For example, GSG surveys show that coding graduates in full time work earn an average of \$1,500 per month. The surveys also show that incomes grow each year, as the participants gain more experience).

If this is the impact of just a single organisation, imagine the magnitude of the results created by the entire Palestinian digital workforce. A quick Google search reveals that at the time of the creation of this report, more than 10,000 Palestine-based freelancers exist on freelancing platforms like UpWork, Freelancer.com and Mostaaql. Factor in that there are over 60+ tech ecosystem builders contributing to building the Palestinian digital workforce, and we end up with an overwhelmingly compelling case for the potential of the ICT sector.

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The Talent Composition of the Palestinian Digital Workforce

Having concluded that tens of thousands Palestinians have already joined the digital workforce, the next step becomes understanding the characteristics of the talent pool. From hard skills, to soft skills, to monetisation potential: which elements define the very essence of Palestinian tech talent and the ecosystem more broadly?

Cost and Key Advantages

In terms of outsourcing and freelancing price, Palestine ranks as mid-level, although it's important to note that there is a significant difference between Gaza and the West Bank (the latter being about 30% more expensive). Compared to Far East countries like Vietnam, costs are 33% that of Palestine. Similarly, Egypt is roughly 50% cheaper, and so are Eastern European countries like Poland or Romania. Interestingly, the Palestinian prices are comparable to those in the UAE and Southern Europe, which means taking the traditional "outsourcing" approach, won't make sense. Only for American or Northern/Western European countries, the cost-saving incentive is clear. This means the overall unique selling point cannot be price alone.

Rather than a 'race-to-the-bottom', Palestine is increasingly looking towards high value specialisations, serving niche markets and providing superior customer service. This leverages on the Palestinian's comparative advantages, being amongst the highest educated and literate in the region, making for an extremely attractive workforce, both in terms of hard skills and mastery of the English language.

Furthermore, perhaps one of the strongest arguments for outsourcing to Palestine is its proximity to Europe. From ideal time zone compatibility (time differential of circa 4 hours) to convenient physical accessibility, Palestine is easily reached by flight within circa 4-5 hours from most major European capitals.



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Technical Skills and Core Competencies

Palestinian tech talent cannot easily be pigeon-holed. What may have originated as a workforce of remote software developers, has grown and morphed into a vast landscape of specialisations - and at every level of seniority:

1. Software development
2. Machine learning
3. Marketing
4. Copywriting
5. Translation
6. Graphic design
7. Motion graphics
8. Engineer design
9. Voice over artists
10. Business development
11. Customer support
12. Bookkeeping and accounting

These are just a few examples to illustrate the extent to which Palestinians have embraced remote work and freelancing. Significantly, there is a recognisable move towards specialising within these fields in terms of the technologies and niche services being provided. This trend will see Palestine become high-value providers in distinct areas, rather than generalists competing with lower-cost competitors in other regions. With the growing number of training academies and online skills development courses, there is no telling where the possibilities may end.

Soft Skills and Value-driving Traits

With superior English skills, a high literacy rate, and mass market appeal in terms of hard skills, what truly makes Palestinian tech talent stand out is their soft skills and resilient nature. Over and over again, report data and interviews conducted have pointed out how hardworking, flexible, and adaptable Palestinian (and Gazan, especially) talent is.

Even prior to the crisis, Gazans were severely challenged when it came to the working conditions they were operating under. Frequent power cuts and rationing of electricity meant that the average household typically received about 8

hours of electricity per day. But Gazans, being true problem solvers, got nifty with solar panels, backup generators - even car batteries - as sources of staying online. That level of commitment and resourcefulness is an asset to any company.

We do, however, need to recognise here the very real (and warranted) concerns that clients may have in respect to business interruption risks, which have only been heightened as a result of the October 2023 events. It is incumbent on all ecosystem players to proactively address this.

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Talent Development and Tech Hubs

With an estimated 60+ tech ecosystem enablers, from tech hubs, to training academies, to incubators, to accelerators - all have played an important role in shaping the landscape of the Palestinian tech ecosystem. Two areas, however, stick out as particularly significant in the enabling of the digital workforce: training academies and coworking spaces.

Training Academies and Programmes

Training academies have evolved over the years. What started as an initiative of tech education targeting budding software developers, has now become a movement of creating digital, remote jobs to create more sustainable, meaningful sources of employment for (displaced) people across the world. Palestine is no exception.

With academies like GSG, Axsos Academy, TAP, Manara, GGateway, and Re:Coded, Palestine has become a great source of talent in the fields of web development, machine learning, marketing, sales and much, much more. The scope of the academies has not been limited to developing freelancers, but initiatives like remote internships, traineeships, and train-to-hire programmes have become the vehicle for creating many successful jobs. Take TAP as an example:

Having evolved from being a software outsourcing company themselves, they now provide training and upskilling courses across a number of professions, like marketing, sales, and software development. Thanks to their unique business model, they are so confident in their talent pool that they offer hiring companies three month salary coverage to ensure complete satisfaction while encouraging on-the-job training.

Additionally, GSG is spearheading the mission of becoming more geographically inclusive. With programmes and activities running in Gaza City, Khan Younis, Hebron, Nablus, and Jenin, GSG is prioritising vulnerable and harder-to-access communities in order to drive diversity and impact. During 2022 and 2023 alone, GSG trained approximately 4,500 participants, and over the past 10 years, they have reached over 40,000 individuals with more than 50% female representation.

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Tech Hubs and Coworking Spaces

In addition to upskilling and training academies, tech hubs and coworking spaces have played a significant role in shaping the Palestinian (and Gazan, especially) digital economy. The coworking scene in Gaza prior to October 2023 was bubbly and vibrant, with countless spaces like Eleven Hub, LEGO Spaces, and even GSG own space located in Capital Mall, “coworking” has become synonymous with freelancing.

Providing more than just physical space and fibre internet, these hubs foster a culture of entrepreneurship, resilience, and digital know-how. They create the surroundings for like minded

people to come together to inspire, create and grow together. Safe, inclusive, and vibrant, they provide pockets of freedom in a place where this is a luxury - particularly for women and marginalised groups. Palestinian tech hubs are vehicles of change, and their re-emergence will be critical to the revitalisation and future of Gaza’s tech scene and youth communities. Here we note that efforts are already being made to rebuild coworking spaces, albeit temporary and/or moveable, and this is a central component to GSG’s strategy of rebuilding its programme in Gaza.

Service Companies Key to Unlocking Economic Growth

The Palestinian ICT sector has its origins in the late 1990s (PITA), with more than 700 registered ICT companies in Palestine today. Together, they account for an estimated 4% of the Palestinian GDP, and cover industries like: software development, digital marketing, AI, the metaverse, and architectural management services. Factoring in the number

of non-registered businesses, common across the Palestinian economy and not just the tech-sector, this could easily triple the previously mentioned numbers based on anecdotal estimates. Thus, it is easy to see how compelling the outsourcing and business service provider sector is in terms of economic growth.

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“Specialist” Outsourcing Services Companies

When discussing the nature of service companies in Palestine, they are often referred to as “outsourcing,” meaning they are hired as an outside contractor to do a job instead of companies using internal employees. This means Palestinian “outsourcing” companies (and individual freelancers) try to win project based work from clients who are outside of Palestine (much like an individual freelancer wins gig work).

As the Palestinian tech outsourcing companies (and tech freelancers) compete in a global market, many of their competitors offer services at a lower price than those in Palestine. So when comparing prices (costs to hire services) of Palestinians, they are comparable to Eastern Europe, while countries like Vietnam and Egypt can offer the same services

at about 33% and 50% cheaper, respectively.

This means Palestinian outsourcers and freelancers will struggle to compete on low price, but can be successful if they offer specialist expertise, and a high quality of service. Hence, we see that Palestinian outsourcing companies that are “specialist” have the potential to be much more successful than those that are “generic”. Additionally, Palestinian companies that are closely linked to overseas customers are much more resilient. Examples include Harri and Foothill. They are the IT function of USA-based companies, and they are closely embedded into the company structure, making it harder to “swap” them for another lower cost service provider.

Gig Economy versus Stable Growth

Although the gig economy has been a great driver of growth for Palestinian service companies and freelancers; a large, stable economy can not rely on individuals, especially individual freelancers - this is too precarious. Income is not declared, income tax not paid - and it creates barriers to economic stability. Longterm, Palestine needs to develop ICT companies that can hire a growing number of talent, provide more secure jobs, and also train them towards mid-senior levels.

Developing ICT companies also creates an additional degree of credibility for international clients. Rather than dealing with individual freelancers, this provides a sense of assuredness, longevity and degree of professionalism, scope and serviceability, which are critical for putting Palestine forward as a reliable, globally competitive tech sector. Here, it is critical that government authorities and financial institutions play a positive role to ensure that regulations, enabling tools and support structures are conducive to creating companies and operating within international markets.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

The Palestinian Tech Startup Scene

Closely linked to Palestine's tech hubs is the lively entrepreneurship scene, which has been on the agenda since the first startup bootcamps started around 2007. Since then, the sector has developed, grown, and morphed into a lively scene of incubators and accelerators actively running training programmes and offering capacity building support to budding founders. Additionally, most Palestinian universities provide some sort of incubation programme. Like the pool of tech talent, the Palestinian tech ecosystem is not narrow-casted, and you will find startups from all walks of life.

With limited investment initiatives, Palestine does pride itself on having one primary VC, Ibtikar Fund, (which is run in partnership with Bank of Palestine). Palestine has yet to have a so-called "unicorn" story, but some of the more prominent startups to come out of Palestine are: Tawazon App, Alma Health, Mashvisor, Salon Beauty Booking, and VatrIn.

Covering anything from EdTech to Health Tech to tech solutions improving everyday life: the Palestinian tech ecosystem does not have a "niche," and you will find startups from all walks of life. The value of the startup sector is a far cry from Silicon Valley, but according to data collected by Cross Boundary from 36 startups, the reported annual revenue from the startups reached an impressive:

- 1- 40% of generated less than \$100,000 per year (considered low)
- 2- 40% of startups generated between \$100,000 to \$500,000 per year (considered moderate)
- 3- 15% of startups generated between \$500,000 to \$1,000,000 per year (considered high)
- 4- 5% of startups generated between above \$1,000,000 per year (considered very high)

Additionally about 50% of the surveyed 36 startups reported having employees based in Gaza, meaning the startups not only drive revenue and create jobs,

but also become vehicles of transcending physical borders, unifying Palestinians everywhere.

Digital Work; Pathway to Meaningful Employment

With thousands of freelancers, hundreds of outsourcing companies and startups, and 60+ tech ecosystem enablers (tech hubs, training academies, incubators, accelerators etc.) it is clear that the Palestinian tech sector prior to October 2023 was on an upward trajectory.

On a macro level, the ICT sector has unfounded potential to contribute to a strong Palestinian economy. On an individual level, online work not only provides a source of income, but a pathway to steady income, better salaries and more meaningful employment.



Impact Since October 7

Impact Since October 7

Loss of Lives

Gaza has largely remained in a state of mourning. As of January 22nd 2024, the Hakini report (source 8) reveals a terrible loss of over 24,000 Palestinian lives, with 85% of the population experiencing multiple displacements. Tragically, all interviewees for this report have confirmed personal losses, with every individual either directly or indirectly affected by the ongoing crisis. Disturbingly, statistics from

Associated Press (19th January 2024) indicate that 70% of those killed in Gaza are estimated to be women and children. Furthermore, Al Jazeera (17th March 2024) reports that 13,000 children have been killed, while UNICEF reports (30th January) that more than 19,000 children in Gaza have lost their parents or have been separated from their guardians.

Food Shortages and Lack of Basic Supplies

“The entire Gaza Strip is being starved to death”, is a sentence that has been repeated by the interviewees for this report (North, Middle, and South over and over again). One of the interviewees reported that due to the unavailability of wheat, they only eat bread once every six days, and they have started searching for ground corn and barley mixtures (animal feed), to relieve their hunger.

A striking 80% of interviewees (outsourcing, startups, and freelancers), have confirmed sharp food shortages. Even when available, basic goods are very expensive and unhealthy, at times, its price can be ten times higher, (80% of the interviewees experienced that), making daily meals inaccessible for many. Additionally, 80% of interviewees highlighted the very process of obtaining water, whether for drinking or domestic use, often involves hours of waiting in queues.

Displacement and Homelessness

According to interviews and reports, almost every family has moved (been displaced) from their homes to other places - at minimum to northern and central areas of Gaza Strip. 85% of the interviewees (outsourcing and startups) and their teams faced displacement. For many, this displacement has occurred multiple times since October 7th, with

some experiencing it more than five times. This ongoing movement has left many without stable housing or a sense of security, and many of them have no information about their homes and their condition due to the inability to return to these areas to inspect them.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Mental Health Challenges

The impact of the crisis extends beyond the areas where military operations occur, reaching every individual in war zones with its psychological effects. Based on various findings, it can be concluded that this has had a significant psychological impact on every person in Gaza, specifically, and in Palestine as a whole.

Initiatives by organisations like Hakini aim to provide on-the-ground support groups and activities to alleviate some of the mental health strain until more comprehensive services can be restored. The interruption of communication, electricity, and the internet has made it difficult for these entities to intervene, and the effectiveness of any form of psychological support and therapy is almost non-existent due to the continued causes of mental health issues).

Individuals interviewed in this report expressed the urgent need for immediate and rapid psychological support, emphasising the necessity for rehabilitation post-war. Because their primary focus is currently

on securing water, food, and shelters, prioritising mental health has become secondary. As Lama from BuildPalestine put it:

“How can we focus on providing meaningful mental health when people are starving?”

The impact of this has been described as the toughest and cruellest compared to previous wars, crises and escalations of violence in Gaza. Children continuously witness the bodies of their relatives being bombed and killed in front of them, the ongoing bombing day and night, the destruction of their homes, and the loss of all their personal belongings, coupled with repeated displacement experiences, basic life essentials such as food and water become scarce, while women face shocking experiences such as lacking personal hygiene items and their specific needs. The impact is particularly harsh on parents, especially men, who struggle to provide answers to their children about the unavailability of their favourite meals as they suffer from hunger, cold, and thirst.

Economic Impact

The ongoing crisis has deeply affected the economy in Palestine, in the tech industry, many challenges are affecting business operations, especially the cutoff of electricity and internet, and the lack of security, all these circumstances led to major problems such as not delivering work on time,

and losing trust from clients, business owners are struggling with insecurity, unclarity, and instability. The financial consequences are becoming clearer, influencing investment choices, expected earnings, and the overall economic situation.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Income Streams in Free Fall

In a recent report by UNCTAD (source 7) it's been reported that the Gazan economy has shrunk by 24% and that it will take an estimated 70 years for the economy to recover fully:

Since October 7th, according to the UNDP (source 2) the estimated drop in the GDP has been 12.2%, as productivity in Gaza is 0% and 50% in the West Bank. 40% of the outsourcing companies interviewed in this report have annual profit ranging between \$200,000 and \$300,000. While 50% have annual profits ranging between \$30,000 and \$100,000, since October 2023 the only revenue source has

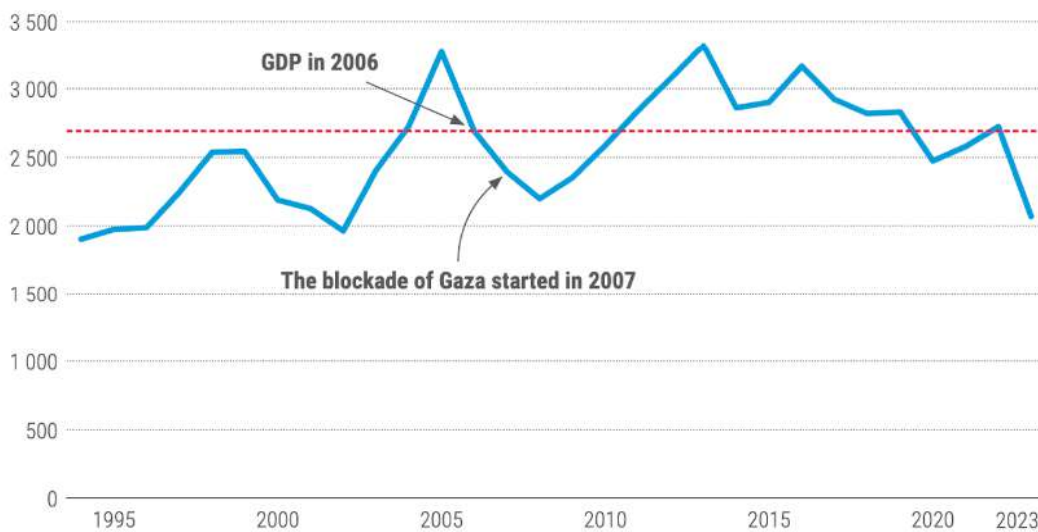
been collecting debts and receivables.

The impact on revenue has been starkly evident, as demonstrated by data from the Cross Boundary report (source 6), which includes 44 companies. Comparing pre-October 2023 revenue estimates with projections for fiscal year 2024 reveals substantial declines across the board. For instance, Company ID 1 anticipated a pre-crisis revenue of \$85,000, which plummeted to \$42,000 post-October 2023. Similarly, the other companies experienced significant reductions in expected revenue.



Gaza's economy shrunk by 24% in 2023, nearing its 1994 level

Real gross domestic product (GDP) in Gaza, 1994–2023, constant million 2015 dollars



“Preliminary Assessment of the Economic Impact of the Destruction in Gaza and the Prospects of Economic Recovery” by UCTAD

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Mass Redundancies

The number of unemployed people will increase if there isn't real support for companies to recover. PITA (source 3) estimates that around 35,000 tech workers have been made redundant since the onset of the crisis, while the UNCTAD report (source 7)

suggests that the total unemployment rate in Gaza has increased to 79%. Additionally, Palestinian workers from the West Bank and Gaza have had their permits revoked, resulting in around 250,000 people losing their primary source of income.

Large-scale Cancellation of Contracts

Companies in Gaza have suffered from losing countless clients and projects that they worked with for years to establish trusted relationships. The ongoing crisis, difficulty in communication due to lack of security, electricity, and internet outages have made it challenging to maintain communication and follow up, resulting in the loss of many clients

and the inability of companies to generate any financial returns. Consequently, these companies are unable to pay their employees' salaries, which has had a significant impact on all other aspects of life. As for clients from the West Bank, Jerusalem, and historic Palestine, many of them have stopped their work for security reasons.

Intertwined Economies

The economy in the West Bank has been directly impacted by the events in Gaza, in a multitude of ways. The cessation of Palestinian workers' employment in Israel has affected daily business operations and had an impact on companies. Moreover, changes in marketing and operational

plans for companies due to the crisis have occurred, especially with decreased demand because of the overall situation. This led to a significant shortfall in companies' ability to pay operating expenses and monthly salaries, resulting in many employees losing their jobs since October 2023.

Massive Obstacles to Rebuilding

The financial impact of the crisis has influenced individuals and their desire to continue working. Company owners expressed their desire and intention to resume work and rebuild their businesses, provided there is sufficient support, they would work on rebuilding team capabilities and regaining client trust. However, it's evident that

many employees or business owners have lost hope and confidence and have a strong desire to leave Gaza. At least one outsourcing company expressed the intention of all team members to travel and leave Gaza completely, and 20% of the interviewees left Gaza in the immediate aftermath of October 7.

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Infrastructural Damage

The intense bombing resulted in significant destruction of infrastructure in Gaza, starting with the disruption of electricity and internet lines, water and sewage networks, and the ruin of many roads, residential, and commercial buildings. Many homes and offices were damaged due to direct or indirect bombing, forcing people to be displaced and seek alternative houses and places. Tweet Tech outsourcing company informed us that their office was bombed directly, causing complete destruction

and a loss estimated at \$140,000.

Of the interviewees, many are worried that once the violence ceases it will take time for everyone to find their way back to their homes, workplaces, and belongings. Most have lost everything, and it might take months to fix things like electricity, internet lines, roads and buildings. This delay will slow down the return to normal life and work. The following has been cited by interviewees:

- 1- Displacement:** Around 85% of the interviewees and their team members were displaced several times.
- 2- Offices:** Nearly 70% of the offices were directly or indirectly hit by the attacks, leading to damage, either partly or entirely.

- 3- Roads:** All the roads leading to company offices were either partly damaged or completely destroyed, making it hard for people to get to work.
- 4- Shelters:** Around 20% of the office spaces were turned into shelters for displaced people, raising concerns about the safety of equipment left behind.

The Toll on Human Capital and the Resilience to Revive

Martyred Leadership and Lost Expertise

With the crisis still ongoing, it is impossible to fully determine what the magnitude of the death and destruction in Gaza will be. At the time of publication of this report, the official death toll in Gaza had surpassed 33,000 (April 2024). Additionally UNRWA estimates that “about 100,000 in Gaza have been killed, injured or are missing.” (Al Jazeera, 6th February 2024).

With the telecommunications network in Gaza being severely damaged and completely unreachable at times, it has been challenging to detail the human suffering in the Palestinian tech ecosystem. One message has become clear from the interviews conducted: everyone has lost a relative, most businesses have lost staff members, all employees are displaced, and 25% of tech ecosystem enablers report the killing of at least one startup founder or business owner from their community.

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When attempting to unpack the significance of these losses, all interviewees agreed that the leadership and talent killed can not be replaced. Their impact on the tech community is immeasurable: it goes beyond technical skills, expertise, or business acumen. They were role models.

Pillars of the Tech Community

Every life holds huge value, yet in the entrepreneurial world, the loss of founders, entrepreneurs and tech leaders is deeply felt. The impact of their absence extends beyond just business; it resonates deeply

Despite this, several interviewees stoically commented that the killing of key figures within the tech scene will however encourage others to step up and take on the mantle. As Safaa Ayyad from Foras.ps put it: “These people can never be replaced, but their deaths have paved the way for new leaders to come.”

within communities and economies. With more than 33,000 deaths (16th April 2024), GSG and the tech ecosystem have yet to grasp the impact of the lives lost - let alone mourn the losses.

Two examples of key members of the GSG community who have been killed are Mahmoud Abu Shawish, founder of Torood, and Mai Ubeid, developer at the UNICC:

Mahmoud Abu Shawish



Mahmoud Abu Shawish is an entrepreneur and the founder of Torood. He is described as a faithful friend, distinguished entrepreneur, and ambitious young

man, brimming with remarkable achievements and limitless aspirations. Mahmoud was surrounded by a loving family, and the joy of his life was amplified when he welcomed twin daughters into the world, just a few months before his killing.

Mahmoud’s dedication, dreams, and hard work embodied the resilience of Gaza’s entrepreneurial spirit, leaving an indelible mark on the community. Nour Taher, Co-Founder & CEO at Intella, expressed the collective grief: “Mourning the Loss of Mahmoud Abu Shawish, A Tragic Blow to the Startup Ecosystem.” Mahmoud Al-Razaz, Co-Founder and CEO of OTO Said: “His impact on the logistics industry and his resilience in the face of adversity have been inspiring. It is sad to lose an entrepreneur of such quality. His legacy will continue to motivate aspiring entrepreneurs in the region and beyond.”

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Mai Ubeid

Mai R. Ubeid's journey, from Gaza Sky Geeks Code Academy to her inspiring career achievements, reflects her resilience and determination despite battling muscular dystrophy. Mai kept pushing the limits of what it means to live with disabilities, not just in Gaza but across the world. She was destined to have a career in STEM, and after graduating from the GSG Code Academy, she went on to complete an internship with Google for Startups before landing a job with the UNICC / UNRWA.

Mai had a loving family that was deeply connected and filled with love and respect. Together, they

created a space where Mai could tap into her curiosity, strength, and desire to grow. Tragically, they were killed together in the ongoing war. The loss of Mai was a shock to her friends and those who knew her, Kathrine Tinggaard Nicolaisen, Founder of Olives and Heather, said: "Mai has made an everlasting impression on me, and I can honestly say that she was one of the strongest women I've ever met. I've always believed that she'd be a leading figure in shaping the future of Palestine - particularly from a tech perspective."

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Shattered Lives, Broken Dreams

Amongst the many business owners and outsourcing companies interviewed, the sentiment has been that although businesses have been impacted, there is a determination to resume work as soon as it is possible. There are, of course, those who simply are not able to. Ala Alaeddin from the Techno Park shared the harrowing details of how an outsourcing company in his network had made the gut wrenching

decision to shut down operations indefinitely.

“When the war started, my friend made the tough call to close down his business. He’s been operating an outsourcing company for 20 years now, but with the repeated aggressions and wars on Gaza, he doesn’t have the strength to rebuild. He just can’t find it in his heart to go through all that hardship one more time.”

Flight of Talent

It is not just the business owners who are reconsidering their options. In the midst of the crisis, people are fighting for survival - and for some, that means leaving Gaza. Whether they have the option to return, assuming they want to, remains unclear.

The concept of “brain drain” and talent leaving Palestine to pursue better employment opportunities abroad is nothing new, however, the events of October 7 2023 and its fallout will significantly magnify the issue. Thanks to technological advancements, platforms like

GoFundMe have made it painstakingly clear how many Gazans are looking to leave, how desperate they are to do so, and how dire the situation in Gaza has become.

Whether business owners are leaving in an attempt to stabilise business operations from abroad, tech talent is looking for better opportunities, or the motivation is as simple as seeking safety, a pattern is emerging.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

A Willingness to Rebuild and Revive

Regardless of all the tragedy, destruction, devastation, and human lives lost, one thing has become clear from all interviews conducted: the minute the crisis stops, Gaza's tech talent is ready to pick up where they left off.

"If you gave people the opportunity to work today because bombings would be paused until tomorrow, they would jump on it. Everyone wants to work. It's their nature. They appreciate the importance of work."

Feras Nasr shared this during an interview. A sentiment he holds with many others. Lama Amr from BuildPalestine reiterated the incredible strength and resilience of the Gazan people, while Safaa Ayyad from Foras shared incredible stories of how the job platform had received more than 20 applications from residents of Gaza amidst the crisis. The strongest statement of all came from Muhammad Shurrab who explained that:

"If Gazans had the choice between starting work immediately while staying in semi-permanent housing versus securing a new home first, their priority would be working."

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Reputational Damage and the Connotations of “Palestine”

It seems to be an irrefutable truth that anything related to Palestine is destined to evoke strong feelings and reactions: from history, to politics, to movement of money, etc. As many from PITA put it: “it’s nothing new”. Therefore, it comes as no surprise that one of the side effects of the crisis has been the negative impact on the “reputation” of Palestine as a business partner and outsourcing destination. Addressing these concerns and issues will be fundamental to the revitalisation of the tech sector, and presents a critical challenge and role for all ecosystem players.

Anecdotally, based on informal feedback and off-the-record accounts, a summary of the risks and concerns highlighted includes:

- 1- The impact on sales, marketing, PR, and relationships with company stakeholders (clients, customers, partners, suppliers, etc.)
- 2- Mixed internal sentiment from ‘siding’ or ‘politically’ engaging, especially for those staff who are particularly motivated, affected (from either side of the conflict), or prefer to remain neutral.
- 3- Difficulties in forwarding payments and managing taxation payments to Palestinian authorities.
- 4- Increased challenges in connecting with and managing Palestine-based remote workers, as well as their ability to effectively manage workloads and delivery.
- 5- Disruptions, and stability of available internet connections, electricity and other necessary work infrastructure

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Cancelled Contracts and Dried-up Sales Pipelines

From freelancers, to startups, to outsourcing companies: many business opportunities have been lost. It is unclear whether contracts have been cancelled for political reasons, inability to fulfil commitments or simply because trust in the stability of Palestinian labour and business has diminished, but the impact has been felt.

“There is no trust right now. Gaza is now deemed as unreliable by foreign business partners, but we have faith that business will pick up again.” (Ala Alaeddin, Techno Park)

PITA’s business impact survey conducted amongst outsourcing companies in the West Bank during the month of November reveals shocking results. Out of 16 West Bank-based companies surveyed:

- 40 ongoing contracts have been suspended
- 44 additional contracts (unspecified) have been suspended
- Furthermore, 31 contracts in the sales pipeline have been cancelled

This sentiment was echoed in the interviews conducted with outsourcing companies in Gaza. Every single business reported having lost clients either permanently or temporarily due to the October 7 2023 events. Many identified the inability to fulfil commitments as the main culprit, but there have also been reports of “extreme cases” where 15 year old agreements were cancelled over WhatsApp based on political motivations.

In so far as any lost contracts and sales relate to Israeli sources (both direct and indirect), or where these have been funnelled through Israeli intermediaries (e.g. where the Palestinian company is a sub-contractor), these may be irreplaceable (at least in the short term) in the current environment and if political animosities continue to override commercial considerations. This would therefore create a gap that would need to be filled by other markets, and where no alternative can be found, it could represent an upper limit to what the companies can reasonably achieve in the immediate recovery.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Struggling Startups and Fundraising Challenges

Not even Palestine's startups have been spared the impact of the reputational challenges. Both Ibtikar Fund and Intersect Innovation Hub report that they've received feedback from their portfolio companies that this has created obstacles to business growth; not just operationally, but also in terms of lost investment opportunities and ability to raise new capital. Majd Khalifa from Flow Accelerator agrees:

"There have always been challenges associated with being labelled 'a Palestinian startup', but the issues have intensified. Some startups have lost everything due to increasing uncertainty surrounding enterprises identified with Palestine."

A survey conducted by Startup Palestine Community during the months of October, November, and December 2023 paints an equally distressing picture. The surveyed startups reported that:

- 70% of startups have lost 25% (or more) of their revenue
- 65% of startups are at risk of closing within three months
- 75% of startups have struggled with securing funding

Global Awakening of Business Mobilisation for Palestine

While traditional businesses are being cautious or pulling away from Palestine, the opposite is also seen. There is a global movement happening, focusing on the mobilisation of money for good. From corporate entities wanting to redirect CSR and ESG initiatives towards Palestine, to the grassroots movements in the San Francisco tech community through initiatives like Tech For Palestine, to a

mobilisation Palestinian diaspora wanting to give back. A lot is happening, and there's an enormous amount of untapped energy and resources that are being awoken. Palestine's tech-ecosystem and its leading players need to quickly identify strategies that leverage this increased period of attention, focus, and empathy; how best to engender tangible, practical support, and ensure this is retained in the long term.



Selection of Bite-sized Conversation Starters on Revival Interventions

Selection of Bite-sized Conversation Starters on Revival Interventions

Disclaimer: the below reflects a synthesis of the ideas, prompts, and recommendations gathered from and inspired by the participants of this report and are primarily focussed on reviving the Palestinian tech ecosystem, and in particular the Gazan economy.

It is not intended to be all encompassing, a final set of conclusions, solutions, or a fixed pathway, nor does it include components related to humanitarian aid that are outside the scope of this endeavour. Instead, it provides potential short, mid and long term solutions that are designed to run in parallel with humanitarian interventions. Most importantly, it is the start of the conversation, which requires the earnest attention and commitment of all ecosystem players in preparation of “the day after”.

The ecosystem as a whole - from tech-services companies to startups to individual freelancers - has faced increased and significant operational challenges, including infrastructure damage, loss of clients and contracts, and difficulties in maintaining workforce productivity. The findings highlight the diverse and complex impact of the crisis, underscoring the need for adaptive strategies and support mechanisms to navigate the crisis and facilitate recovery.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Financial Recovery

The most discussed recovery initiatives revolved around the topic of financial restoration. Many suggestions were shared by interviewed companies and tech ecosystem builders, but the overarching sentiment was that financial injections are needed for short term boosts to help businesses stay afloat while other interventions are being developed and rolled out. These include:

Salary Coverage

Most businesses in Gaza have been unable to pay employees their salaries since the outbreak of the events in October, so it's not surprising that one of the first and highest requested interventions has been related to salary coverage and compensation packages. As there are no governmental initiatives on this front, businesses are looking to donors and the international community for support. By covering employee salaries, individuals, their families, and businesses are sustained until the economy commences its recovery.

Business Operations Coverage

Similarly to the requested salary coverage, both tech ecosystem players and companies have requested financial support to maintain business operations. These costs include licences, equipment, and other forms of ongoing business expenses that facilitate operations. Without this kind of support, businesses will struggle to continue to exist.

Flexible Funding for Startups

A sentiment shared by Flow Accelerator, Ibtikar Fund, and FINOMENA is the need to rethink investments in startups. Previously, the framework for accessing funding for startups has been very rigid, with benchmarks of success that inhibit founders from creating businesses that have the potential to expand, grow, and thrive in foreign markets. Only by offering founders more flexible conditions can they succeed and create economic impact in Palestine.

CSR Solutions

Founder of Foras, Safaa Ayyad, emphasised the importance of corporations not just in Palestine, but across the globe stepping up and taking ownership of reviving the Palestinian economy. A sentiment shared by the Gazan outsourcing companies interviewed. The exact shape or form of these CSR initiatives varied, but commonalities include traineeships, outsourcing of work, and funding.

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Job Creation

Zooming out of the topic of traineeships, the concept of job creation was widely discussed by tech ecosystem enablers. From the importance of retraining talent to diverting job opportunities to Gaza, the topic was top of mind amongst every interviewee. Furthermore, special attention must be paid to displaced talent, who need support navigating new countries, new laws, taxes, work permits, access to employers, etc.

Increased Outsourcing = More Jobs

One common sentiment amongst both outsourcing companies and ecosystem players like PITA and Techno Park, is the important role outsourcing plays in job creation. Freelancing has its benefits, but the security of a stable job in an outsourcing company would be highly beneficial for the financial and mental recovery of the Palestinian labour force. Further details on market access can be found in the following section.

Redistribution of Qualified Labour

As businesses suffer from having lost human resources essential for continued business, an initiative targeting the redistribution of qualified labour is needed. This has especially been highlighted by the outsourcing companies and PITA. The task exceeds the scope of a traditional in-house recruiter and external support is needed.

Rapid Retraining

In addition to facilitating the redistribution of qualified talent, outsourcing companies expressed a need for external support with retraining and qualifying new employees, in order to integrate them into companies. This will not only expedite recovery efforts, but also offer new opportunities for those without work or any other income source.

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Market Access

Repositioning of Palestinian Tech

Both PITA and the UK Palestinian Hub - as well as a number of interviewed outsourcing companies - have expressed the need for repositioning the entire Palestinian tech sector. The exercise exceeds the capacity of individual businesses, and a collaborative effort amongst tech ecosystem players and governments is required. PITA has emphasised the need for increased presence in foreign markets through attending conferences, enhancing PR, and working with international sales agents, while the UK Palestinian Hub has emphasised the need for mastering certain skills and becoming sector agnostic.

(Diaspora) Network

Everyone, from interviewed outsourcing companies to tech ecosystem players to startups are screaming for a platform or network that allows Palestinian business to connect with the outside world. Whether this initiative is purely diaspora-oriented or open to businesses everywhere, everyone seems to agree that there is a need for connecting, providing mentoring, sharing resources and providing market access. Currently there are multiple network initiatives underway including a diaspora network by Techno Park, the Startup Palestine Community, Under the Olive Tree by BuildPalestine, and several other foreign initiatives in Silicon Valley and Dubai. Furthermore companies like Manara and TAP (Talent Acceleration Platform) are offering special terms for hiring Palestinian talent.

Enhanced Collaboration Between the West Bank and Gaza

Lastly, outsourcing businesses have expressed a strong desire for a national level intervention that will enhance collaboration between the West Bank and Gaza. This entails a number of fronts, including trade, business partnerships and human resources.

Rebuilding Business Capacity

Temporary Solutions for Maintaining Jobs

An initiative that was launched during the onset of the crisis was temporarily plugging West Bank businesses into projects owned by Gaza companies. The degree of success has varied, and although major issues have been identified in terms of difficult handovers, lack of access to resources and materials, outsourcing companies reaffirm the need for such interventions.

(Foreign) Talent to Fill Knowledge Gaps

Outsourcing businesses as well as PITA have emphasised the need for bringing in foreign talent to help manage certain assignments. These are intended to be temporary measures designed to help get outsourcing businesses back on their feet. The types of talent and consultants required include:

- Project management (to businesses rebuild capacity)
- Communications expert (to mend relationships with clients and work on repositioning)
- Sales experts (to win back clients and open doors for new business)

Psychological First Aid

While “job creation” tackles technical upskilling and redistribution of the labour force, this section refers to the psychological rehabilitation of staff. 25% of interviewed tech ecosystem players agreed that mental health initiatives should have priority in the immediate aftermath of rebuilding the Palestinian economy, whilst 70% of the BuildPalestine portfolio startups have expressed an urgent need. Furthermore, an overwhelming majority of interviewed outsourcing companies in Gaza have expressed a need for assistance in rehabilitating their employees by providing psychological and professional support programs.

Community Building Amongst Tech Leadership

Tech ecosystem players like uMake and BuildPalestine have expressed a need for investing in community building - a sentiment shared by outsourcing companies and One Studio Founder Mohammed Shurrab. Attracting community leaders and funders to support new projects in Gaza will restore the confidence of employees, and increase the speed of recovery efforts, rapid development, and the living situation in Gaza.



Conclusion

an Open Call for Collaboration!

The impact of the crisis in Gaza has sent shockwaves through the world. The utter devastation, destruction, and unfathomable loss of human lives are debilitating. It makes it difficult, almost impossible, to talk about solutions, interventions, and rebuilding - but we must. Once a permanent ceasefire is reached, technology will be the key to unlocking the revival of the Gazan economy. Tech and tech-enabled work is the gateway to earning a meaningful income and living in dignity, but the challenges don't stop there.

The solutions needed to respond to and appropriately address the far-reaching implications of the October 7 2023 events in Gaza are many. They require collaboration, partnership, and true unity from everyone: the international community, INGOs, local governments, the private sector, civic society, and grassroot initiatives. With this report, we aim to ignite a global conversation, and extend a special invitation to our fellow tech ecosystem players to join us in our common goal of reviving the Palestinian tech sector.

Together, we will rebuild, and make the Palestinian tech ecosystem stronger and more prosperous than ever before.

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Overview of Secondary Sources

This section provides an overview and short summaries of the sources used to establish the foundation for this report. It has its roots in secondary data sources such as survey results, reports, and white papers produced by well renowned organisations like the UNDP, GIZ, PITA, and many others. Individually, these sources cover unique aspects of life in Palestine before and during the war, but combined, they paint a vivid picture of a burdened economy in possession of the resilience to continuously recover, rebuild, and revive.

Overview of Secondary Sources

Source 1: “Palestine Outsourcing Destination Guide” by PITA, GIZ, and Deutsche Outsourcing Verband

Published in May 2023, this report was released before the war in Gaza broke out. The objective of the report was to provide a carefully curated guide to the ICT outsourcing landscape in Palestine. Containing everything from the Palestinian economic history, to profiling talent, and highlighting success stories of outsourcing companies, the report conveys a compelling message about the attractiveness of Palestine as an outsourcing destination.

Source 2: “Gaza war: expected socioeconomic impacts on the State of Palestine” by UNDP, ESCWA, and Dignified Life

This report was published on 5th November 2023, and provides an assessment of the humanitarian impact of the war while also attempting to predict the socioeconomic impact of the war. The report is an assessment of the wider Gazan economy and offers no specific details on the ICT sector. Additionally, at the time of publishing, the predictions were limited to a period of up to five months, which unfortunately was far exceeded by the time of publishing this report. The primary recommended intervention is funding for immediate humanitarian aid and emergency relief.

Source 3: “Rebuilding the Palestinian Tech Landscape” by PITA

Produced in mid-November, this concept note is built on the insights collected during the first month of the war via an online survey. Neither the concept note nor the survey data are publicly available and has graciously been shared by PITA for the purpose of this report.

The insights detail the economic impact experienced by West Bank-based outsourcing companies and members of the PITA network. It is clear that already during the first month of the war, Palestinian businesses everywhere were heavily impacted, and both ongoing, active, and pipeline projects and contracts were suspended and cancelled. Among the surveyed 16 companies, minimum 83 staff members had been made redundant in response to the severity of the financial situation. Additionally, the outsourcing companies feared for their continued survival due to the displacement of vital talent and expertise. Recommended interventions include:

- Salary compensation
- Covering operating expenses
- Facilitate market access through consultants
- Marketing support for businesses

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Source 4: “Impact Assessment - Gazan Outsourcing Companies” by Gaza Sky Geeks

This source refers to a data set produced by Gaza Sky Geeks via phone interviews during October and November 2023. The findings are presented as raw data rather than a report, and have not been made publicly available. The data set provides an overview of how the war has impacted 15 outsourcing companies based in Gaza from an operational, financial, and humanitarian aspect. Like the PITA report showed, the businesses had suffered significant losses, and in addition to the recommendations made by PITA, one of the proposed interventions that was immediately implemented was temporarily hiring teams outside Gaza to take over projects to avoid losing clients.

Source 5: “Impacts of the Conflict in the Middle East on the Palestinian Economy” by The World Bank

Published in December 2023, this report by the World Bank provides a macroeconomic assessment of the fiscal situation in Palestine; both in the West Bank and in Gaza. It mirrors the findings and predictions of the UNDP report (source 2), and highlights the link between humanitarian vulnerability and financial ability to recover. Additionally, it provides a unique glimpse into the pace of the infrastructural destruction in Gaza, painting a grim picture of 55% of business buildings having been partially or fully destroyed by 6th November. Overall, the report provides an assessment rather than a set of recommended interventions.

Source 6: “Impact Assessment - Startups” by Cross Boundary

During the months of November 2023 -January 2024, the USAid initiative Cross Boundary has been collecting data on the economic impact on startups in Palestine. The data has graciously been shared in raw form for the purpose of this report, and is not yet publicly available. The data has predominantly been collected from West Bank entities, which, like the outsourcing companies, have been dealt a heavy blow. Unlike the outsourcing companies, the startups operate with significantly smaller revenue streams, and the difficulty has been finding new obstacles to growth rather than losing high volumes of existing customers. The dataset provides an assessment, not a set of recommended interventions.

Source 7: “Preliminary Assessment of the Economic Impact of the Destruction in Gaza and the Prospects of Economic Recovery” by UCTAD

Published in January 2024, this report provides insights similar to the World Bank (resource 5). By providing a pre-war macroeconomic context, the report hones in on the impact of both the carpet bombing of Gaza infrastructure and how military presence, operations and the ongoing blockade are significant factors in limiting the economic prospects of Gaza. While emphasising the need for aid and humanitarian interventions, the report calls upon the Israeli government and the international community to take action. Furthermore, it repeatedly calls for a complete lifting of the blockade on Gaza in order to restore the Palestinian economy, and achieve peace.

The Impact of the Gaza Crisis on the Palestinian Tech Ecosystem

Source 8: “Progress Report - Our Mental Health Projects for Gaza” by Hakini

On the topic of mental health, a progress report from late January by the Palestinian mental health startup Hakini has been prepared. The report is not publicly available, but can be accessed on request through BuildPalestine or Hakini. The details of this report highlights not only the high demand but also the complexity of needed mental health interventions. Ranging from hotlines to talking circles to simply facilitating a safe space to talk. Additionally, the report highlights the abnormal nature of the situation in Gaza from a mental health perspective, stating that experts liken it to anything else in the world.

Source 9: “Methods to Address West Bank Cities’ Economic Losses since the Start of the Gaza War - Policy Brief #1 2024” by MAS

The final resource consulted for the creation of this paper is a report and policy brief produced by MAS on the topic of the economic impact of the war on Gaza has had on the West Bank. While priority is naturally given to the unbelievably high number of civilian killings in Gaza, very little attention has been given to the increased military activities, drastic increase in civilian killings in the West Bank, and the impact of this on the economy in the West Bank. The report and policy brief recommends shifting to a so-called “war economy”, which includes expanding various types of social security, health insurance coverage, tax reductions, scholarships, and financial support in response to attacks by settlers.



Methodology

The methodology employed in this report involved a comprehensive and multidimensional approach, integrating both quantitative and qualitative methodologies to assess the impact of the crisis in Gaza on the Palestinian tech ecosystem.

The research did encounter several, notable and unique limitations during the data collection phase; having been conducted whilst the crisis was still ongoing and attempting to include, to the greatest degree possible, interviewees based in the Gaza Strip. Further to this was both the desire and need to complete the report in a timely fashion to ensure it is both relevant and useful.

Nonetheless, whilst these constraints should be recognised, we are confident that the research, findings and results remain comprehensive, valid and reliable.

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Sample Size and Data Collection

The strategy for data collection involves multiple components, including a review of secondary sources. Existing reports and literature on the topic are reviewed to establish foundational knowledge and contextual understanding.

The participants or sample for this study include stakeholders from the Palestinian tech ecosystem, including outsourcing companies, startups, freelancers, and tech hub representatives. The selection criteria aimed to capture diverse perspectives and experiences within the ecosystem.

Quantitative Data Collection

Secondary data was collected from different resources, such as survey results, reports, and white papers produced by well-known organisations like the UNDP, GIZ, PITA, and many others. Individually, these sources cover unique aspects of life in Palestine before and during the crisis and provide quantitative insights into its economic and operational impact.

Qualitative Data Collection

Interviews with tech ecosystem stakeholders, freelancers, and business owners offer qualitative perspectives on the humanitarian, financial, and infrastructural effects. 55 interviews were planned, but ultimately only 13 ecosystem players, 10 outsourcing companies, 3 startups, and 3 freelancers were reachable. Efforts have been made to ensure representation from both the West Bank and Gaza, with a focus on Gaza to reflect the broader landscape of the Palestinian tech ecosystem.

Data Analysis

Thematic analysis is employed for qualitative data, while statistical analysis techniques are utilised for quantitative data, allowing for the identification of patterns, trends, and correlations.

Limitations

The research encountered several limitations during the data collection phase. Conducting phone interviews amidst the ongoing crisis in the Gaza Strip faced significant challenges. Frequent power cuts and internet disruptions further complicated the process. Security concerns were paramount, as conducting interviews during a missile strike with audible explosions in the background highlighted the dangerous situation.

Coordinating interviews over multiple days became necessary due to interruptions in the interviewees' phone service and the reliance on electricity to operate phones. Completing a single interview often required multiple attempts, with some necessitating up to 35 callbacks due to persistent transmission and coverage issues.

Additionally, many interviewees faced logistical problems, such as walking long distances to access network coverage or nearby hospitals for phone charging. These problems resulted in a reduced sample size and limited data availability as interviews had to be shortened.

Validity and Reliability

This report was prepared while the crisis is still ongoing, which means significant changes to many of the results, statistics, and information are to be expected. One of the key research constraints is that many business owners lack communication with their teams due to the unavailability of phone and internet services. Also, they are unable to visit their workplaces to assess the actual situation directly and evaluate losses comprehensively. It's important to acknowledge that despite our efforts, we were unable to reach all the target samples, due to ongoing communication and electricity supply disruptions.