

The Reality of the Housing Sector in the Gaza Strip "Challenges - Recommendations"

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The housing sector in the Gaza Strip is facing a severe housing crisis, which has been exacerbated by the blockade and Israeli aggressions during the period (2008-2021). The seriousness of the current and future situation is highlighted by the accumulated deficit of housing units, services, utilities, jobs, raising the standard of living, and improving the quality of life, which constitutes serious dimensions for the future of the population of the Gaza Strip. There is no doubt that the population and urban growth in the Gaza Strip have not been accompanied by similar and parallel planning, and comprehensive development plans to fill the gap between the different needs of the population, which has led to negative repercussions on the urban environment.

One of the most important determinants in planning for the current and future conditions in the Gaza Strip is the Israeli occupation and instability in the Palestinian political system, which leads to the failure of the development process. The repeated attacks on the Gaza Strip during the period from 2008 to 2021 and the resulting devastating effects are clear anticipations of the possibility of the recurrence of these attacks in the future, as evidenced by the fact that the political conditions in the Gaza Strip have not improved. There is no doubt that preparedness for disaster management does not commensurate with the weak capabilities available in the Gaza Strip. Despite such a reality, there is nothing to prevent rational and sustainable planning in the sector.

The housing sector suffers from a large shortage of housing units required to cope with the natural increase in the population, especially since there are many currently inhabited housing units in the Gaza Strip that lack the minimum requirements for adequate housing, in addition to the presence of more than two thousand housing units that were destroyed during the successive attacks that have not been reconstructed as of the date of this paper.

Main Indicators of the Housing Sector:

Referring to the reports of the Palestinian Central Bureau of Statistics and based on the studies of the Ministry of Public Works and Housing and the studies of international bodies about the housing sector, the most important indicators¹ are as follows:

- Over 62% of Palestinian households in the Gaza Strip need to build at least an additional housing unit by 2023.
- The total number of inhabited apartments in the Gaza Strip is estimated at 334,710 housing units.
- About 8% of inhabited housing units in the Gaza Strip need to be urgently rebuilt to become habitable.
- The average number of marriage contracts issued in 2021 is approximately 21 thousand new marriage contracts (Shari'a judiciary).
- The annual need for housing units versus the natural population increase is not less than 15 thousand housing units.
- Approximately 60 thousand housing units need restoration and rehabilitation to become suitable for human habitation, in addition to approximately 26 thousand housing units that need to be completely reconstructed.
- 11.7% of households live in densely populated housing units (more than 3 per room) rising to 15.6% in camps.

¹ Reports of the Ministry of Public Works and Housing, Palestinian Central Bureau of Statistics and reports of "Shelter Cluster"

Table No. (1) Summary of Statistical Indicators Related to Population Growth in Palestine²

Indicator	Time reference	Palestine	West Bank	Gaza Strip
Estimated Number of Population midyear (million)	2022	5354656	3188387	2166269
Population Density midyear (person\km2)	2022	889	563	5936
Growth rate %	2022	2.4	2.1	2.8
Life Expectancy at Birth (male)	2022	73.2	73.5	72.5
Life Expectancy at Birth (female)	2022	75.4	75.7	75
Average Household Size	2022	5.1	4.7	5.7
Total fertility rate %	2017-2019	3.8	3.8	3.9
Infant mortality rate %	2019-2020	12.1	11.7	12.7

Reference Palestinian Central Bureau of Statistics

Table No. (2) Estimated Population in Palestine by Governorate from 2017-2022³

Governorate	2017	2018	2019	2022	2021	2022
Gaza Strip	1876666	1932843	1989970	2047969	2106745	2166269
North Gaza	364582	377279	390245	403457	416906	430546
Gaza	644823	661607	678669	695967	713488	731212
Deir El Balah	269946	277964	286070	294260	302507	310820
Khan Younis	366223	377819	389604	401582	413727	426056
Rafah	231092	238174	245382	252703	260117	267635

² https://www.pcbs.gov.ps/statisticsIndicatorsTables.aspx?lang=ar&table_id=1228

³ https://www.pcbs.gov.ps/statisticsIndicatorsTables.aspx?lang=ar&table_id=1228

Table No. (3) Estimating the Deficit in Housing Units until 2023 Based on the Statistics of 2017⁴

#	ltem	Source	Number
1	The population of the Gaza Strip 2017	Central Bureau of Statistics	1,899,290 people
2	Average number of family members	Central Bureau of Statistics	5.6
3	The number of housing units required	2/1	339 thousand housing units
4	The number of available housing units in 2017	Central Bureau of Statistics	335 thousand housing units
5	Deficit in housing units 2017	4-3	4 thousand housing units
6	The number of closed housing units	Central Bureau of Statistics	11 thousand housing units
7	Annual need over 6 years (2017-2023)	An average of 14 thousand housing units annually	84 thousand housing units
8	The total housing deficit until 2023	7+6+5	99 thousand housing units
9	The number of housing units that need to be rebuilt	8% of the number of housing units, according to the NRC study, 0.08, item 4	27 thousand housing units
10	Number of units built (2018-2019)	According to munic- ipal estimates and licensing and con- struction requests	8 thousand housing units
11	The total housing deficit until 2023	8+9-10	118 thousand housing units

⁴ Ministry of Public Works and Housing needs in the Gaza Strip A future vision (2019-2023)

It is clear from previous estimates the size of the housing gap in the Gaza Strip, where the number of required units is estimated at more than 118 thousand housing units, and this indicates the magnitude of the housing crisis facing the Gaza Strip, and the work required to deal with and develop solutions and plans to confront this problem, which is considered a major obstacle in the community development.

Materials needed to build an ordinary house in Gaza

The housing sector estimates the following needs on the basis that the house is 150 square meters including the foundations and has a family of 7 members on average⁵.

Table No. (4) shows the basic building materials of building materials for one house with an area of 150 meters⁶

#	Materials	For one house	Cost in USD
1	Cement	46 Tons	6900
2	Rebar	7.6 Tons	6706
3	Aggregates for concrete work	102 Tons	4500
4	Aggregates for blocks	40 Tons	1765

The financial value of the average house was estimated at \$30,000-40,000 8, and it is noted that several proposals could reduce the construction costs, as follows:

- Approval of the construction of new cities
- Granting permits for more floors in buildings
- Construction of factories for building materials
- Using creative ideas that are environmentally friendly
- Allocating governmental land and creating population associations in various areas

⁵ Shelter Cluster, Gaza.

⁶ Shelter Cluster, Gaza.

⁷ Confederation of Construction Industries

⁸ Interview with Engineer Faisal Al-Shawwa, owner of Al-Shawwa Contracting Company

There were many difficulties faced in the movement of these materials on commercial crossings and the surrounding environment in the construction and contracting sector represented **as follows**;

- 1. The Israeli side prevented the entry of these materials for many periods
- 2. The existence of the GRM work system and the administrative complexities in the arrival of products and building materials, **the main results of which were:**
 - Price rise
 - Increase the length of time
 - Slowness in carrying out actions
 - Lack of flexibility in the system
- 3. High shipping and transportation costs
- 4. Rising steel prices globally
- 5. Ineligibility and readiness of commercial crossings
- 6. Repeated wars and attacks on the Gaza Strip
- 7. Continuous need versus high population increase
- 8. The weakness of the technology used is due to the lack of freedom of movement to transfer it and the lack of possibilities to apply it in the reality of the Gaza Strip.

Since 2008, tax refunds allocations which are estimated at about \$35 million⁹, have not been disbursed to contractors which caused the bankruptcy of dozens of companies, and other companies were forced to lay off their workers, due to their inability to bear the financial burden of hiring them.

Challenges:

- Population increase exacerbates Gaza's problems (infrastructure, services, poverty, unemployment, water...), given the context of fragility and vulnerability the human element is not being properly utilized (but has become a burden on development)
- The economy's weak ability to achieve growth rates that exceed the natural increase in population is due to a combination of factors, most notably: The continuing state of uncertainty, political stalemate, and division, in addition to the Israeli measures, restrictions, and obstacles, and the weak role of the Palestinian Authority institutions.
- The steady increase in the population in the Gaza Strip, whose area does not exceed 365 km2 (the growth rate is the highest in the Arab countries at 3-4%) had a significant impact on natural resources and the environment in general, as it contributed to the decline in the proportion of agricultural land due to the need for construction and reconstruction. The area of agricultural land in the Gaza Strip has declined by 33% in 17 years. Other problems include the housing crisis (the need for 15,000 units per year)¹⁰, desertification, and urban sprawl.
- The small area combined with the weak natural resources and the population increase portends a catastrophe on several levels: education, health, and infrastructure. Half of the population of the Gaza Strip is children under the age of 15. These are considered unproductive in society and their consumption needs increase, which increases the rate of dependency burden on the productive sector. If division, blockade, low economic growth, and the difficulty of future planning are added, the extent of the disaster can be realized!
- Basic infrastructure such as electricity, water, sanitation, and social services are not enough to keep pace
 with the needs of the growing population, at a time when the sector will need double amounts of electricity,
 hundreds of new schools and hospitals, and thousands of housing units.
- There is a well-known rule linking the capacity of an area to absorb the population and energy sources and consumption. The ability of the Gaza Strip to absorb its population and its rapid growth depends on the availability of food, water, land, and energy. The decline or weakness of this ability means either famine or emigration. (In the current context, the explosion means the return of violence). The Gaza Strip is facing a stifling energy crisis (fuel and electricity), and this crisis casts a shadow on all aspects of the residents' lives. Therefore, it is difficult to examine the direct relationship between this crisis and population growth.
- With population growth, pressure on limited water resources increases. According to the Palestinian Water
 Authority, 97% of the aquifer water in the Gaza Strip is polluted and unfit for human use. The coastal aquifer
 is the only source of water in the Gaza Strip (in addition to purchasing about 5 million cubic meters annually
 from Mekorot). The water from that reservoir consumes between 200-220 million cubic meters annually,
 half of which is for agricultural uses. The water deficit reaches 150 million cubic meters annually, and it is
 constantly rising. Moreover, the aquifer suffers from salinization and pollution due to the excessive use of its

water, and the leakage of many pollutants from many sources (sea, sewage). Related problems; increased quantities of sewage water, limited access to some residential areas, excessive use of fertilizers, and agricultural pesticides. Therefore, the sector suffers from the two phenomena of water stress and scarcity, and some link these two phenomena with population growth (most of the areas facing water stress or scarcity in the world are those with few water resources, with high population density and high population growth rates).

• The restrictions imposed on freedom of movement and transit and its instability, and its reflection on fore-casting and planning in the housing and construction sector.

Recommendations

First: Palestinian Authority

- Applying smart urban expansion as an alternative to random urban expansion and transforming existing cities into smart cities.
- Adoption of a policy of urban renewal and urban filler (intensification of use).
- Reconsidering the regional plan of the sector, and the structural plans of cities and villages in light of the
 determinants and problems faced by the sector in line with smart cities.
- Adopting strategies, regulations, and laws that lead to mitigating environmental risks such as lack of agricultural land, lack of water and energy resources, pollution of all kinds, noise, and distortion of the general landscape, and the spread of health and social diseases.
- Adopting urban agriculture that provides a solution to compensate for the shortage of agricultural land.
- Rely mainly on low-cost housing to accommodate young couples and families with low and middle incomes.
- Increasing financial allocations from the Authority's budget, supporting the housing finance sector, encouraging investment, providing international support, reviewing municipal regulations related to land plot divisions, working to reduce the area of plots, and adopting minimum housing standards to reduce the cost of housing construction to make it accessible to the most affected families, namely low- and middle-income families, which constitute the largest proportion in the sector.
- Relying on multi-storey vertical construction, and working to increase the density of the dwelling and the building density, is one of the solutions to the problem to preserve the limited area of the land, taking into account the balance between the different uses of the land. To create a sustainable and balanced residential environment.
- Rehabilitation of slums, old neighbourhoods, and refugee camps.

- Solving the problems of the Tabu and the lands of the indefinite fate (government lands) and raising the efficiency of the real estate registration, the Tabu, and the housing mortgage.
- Opening the domain for a housing mortgage program, and this requires interaction and agreements mainly with the Land Authority to sort apartments and issue a registration certificate for the apartment, which the buyer will use as collateral to obtain "loan" facilities for financial and banking institutions in return for mortgaging this unit in favour of the institution until payment.
- Exemption of housing projects targeting youth and associations from any fees and taxes provided that this is reflected in the reduction of cost.
- Work on preparing a qualified infrastructure capable of providing the services required for population investments.

Second: Civil Society

- Use the diplomatic, popular, civil, human rights, and media movements to clarify the magnitude of the accumulated crises experienced by the population in the Gaza Strip and their future repercussions to help resolve the crisis. Beneficiaries of academic and governmental studies etc.
- Hold more workshops by national and foreign institutions and experts to identify obstacles and opportunities to reach sustainable development.
- Calling for the establishment of a national housing fund with community participation by imposing a calculated housing tax on all middle- and high-income workers in all sectors in the governorates of Gaza to be allocated for the construction of housing units for the poor segments of society.
- Urge the banking system to make specialized programs to support real estate housing.

Third: The International Community

- Supporting population projects because they have an active role in achieving community development.
- Mobilization and advocacy so that housing units are not subject to shelling and destruction.
- To work on taking real guarantees to enter the needs related to different building materials on an ongoing basis and without complications.
- To work on building the capacity of workers in the residential sector through the construction of regional and international programs to exchange experiences and knowledge.
- To allocate programs for low-income segments.
- To support grants and lending funds for housing and housing units.

Supplements

General Economic Indicators

Gross Domestic Product In the year 2021, the gross domestic product in the Palestinian territories grew by 7.1% after it contracted by 11.3% in the year 2020 due to the Corona pandemic, the partial recovery was concentrated in the West Bank, at a rate of 7.8%, and the growth in Gaza reached 3.4%, and there was an improvement in the performance of all sectors except for the agricultural sector, which shrank by 3%, and the real GDP in 2021 was 5.1% lower than level pre-pandemic level.

Per capita, Gross Domestic Product Growth in 2021 was not sufficient to compensate for the lost income in the year 2020, as the per capita GDP lost about 15.1% in the year 2020 than it was in 2019, but it returned to register an increase of 4.2% in the year 2021.

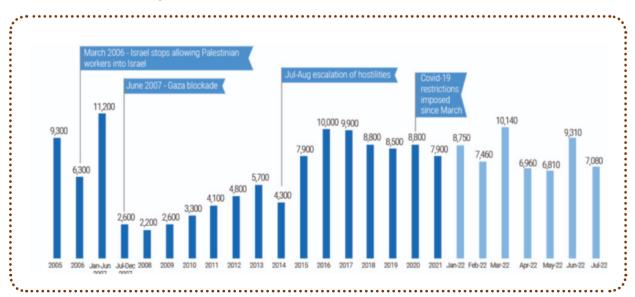
Unemployment Despite the economic recovery in 2021, unemployment in the occupied Palestinian territories remained high, reaching 26%. In Gaza, more than half of the labor force remained unemployed, with the average wage reaching 48% of its counterpart in the West Bank, and 83% of workers earned less than the minimum wage (\$435). In the West Bank, the unemployment rate reached 17%, with 7% of the labor force receiving less than the minimum wage, and even though Palestinian women enjoy better education rates and more years of schooling compared to men, 54% of women are unemployed compared to 30% of men.

Poverty According to simulations conducted by the World Bank in the year 2022, poverty in the occupied Palestinian territories was recorded at 35.6% of the population, and in Gaza, 60% of the population lives below the poverty line. These difficult economic conditions are summed up by the existence of a large informal sector representing 60% of the labor force and most workers receiving less than the minimum wage (435 dollars), and such wages cause many Palestinian workers to be classified as poor.

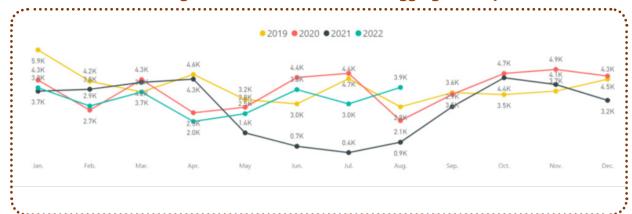
Number of housing units damaged in the May War 2021:

	Totally	The number of phousing		
Governorate	demolished housing units	Severely damaged, uninhabitable	Moderate and slight damage	Total
North Governorate	407	295	30,628	31,330
Gaza Governorate	960	428	16,537	17,825
Central Governorate	80	130	3,578	3,788
Khan Yunis Governorate	157	66	5,774	5,997
Rafah Governorate	67	40	1,863	1,970
Total	1,671	959	58,380	61,010

Truck movement of imports:



Movement of basic building materials "cement - rebar - aggregates" by truck:



Month	2019	2020	2021	2022
Jan.	5936	4294	3693	3877
Feb.	4230	2663	3798	2887
Mar.	3652	4324	4174	3648
Apr.	4607	2521	4349	2046
May	3234	2819	1428	2469
Jun.	3002	4440	696	3781
Jul.	4373	4661	353	3003
Aug.	2841	2089	917	3898
Sep.	3613	3519	2851	
Oct.	3508	4657	4423	
Nov.	3697	4877	4057	
Dec.	4345	4519	3195	

The information and views set out in this paper do not necessarily reflect the official opinion of the Palestinian NGOs Network and the Friedrich-Ebert-Stiftung.

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