

# **Gaza Strip: Healthy Adolescence - A Distant Dream**

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Goal 1 of Millennium Development Goals (MDG) states to "Eradicate Extreme Poverty and Hunger" with one of its target being to "Halve, between 1990 to 2015, the proportion of people who suffer from hunger" (Millennium Development Goals Report 2010). The same report, few pages below, states that in developing countries one of every four children is suffering from hunger. The causes are, apart from inadequate water and poor sanitation, both lack of food and lack of quality food as well as poor feeding practices. Gaza Strip does not come under developing world, it is one of the extreme cases.

People living in Gaza Strip have been subject to devastating living conditions for decades. This is not due to extreme conditions like earthquakes, drought or floods, but a result of man-made actions or non-actions. One of the authors of this paper, Øren, has lived and worked in Gaza for more than ten years during the nineteen eighties and nineties, and last period for three months during the 2009 heavy offence, and has witnessed the deterioration in people's living conditions and the global community's lack of success to alleviate the suffering. This certainly poses challenging questions related to equal rights to health and development as well as human rights.

This paper will look into the food security and nutrition security situation in Gaza Strip, and possible consequences on adolescents' growth and development.

Gaza Strip, which is part of historic Palestine, is a 360 sq. km narrow piece of land bordering Israel, Egypt and the Mediterranean Sea. The population estimate of Gaza Strip was 1,55 millions in July 2010, which gives a population density of 4306 per sq.km. Three-quarters of

the population are Palestine refugees. Age distribution shows a young population, 44,4% is below age 15 and 2,6% above age 65 years (CIA 2010).

The people of Gaza Strip have been living under Israeli occupation since the establishment of the state of Israel in 1948. It was expected a rapid growth in the Palestinian economy after the Oslo Accords in 1993, but the limited development was disrupted when Hamas won a majority in the Palestinian Legislative Council election in January 2006. Hamas took control of Government and security positions in the Gaza Strip, and the Palestinian President Abbas appointed a new Caretaker government in June 2007 and declared the Hamas government illegal. Israel and the international community supported President Abbas and his government, and the people of Gaza had to live with its consequences.

In the end of 2008 and January 2009, Gaza suffered the heaviest ever military attack from Israel. The twenty two days offensive resulted in 1419 deaths, of whom 22,4% were children below the age of eighteen, 5380 wounded, 30% of whom were children (PHRC (a) 2009, 38-39). Large parts of the existing industrial and civil infrastructure were destroyed and about 60000 houses were left damaged or completely destroyed.

The armed conflict is daily endangering people's lives, and there have been reported many deaths of farmers and fishermen while on work. This prevents them from fully utilizing their own resources to feed Gaza.

There have been studies made on the relationship between adolescents' nutrition and their school performance, and there are indications that poor nutrition can hinder their ability to learn and negatively affect their behavioural development and social skills.

## **Food security**

Food security as a linear concept is a two dimensional thing. How much food is needed and how much is available. But in reality it is way deeper than this. In general terms Food security can be used to show the state when people have access to sufficient food to meet their dietary needs. This has been presented in more refined way in The State of Food

Insecurity 2001 by FAO as, "Food security [is] a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meet their dietary needs and food preferences for an active and healthy life"

In another terms it can be understood as the nutritional status of the individual household member that is the ultimate focus, and the risk of that adequate status not being achieved or becoming undermined. When we include "sufficient, safe and nutritious food", we clearly add

nutrition security in tandem with food security. Food insecurity at household level is one of the main causes of malnutrition.

Studies show that majority of households in Gaza Strip are affected by high level of poverty and food insecurity. More than three fourth of the population is food insecure or vulnerable to food insecurity, which means that they heavily depend upon the aid subsidies to maintain its level of food security.

Overall, food insecurity affects 60.5% of the households in Gaza Strip while an additional 16.2% are considered vulnerable to food insecurity. Further the households in rural areas have higher prevalence of food insecurity at 67% compared to households in refugee camps at 62 percent and urban households at 60%.

One eye-opener fact came in front of us while reviewing the literature was that of total 9% of households headed by females, 68% are suffering from food insecurity. Whereas 60% of the 91percent male headed families were found food in-secure. This is not unknown fact but definitely a stark reality that poses a challenge in front of, at least, the definition of food security and its social division.

Studies point out that the ratio of bread-winner and number of dependents is also high. The average dependency ratio is 7.2 members in a family relying on one bread-winner. This ratio is 9.46 members relying on one bread-winner in food insecure households. Food insecure households have been noted to spend more on food than the average. An average household spends around 56 cents on each USD earned, whereas a food insecure house spends 58 cents.

In armed conflict, access to food at the household level is seriously impaired and there is a reduction in both the quality and quantity of food available to the household. There is also an increased instability and uncertainty in the food supply.

### **Effects of conflict on Agriculture**

Conflict may lead to the destruction of agricultural infrastructure, such as irrigation and flood controls, and the lack of availability or drastic reduction of extension advice and services and subsidized inputs (e.g. fertilizers and seeds). Seeds may be eaten for lack of food. Trees, including those which provide crops, are cut down as part of the military's strategy to prevent ambush, or they may die through lack of care and irrigation water. It was reported in June 2009 that 15% of agricultural land has been destroyed during the last war and 29% made inaccessible due to the establishing of "security buffer zone". It has also reduced the animal production in the area. Animals may be killed, stolen or succumb to death due to unavailability of veterinary services. Researches show that loss of livestock not only affects directly through the loss of milk and meat products which are directly consumed; it also

affects indirectly the loss of a traditional reserve of food and cash.

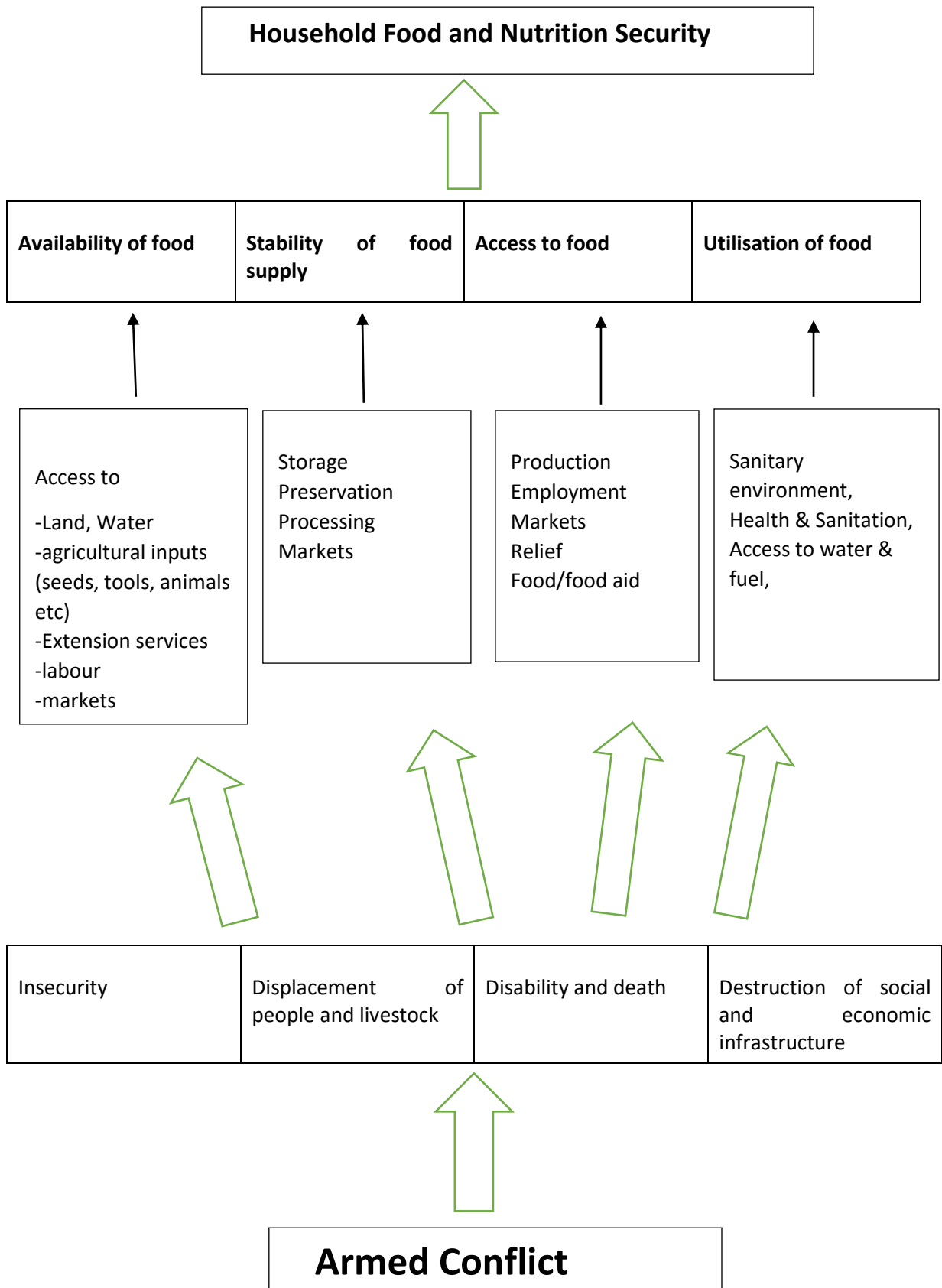
Gaza has a 40 km coastline which could give access to a lot of fish, but it is forbidden to enter past 3 nautical miles (nm). This is 20 nm less than agreed upon in the Oslo accords. This limits the access to the fishing grounds and in addition, fishermen are frequently subject to arrests, seizing of boats and shooting from the Israeli navy. Fishermen are risking their lives when they try to earn a living and Gaza people can only dream of having a seafood meal. Palestinian Centre for Human Rights (PCHR) was reporting on September 24. the killing of a fisherman at the beach of northern Gaza city.

Gaza farmers have also limited access to the agricultural areas, and are risking their lives when they go out to work in their fields, PCHR is regularly reporting on incidents where farmers are wounded or even killed, last on September 14 when a 91 year old farmer with his two grandchildren were killed (PCHR 2010c).

The last decade there has also been an excessive uprooting of olive trees in Gaza, during five years more than 300000 trees were uprooted. Olives and olive oil have an important role in Palestinian kitchen, and it will take centuries to compensate this loss even if new trees will be re-planted.

Gaza's main source of drinking water is the Coastal Aquifer. For centuries, this aquifer has provided adequate supplies of clean water, but in recent years Israeli restrictions on Palestinian movement have put undue strain on the aquifer. In order to meet their needs, Palestinians are forced to pump water faster than it can be replaced by rainfall or the natural flow of groundwater from the east. When this happens, water from the sea is able to work its way into the aquifer, thus contaminating Gaza's only fresh water source.

Gaza's sanitation crisis might be even more severe. Gaza's wastewater infrastructure has functioned only intermittently since Israel imposed its siege in 2007. Untreated waste goes direct into the sea and contaminates further the already scarce ground water, causing a host of environmental and humanitarian problems.



(Source- FAO Corporate Document Repository)

**Prices, employment and income**

Studies indicate that due to increased military offensive and higher security in Gaza, the supplies of food commodities have been affected adversely. The Consumer Price Index (CPI) in the Gaza strip increased by 1.6 percent over first half of 2009. It is to be noted that average daily wages have not increased, which has clear implications over purchasing power and living standard. In real terms wages have been decreased by 5% over the first half of year 2009.

Unemployment has increased by 15.1% between first and second half of 2008. A minimal decrease was reported in the first half of 2009 but in the second half of the year unemployment was at its highest recorded level of 44.1%. The lowest level of unemployment recorded in the Gaza city was 31.6 percent.

It has also been reported in the study done by World Food Program that household monthly expenditure has gone down and cannot even be fully met by assistance due to increased food prices and persistent decrease in income earning opportunities. 26 percent of food insecure households as well as 14 percent marginally secure households reported decrease in income after the last war in 2009.

Thirty six percent bread-winners (heads) of food insecure households are found unemployed. In normal cases food security goes in tandem with employment, but in case of Gaza it is not found true, as 64% of household heads in food insecure families are in jobs. That means low and/or unsteady salaries are one of the causes of high food insecurity prevalence. Private sector is the major employment provider in the food insecure households. A total of 69 percent of food insecure families are employed in private sector. Irregular wage work and self employment represents the highest source of food insecure households, 38 percent and 21 percent respectively. Government wages and salaries represent the highest source of stable and reliable income for the majority of households. This means that salary scale, type of employment and reliability of income is a primary condition for food security. But in the case of Gaza it should also be mentioned that governmental employees for a period did not get their salaries due to the embargo. After the war the highest reported loss in income was within the private sector. It has also been reported that among the food secure group who accepted the decrease in their expenditure, agree that decrease was on food expenditure.

Reducing the expenditure shows effects on both quality and quantity, 94 percent of food insecure households reduced the quality (which means decreasing their expenditure on fresh food, they started buying frozen meat instead of fresh meat, wings instead of chicken etc). 59 percent of surveyed food insecure household reported reducing the quantity, and 58% of the food insecure households are reducing both quantity and quality.

## **Adolescent nutrition**

Adolescence is considered to be the transitional phase from childhood to adulthood. Adolescents experience a dramatic growth and development during puberty which creates an increased demand for energy and nutrients. Total nutrient needs during adolescents are higher than any other time in life. Physical growth and nutrition are integrally related and optimal nutrition is a requisite for achieving full growth potential.

Lack of sufficient nutritious food during this period will have immediate negative impact on growth and development, but also increase the risk of having adult diet-related diseases, such as diabetes and cardiovascular disease, cancer and osteoporosis. It was conducted a national study on Palestinian adolescents with regard to food habits and physical activity in 2004. It shows differences between the West Bank and Gaza Strip. Adolescents of Gaza Strip eat less fruits, sweets, soft drinks, meat and chicken compared to West Bank. It is explained by lower socio-economic status, more poverty with reduced accessibility and availability of some kind of foods that are not locally grown or produced. Generally girls are more likely to report healthier food choices, with a higher consumption of fruits and vegetables. But girls are less likely to be physical active. It is to some extent not acceptable by neither their families nor their social environment. That means it is more likely to be a cultural factor.

Abudayya et al (2007) has studied the association between nutritional status and socio-demographic factors of adolescents in Gaza. The findings revealed that both over- and under-nutrition are present in Gaza, and overweight, stunting and anemia were the public health problems found. This study was done in 2002 and indicates that the energy intake was more than sufficient at that time. The study also concluded that meal and food consumption patterns of adolescents are strongly related to socioeconomic status, mother's level of education and gender.

## **Conclusion**

For decades, the war has affected the lives of people living in Gaza. Leave other necessities, food is one thing that can, at least, "keep people alive". People of Gaza are not that fortunate either, they are entrapped in vicious circles of poverty and food insecurity. By deliberately restricting the access of safe and nutritious food to Gaza people, it gives a whole generation of adolescents in Gaza a huge disadvantage when it comes to grow up as healthy and mature adults.

Adolescents are "future" of any geographical area, but the given situation of Gaza is not promising with regard to enable this new generation to create another history.

Since the issue of food and nutrition security in Gaza is not merely an issue related to health and poverty in isolation, but a more complex problem between two nations, it demands cooperation from all the stakeholders involved to reach a consensus for, if nothing else, provision of healthy and nutritious food to the future generations in order to make them function within their full capabilities.