Socio-Economic and Food Security Atlas

In the occupied Palestinian territory

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FOREWORD

The United Nations World Food Programme (WFP) and the Applied Research Institute – Jerusalem (ARIJ) are pleased to present the "Socio-Economic and Food Security Atlas in the occupied Palestinian territory".

The Socio-Economic and Food Security Atlas is one of the first Atlas produced which relates to food security issues at the national level in the occupied Palestinian territory (oPt) and in the Arab world. This new tool will be part of the already existing Food Security Monitoring System that is implemented by the WFP, Food and Agricultural Organization of the United Nations (FAO) and the Palestinian Central Bureau of Statistics (PCBS) as to combat poverty and improve the food security status in the oPt.

The Atlas captures the food security information generated by oPt Food Security Stakeholders as well as PCBS. The aim is to build a common tool – that is user friendly via the launch of a specific website – and to help foster the respective food security interventions and to address the main identified food security problems in the oPt.

The Atlas will help develop, along with the FAO/WFP/PCBS Socio-Economic and Food Security Survey (SEFSec) Reports and its related working papers, an institutionalized Food Security Platform in the oPt. The aim would be to link the Atlas – as a shared dynamic database among food security stakeholders – to such a multi-stakeholder platform responsible for the implementation of the socio-economic and food security component of a social protection policy and strategy. It could then serve as pilot project to be adopted by the neighboring Arab countries within their specific food security context.

In its present static form, the 2010 Atlas provides a grim picture of the socio-economic and food security situation in the oPt. Indeed, much more than the geographical and agro-ecological characteristics of the oPt, it is the specificities of the historical and political context that set the parameters of the current economic, social and food security situation of the population. The conflict and more precisely the restrictions on mobility of persons and goods imposed by Israel are the main basic causes of food insecurity in the West Bank and in the Gaza Strip. They have direct impact on the three pillars of food security: (i) food availability; (ii) economic access to food; and (iii) food utilization.

For the 2010 Atlas, we would like to express our sincere thanks to the Palestinian National Authority, especially to PCBS, and all Food Security Stakeholders who participated in the Project Advisory Committee, as well as WFP and ARIJ donors for their continuous support in strengthening food security analysis in the oPt. We look forward to make the Atlas a dynamic tool based on food security related data and analysis done in the oPt .

Christine van Nieuwenhuyse
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PREFACE

The Socio Economic and Food Security Atlas in the occupied Palestinian territory (SE-FSA) is a joint project of the World Food Programme (WFP) and the Applied Research Institute-Jerusalem (ARIJ) to help develop an institutionalized Food Security Platform in the oPt in cooperation with all potential stakeholders. The SE-FSA provides systematic spatial analysis of the demography, socio-economic, education, agriculture, environmental and water, food security, nutrition, and health sectors in the oPt (West Bank and Gaza Strip) at governorate level.

The acute need for such a SE-FSA tool is based on the current challenges that the Palestinians face including high food prices, economic downturn, political conflict, agricultural production capacity, food production patterns and availability, climatic change and environmental crisis, nutritional and health status, poverty and food insecurity. Accordingly, the SE-FSA aims to provide information on the geographical distribution of food security related data for the West Bank and the Gaza Strip; to consolidate and streamline the available spatial information with a view to improve provision of humanitarian assistance and the application of national social safety net activities. It also aims to improve access and visibility of secondary geographical data and in macro level data sets, highlighting food security data sets including food production patterns and availability, access to food and income sources, regional food market price patterns, household income and expenditure. Finally it provides information at country level for donors and policymakers; and to create a user friendly tool related to food security information that can be updated on regular basis. The SE-FSA shows the multifaceted problem of food security which must be addressed holistically.

The project had technical support from the Project Advisory Committee (PAC), which was formulated during the implementation of the project. It is worth mentioning that three workshops were conducted during the creation of the Atlas including a Stakeholders Meeting, which was organized on October 2008 for 30 food security related institutions. During this meeting the project goal and objectives, activities and outputs were presented, the list of sectors' indicators that were considered to be the base for maps production was discussed and the Project Advisory Committee (PAC) was formulated. Another workshop (PAC Meeting) was conducted on February 2009 for the formulated PAC members (almost 25 institutes) to discuss their inputs on a list of indicators. A final workshop was conducted under the auspices of his Excellency Prime Minister Dr. Salam Fayyad for launching the Atlas.

The result of this work is a hard copy of the Socio Economic Food Security Atlas including maps and text analysis covering several food security indicators highlighting information over a trend of years. The Atlas is divided into six chapters, including 81 maps illustrating food security indicators at governorate level, cluster, and village levels whenever available. The SE-FSA database has also been produced as a web based data-entry, which can be accessed on-line in order to make it accessible to oPt food security stakeholders, decision makers, the public and all who can benefit from it. In order to make the Atlas dynamic, data will be updated every 6 months.

THE ATLAS TEAM

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List of Abbreviations

ARIJ: Applied Research Institute – Jerusalem
CPI: Consumer Price Index
FAO: Food and Agriculture Organization of the United Nation
FCPI: Food Consumer Price Index
ILO: International Labor Organization Standards
IMR: Infant Mortality Rate
Kg: Kilogram
L/c/d: Liter/capita/day
MCM: Million cubic meters
MoA: Ministry of Agriculture
MoH: Ministry of Health.
MSP: Medical Services of Police and National Security
NGO: Non Governmental Organization.
NIS: New Israeli Shekel
Nm: Nautical mile
OCHA: Offices for Coordination of Humanitarian Affairs
oPt: occupied Palestinian territory
PCBS: Palestinian Central Bureau of Statistics
SEFSec: Socio-Economic and Food Security Survey Report
SE-FSA: Socio-Economic and Food Security Atlas
UNICEF: United Nation Children's Fund
UNRWA: United Nation Relief and Work Agency for Palestine Refugee
WFP: World Food Programme
WHO: World Health Organization

Introduction

The occupied Palestinian territory (oPt) is divided between two physically separated areas known as the "West Bank" (including East Jerusalem) and the "Gaza Strip" with a total area of 5,661 km^2 and 362 km^2, respectively[1].

The average population density is approximately 414 capita/km^2 in the West Bank, while the population density[2] in the Gaza Strip is 3,905 capita/km^2. The West Bank has a total population of 2.38 million inhabitants irregularly distributed across its eleven governorates (Jericho, Ramallah, Bethlehem, Hebron, Jerusalem, Nablus, Qalqiliya, Tulkarm, Jenin, Tubas and Salfit). The Gaza Strip is a coastal territory at the eastern extreme of the Mediterranean Sea on the edge of the Sinai Desert. Hosting a population of 1.42 million, it is composed of five governorates (North Gaza, Gaza City, Deir al Balah, Khan Yunis and Rafah).

Of the 6 million dunum[3] land area in the oPt, about 1.82 million dunums (30.6%) are cultivated; 1.6 million dunums are rain-fed and about 270 thousand dunums irrigated (see chapter three). Of the cultivated area in the oPt, 91.4% is in the West Bank and 8.4% in the Gaza Strip[4]. Forested area covers less than 1.5 % of the Palestinian land area.

The oPt is characterized by a great variation in topography, soil, and lithology. This variation is directly reflected on the climate and the distribution and diversification of agricultural patterns, from irrigated agriculture in the Jordan Valley (the lowest area in the world) to rain-fed farming in the mountains. The West Bank is divided into four major geo-morphological parts: Central Highlands, Semi-coastal region, Eastern Slopes region and the Jordan Valley. The mountainous area of the West Bank serves as the main rainfall collection and replenishment zone for the underground water aquifers. Many drainage and valley systems are spread in and around the above mentioned four parts. In the north of the Gaza Strip there are four ridges with different elevations ranging between 20 to 90 m above Sea Level[5]. Active dunes can be found near the coast especially in the southern part between Deir el Balah and Rafah. Soils in the oPt are formed due to several conditions including climate, physical weathering from wind and water, and other topographic materials, geology, and vegetation.

The east Mediterranean region in general and the oPt in particular has been subjected to various disasters. Wars, political conflicts, climatic change, drought and earthquakes are the primary disasters that have affected the area. While the oPt is small in terms of area and population and does not contain resources of crucial importance to the world's economy, the Israeli-Palestinian conflict brings about immense international interest in the media, politics and diplomacy; in part related to their proximity to oil reserves in other countries of the Middle East[6]. Indeed, much more than the geographical and agro-ecological characteristics of the oPt, it is the specificities of the historical and political context that set the parameters of the current economic, social and food security situation of the population.

The conflict and more precisely the restrictions on mobility of persons and goods imposed by Israel are the main basic causes of food insecurity in the oPt. They have consequences on: (i) food availability; (ii) economic access to food; and (iii) food utilization.

To understand the status and causes behind Palestinian food insecurity, key features need to be addressed with a focus on economic access and political situation in the West Bank and the Gaza Strip including: livelihood crisis, population growth rates and dependency ratio, unemployment and poverty, food prices and consumer price index, cash income decline and consumers> purchasing power, food expenditures, production capacity, education and malnutrition, environmental and food quality, market access and others.

Economic growth in the oPt has markedly decreased due to the conflict, mainly through controls imposed by Israel on the entry and exit of goods, services and people; impediments to construction and infrastructure investment in the oPt; the expansion of Israeli settlements and associated violence; and the direct destruction of houses, crops, animals, water and sanitation infrastructure by the Israeli Army[7]. The Gaza Strip is currently undergoing a de-development due to Israeli military interventions and the blockade of the Gaza Strip. Since the blockade is in place, livelihoods of the Gaza population is devastated due to restrictions on the import of industrial, agricultural and construction materials, the suspension of nearly all exports, a reduction in the amounts of industrial fuel, domestic fuel and cooking gas allowed entry. Loss of business and jobs means greater pressure on the working age people to cope with their dependents and on the society. The unemployment among Palestinians reached up to 25.8% in oPt (Gaza Strip alone reached 42.3%) in the third quarter of the year 2009[8]. According to the World Bank, the GDP per capita was just above US$1,000 in 2008, compared to US$1,610 in 1999 (see Chapter 1).

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[1] Applied Research Institute-Jerusalem (ARIJ), Geo-informatics Department. Land Use/ Land cover Database.
[2] Palestinian Central Bureau of Statistics (PCBS): Population, Housing, and Establishment Census. 2008
[3] 1 dunum = 1,000 m^2 or 0.1 ha.
[4] Palestinian Central Bureau of Statistics (PCBS): Agricultural Statistics. 2008
[5] The ridges are: Coastal ridge, Gaza ridge, the el-Muntar ridge and the Beit Hanoun ridge.
[6] Hever, Shir - Political Economy of Aid to Palestinians Under Occupation. The Economy of Occupation, Socio-economic Bulletin No.17-18. The Alternative Information Center (AIC). November 2008.
[7] WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.
[8] Palestinian Central Bureau of Statistics (PCBS): Press Release –third quarter, December 2009. Labor Force – Third quarter (July-September) Report 2009. Ramallah – Palestin-

Population growth is also a major threat to oPt's capacity for sustainable development whereby it is placing additional pressures on the environment. With a rapid demographic growth at approximately 3% annual growth[9], the Palestinian population is projected to double in approximately 20 years[10]. Increasing population contributes to oPt's chronic lack of space due to Israeli land restrictions (see Chapter 1). Already, urban densities are reaching critical levels in many areas, particularly Gaza, exacerbating social, economical and environmental degradation and subsequent humanitarian concerns regarding the scarcity and provision of basic services.

The reliance on food imports and the lack of domestic agricultural growth expose the Palestinians to the volatility of international markets, as well as the restrictions imposed by Israel. Only 60% of main food items[11] are produced locally, where less than 5% of the cereals and pulses consumed in the oPt are locally produced. Lack of access over land and natural resources have denied the Palestinian people their rights to regulate land use and to manage the utilization of their own resources. In the West Bank, in the second half of 2008, up to 10,000 farmers reported difficulties in accessing their agricultural land and almost 60% attributed these problems to movement restrictions[12]. Some of the most productive areas are under Israel control (such as Area C) and thus not accessible for cultivation due to Israeli Army military laws. In the Gaza Strip, agriculture is distressed due to the export ban and unavailability and high cost of inputs and equipment. In addition, the Agricultural Sector is also particularly affected by recent climatic shocks including low rainfall precipitation, irregular distribution pattern of rainwater and rainfall delay, hence causing failure of crop growth (see Chapter 2 and 4).

Palestinians are increasingly being forced to rely on negative coping mechanisms. The combination of decreased incomes and increased food prices has forced the poorer households to change their food consumption patterns. The Socio Economic and Food Security Survey Report (SEFSec) highlighted that 42% of the household surveyed in the West Bank reduced their food expenditures, forcing these families to buy less food items and to substitute normal foods with cheaper / less desirable items. In the Gaza Strip, for those who have decreased their total expenditure, in its vast majority it has been food expenditure (96%) thus impacting the quantity and quality of their daily food intake[13]. Palestinian population faces great challenges to overcome the poverty and food insecurity levels they are trapped in. Even if the coping mechanisms are reversible (e.g. switching to less preferred but cheaper food, decreasing the amount of food consumed, foregoing health or education expenditures, and purchasing food on credit), they can have a permanent cost on lives and livelihoods, through poorer health and nutritional status (See Chapter 3).

Significant factors cause land degradation in the oPt; including soil erosion, desertification, salinization and soil contamination. Soil erosion is predominant in regions of intensive field cultivation and in the mountainous regions of the West Bank where in addition to steeps slopes, soils are subjected to heavy rainfall and overgrazing by goats and sheep. Decreasing bio-diversity is another major issue facing oPt stemming from the widespread environmental degradation that has occurred over the last decades. Regarding water resources, current extraction from groundwater is exceeding recharge and ground water levels are decreasing rapidly. Similar conditions exist for the Jordan River where upstream extraction has dramatically reduced flow. Limited access to water in the oPt due to Israeli control has profound social and economic impacts and accordingly affects Palestinian food security (see Chapter 4).

Exposure to natural disasters such as drought and frost is also threatening the future capacity for development in the oPt. Evidence suggests that climate change will lead to greater extremes in weather patterns. Given that approximately 94% of cultivated land is rain fed in the oPt, climate changes are also likely to have significant impact on Palestinian agriculture (see Chapter 4).

The fragmentation of the Palestinian landscape has had a significant environmental and social impact. Overall, 38% of total land area in the West Bank is controlled by the Government of Israel for settlements, military use, checkpoints or road closures, and the West Bank Barrier[14]. The intrusive route of the West Bank Barrier through 8 of the 11 West Bank governorates isolates the farms, greenhouses, grazing lands and water resources of thousands of farmers. Almost 15% of West Bank agricultural land will be lost once the construction of the Barrier is completed[15]. In the Gaza Strip, the Buffer Zone (24% of Gaza Strip (87 km square)) and the Cast Lead Operation (December 08/January 09) have led to the destruction of natural areas as well as Palestinian assets (see Chapter 5).

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[9] Palestinian Central Bureau of Statistics (PCBS), 2008. Population Census, 2007. Ramallah, Palestine
[10] Palestinian Central Bureau of Statistics (PCBS), 2008. Population and Housing Census, 2007. Ramallah, Palestine
[11] The main food commodities are 25 selected food items including: Short grain profiled rice, Haifa white flour, White bread, Fresh goat meat with bones, Fresh beef meat, Fresh chicken without feathers, Fresh red snapper, Frozen fish, Pasteurized milk 3% fat, Powdered milk, Powdered milk kikoz (No.1), Yogurt, Labaneh, Chicken eggs, Olive oil, Big size orange, Medium size banana, Red apple, Green house tomato, Local dry onion, Cauliflower, Greenhouse cucumber, Medium size potato, Lentils, Chick beans, Fine white sugar, Tea, White table salt.
[12] FAO/WFP. Socio-Economic and Food Security Survey Report - West Bank. August 2009
[13] FAO/WFP. Socio-Economic and Food Survey Report. West Bank/August 2009 – Gaza Strip/November 2009.
[14] - The World Bank. The Economic Effects of Restricted Access to Land in the West Bank. Social and Economic Development Group, Finance and Private Sector Development, Middle East and North Africa Region. 2008.
- According to the Applied Research Institute – Jerusalem (ARIJ) some 61% (3456 km^2) of the West Bank territory falls under complete control of the Israeli Army, and is defined as area "C". It also includes the western Segregation zone (733 km^2-13% of the West Bank total area)
[15] OCHA. Five Years After the International Court of Justice Advisory Opinion. A Summary of the Humanitarian Impact of the Barrier. July 2009.

As a result of the current context in the oPt, 38% of the Palestinian households are found food insecure, reaching up to 1.6 million[16]. These include 625,200 food insecure persons in the West Bank (25%) and 973,600 in the Gaza Strip (61%). In addition, 269,300 persons in the West Bank (11%) and 218,950 persons in the Gaza Strip (16%) are vulnerable to food insecurity. Food Insecure people are highly sensitive to socio-economic, political, and global shocks and highly relying on assistance (see Chapter 6).

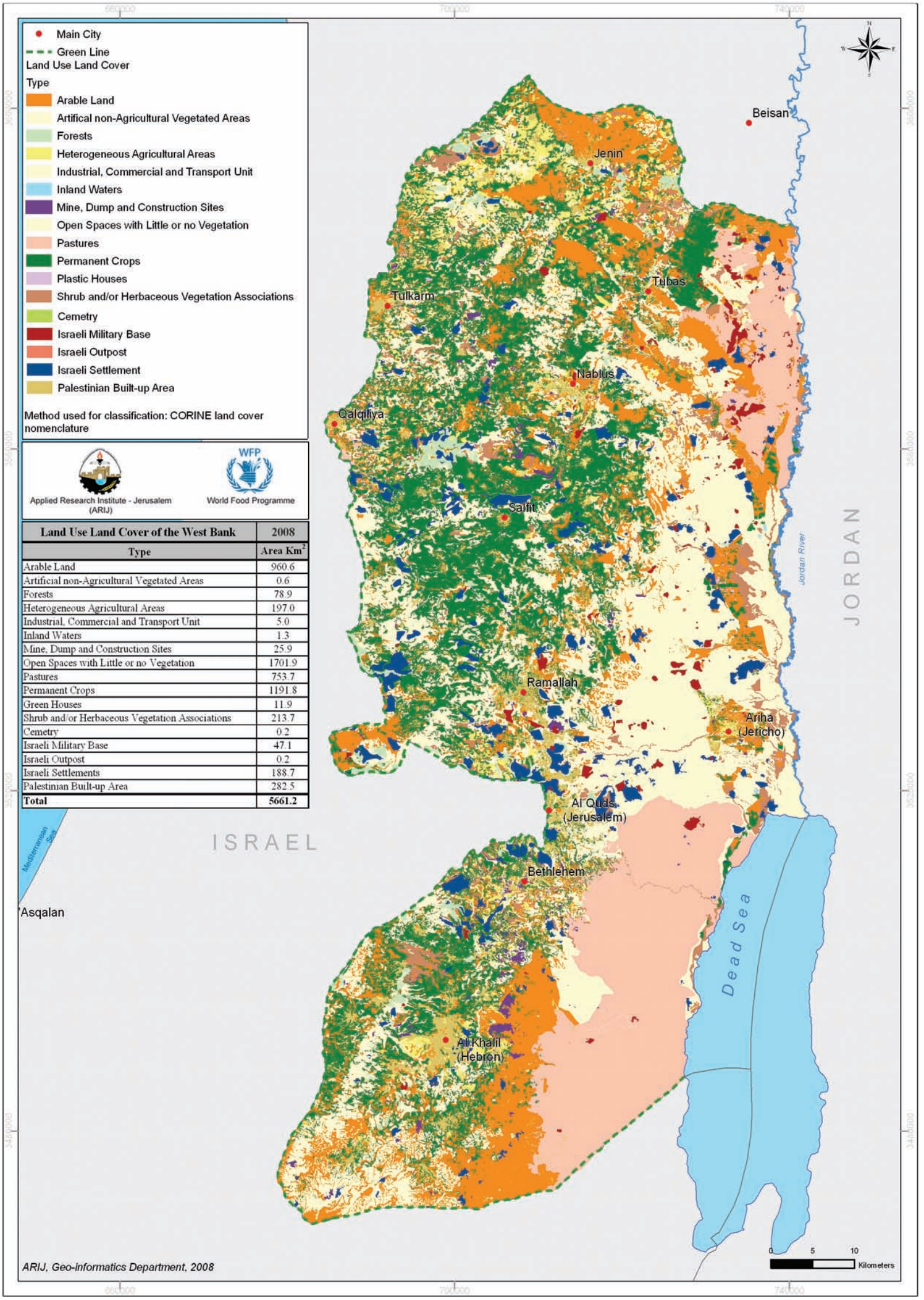
Food insecure households are unable to secure sufficient income to meet their essential food and non-food requirements due to the lack of income-earning possibilities as a result of Israel's restrictions to movement of goods and people, and artificially inflated food and transport costs. The high food and fuel prices internationally and the last war with Israel in the Gaza Strip have compounded this situation[17].

The conflict, the long imposed Israeli restrictions and matrix of control on Palestinian way of life utterly represent the basic causes of food insecurity in the oPt. Suspensions of the various restrictions are the only ways to resume the peace talks with Israel and address related issues. Meanwhile, increased emphasis should be given to interventions that take into account both protection issues and livelihood support, with the view not only to prevent food insecurity to worsen but also to avoid that vulnerable households become food insecure[18]. It is hoped that the Socio Economic and Food Security Atlas will help decision makers to take adequate policy responses.

[16, 17, 18] *FAO/WFP. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*

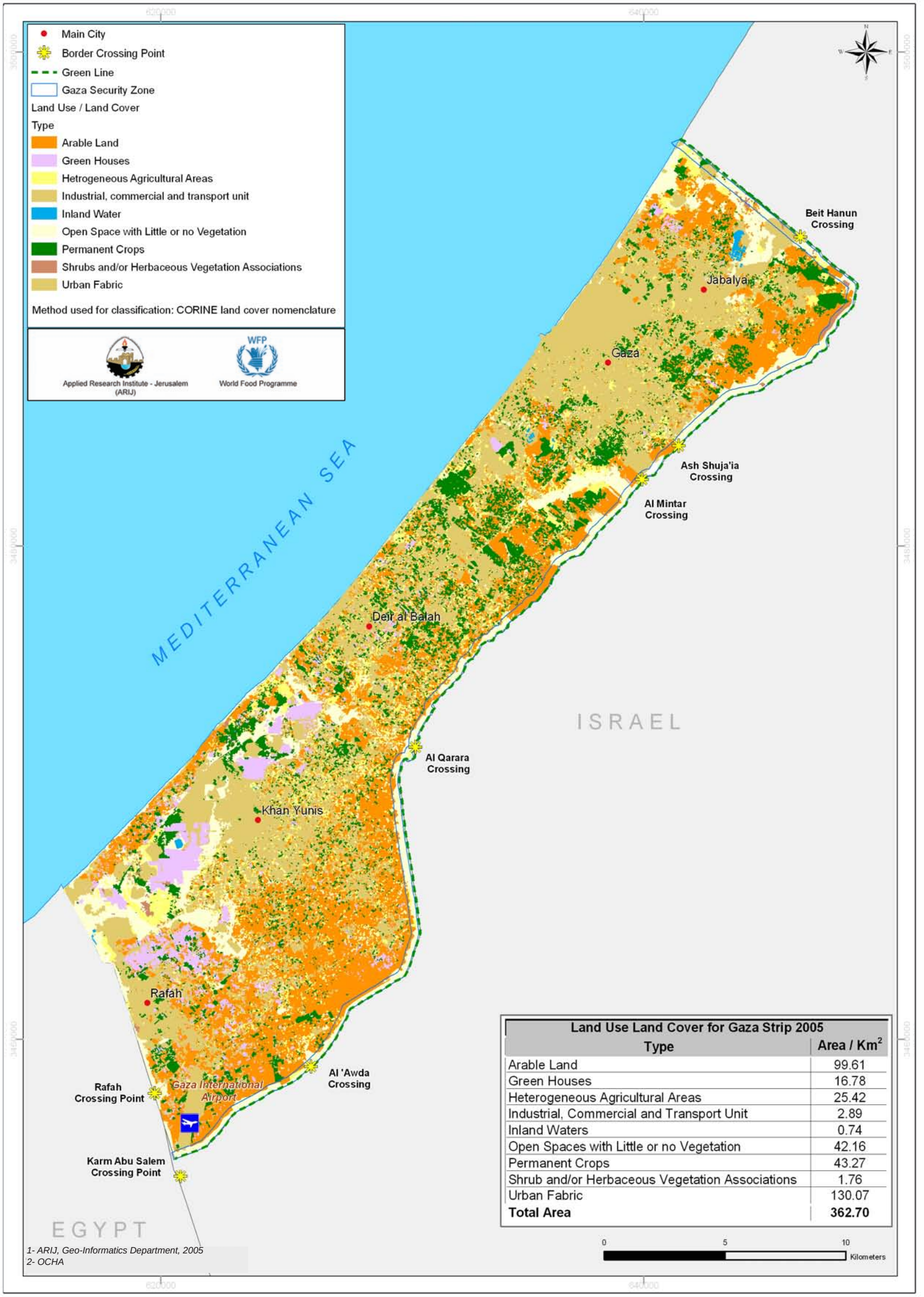
occupied Palestinian territory within the Current Regional Context

Land Use / Land Cover of the West Bank, 2008



Land Use Land Cover of the West Bank	2008
Type	Area Km²
Arable Land	960.6
Artificial non-Agricultural Vegetated Areas	0.6
Forests	78.9
Heterogeneous Agricultural Areas	197.0
Industrial, Commercial and Transport Unit	5.0
Inland Waters	1.3
Mine, Dump and Construction Sites	25.9
Open Spaces with Little or no Vegetation	1701.9
Pastures	753.7
Permanent Crops	1191.8
Green Houses	11.9
Shrub and/or Herbaceous Vegetation Associations	213.7
Cemetry	0.2
Israeli Military Base	47.1
Israeli Outpost	0.2
Israeli Settlements	188.7
Palestinian Built-up Area	282.5
Total	**5661.2**

Land Use / Land Cover of the Gaza Strip, 2005

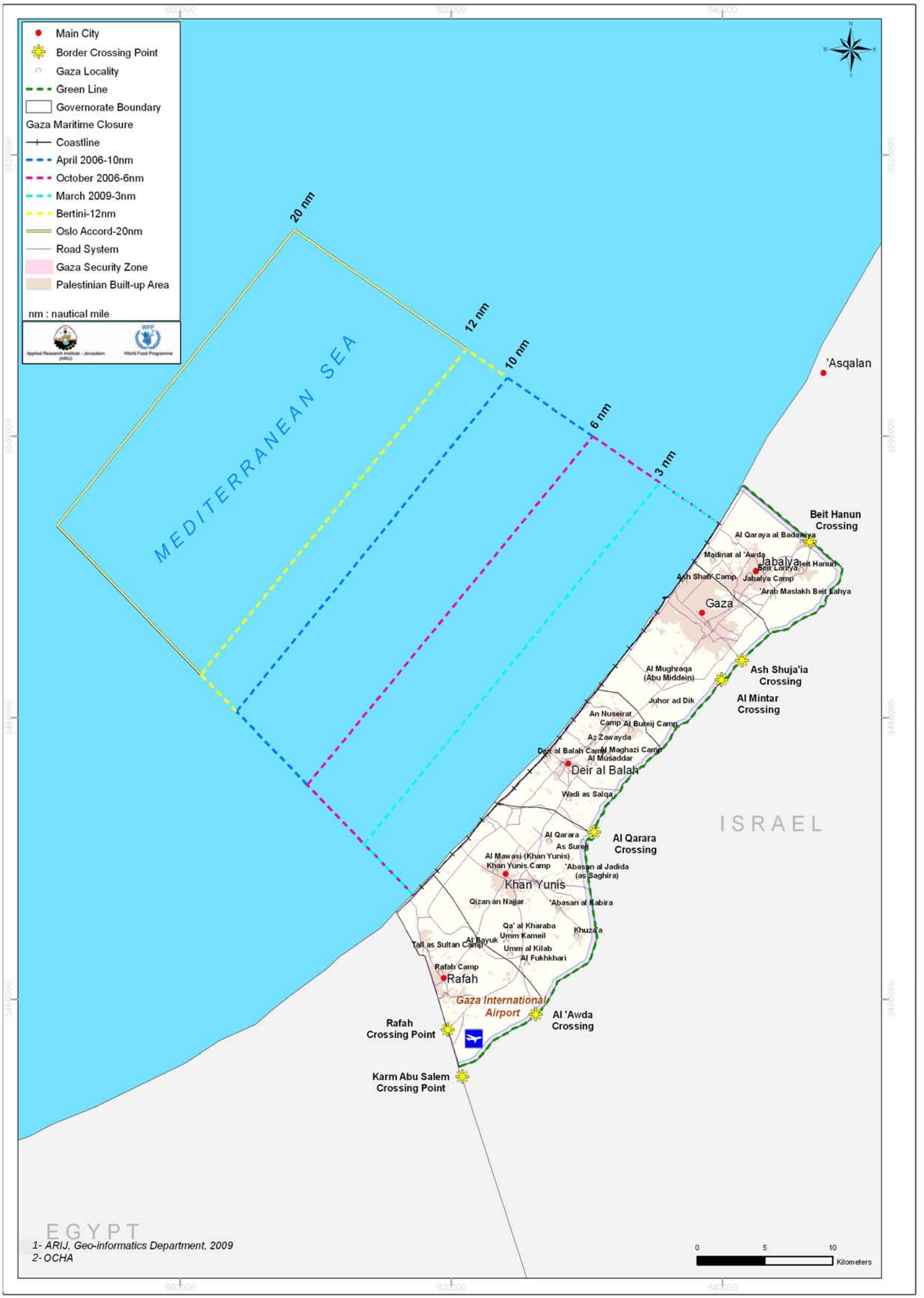


Land Use Land Cover for Gaza Strip 2005

Type	Area / Km^2
Arable Land	99.61
Green Houses	16.78
Heterogeneous Agricultural Areas	25.42
Industrial, Commercial and Transport Unit	2.89
Inland Waters	0.74
Open Spaces with Little or no Vegetation	42.16
Permanent Crops	43.27
Shrub and/or Herbaceous Vegetation Associations	1.76
Urban Fabric	130.07
Total Area	**362.70**

Geopolitical Map of the West Bank, 2009

Geopolitical Map of the Gaza Strip, 2009



West Bank Digital Terrain Model, 2009

Gaza Strip Digital Elevation, 2009

Soil Map of the occupied Palestinian territory, 2009

Geological Map of the occupied Palestinian territory, 2009

CHAPTER ONE:

ECONOMY AND ACCESS TO FOOD

INTRODUCTION

Economic growth is among the necessary conditions for a sustainable solution to poverty and food insecurity. Growth will raise incomes and the ability of the poor to gain access to food, health, care, services and deal with adversities, but will also provide the necessary means to undertake anti-poverty policies and interventions that would make growth itself more equitable[19].

Palestinians' food insecurity is rooted in the limitations to access food, as a sub-set of consumption poverty. Food availability per se is not the most critical issue presently in the oPt, even though in the Gaza Strip the variety of food available on the markets is limited by the blockade. Food is generally supplied in sufficient quantities and acceptable variety in local markets, essentially from imports. Yet, current availability of food on the market could be hampered given the volatility of the peace process and the high dependency on the Israeli market. As own food production is very limited, households' economic access to food available on local markets is in the present condition the main issue in the oPt[20].

The military and administrative measures imposed by the Israeli occupation progressively damaged the Palestinian economy, with a sharp increase on restrictions on movements and access following the 2nd *intifada* which broke out in September 2000. Key elements in the economic downturn in the West Bank comprise: restrictions on freedom of movement of people and commercial goods; the expansion of settlements and related infrastructure; the impact of the West Bank Barrier; the lack of access to agricultural lands; the lack of working permit to the Israeli labor market for West Bank Palestinians; and repeated destruction of physical assets during military incursions. In the Gaza Strip, 30 months of blockade (since June 2007) and the Israeli "Cast Lead Operation" in December 2008/early January 2009 had even more severely affected Gaza's economy and led nearly to 80% of its population dependent on assistance in the aftermath of the war[21].

GROWTH RATE AND DEPENDENCY

The oPt includes the West Bank and the Gaza Strip, with a population of 2.38 million and 1.42 million people respectively[22]. Over the last decade, there has been a significant increase of nearly 30% of the total number of Palestinian population. The annual growth rate is considered high reaching up to 3.2% in the year 2007. About 44% of the total population is less than 15 years old, while 3.1% of the population is above 65 years of age, forming almost half of the total Palestinian population[23]. The high percentage of children and elders lead to a high dependency ratio reaching 104 persons per 100 employed persons. The West Bank has a lower dependency rate(94) compared to the Gaza Strip (113)[24] due to two factors. The West Bank has a smaller household size (5.5 family members compare to 6.5)[25] as well as a lower unemployment rate[26]. Based on the population growth rate registered in the 2007 PCBS Population and Housing Census, the Palestinian population is projected to double in approximately 20 years. This is anticipated to magnify food insecurity prevalence and depth and possibly become a national concern especially as the growth rate has been faster than economic growth, contributing to the impoverishment of the population[27].

All these factors and the Israeli closure, blockade and restrictions increase the pressures on the working age people and outpaced real GDP growth, leading to a 3.1% real withdrawal rate by the end of 2009 compared to 2008. Real GDP growth in the oPt in 2008 was estimated at approximately 2%, resulting in per capita income of just over USD 1,000 during the same period, compared to US$1,610 in 1999[28]. Growth has been strongly curtailed by the continued blockade on the Gaza Strip since June 2007, and further exacerbated by the Israeli Cast Lead Operation in late December 2008/early January 2009.

UNEMPLOYMENT, WAGES AND INCOME

Loss of business and jobs is synonymous to greater pressure for the breadwinners to cover their food and non-food expenditures. Investigating unemployment rates in the oPt over the last ten years, it appears that since the year 2000 the rate has increased significantly and continued to fluctuate until the year 2009, the highest rates witnessed in the years 2002, 2004 and 2008 with 31.3%, 26.8%, and 25.95% respectively. The unemployment rate in the Gaza Strip has the highest value in the third quarter of the year 2009 reaching up to 42.3%[29]. Unemployment increased in the third quarter of the year 2009 reaching to 42.3%, 17.8%

[19] *The World Bank, World Development Report 1990, Oxford University Press for the World Bank, 1991.*
[20] *FAO/WFP. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*
[21] *WFP. Food Security and Market monitoring report. oPt Report 20, April 2009.*
[22] *Palestinian Central Bureau of Statistics (PCBS), 1998 &2008. Population Census 1997 & 2007. Ramallah, Palestine.*
[23] *WFP. Food Security and Market monitoring report. oPt Report 20, April 2009.*
[24] *Palestinian Central Bureau of Statistics (PCBS), 2008. Population, Housing and Establishment Census 2007: Final Results in the West Bank and Gaza Strip (Population and Housing). Ramallah – Palestine.*
[25] *Palestinian Central Bureau of Statistics (PCBS), 2009 – On the Eve of International Population Day, 11 July 2009.*
[26] *Palestinian Central Bureau of Statistics (PCBS), 2009. ILO Standard Definition. Ramallah – Palestine.*
[27] *FAO/WFP. Food Security and Vulnerability Analysis Report in the oPt. December 2009*
[28] *Palestinian Central Bureau of Statistics (PCBS): Statistics with World Bank staff calculations, World Bank Economic Monitoring Report, June 2009*
[29] *Palestinian Central Bureau of Statistics (PCBS): Press Release –third quarter, December 2009. Labor Force – Third quarter (July-September) Report 2009. Ramallah – Palestine*

and 25.8% in the Gaza Strip, the West Bank and the oPt respectively[30]. Such fluctuation in the labor force and high unemployment rates directly impact Palestinian households as their main source of income is provided by regular wage work (41% and 55% in the West Bank and the Gaza Strip respectively)[31]. As a consequence, households with an unemployed or underemployed head of household, and with a high dependency ratio, are even more likely to be food insecure than other households.

The average nominal daily wage in the West Bank has consistently been higher than the wages in the Gaza Strip. In 2008, it reached 85 NIS for West Bank employees and 61 NIS in the Gaza Strip[32]. Palestinian household monthly income based on average monthly wages illustrates a deficit in covering the household expenditures, since income is less than expenditure. In 2007, the deficit reached 1941 NIS/month in the West Bank and 712 NIS/month in the Gaza Strip[33]. Such a deficit limits the household ability to cover their expenses mainly on non-food items such as health, education, bills, transportation, and others.

INFLATION AND FOOD PRICE INCREASE [34]

The Consumer Price Index (CPI) is the official measure of inflation in the oPt, through monitoring of the cost of a basket of food and non-food goods and services purchased by an average household of 2 adults and 4 children. Food makes up almost 38% of the CPI, making it a key determinant of inflation in the oPt.

The CPI has risen rapidly since 1997, with the highest rates exhibited between 2005 and 2008. The Food Consumer Price Index (FCPI) has been rising similarly. Between June 2007 and June 2008, the FCPI increased by 21% in the West Bank and 28% in the Gaza Strip. The Transport Price Index (TPI) also rose. The acceleration of both the FCPI and the TPI reflect the sharp increase of food and fuel prices on the international markets at the end of 2007/early 2008. However, the trade restrictions imposed by Israel and associated increase in transport costs have a comparatively larger effect on food prices in the oPt, especially in the Gaza Strip.

Food price increases have significantly worsened the food security situation of households in the oPt, due to the high share of household expenditures on food: 49% in the West Bank and 56% in the Gaza Strip. Price levels for both flour and rice showed an increasing trend since 2003 in both the West Bank and the Gaza Strip. However, in 2008, the prices of these two commodities increased significantly (eg. flour experienced a 143% yearly increase in the West Bank and 139% in the Gaza Strip). In 2009, the prices of flour started to fall while the prices of rice kept rising. Bread prices rose modestly, (60%) in West Bank and (25%) in the Gaza Strip, over the period. Sugar prices increased by around 50% between 1997 and 2009, although more substantial increases have been witnessed during these last few years. Related to meat and dairy products, prices of lamb, beef, and chicken were rising since 2006. The increase in chicken prices can also be attributed as it is a cheap substitute for beef and lamb. Price of chicken is fluctuating with a peak following Cast Lead Operation in the Gaza Strip – due to the destruction of poultry farms – as well shortage of cooking gas during the winter is an additional factor for increased prices. Milk Prices were rising during the time period of 1997 to 2009 in both West Bank and Gaza Strip. Fruits and vegetables are the only group of food items that experienced the least rise in prices of less than 50% over the period of Jan 1997 to May 2009. Most of the items in this group are locally planted and hence there prices are more determined by local factors of supply and demand than they are by international prices and Israeli restrictions[35].

In the West Bank, the CPI and the FCPI continued to increase between the first and second half of 2008 despite the decrease of prices on international markets (overall increase of CPI of 5.5% for 2008). Most households (97%) in the West Bank reported being affected by a rise in food prices during the second half of 2008[36]. The downturn of food CPI early 2009 (-3%) is an encouraging improvement. However, while the prices of main staple food commodities have decreased, they remain significantly higher than their long-term averages.

In the Gaza Strip, the FCPI increased faster than in the West Bank mainly due to the increased restrictions and the Israeli offensive at the end of 2008, and did not decrease during the first half of 2009 (+ 1.4%). Overall, the FCPI rose by 33% between May 2007 and May 2009, as a result of the international food prices increase and the import restrictions.

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[30] *Palestinian Central Bureau of Statistics (PCBS): Press Release –third quarter, December 2009. Labor Force – Third quarter (July-September) Report 2009. Ramallah – Palestine*
[31] *FAO/WFP. Socio-Economic and Food Survey Report (West Bank - August 2009/ Gaza Strip – November 09).*
[32] *Palestinian Central Bureau of statistic (PCBS): Household Expenditure and Consumption Survey, 2007. Living conditions in Palestinian Territory, Final Report (January 2007- January 2008). June / July, 2008.*
[33] *Palestinian Central Bureau of statistic (PCBS): Household Expenditure and Consumption Survey, 2007. Living conditions in Palestinian Territory, Final Report (January 2007- January 2008). June / July, 2008, (ARIJ Calculation)*
[34] *FAO/WFP. Food Security and Vulnerability Analysis Report in the oPt. December 2009*
[35] *Madi A.S., Abu Hassan H., Al-Ghool N., Abu Ghosh O., December 2009 – The Impact of Closure and High Food Prices on Performance of Imported Staple Foods and Vegetable and Fruits Market in the oPt. Al-Sahel Co. for Institutional Development and Communications.Al Sahel. December 2009.*
[36] *FAO/WFP. Socio-Economic and Food Survey Report-West Bank. August 2009*

TRADE (Exports / Imports)

Trade flows represent 85% of the GDP of the oPt. Imports of goods and services represent over 80% of total flows and exports around 20%[37]. The oPt is Israel's second largest export market (after the USA), with exports worth US$2.3 billion in 2007[38]. Palestinian trade is heavily and increasingly connected to Israel. In 1999 and 2007, Israel accounted for respectively 63% and 71% of the total Palestinian trade. In 2008, about 81% of total value of the oPt trade was with Israel.

The decline in exports reflects the erosion of productive capacity and the disabling environment facing the private sector. The continuous blockade of the Gaza Strip since June 2007 was especially harmful, as its agricultural sector and many of its industries are export-oriented. It is worth noting that there is high dependency on imported food items for household food consumption. Only 60% of main food items are produced locally, where less than 5% of the cereals and pulses consumed in the oPt are locally produced. More than 25% of Palestinian consumed food commodities are imported from Israel.

POVERTY

As a result to above challenges, the number of Palestinians living in poverty are in continuous increase since the second Intifada in the year 2000. Based on consumption levels, in 2007 almost 1/4th of households were poor in the West Bank and 52% in the Gaza Strip. Based on income levels (excluding remittances and food aid), 34% of households were living in deep poverty in the West Bank and 70% in the Gaza Strip[39]. This number has increased dramatically in the Gaza Strip at the end of the year 2008 and beginning of 2009 due to the Israeli Cast Lead Operation where an estimate of 80% of people were under poverty and relied increasingly on humanitarian assistance.

The poverty rate increases further for large family in the oPt. In 2006, nearly 55% and 34% of households with 7-8 children where found to be living under the relative poverty and the deep poverty lines. Family with 10 members and above where even more impacted with 57.8% and 38.1% respectively[40].

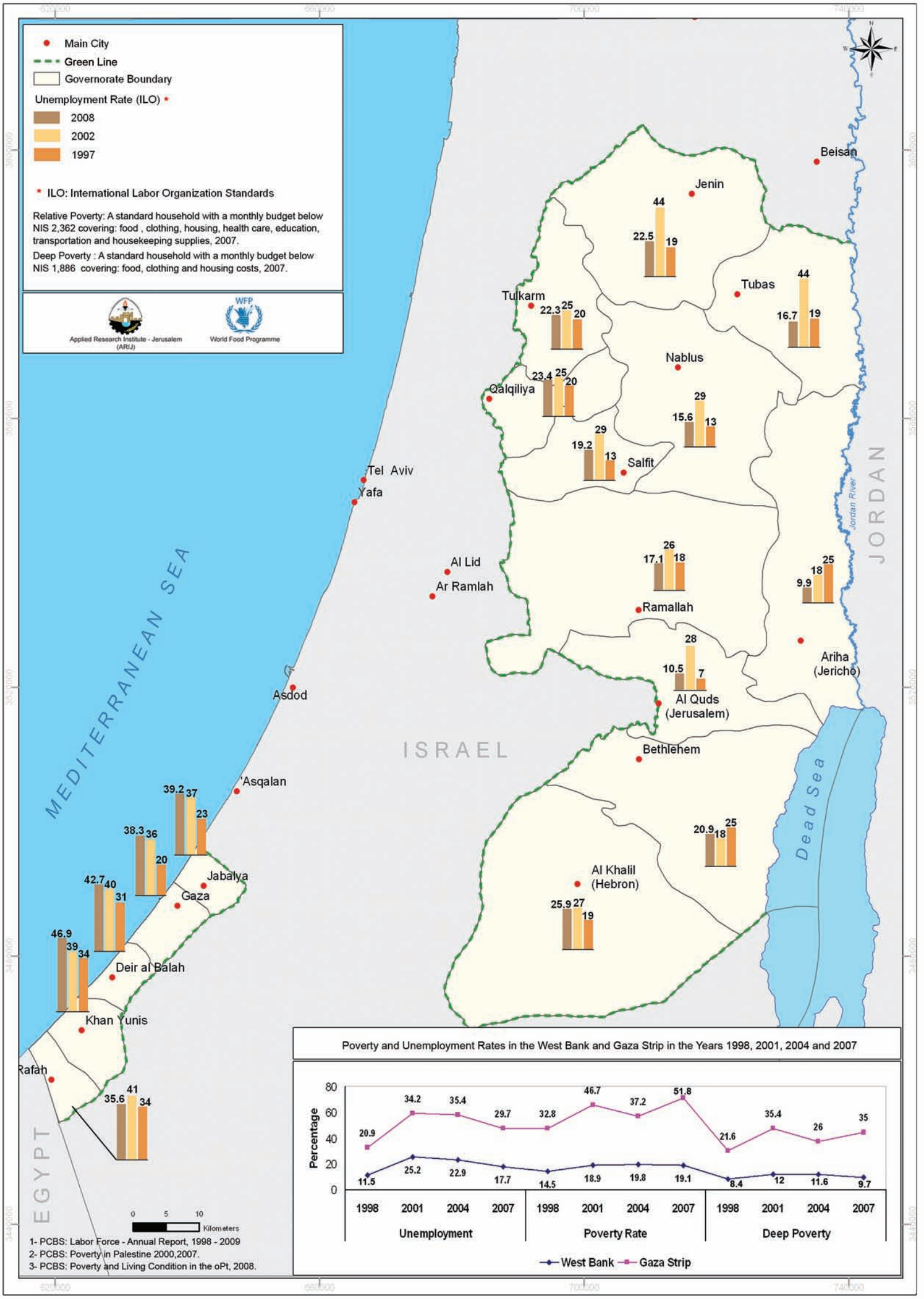
ECONOMY AND EDUCATION

The rising poverty and unemployment is affecting school attendance across the oPt. In 2005/2006 school year, the number of students whose families could not afford the school fee of NIS 50 (11$) doubled from 29,000 to 56,000[41]. Taken the worsening of the level of poverty in the oPt over the last decade, an increasing number of Palestinian children is now working to support their families instead of attending school. In 2008, 3.7% of children between 7-17 years of age are employed (mainly in the West Bank with 5.3%)[42]. As noted earlier 60% of oPt population is under 19 years of age; one in 3 males aged 15-19 is an unskilled worker, where 20% of them can not find paid work[43].

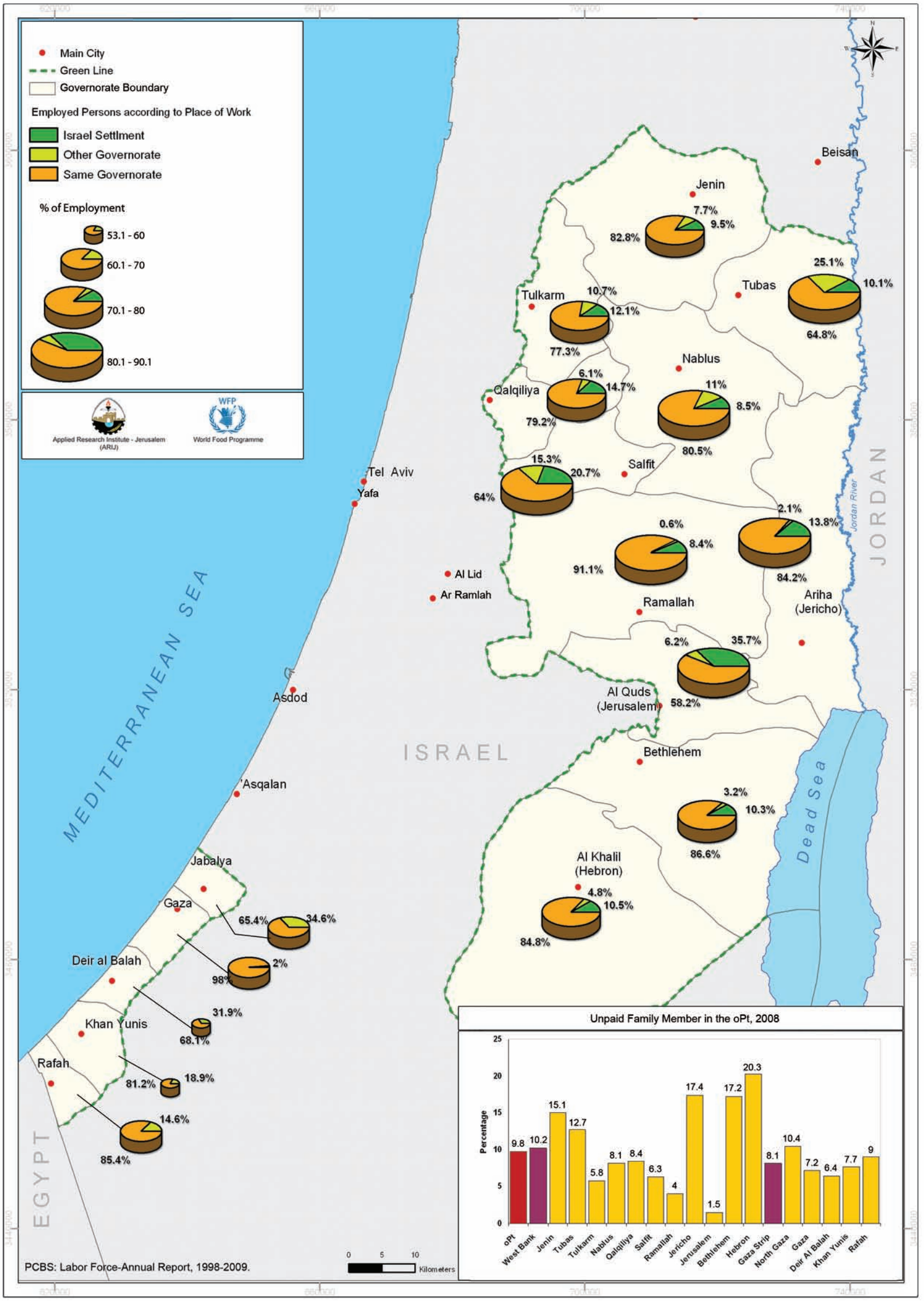
The majority of adult Palestinians are literate (92%). Literacy rates, particularly for females (88%), are the highest in the Arab world, however learning achievement rates are dropping. In the first semester of the 2007-08 school year, only 20% of sixth-graders in Gaza passed standardized exams in various topics[44]. In the West Bank, children and young people are prevented from reaching schools during curfews and periods of settler violence. At least 30% of adolescents do not enroll in secondary school[45]. Food security levels are directly impacted by the level of education. Head of households with low level of education are more incline to be food insecure. In the West Bank, the average years of education among members of food insecure households was 5.9 years compared to 8.2 years among members of food secure households. Only 17% of the heads of food insecure households had secondary education and above, compared with 45% of food secure heads of households[46] .

[37] *FAO/WFP. Socio-Economic and Food Survey Report (West Bank - August 2009/ Gaza Strip – November 09).*
[38] *Israeli Central Bureau of Statistics: Statistical Yearbook 2007. Jerusalem, 2008. Quoted in: Hever, Shir - Political Economy of Aid to Palestinians Under Occupation. The Economy of Occupation, Socio-economic Bulletin No.17-18. The Alternative Information Center (AIC). November 2008.*
[39] *FAO/WFP. Socio-Economic and Food Survey Report (West Bank - August 2009/ Gaza Strip – November 09).*
[40] *Palestinian Central Bureau of statistic (PCBS): Palestinian Labor Force Survey, 2008. Ramallah, Palestine.*
[41] *Palestine Monitor: exposing life under occupation-Children factsheet, updated 18 December 2008*
[42] *UNICEF. Overview Health and Nutrition, occupied Palestinian territory. 2009*
[43] *Palestinian Central Bureau of statistic (PCBS): Population, Housing and Establishment Census 2007. Ramallah, Palestine*
[44] *OCHA, August 2009 – Locked in: the Humanitarian Impact of Two Years of Blockade on the Gaza Strip*
[45] *UNICEF. Overview Health and Nutrition, occupied Palestinian territory. 2009.*
[46] *FAO & WFP. Working Paper Series 1, Household Food Security Profiling, West Bank. August 2009*

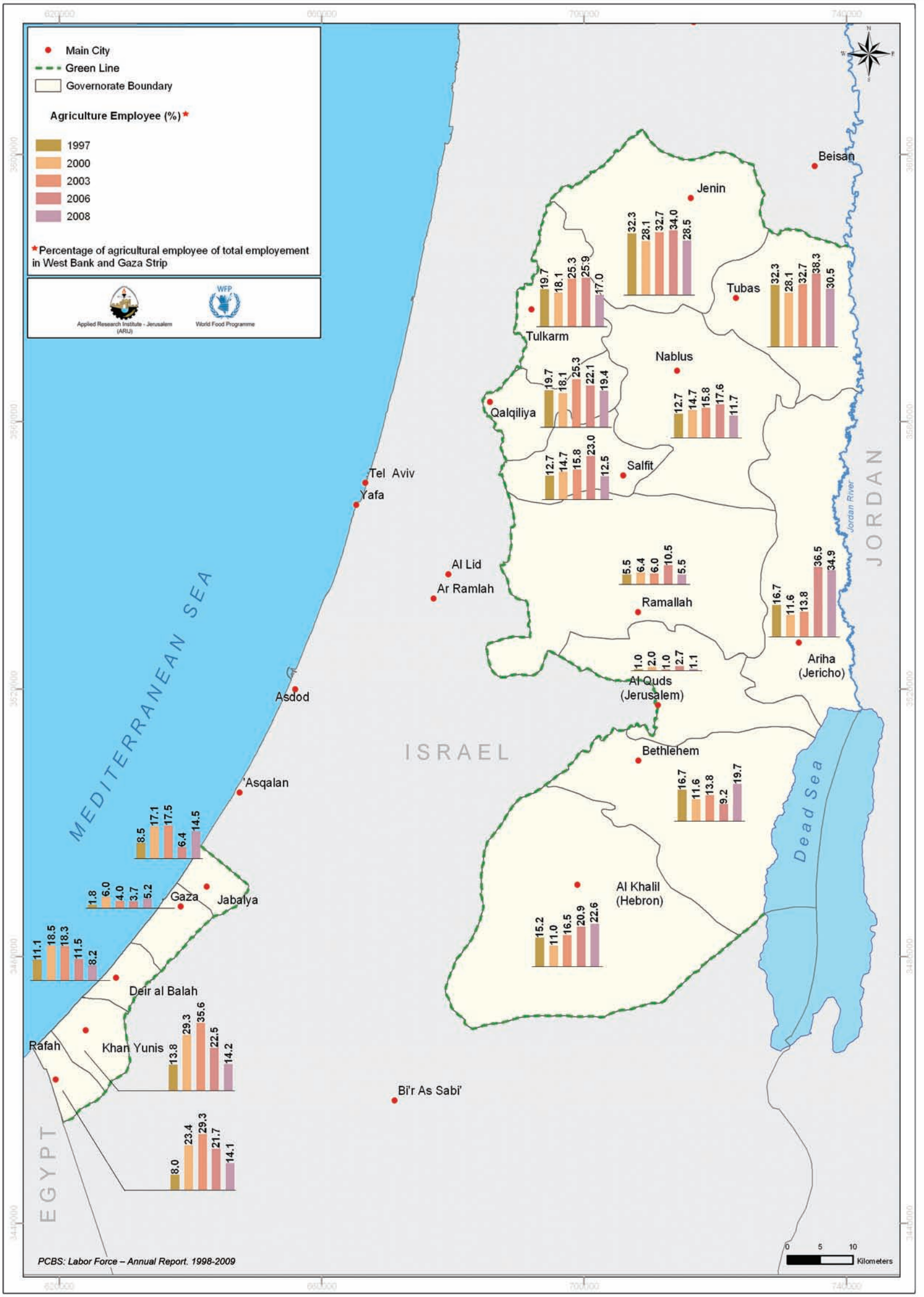
Unemployment and Poverty Rates in the occupied Palestinian territory, 1997 - 2008



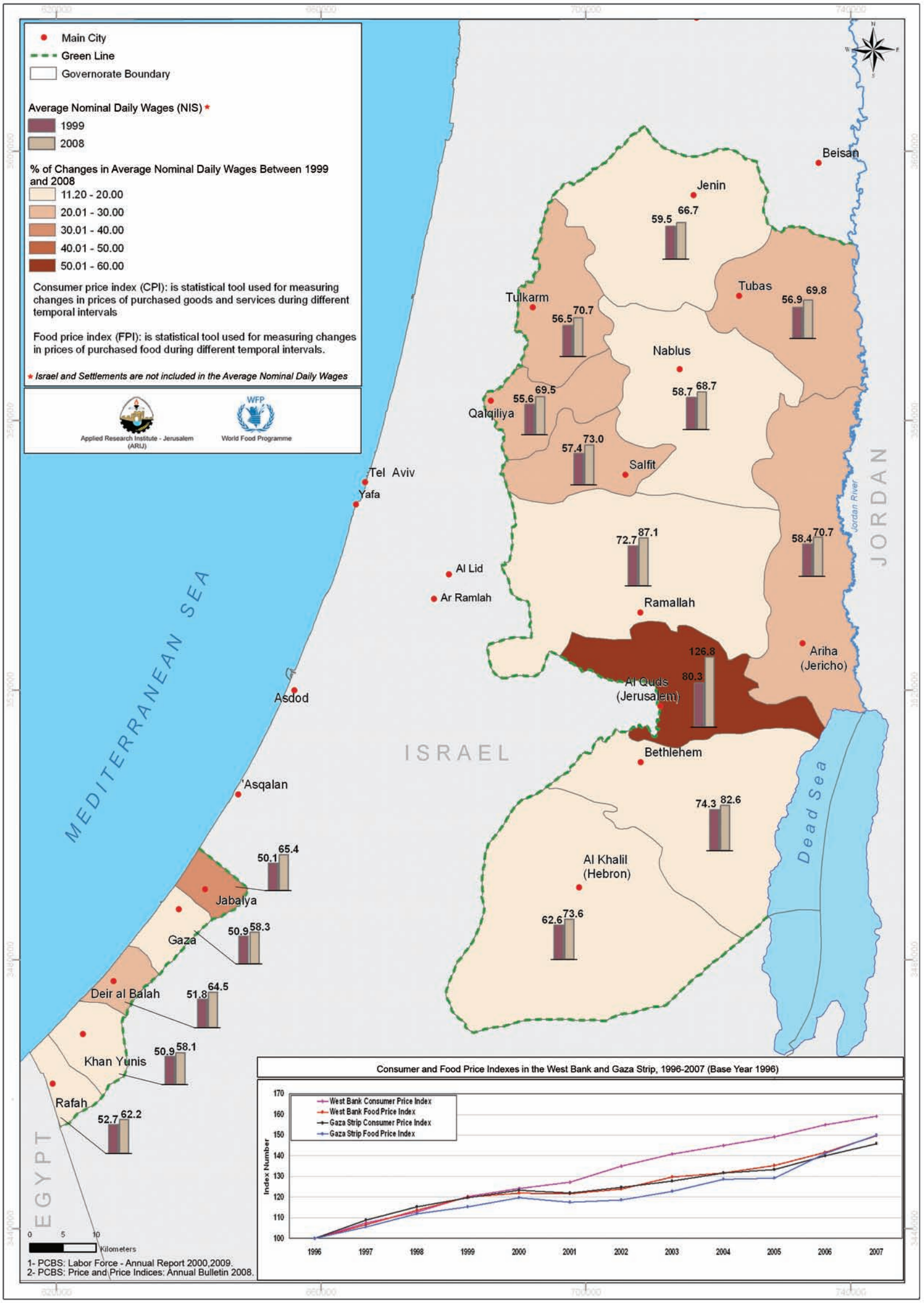
Percentage of Employed Persons by Place of Work and Unpaid Family Member in the oPt, 2008



Percentage of Employed Persons in the Agriculture Sector in the occupied Palestinian territory, 1997 - 2008



Average Daily Wages, Consumer and Food Price in the occupied Palestinian territory, 1996 - 2008



Dependency Ratio and Percentage of Households with Respect to the Source of Income, 1997 / 2007

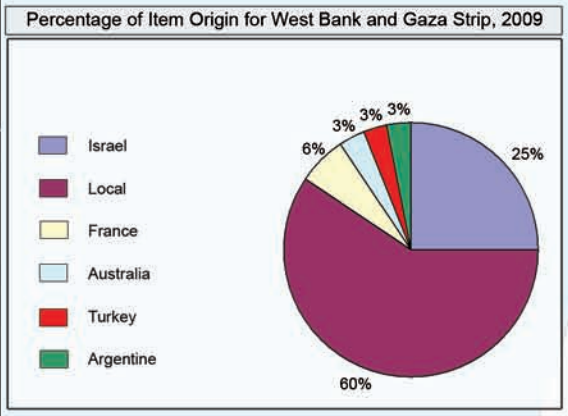
Percentage of Change in Food Price and Source of Origin for Selected Food Commodities in the oPt, 2005 - 2009

Main City
Green Line
Governorate Boundary

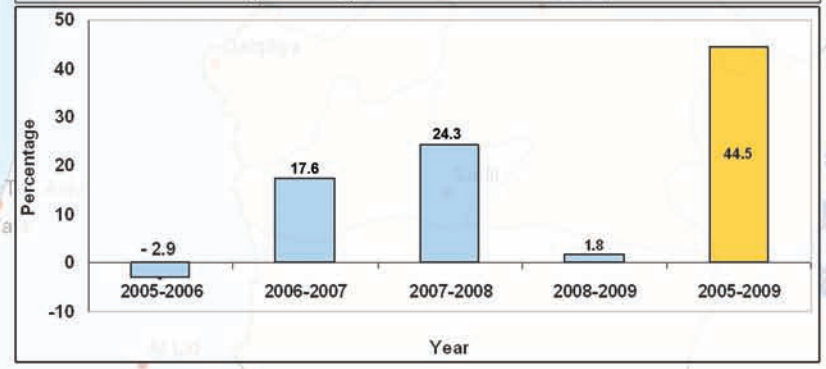
Applied Research Institute - Jerusalem (ARIJ)
World Food Programme

Beisan
Jenin
Tulkarm
Tubas
Ar Ramlah
Ramallah
Ariha (Jericho)
Al Quds (Jerusalem)
Bethlehem
Al Khalil (Hebron)
Deir al Balah
Khan Yunis
Rafah
JORDAN
EGYPT
Dead Sea

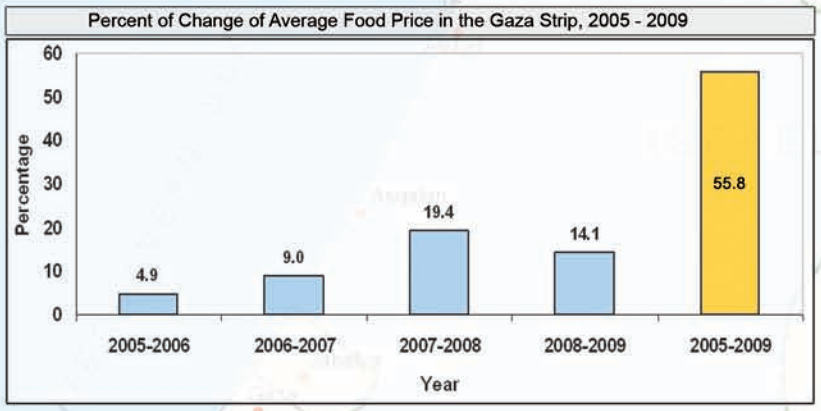
Percentage of Item Origin for West Bank and Gaza Strip, 2009



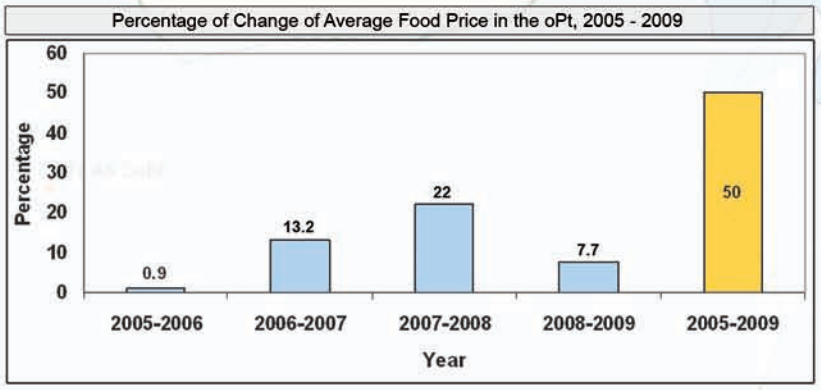
Percent of Change of Average Food Price in the West Bank, 2005 - 2009



Percent of Change of Average Food Price in the Gaza Strip, 2005 - 2009

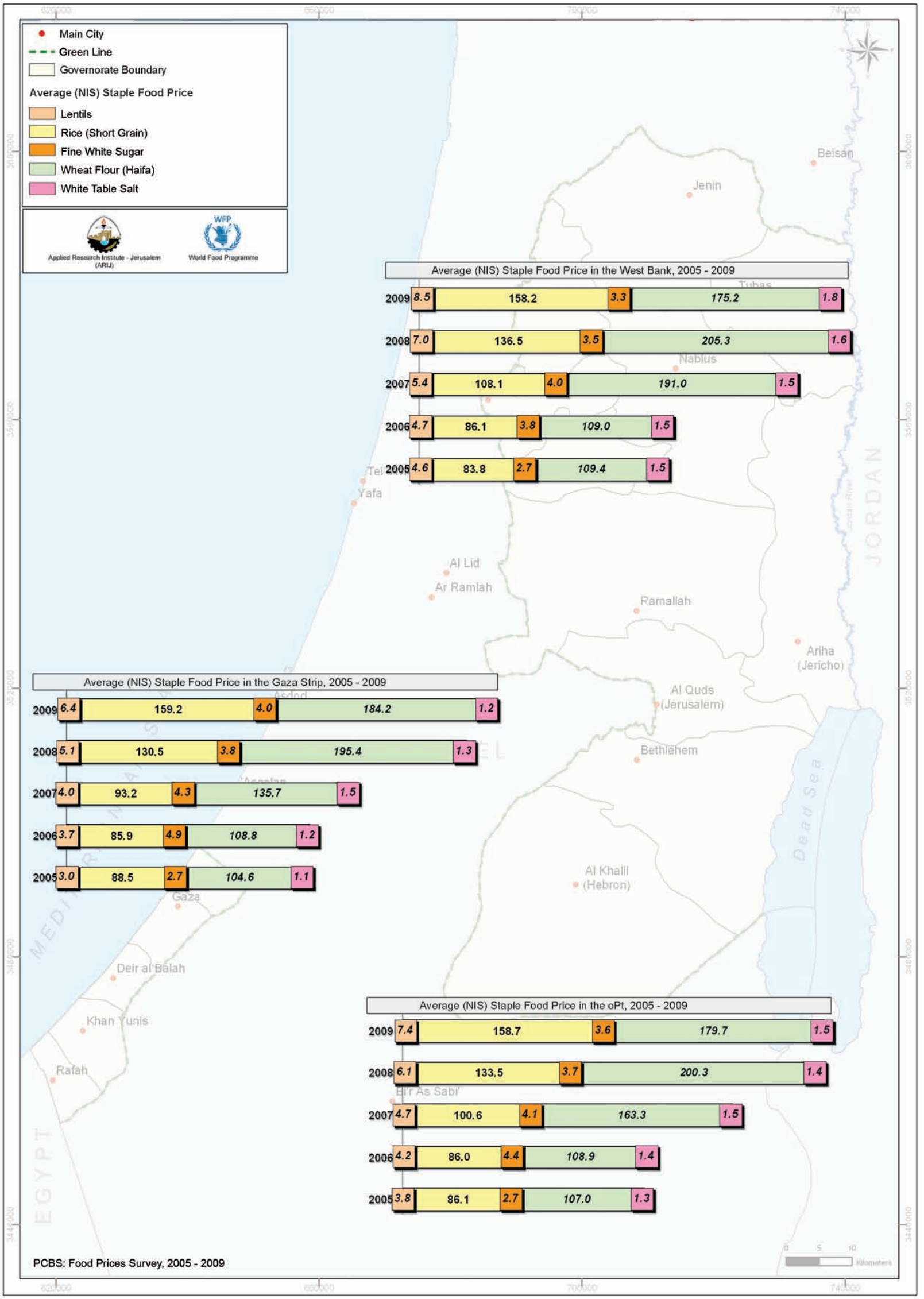


Percentage of Change of Average Food Price in the oPt, 2005 - 2009

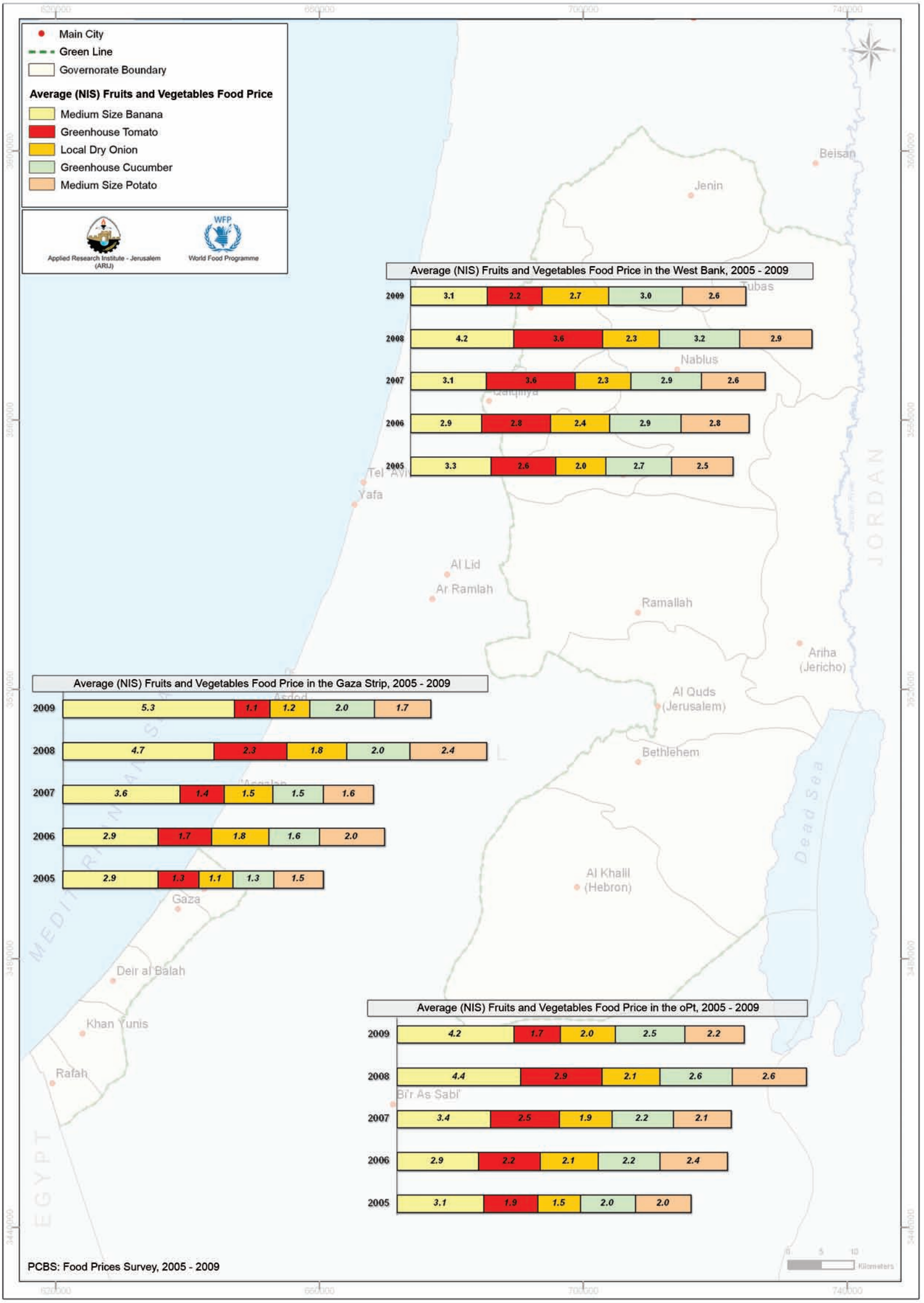


PCBS: Food Prices Survey, 2005 - 2009

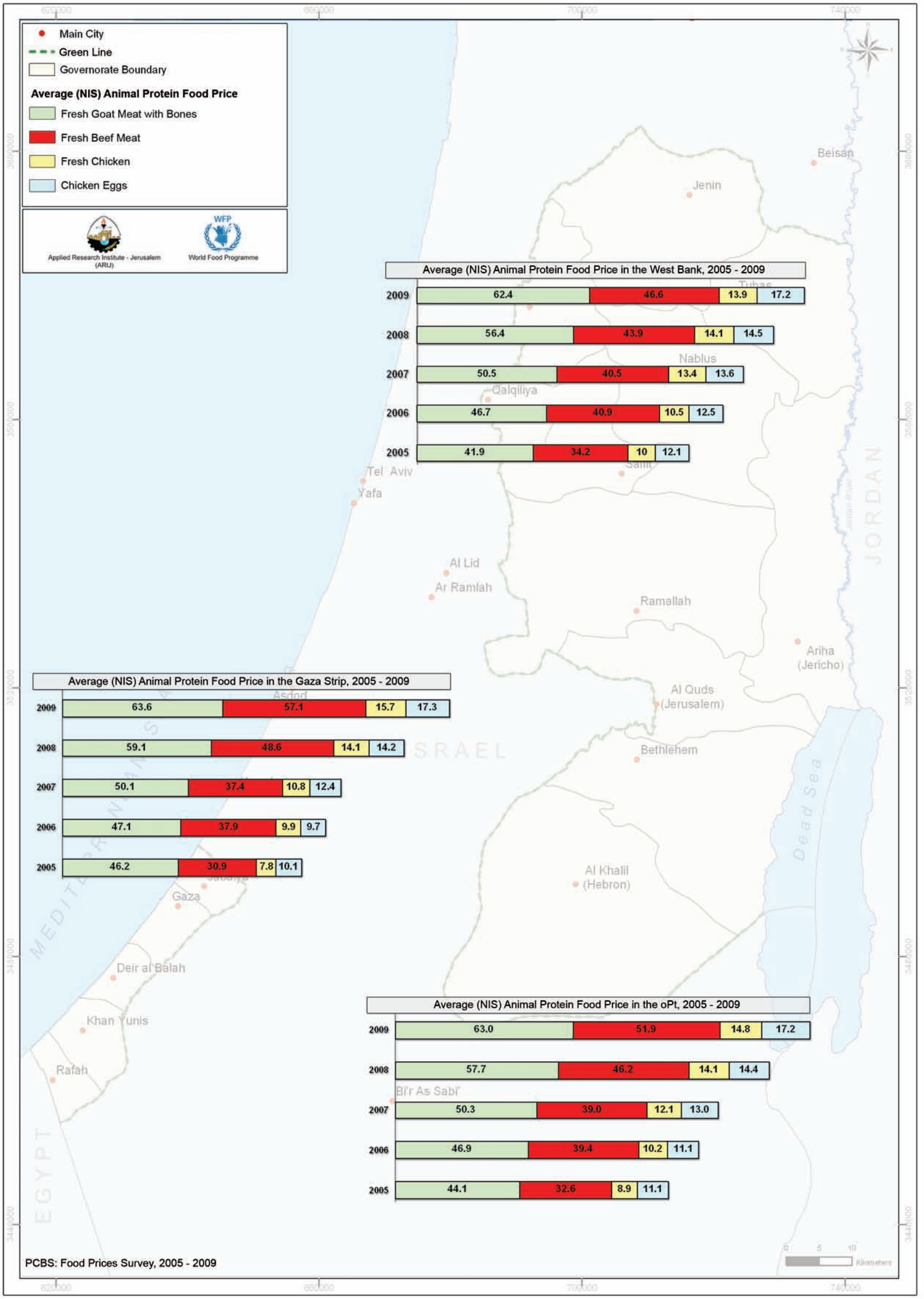
Average Staple Food Price in the occupied Palestinian territory, 2005 - 2009



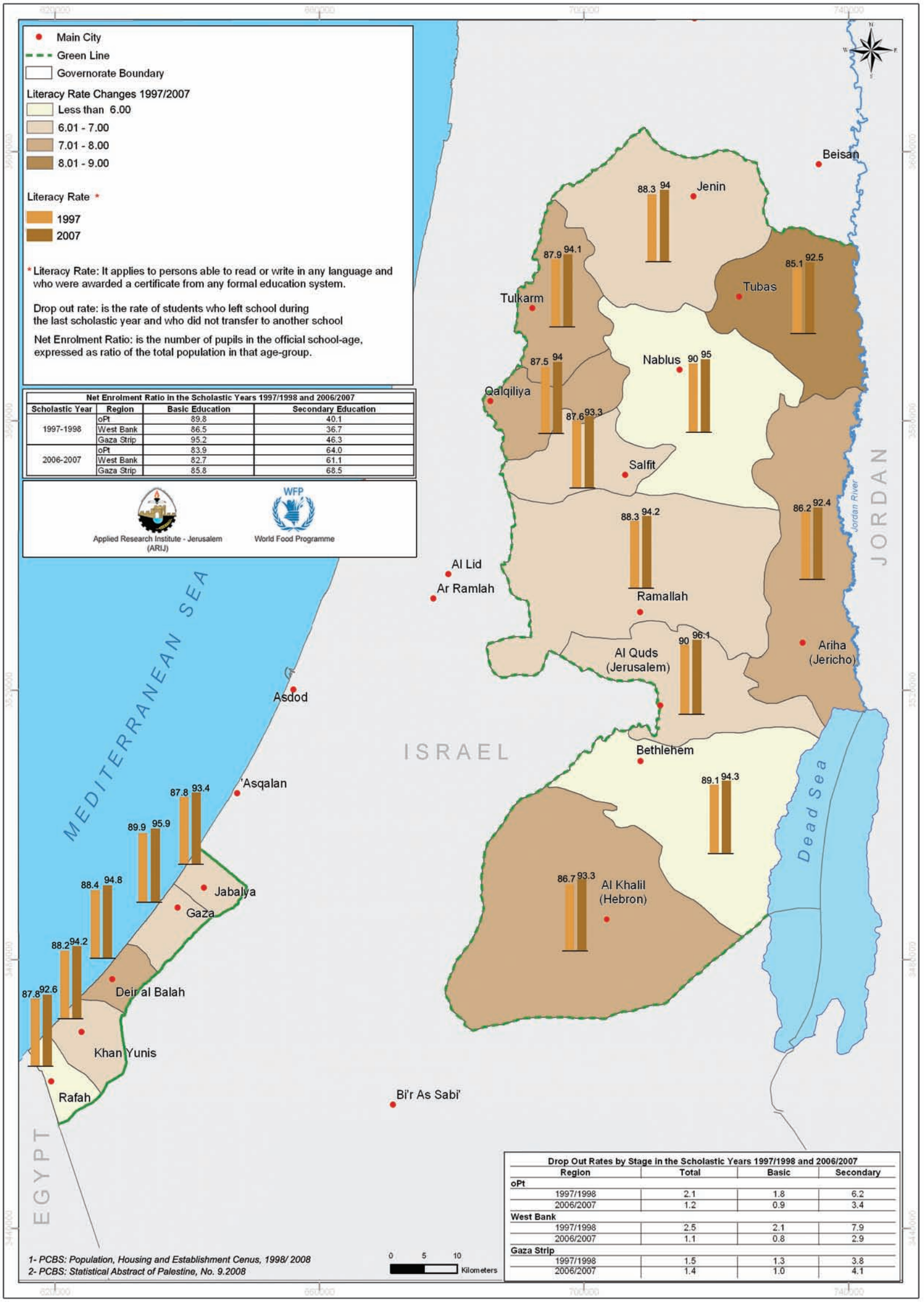
Average Prices of Fruits and Vegetables in the occupied Palestinian territory, 2005 - 2009



Average Price of Meat in the occupied Palestian territory, 2005 - 2009



Literacy, Enrolment and Drop out Rates in the occupied Palestinian territory, 1997 & 2007



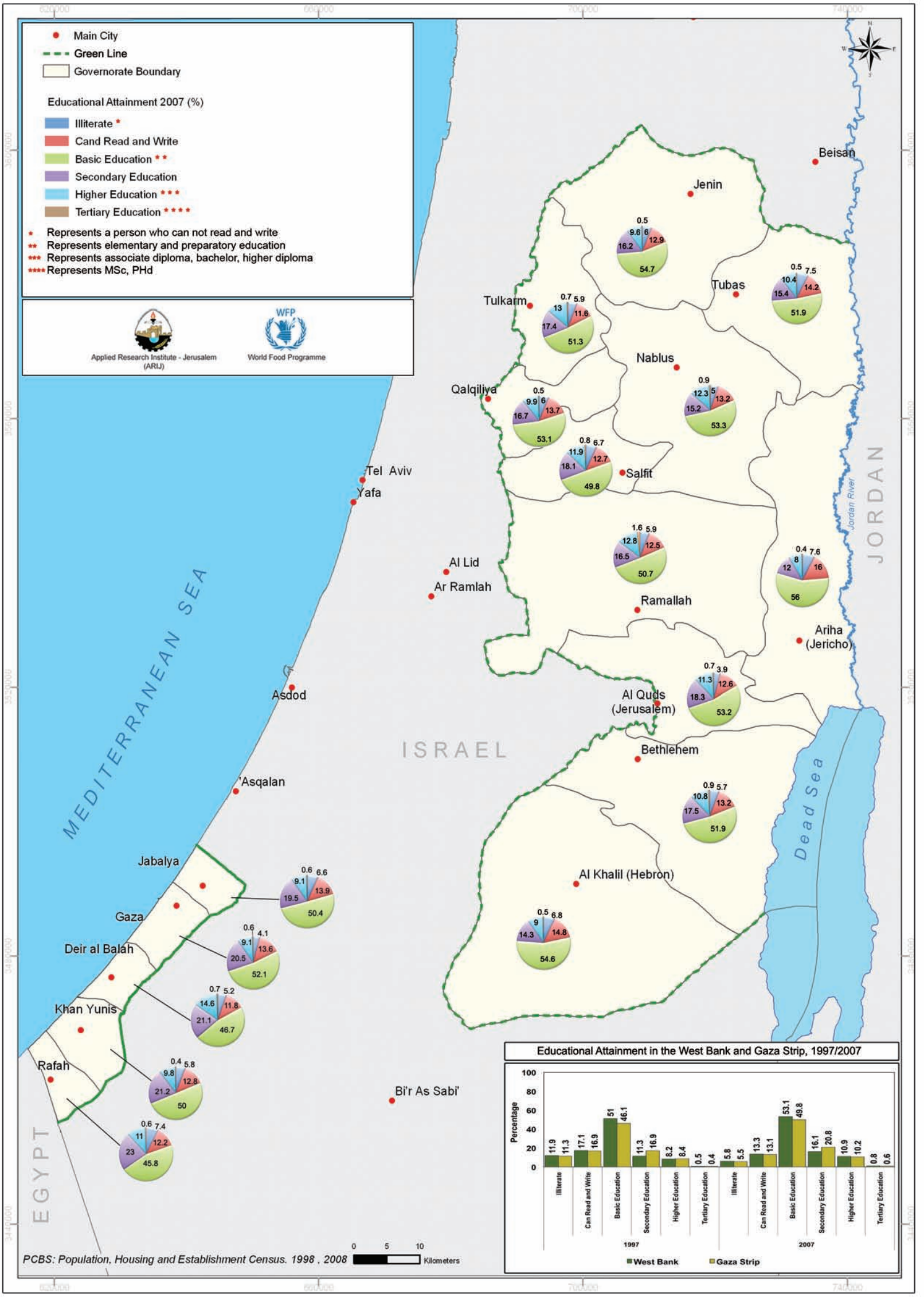
Net Enrolment Ratio in the Scholastic Years 1997/1998 and 2006/2007

Scholastic Year	Region	Basic Education	Secondary Education
1997-1998	oPt	89.8	40.1
	West Bank	86.5	36.7
	Gaza Strip	95.2	46.3
2006-2007	oPt	83.9	64.0
	West Bank	82.7	61.1
	Gaza Strip	85.8	68.5

Drop Out Rates by Stage in the Scholastic Years 1997/1998 and 2006/2007

Region	Total	Basic	Secondary
oPt			
1997/1998	2.1	1.8	6.2
2006/2007	1.2	0.9	3.4
West Bank			
1997/1998	2.5	2.1	7.9
2006/2007	1.1	0.8	2.9
Gaza Strip			
1997/1998	1.5	1.3	3.8
2006/2007	1.4	1.0	4.1

Educational Attainment in the occupied Palestinian territory, 1997 & 2007

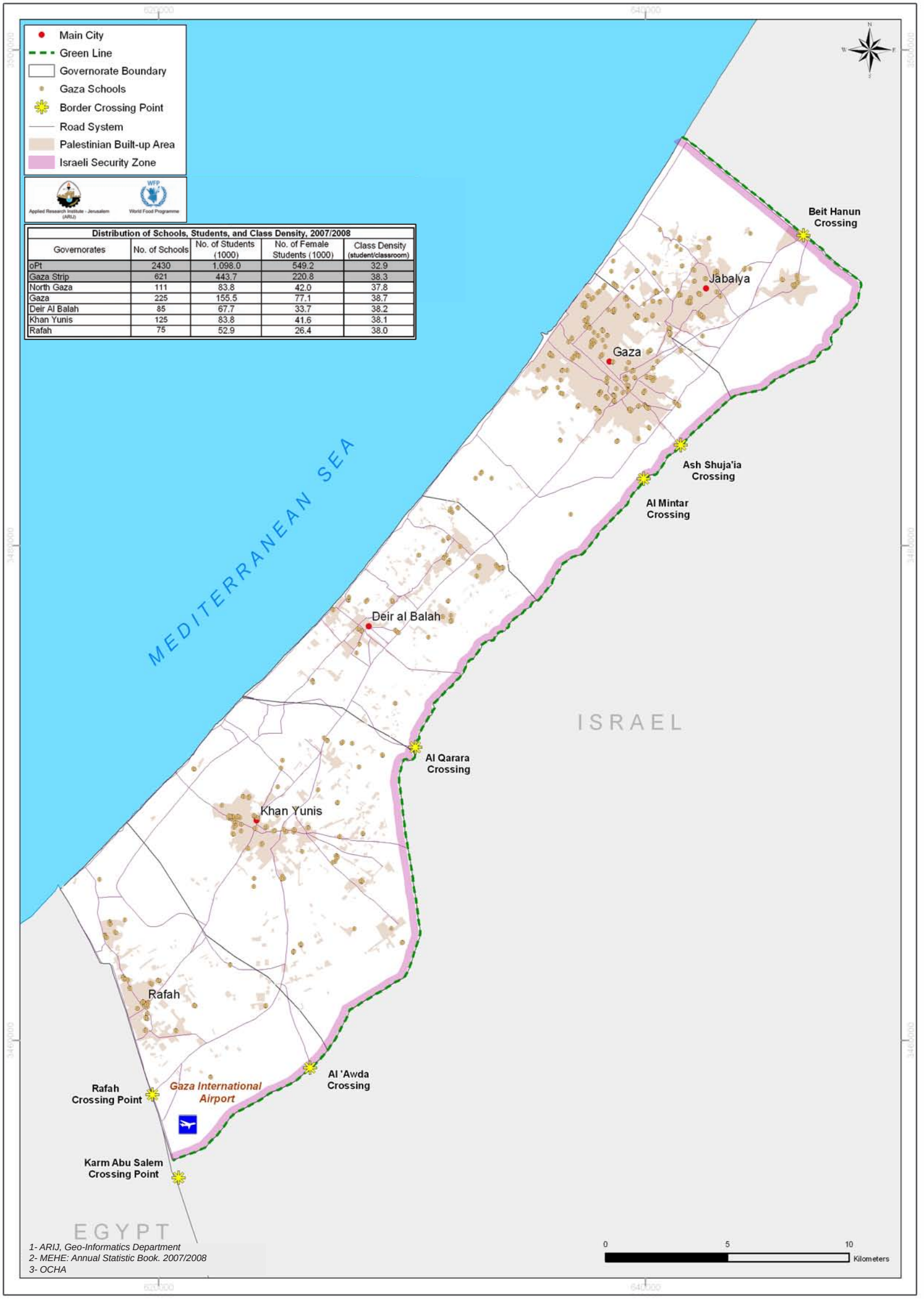


Distribution of Schools, Students and Class Density in the West Bank, 2007 / 2008

Distribution of Schools, Students, and Class Density, 2007/2008

Governorates	No. of Schools	No. of Students (1000)	No. of Female Students (1000)	Class Density
oPt	2430	1,098.0	549.2	32.9
West Bank	1809	654.2	328.4	30.1
Jenin	223	76.8	38.0	29.2
Tubas	49	18.7	9.3	32.2
Tulkarm	132	46.2	23.0	31.1
Nablus	240	91.4	45.7	31.5
Qalqiliya	81	29.1	14.2	29.6
Salfit	62	18.9	9.3	27.1
Ramallah & Al-Bireh	216	78.8	39.6	28.7
Jericho & Al Aghwar	26	10.7	5.4	31.0
Jerusalem	193	61.9	32.5	26.7
Bethlehem	145	50.4	25.3	29.6
Hebron	442	171.4	86.0	31.7

Distribution of Schools, Students and Class Density in the Gaza Strip, 2007 / 2008



CHAPTER TWO:

AGRICULTURAL PRODUCTION AND AVAILABILITY OF FOOD

INTRODUCTION

Developing a diversified and sustainable agricultural production system is the main challenge facing developing countries to reduce food insecurity and improve livelihood of rural people and vulnerable areas. The oPt has a diversified agro-ecosystem that vary from Al-Aghwar to semi-highlands, highlands, semi-costal and Costal ecosystems. These agro-ecosystems gave Palestine the potential to produce up to 105 crops all around the year (especially vegetable crops), including 38 types of fruit trees, 37 types of vegetables and 30 types of field crops and grains . However, local production is limited and unstable due to its susceptibility towards climatic shocks and lack of access to land due to Israel restrictions. Despite the relative small superficy of the oPt, agriculture plays a significant role in Palestinian economy and Palestinian livelihood. Overall, the agricultural sector accounts for between 11%-20% of the Palestinian economy, employing approximately 15% of the formal workforce and up to 39% of the informal workforce, and accounting for about 20% of oPt exports[48] . Percentage of the labor force engaged in agricultural work increases during times of strict closures and crisis.

On a gender base, the sector employs 10.1% of the males' formal Palestinian formal labor forces and 27.5% of the females' formal labor forces[49]. In the informal labor force in agriculture, women are the main component with 90%[50] Daily wages in the agricultural sector are generally lower than the average daily wages in all other economic sectors by 20%.

AGRICULTURAL PRODUCTION

Agricultural production is essential to food security in two ways: first as a source of production for local consumption and second as a source of export for income generation. The total agricultural land currently used by Palestinians covers 30.5% (1834.8 km^2) of the Palestinian land area and 54.4% of the total suitable lands for cultivation[51]. Rain-fed agriculture is practiced in 85.3% of the total cultivated area, while only 14.7% is irrigated agriculture. Due to the limitation in land fertility and drought conditions, the contribution of dry-land agriculture is limited and contributes only to 8.6% of the total plant production in the oPt. The olives cultivation has great influence on the plant production sub-sector as nearly 51% of the total cultivated area is covered with olive trees[52]. The olive fruits harvest varies from 50,000 and 180,000 tons annually in a two-year production. Thus the plant production varies from year to year based on rainfall season, drought, and olives production.

The livestock sector witnesses instability in the animal numbers from year to year based on the inputs production and mainly on feeds' prices. The oPt is a habitat for 34,255 heads of cattle, 744,764 heads of small ruminants, 26,581 thousand broiler birds and 2,797 thousand laying birds, and 65,948 beehives[53]. Additionally, the blockade harmed Gaza's fishermen by hampering exports (down from 1,784 tons in 1997 to about 55 tons in 2007)[54], thus reducing drastically the fishing catch over the recent years.

Agricultural activities in the oPt are characterized mainly as family based production activities to subsist household own needs. Fifty-eight percent of both plant and livestock production are mainly for the domestic consumption, 23% to sell the surplus after meeting the domestic consumption and only 20% for direct sale [55].

FOOD AVAILABILITY

Despite the potential for producing many crops all around the year in the oPt, less than 5% of the cereals and pulses consumed in the oPt are locally produced. Supply of these commodities is to be ensured by commercial imports and assistance. Only 60% of the Palestinians main food items[56] are locally produced, still food availability per se is not the most critical issue presently in the oPt. In genera, food is supplied in sufficient quantities and acceptable variety on local markets, essentially from imports, with the exception of a few sub-sectors in which local production covers a significant proportion of domestic consumption. Current availability of food on the market could be hampered given the volatility of the peace process and the high dependency[57] on the Israeli market. Local food production would be larger, if land, water and other inputs be more accessible.

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[47] *Palestinian Central Bureau of statistic (PCBS), 2008. Agricultural statistics for the year 2006/07. Ramallah. Palestine*
[48] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*
[49] *Palestinian Central Bureau of Statistics (PCBS): Labor Force – Annual Report, 2009.*
[50] *Palestinian Central Bureau of Statistics (PCBS): Labor Force – Annual Report, 2009.*
[51] *Applied Research Institute-Jerusalem (ARIJ). Geo-informatics Department. 2008. Land use/Land cover analysis for oPt.*
[52] *Applied Research Institute-Jerusalem (ARIJ). Geo-informatics Department. 2008. Land use/Land cover analysis for oPt.*
[53] *Palestinian Central Bureau of statistic (PCBS). 2008. Agricultural statistics for the year 2006/07. Ramallah. Palestine*
[54] *FAO, 2008 - Quoted in: O'Callaghan Sorcha, Jaspars Susanne, Pavanello Sara – Losing Ground: Protection and Livelihoods in the Occupied Palestinian Territory. ODI Humanitarian Policy Group (HPG) Working Paper, July 2009.*
[55] *Palestinian Central Bureau of statistic (PCBS), 2008. Agricultural statistics for the year 2006/07. Ramallah. Palestine*
[56] *The main food commodities are 25 selected food items including: Short grain profiled rice, Haifa white flour, White bread, Fresh goat meat with bones, Fresh beef meat, Fresh chicken without feathers, Fresh red snapper, Frozen fish, Pasteurized milk 3% fat, Powdered milk, Powdered milk kikoz (No.1), Yogurt, Labaneh, Chicken eggs, Olive oil, Big size orange, Medium size banana ,red apple, Green house tomato, Local dry onion, Cauliflower, Greenhouse cucumber, Medium size potato, Lentils, Chick beans, Fine white sugar, Tea, White table salt.*
[57] *Spanish Cooperation & ARIJ. 2007. A review of the Palestinian agricultural sector. Jerusalem*

The analysis of food production/consumption balance in the oPt showed that the agricultural sector is meeting the Palestinian populations' consumption for the main vegetables such as tomato, cucumber, eggplant, squash, beans, cabbage, cauliflower. The production surpluses are usually exported to Israel. Local production of potato, onion, watermelon, and garlic does not meet the Palestinians' consumption. Shortage of these products is usually imported from Israel or from other countries through Israel. Regarding fruits production, there is a general shortage in fruit production to meet the local consumption demand. Only olive oil exceeds the oPt consumption requirements despite the irregularity of its yearly production due to seasonality and obstacle of its cultivation. Grapes, plums and citrus are meeting in its vast majority the local consumption demand. On the livestock production level, there is high shortage in the production capacity of red meat, fish, milk and dairy products and honey, while some surpluses were recorded in poultry meat and eggs production[58]. The Ministry of Agriculture estimates in the year 2008 showed significant decrease in the number of heads of small ruminants by 14.4% in comparison with the year 2006[59]. The prices of meat and milk kept increasing since 2006, mainly following international trends, restricting access to these commodities by the most vulnerable population.

AGRICULTURAL OWNERSHIP

The total number of agricultural holdings in Palestine is 101,172. Plant holdings are the most common, averaging 69.5% followed by mixed holdings with 23% and finally livestock holdings with 8%[60]. Almost a quarter and less than 5% of the West Bank families own agricultural lands and own livestock, respectively. While a higher proportion of rural households owned land (39%), a significant share of urban households also did (21%). However, only 6% of refugees in camps owned land[61]. At governorate level, the number of families that own agricultural lands is the highest in Salfit with 37%, followed by Tubas with 32%, and Tulkarm with 28.5%. While Hebron and Tubas have the highest percentage of families that own livestock reaching up to 14%[62].

The average size of agricultural land in the West Bank was larger in the central governorates (1.6 ha or 16 dunums), followed by the northern governorates (1.3 ha) and southern governorates (1.1 ha). Because of the West Bank Barrier, many Palestinians cannot easily reach land on the western side. Getting permits to cross is very difficult and only landowners and first-degree relatives are typically allowed access[63].

Due to the Palestinian family inheritance land ownership system and land confiscation policies, the agricultural holdings in the oPt are getting smaller and increasingly fragmented. The average area of agricultural holdings is 18.6 dunums per holding. In its vast majority, agricultural land owners are small-holders farmers. In addition, 51.1% of the sheep holdings in oPt are with an average of 1-19 heads and 71.1% of the existing agricultural holdings in oPt is with an average of just 1-3 heads[64].

AGRICULTURE AND CONFLICTS

In political terms, the Israeli settlements in the West Bank confiscated a total area of 67,743 dunums, which equals to 50% of irrigated agricultural lands in the West Bank (95.1% is located in the Jordan Valley). Most of these lands are irrigated and consume up to 60 Million cubic meters (MCM) annually. It is worth noting that 62.9% of agricultural and arable lands of the West Bank are located in area C under Israeli control[65] (see Chapter 5).

As highlighted in the West Bank SEFSec report, close to 10% of the households owning agricultural land considered it difficult, very difficult or almost impossible to tend their land during the second half of 2008. Almost 60% cited restrictions on movement within the main difficulty to tend their land. Other difficulties mentioned by many farmers included long transportation time (53%) and high transportation costs (27%). Due to the West Bank Barrier, herders have lost essential grazing areas for their goats/sheep, jeopardizing their livelihood and source of income. Overall in the West Bank, 38% of total land area in the West Bank is controlled by the Government of Israel for settlements, military use, checkpoints or road closures, and the West Bank Barrier[66]. Lack of access to agricultural land, both in the West Bank with the Area C, but also in the Gaza Strip with the Buffer Zone, as well as restrictions of entrance and movement of agricultural inputs and equipment further deteriorate the production of farmers.

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[58] *Spanish Cooperation & ARIJ. 2007. A review of the Palestinian agricultural sector. Jerusalem*
[59] *PCBS press release. Agricultural Statistics: report. 2009*
[60] *Palestinian Central Bureau of Statistics (PCBS), 2005. Farm structure survey 2004/05. Main findings. Ramallah. Palestine.*
[61] *FAO/WFP. Socio-Economic and Food Security Survey Report, West Bank. August 2009.*
[62] *FAO/WFP. Socio-Economic and Food Survey Report-West Bank. August 2009.*
[63] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*
[64] *Spanish Cooperation & ARIJ. 2007. A review of the Palestinian agricultural sector. Jerusalem*
[65] *The Applied Research Institute-Jerusalem (ARIJ). Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009.*
[66] *- The World Bank, 2008 – The Economic Effects of Restricted Access to Land in the West Bank. Social and Economic Development Group, Finance and Private Sector Development, Middle East and North Africa Region*
- According to the Applied Research Institute – Jerusalem (ARIJ) some 61% (3456 km²) of the West Bank territory falls under complete control of the Israeli Army, and is defined as area "C". It also includes the western Segregation zone (733 km²-13% of the West Bank total area)

Additionally, limitations are imposed by the Israeli authorities on the movement of Palestinian commodities for exportation. Gates of the West Bank are often closed at important times during the agricultural season and crops needing regular tending cannot be grown. Production has been reduced as a result[67]. Many Palestinian farmers still managed to get the export certification and their products reached the international standards for export. However, due to Israeli restrictions many of these farmers found themselves imposed to market their products locally or on Israeli markets with local prices.

Due to constraints imposed on water resources access, the Palestinians are using only 84.29 MCM per year for irrigation in the West Bank (see Chapter 4). While in the Gaza Strip, in addition to the impact of the Cast Lead Operation, the water quality is deteriorated due to over pumping and the intrusion of sea water into fresh water[68].

Besides farmers, pastoralists are also affected by loss of land access and restriction of freedom of movement. Of the 1,500,000 dunums of existing grazing lands in the West Bank, 85% are closed to Palestinians as a result of Israeli settlements or military areas and the West Bank Barrier. As a result, only 225,000 dunums are available for the grazing of sheep and goats. Furthermore, more than half of the estimated 25,000 Bedouins – semi-nomadic people who traditionally rely on herding and farming as their main sources of livelihood – are concentrated in Area C of the West Bank and thus face major planning restrictions for construction (including water sources, houses and agricultural shelters). Insufficient land for pasture forces them to buy expensive fodder to feed their animals and they get heavily indebted as a result[69].

Food availability in the Gaza Strip is not stable across the type of commodities. Rice, pulses, canned vegetable, sauces, tea, coffee and fruit juice are available as pre-war. However, availability of fresh chicken, red meat and eggs is reduced due to the heavy damages incurred during the Israeli Cast Lead Operation, as well as restrictions imposed by the Israeli authorities to enter cattle in the Gaza Strip. The later are entering from Egypt through tunnels, however, at a higher price and putting at risk food safety[70]. Several agricultural losses took place as a result of the Gaza continuous closures and war, where almost 15% of Gaza's total cultivated areas (which amounted to about 170,000 dunums prior to 27 December 2008) have been completely destroyed during the war[71]. Moreover, the soil is now polluted with heavy metals and white phosphorous as a result of the Israeli offensive, which will negatively impact the agricultural sector[72] . The total value of the direct damages on the agricultural sector is estimated at over USD 180 million, while indirect damages amount to about USD 88 million.

Access to sea is possible to Palestinians living in the Gaza Strip but the Israeli authorities have reduced accessibility to fishing waters from 6 to 3 nautical miles, resulting in marked over-fishing in the remaining waters and depletion of fish stocks. Fishing distance was further reduced to 2-3 nautical miles after the Israeli offensive at the end of 2008[73] (the fishing limit outlined by the Oslo accords is 20 nautical miles). The cumulative fishing catch in April 2009 amount to 79 mt [74], which is approximately one third to what fishermen in Gaza caught during the same period in 2007. Because of the restrictions to access the sea and the damages on two fishing ports during the war (the value of damages is estimated at USD 1.5 million), it prevents fishermen from sufficient catches; affect the sardine season and causes overfishing and loss in productivity, thereby threatening more 3,500 households relying on fishing for their income. The current quantity of sardine found on the market is estimated at 20-50 kg daily, instead of the usual 100-150 mt/day during the sardine season period[75]. In addition, water pollution due to discharge of untreated sewage into the sea further limits safe fishing grounds.

Fishing boats, when available, also cannot operate at their full capacity due to shortage and high cost of fuel. Fishers' livelihoods are further at risk as a result of being subjected to import restrictions of entry of cooking gas by the Israeli authorities. Cooking gas is used for lamps to fish sardines. Shortage of cooking gas decreases sardines catch and result in lower quantities available in the market. Furthermore, fishing equipment is in short supply[76].

As for climatic conditions that will be further developed in Chapter 4, field crops and forages are the most affected cultivations by weather conditions. Also, open irrigated cultivations are affected by the prevailed warm wind and frost conditions. Al-Khamassin winds also affect the fruit trees bearing especially the olive trees. Additionally, the prevailed drought conditions during the last two years in addition to the sharp increase in the agricultural inputs costs have affected the feasibility of the agricultural activities. These conditions have imposed many of the small farmers to avoid reactivating their lands due to the loss occurred to their planted crops and many of the livestock holders have soled their folks as they did not manage to offer feed due to its high cost.

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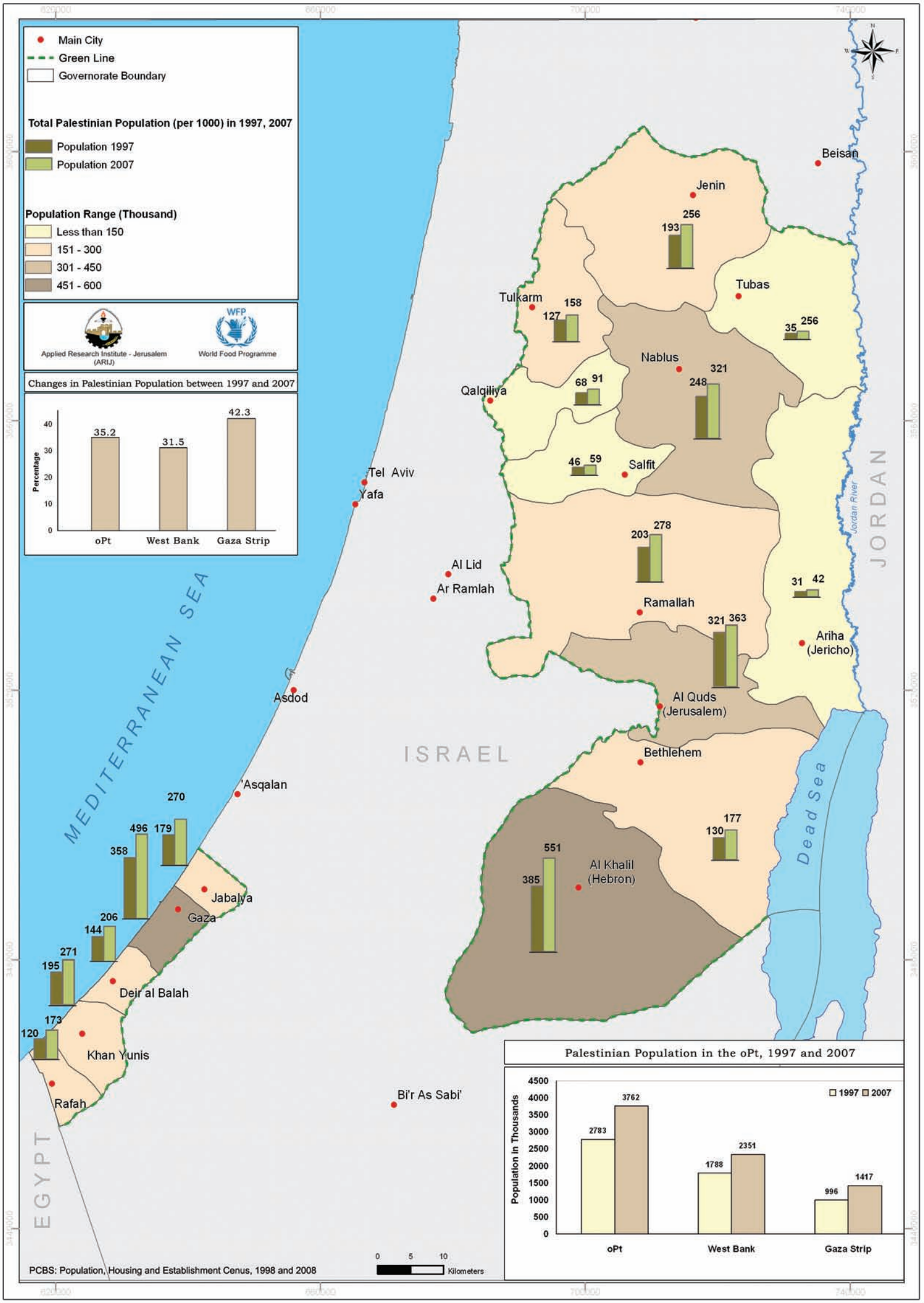
[67] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*
[68] *Spanish Cooperation & ARIJ. 2007. A review of the Palestinian agricultural sector. Jerusalem.*
[69] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009*
[70] *World Food Programme. Vulnerability analysis and Mapping (VAM); Food Security and Market monitoring report. Occupied Palestinian Territory, April 2009. Report 20.*
[71] *World Food Programme. Vulnerability analysis and Mapping (VAM); Food Security and Market monitoring report. Occupied Palestinian Territory, April 2009. Report 20.*
[72] *Palestinian Central Bureau of statistic (PCBS): press release. Agricultural Statistics: report. 2009*
[73] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009*
[74] *WFP/FAO. Update on Food Security in Gaza , May 2009.*
[75] *WFP/FAO. Update on Food Security in Gaza , May 2009*
[76] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009*

Although the potential for agricultural production is important in the oPt, the actual crop and animal product outputs are limited by: the small size of land available and safely and regularly accessible; the lack, and high (and increasing) cost, of agricultural inputs and equipment; the lack of irrigation (only 6% of West Bank cultivated area); adverse climatic factors in recent years (drought, irregular rainfall and frost); shrinking marketing opportunities due to Israeli closure regime; leveling of large agricultural areas in the Gaza Strip. These concerns should be tackled both in the West Bank and the Gaza Strip as to decrease the vulnerability of the agricultural sector and to help farmers to resist to the various shocks and crisis they faced over the last decade and to which they will be confronted in the coming years.

Palestinian Population of the occupied Palestinian territory, 1997 & 2007

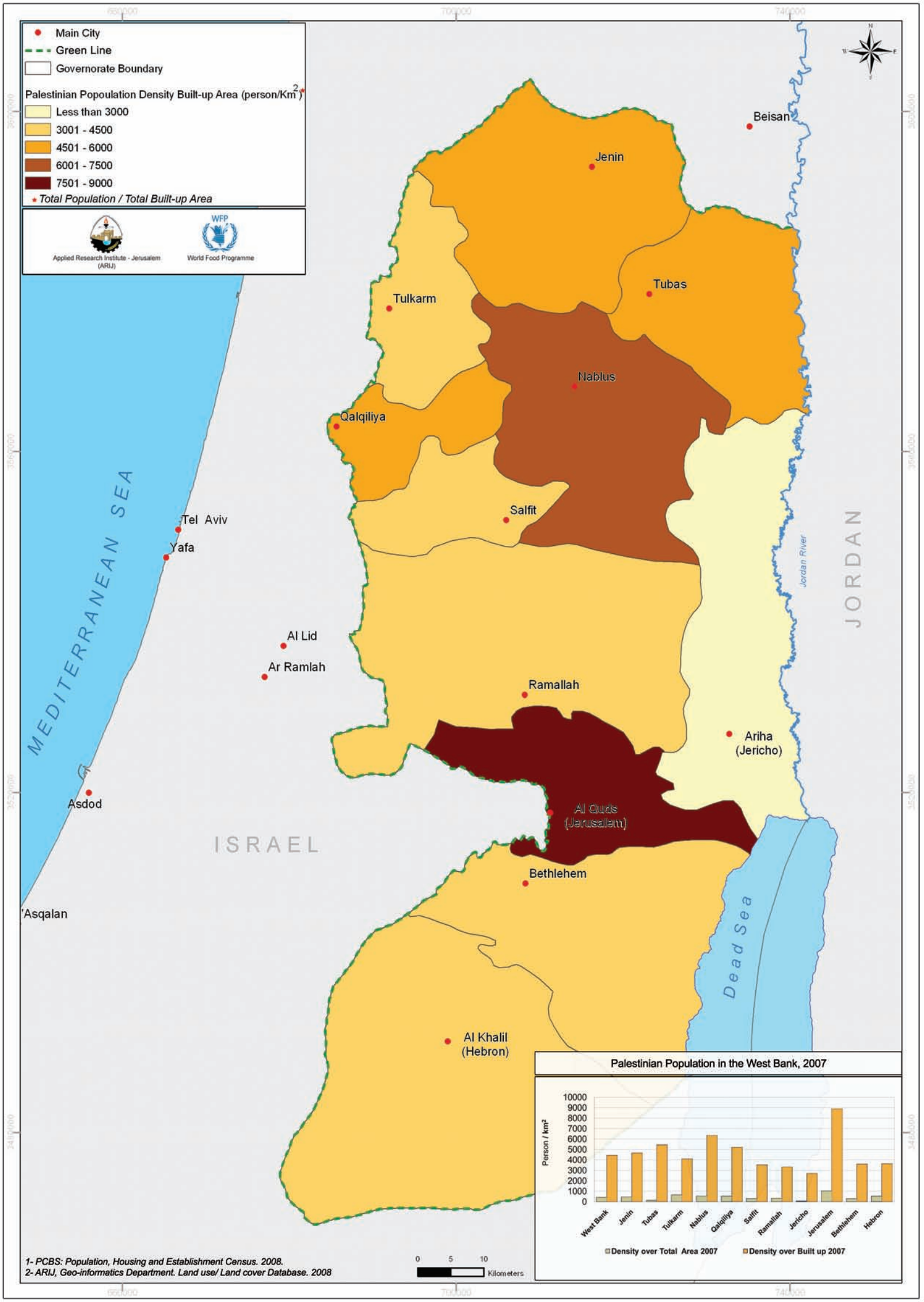


Palestinian Population Density over area A,B,C of the West Bank, 2007

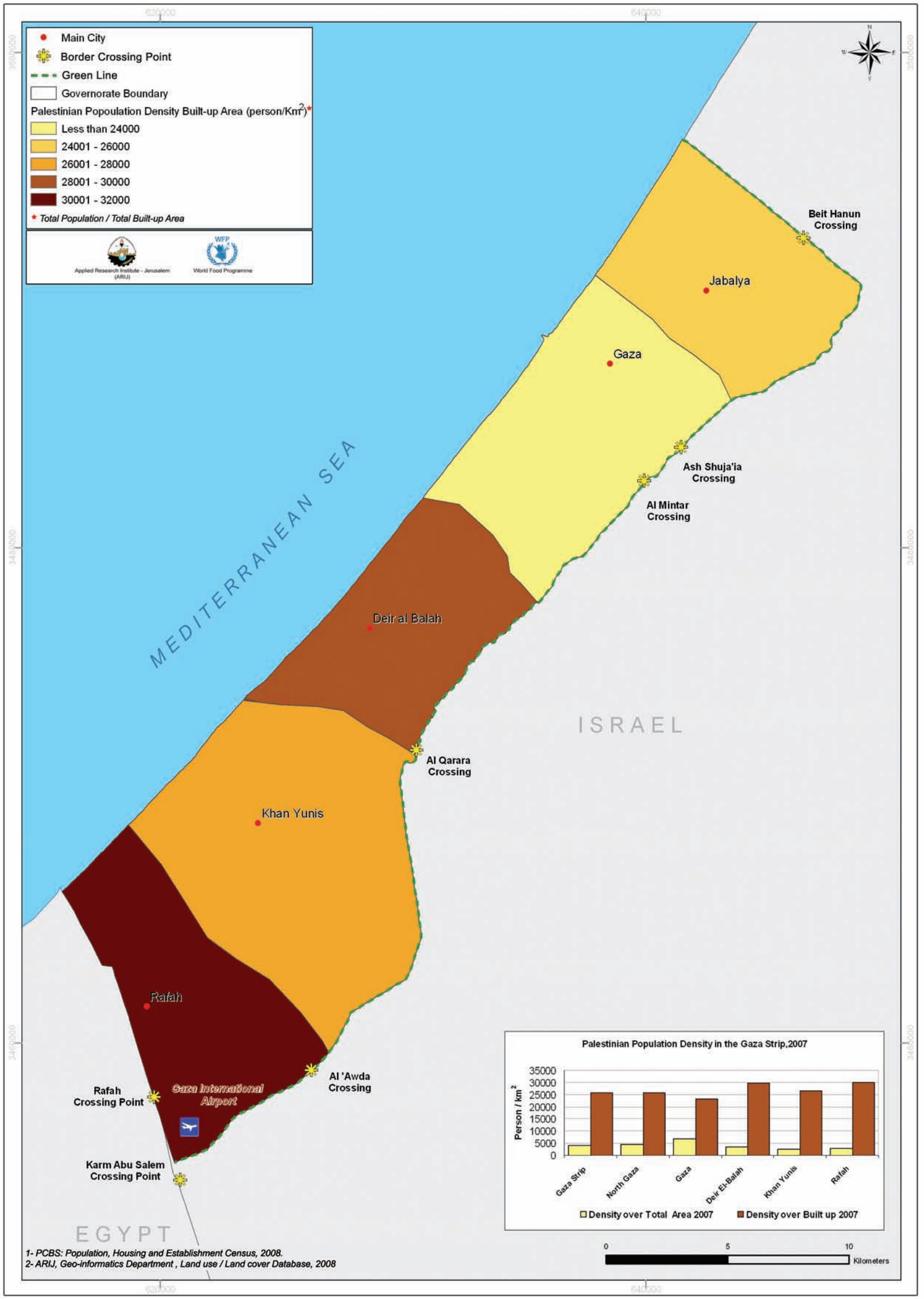
Palestinian Population Density over Total Area of the West Bank, 2007

Palestinian Population Density over Total Area of the Gaza Strip, 2007

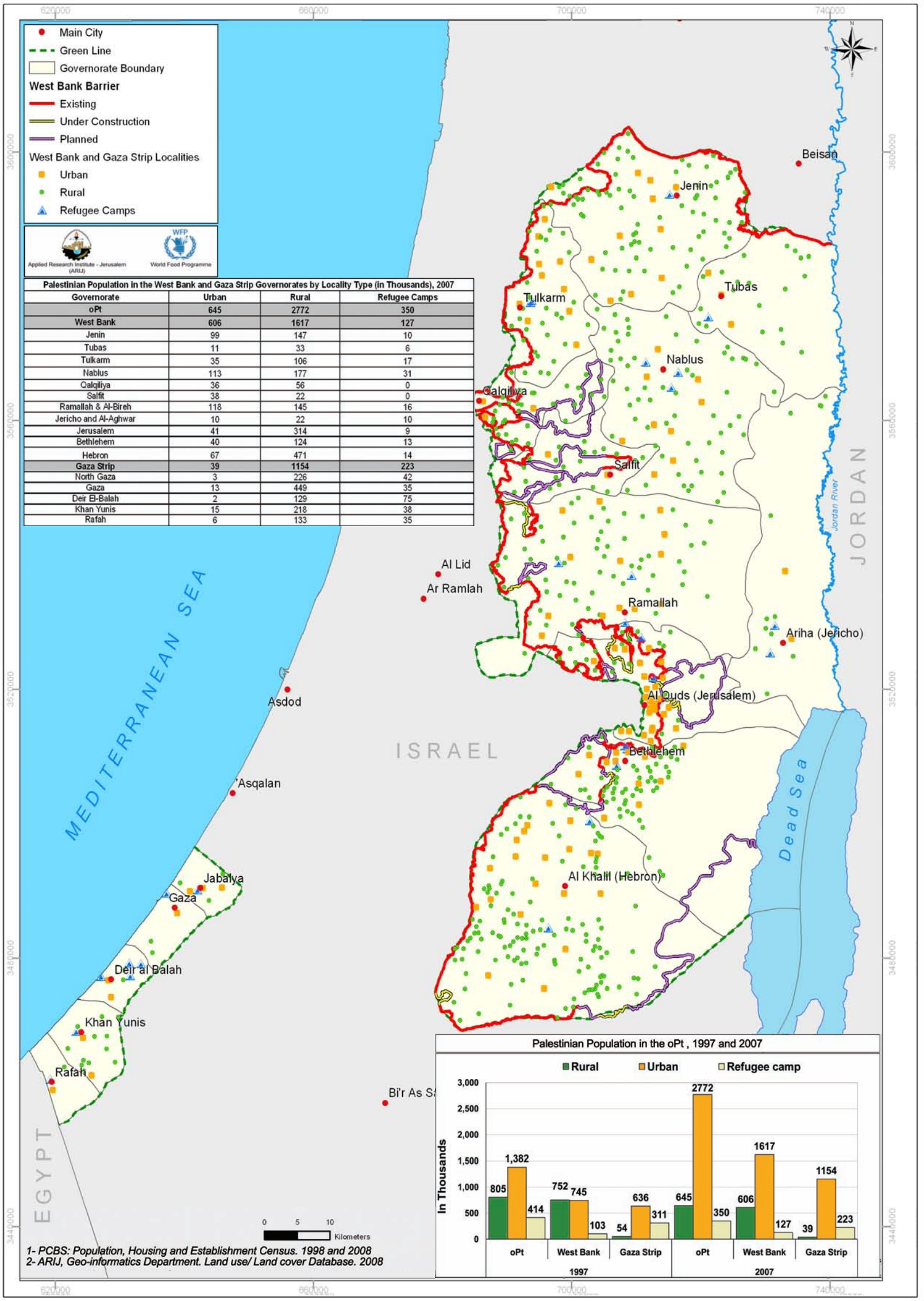
Palestinian Population Density over Built up Area of the West Bank, 2007



Palestinian Population Density over Built up Area of the Gaza Strip, 2007



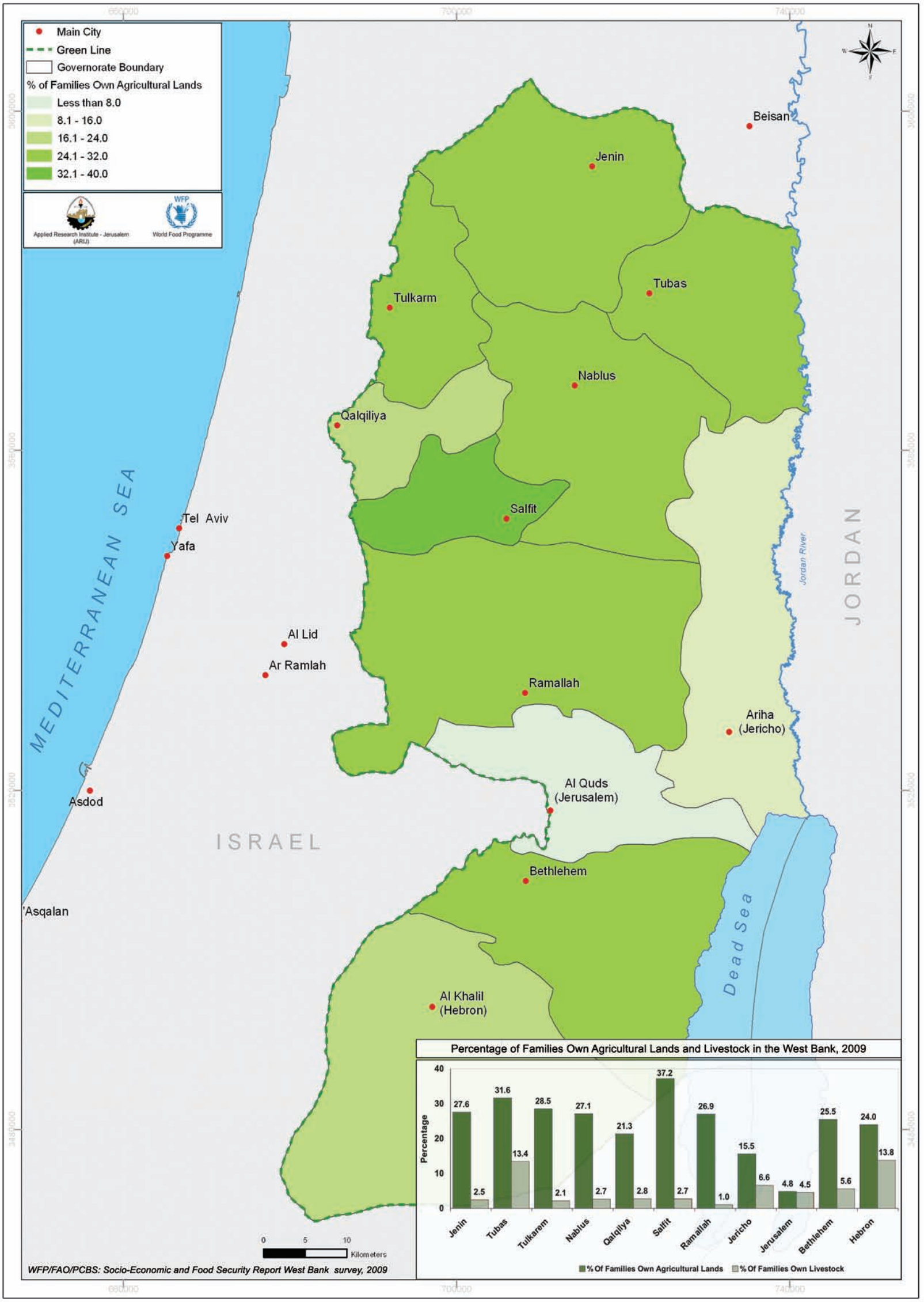
Distribution of Palestinian Localities in the occupied Palestinian territory by Locality Type, 2007



Palestinian Population in the West Bank and Gaza Strip Governorates by Locality Type (in Thousands), 2007			
Governorate	Urban	Rural	Refugee Camps
oPt	**645**	**2772**	**350**
West Bank	**606**	**1617**	**127**
Jenin	99	147	10
Tubas	11	33	6
Tulkarm	35	106	17
Nablus	113	177	31
Qalqiliya	36	56	0
Salfit	38	22	0
Ramallah & Al-Bireh	118	145	16
Jericho and Al-Aghwar	10	22	10
Jerusalem	41	314	9
Bethlehem	40	124	13
Hebron	67	471	14
Gaza Strip	**39**	**1154**	**223**
North Gaza	3	226	42
Gaza	13	449	35
Deir El-Balah	2	129	75
Khan Yunis	15	218	38
Rafah	6	133	35

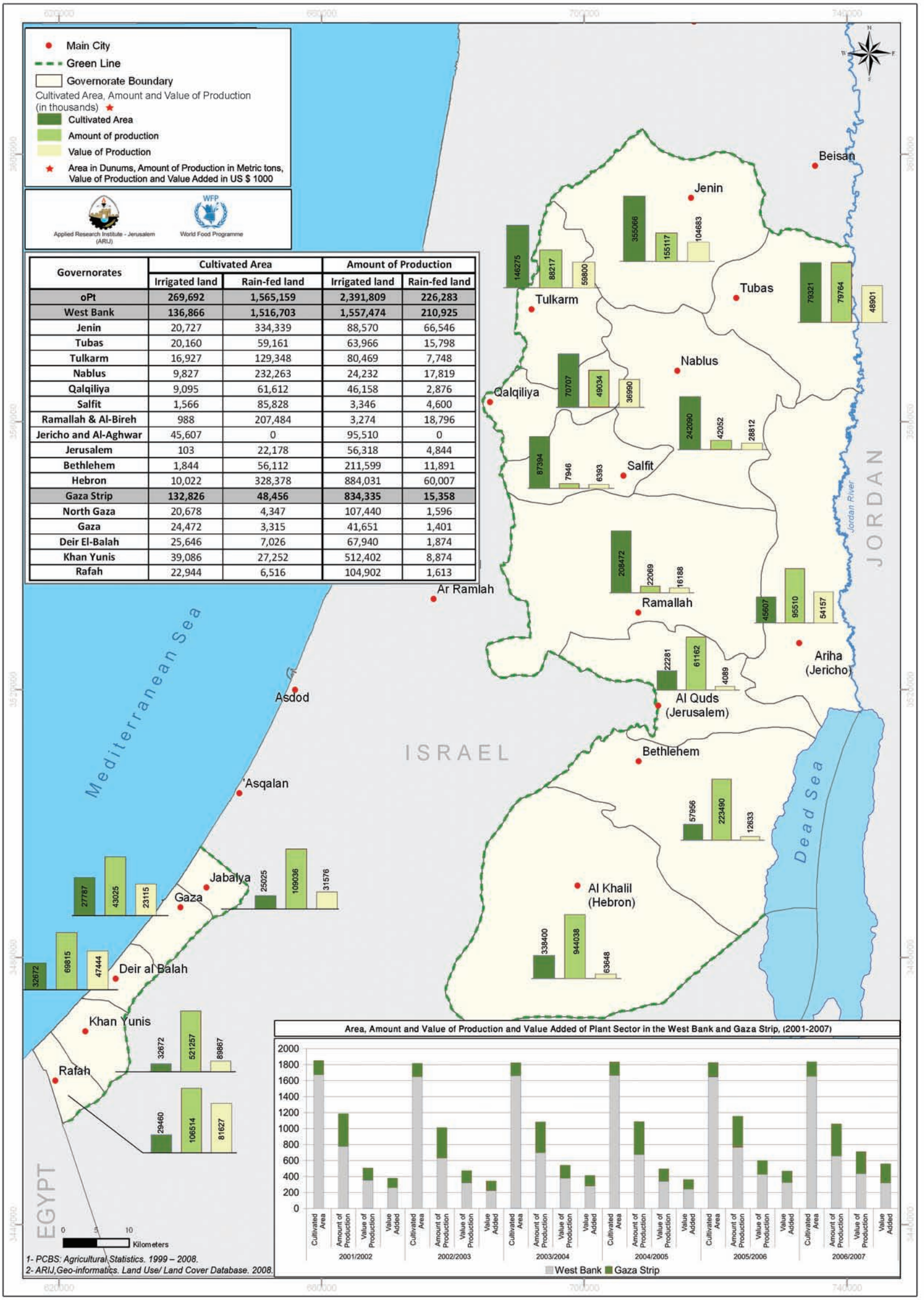
Household Size in the occupied Palestinian territory, 1997/2007

Agricultural Lands Ownership in the West Bank, 2009



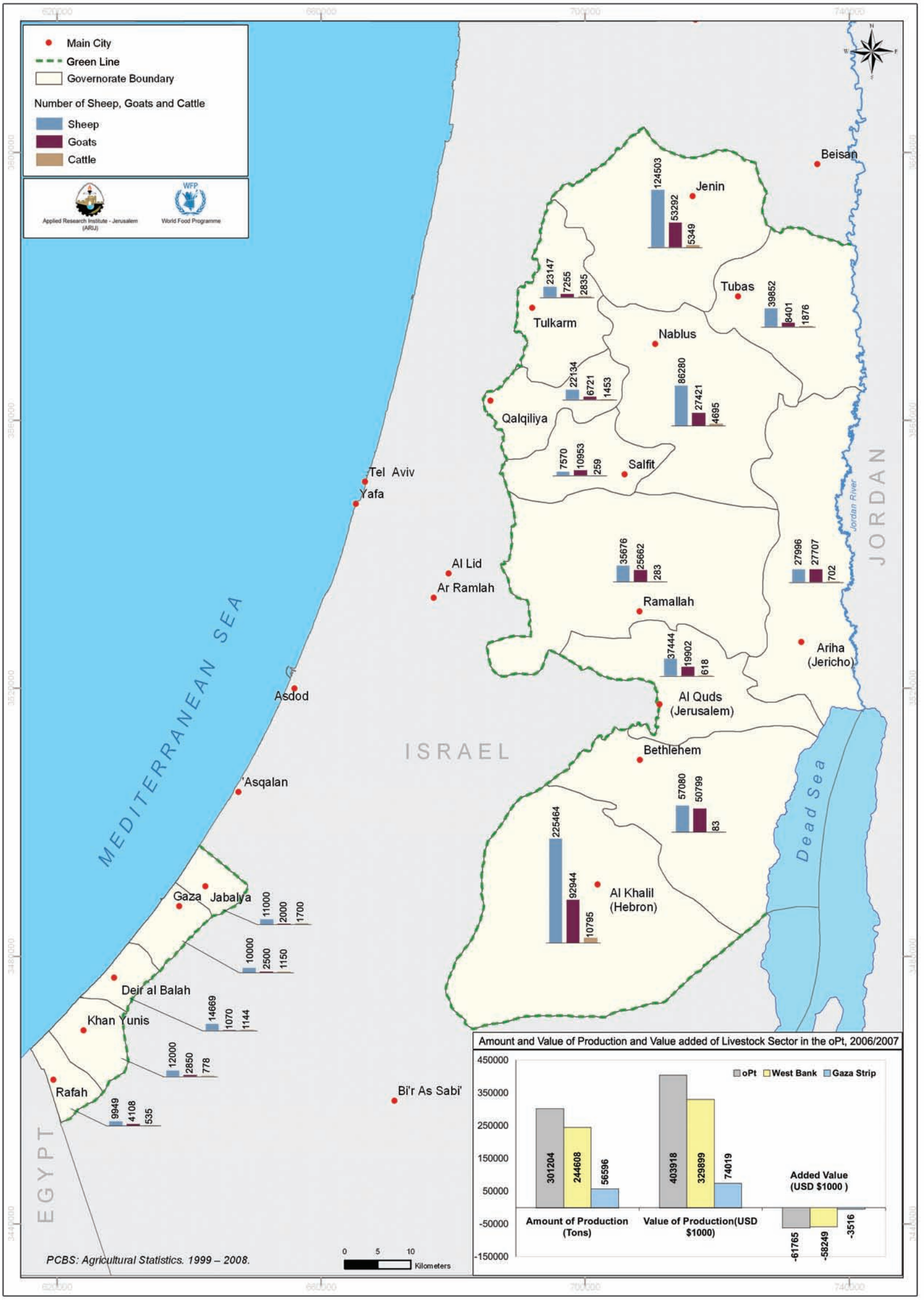
Livestock Holding in the West Bank, 2009

Cultivated Area, Production and Value Added of Plant Sector in the occupied Palestinian territory, 2006 / 2007

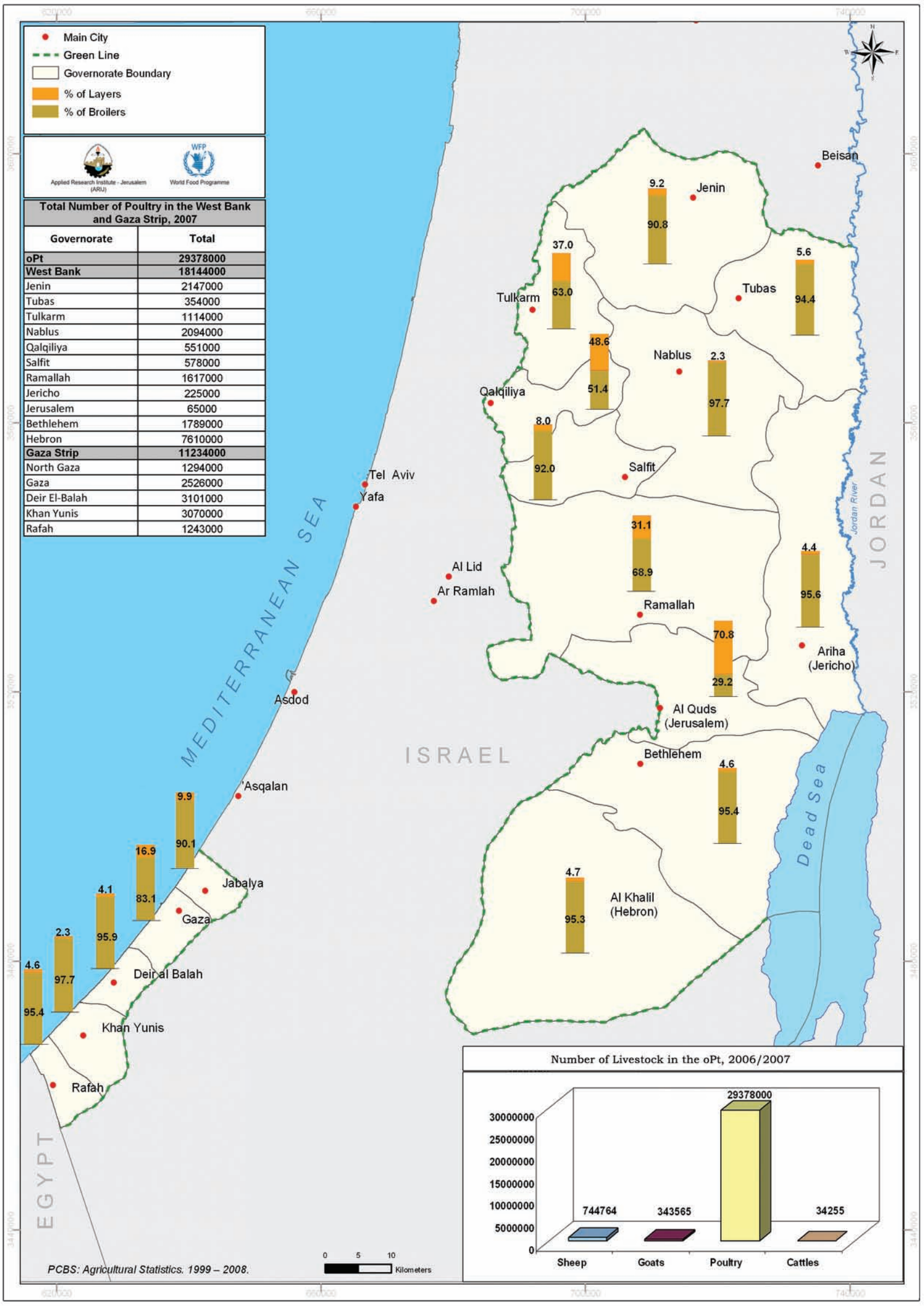


Governorates	Cultivated Area		Amount of Production	
	Irrigated land	Rain-fed land	Irrigated land	Rain-fed land
oPt	**269,692**	**1,565,159**	**2,391,809**	**226,283**
West Bank	**136,866**	**1,516,703**	**1,557,474**	**210,925**
Jenin	20,727	334,339	88,570	66,546
Tubas	20,160	59,161	63,966	15,798
Tulkarm	16,927	129,348	80,469	7,748
Nablus	9,827	232,263	24,232	17,819
Qalqiliya	9,095	61,612	46,158	2,876
Salfit	1,566	85,828	3,346	4,600
Ramallah & Al-Bireh	988	207,484	3,274	18,796
Jericho and Al-Aghwar	45,607	0	95,510	0
Jerusalem	103	22,178	56,318	4,844
Bethlehem	1,844	56,112	211,599	11,891
Hebron	10,022	328,378	884,031	60,007
Gaza Strip	**132,826**	**48,456**	**834,335**	**15,358**
North Gaza	20,678	4,347	107,440	1,596
Gaza	24,472	3,315	41,651	1,401
Deir El-Balah	25,646	7,026	67,940	1,874
Khan Yunis	39,086	27,252	512,402	8,874
Rafah	22,944	6,516	104,902	1,613

Number of Ruminants in the occupied Palestinian territory, 2006/2007



Number of Poultry in the occupied Palestinian territory, 2006 / 2007

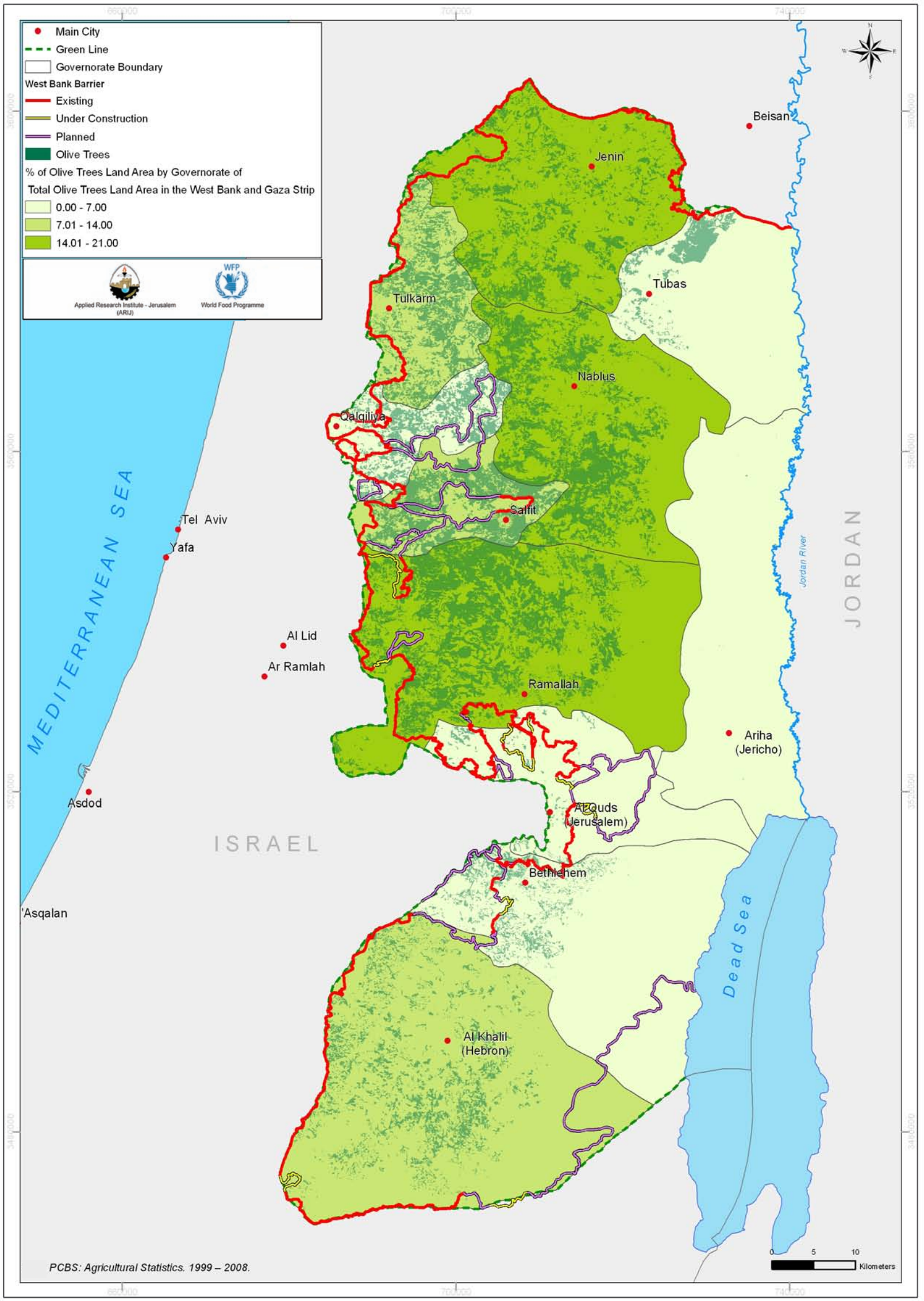


Total Number of Poultry in the West Bank and Gaza Strip, 2007

Governorate	Total
oPt	**29378000**
West Bank	**18144000**
Jenin	2147000
Tubas	354000
Tulkarm	1114000
Nablus	2094000
Qalqiliya	551000
Salfit	578000
Ramallah	1617000
Jericho	225000
Jerusalem	65000
Bethlehem	1789000
Hebron	7610000
Gaza Strip	**11234000**
North Gaza	1294000
Gaza	2526000
Deir El-Balah	3101000
Khan Yunis	3070000
Rafah	1243000

Amount, Value of Production and Changes in Olive Trees and Land Area, (1997/1998 - 2006/2007)

Distribution of Olive Trees and Percent of Olive Trees Land Area in the West Bank, 2006/2007



CHAPTER THREE:

NUTRITIONAL AND HEALTH STATUS

INTRODUCTION

How much a person eats and how well does he/she convert the food to energy are very important aspects to an effective biological utilization of food, nutritional status and a good general health. The adequate food utilization or absorption constitute of the interaction of a diet providing sufficient energy and essential nutrients, clean drinking water, good sanitation, proper food consumption practices and health care. Such factors have direct impact on status of nutrition, health and level of food security[77].

HEALTH STATUS

Primary Health Care

To attain better, efficient and productive Palestinian human capital resources, the Ministry of Health (MoH) is working along with other sectors in the oPt to provide the health care facility for its people. Around 656 primary health care centers are available in the oPt, where 130 and 526 centers in the Gaza Strip and West Bank, respectively provide health care services. These services are mainly provided by hospitals and clinics of MOH, UNRWA, NGOs and other private sectors. In 2008, the number of Palestinian population per center was recorded to be 4,401 in West Bank and 11,079 in Gaza Strip[78]. It was also recorded that for every 10,000 persons there are only 12.5 beds in the West Bank and 14.1 in Gaza Strip.

Immunization

Immunization of children in the oPt is considered a very important protective measure against specific communicable diseases. This service is available, easy to get to in almost all health centers in the oPt. In 2005, nearly all children in the oPt received the six vaccine-preventable diseases. The coverage percentage of immunization has increased through 2000 to 2005 due to, the immunization program provided by MoH to cover all oPt and the increased awareness among mothers. It is worth mentioning, that in the years 2000 and 2002, the immunization program had been affected to cover all localities in West Bank as a result of the second *Intifada* and the subsequent political situation, the downturn of the economy and the lack of mobility and accessibility of Palestinians to health centers. In 2006, full immunization coverage of children aged 12-23 months was rather high in both the West Bank (94%) and the Gaza Strip (99%), except in the Jerusalem governorate (75%). The situation in Jerusalem is explained by an irregular access to Israeli health services, which also applies a slightly different immunization schedule than the Palestinian health services[79].

Child feeding and care practice

The 2006 Palestinian Family Health Survey[80] found that the vast majority of children (97%) were breastfed, with a mean duration of breastfeeding of 13 months. However only about 1/4th of the children below 6 months of age were exclusively breastfed and only slightly more than half of the children 6-9 months received appropriate complementary feeding to breast-milk and mushy solid foods. The proportion of children 6-9 months receiving appropriate complementary food to breast-milk was higher in urban areas than rural areas (61% versus 49%). The proportion was lowest among households in the poorest wealth quintile (45%) and highest among households in the wealthiest quintile (70%), illustrating the association between adequate young child feeding practices and socio-economic factors.

Infant and Maternal mortality rate (IMR & MMR)

Infant and Maternal mortality rate (IMR & MMR) is considered a significant indicator reflecting health's status in a country[81]. In the oPt, IMR fluctuates always depending on the general circumstances in the region and some factors including the education and health of the mother, access to health services, food security and poverty. From 2000 till 2007 there was a notable change in IMR in the West Bank and the Gaza Strip[82], and IMR has been always higher in the Gaza Strip compared to the West Bank[83]. The 2006 Palestinian Family Health Survey[84] reported an Infant Mortality Rate of 25.3 per 1,000 live births, higher in the Gaza Strip (28.8) than in the West Bank (22.9) but well below the Middle Eastern regional average of 56 per 1,000 live births[85]. Under-5 Child Mortality Rate was 28.2 per 1,000 live births, also higher in the Gaza Strip (31.8) than in the West Bank (25.8). These values are low but they have not improved since the period 2002-2006. Lack of 24-hour access to health services, specialized staff and advanced neonatal technology contribute to the absence of improvement in infant mortality. In the Gaza Strip, contamination of water with nitrates is also believed to contribute to severe anemia and infant mortality[86].

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[77] *UNICEF, 2009 – Overview Health and Nutrition, Occupied Palestinian Territory.*
[78] *Ministry of Health: Health Indicators 2008*
[79] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009*
[80] *Palestinian National Authority, Palestinian Central Bureau of Statistics, December 2007 – Palestinian Family Health Survey, 2006. Final Report.*
[81] *IMR reflects the adaptability of the infant to a rapidly changing environment, and death may occur if this adaptation is not successful*
[82] *Ministry of Health, 2009. Health Indicators, 2008. Ramallah – Palestine*
[83] *The highest peak of IMR in the West Bank was in 2002, when it reached 18.4 per 1,000 live births due to the political and economical deterioration in the period of 2001 and 2002 which affected the access to health services. In Gaza Strip, the IMR increased significantly in the year 2007 to reach 33.7 as a result of violence and drastic humanitarian situation there.*
[84] *Palestinian National Authority, Palestinian Central Bureau of Statistics, December 2007 – Palestinian Family Health Survey, 2006. Final Report.*
[85] *UNICEF, 2009 – Overview Health and Nutrition, Occupied Palestinian Territory.*
[86] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*

According to the 2006 MoH-PHIC report, Maternal Mortality Ratio[87] per 100,000 live births was about 15.4 in 2005[88]. This ratio had declined progressively over the past years due to the awareness campaign among pregnant women and the provided prenatal care. Shortcoming of the report, there is an issue of under diagnosis and reporting of MMR in the Gaza Strip and the West Bank[89]. Maternal mortality rates among refugees have increased from 2.5 per 10,000 live births in 1996 to 6.7 per 10,000 in the West Bank and a high 21.3 per 10,000 in the Gaza Strip in 2006[90]. This is despite the fact that practically all women seem to receive antenatal care and give birth at a health institution.

NUTRITION STATUS

Children under-five malnutrition

Children are the most adversely affected when facing malnutrition, (unbalanced diet with certain foods being deficient or in the wrong proportions). Malnutrition is multi-factorial especially in view of the rapid changing socio economic environment in the oPt. Poor environmental conditions may increase infections and also contribute to environmental deficiencies in micronutrients. Unemployment, poor economic situation and food insecurity changes in households' food consumption patterns as a coping mechanism, with reduced amounts of animal products, vegetables and fruits. It contributes to decrease the amount of minerals and vitamins ingested. Conversely, the effects of malnutrition on individuals can maintain poverty Micronutrient deficiencies in young children are known to delay growth, thus hampering oPt's economy and social development. The negative effects of malnutrition include physical and developmental manifestations, in addition to poor weight gain and slowing of linear growth. Major malnutrition indicators are stunting, wasting and underweight.

Stunting (chronic malnutrition) is of concern related to the nutritional status of children in the oPt. It is usually attributed to lack of protein and micronutrients, including iron and essential vitamins. In the year 2006, 10.2% of Palestinian children were stunted in the whole oPt. The percentage of stunted children in the Gaza Strip is higher than in the West Bank (13.2% versus 7.9% in 2006). Stunted rate increased in the Gaza Strip since 2004 due to fragile food security in the area[91]. It has reached a medium severity level according to WHO standards.

About 1.4% and 2.9% suffered wasting[92] and underweight, respectively in 2006 in the oPt. WHO considers wasting a public health problem if the affected population exceeds 5%. Though the percentage has not yet reached the red line there is a serious need to closely follow indicators of wasting and underweight in the Gaza Strip. This is especially relevant since all nutritional status parameters are worse in the Gaza Strip than in the West Bank and due to the increasing food insecurity and current crisis resulting from the continuous blockade since June 2007, the various Israeli incursions and the recent Israeli Cast Lead Operation. Further nutritional monitoring in the oPt could clarify the nutritional status of children.

Low birth weight (less than 2.5 kg)

The proportion of newborns weighing less than 2.5 kg is considered a major determinant of infant survivability and mortality. In the year 2006, the percentage of low birth weight in the oPt reached 7.3%, and the highest percentage was noted in Hebron governorate with 9% in the West Bank, and 8.4% in Khan Yunis in the Gaza Strip. Low birth weight infants are more likely to have disabilities, brain damage, poorer language development, and future chronic health risks. The main factors that contribute to the risk of very low birth weight include, the age of the mother, her general health and nutritional status, the socio-economic situation, the education level, and the prenatal care provided[93].

Anemia

Anemia may be considered the most prevalent nutrient deficiency in the oPt. The causes of anemia are multiple. Generally, common causes of anemia include inadequate intake of iron, foliate or vitamin B12[94]. Also, anemia can result from hookworm infection which is endemic in the Middle East, mainly in areas of poor sanitation and low socio-economic status[95]. Anemia can be mild, moderate, or severe, which can be enough to lead to life-threatening complications. In the oPt, anemia is widespread among children and pregnant women. In 2007, iron deficiency anemia infected about 61.6% of children[96] and 29.1% of pregnant women[97]. In all types of anemia, the percentage of anemia among children or pregnant

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[87] *MMR is the most suitable indicator to determine the women's risk to death, during or shortly after pregnancy*
[88] *Ministry of Health and Palestinian Health Information Center)MOH-PHIC). Population and Demography. Health Status in Palestine 2005, October 2006*
[89] *Palestinian National Authority, Palestinian Central Bureau of Statistics, December 2007 – Palestinian Family Health Survey, 2006. Final Report.*
[90] *WHO, 2009 – Health Conditions in the Occupied Palestine Territory, including East Jerusalem and in the Occupied Syrian Golan. 62nd World Health Assembly, A62/INF.DOC./2, 14 May 2009.*
[91] *Palestinian Central Bureau of Statistics (PCBS), 2007. Palestinian Family Health Survey, 2006: Final Report. Ramallah – Palestine.*
[92] *Acute malnutrition*
[93] *Palestinian Central Bureau of Statistics(PCBS), 2007. Palestinian Family Health Survey, 2006: Final Report. Ramallah – Palestine*
[94] *http://www.moh.ps*
[95] *Food and Agriculture Organization of the United Nations (FAO): Nutrition Country Profile Palestine. 2005*
[96] *Anemia in Children in the year 2007: reaching up to 51% and 71% in the West Bank and the Gaza Strip respectively*
[97] *Anemia in Pregnant Women in the year 2007: reaching up to 24% and 33% in the West Bank and the Gaza Strip respectively*

women in the Gaza Strip has been always higher than that of the West Bank by 20% and 9% respectively, due to the complicated political, socioeconomic and accordingly food security status[98].

FOOD UTILIZATION

For the human body requires energy to carry out sufficiently its biological processes. To a large extent, carbohydrate, proteins and lipids are the main sources of energy to the body, and their adequate intake, through well balanced food supply, is necessary to avoid health complications.

In the oPt, food supply is constituted mainly of vegetable and fruit products, cereals (mainly wheat and rice). The daily supply of animal products is constituted of milk, eggs and meat (mainly poultry meat). The share of macronutrients in the total dietary energy supply was registered in 2000/2002 by the FAOSTAT database as 65% of carbohydrates, 11% of protein and 24% of lipids. Around 87% of the energy, 64% of protein and 69% of lipids are of vegetable origin[99].

The current political and economical situation has led to reduced availability and accessibility to food. This has resulted in altering the food consumption and utilization patterns of the Palestinian population through adapting different contra-health coping strategies, and thus affecting their dietary energy supply. Data from PCBS shows a drop in the amount of per capita intake of protein, carbohydrates and lipids per day through 2005 till 2007. Also, the FAO-WFP SEFSec indicates that among those who have reduced their expenditures in the second semester of 2008, around 42% of the West Bank population has decreased their expenses on food, more than a third of the population has reduced the quantity and quality of food obtained. Fouteen percent has reduced the number of meals, and 49% has reduced meat consumption[100]. In the Gaza Strip, the situation is considered a lot worse where among those who have decreased their overall expenditures, 96% have decreased their spending on food, 94% have reduced the quality of food, 60% have dropped off the quantity of food and 95% have decreased the quantity of meat consumed[101]. These coping strategies of low animal product consumption lead to low intake of essential macronutrients which may result in iron, vitamin A and other macronutrient deficiencies.

MACRONUTRIENT SUPPLEMENTATION AND FORTIFIED COMPOUNDS

In 1997, it was revealed that iodine deficiency was a public health problem in the oPt and measures should be taken to minimize its effect and goiter prevalence. The measures taken by the MoH to combat the problem were through focusing on iodized salt supplement and intensive nutritional education[102]. As a result, 85.7% of Palestinian households were recorded to be consuming adequate iodized salt in 2006. The highest percentage was 95.8% in Salfit in the West Bank, and 92.7% in Rafah in the Gaza Strip[103].

In the year 2004 the MoH with the support of UNICEF conducted a program of vitamin A supplementation to children aged between 9 and 59 months. In addition, MoH has put forward wheat fortification with vitamin A to combat its deficiency.

Another challenge facing the health sector in oPt is combating Iron deficiency anemia. MoH has developed many programs to fight against anemia through iron supplements to children aged 4 to 12 months. In addition, pregnant women receive iron supplements during antenatal care. However, Anemia among pregnant women is still high and needs further appropriate measures. While food distributed in the oPt as assistance is fortified, the national food fortification policy faces difficulties related to the institutional weaknesses, particularly in the area of monitoring and enforcement[104].

FOOD SAFETY

There are no proper mechanisms to enforce food quality and safety standards for the food commodities imported and locally produced and processed in the oPt. The lack of food quality and safety policy forces exporters to go through Israeli traders. It further limits market exports, as a number of importing countries request food safety certifications. Consumption of food potentially contaminated with pathogenic micro-organisms or chemical pollutants creates risks to health, especially for vulnerable individuals such as

[98] *Ministry of Health (MoH): Nutrition Department. 2007*
[99] *UNICEF, 2009 – Overview Health and Nutrition, Occupied Palestinian Territory*
[100] *WFP, FAO, and PCBS: Socio-Economic and Food Security Survey Report- West Bank. August 2009*
[101] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009*
[102] *UNICEF, 2009 – Overview Health and Nutrition, Occupied Palestinian Territory.*
[103] *Palestinian Central Bureau of Statistics (PCBS), 2007. Palestinian Family Health Survey, 2006: Final Report. Ramallah – Palestine*
[104] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*

young children, pregnant and lactating women, the elderly and already sick individuals69. Moreover, in the Gaza Strip, the informal trade via the tunnels increase the likelihood of entry of food items that do not meet the minimum safety and health standards[105].

ACCESS TO WATER AND SANITATION

Access to water and sanitation is a very important factors that affect the health and nutritional status of the population. Sufficient water supply is necessary to carry out daily basic human activities, in addition to the biological process within the body. Generally speaking, there is a shortage in water resources in the oPt. The WHO defines the water standard level to be 150 Liter per capita per day. The domestic daily amount supplied to Palestinians is 128 Liter per capita. It is worth noting that Palestinians consume only 73 liters a day whereas the Israeli settlers consume an average of 300 liters of water per day[106]. The governorates facing the most severe deficits in proportion to supply are Hebron, Jenin, Tubas, Nablus, and Salfit, where the gross per capita water consumption amounts to only 56, 44, 37, 62, 67 [9] Liter per capita per day respectively[107].

Sanitation facility and practices are very important determinants of health. Well hygienic practices and accessible sanitation help to avoid main waterborne diseases that mainly affect children and their nutritional status, such as diarrhea. The infrastructure of sanitation facility in oPt is very weak and its accessibility is low especially in the north of West Bank. Major governorates affected from such diseases are Nablus and Tulkarm where over than 25% of the population are infected[108]. The Israeli Cast Lead Operation in the Gaza Strip in December 2008 damaged or destroyed several sewage networks and pumping stations, and damaged the Gaza Waste Water Treatment Plant[109]. This worsened the already poor sanitation systems in the territory and increased ground water and sea pollution. Moreover, the limited amounts of sanitation materials allowed in the Gaza Strip since June 2009 are insufficient to ensure proper repairs and improvements.

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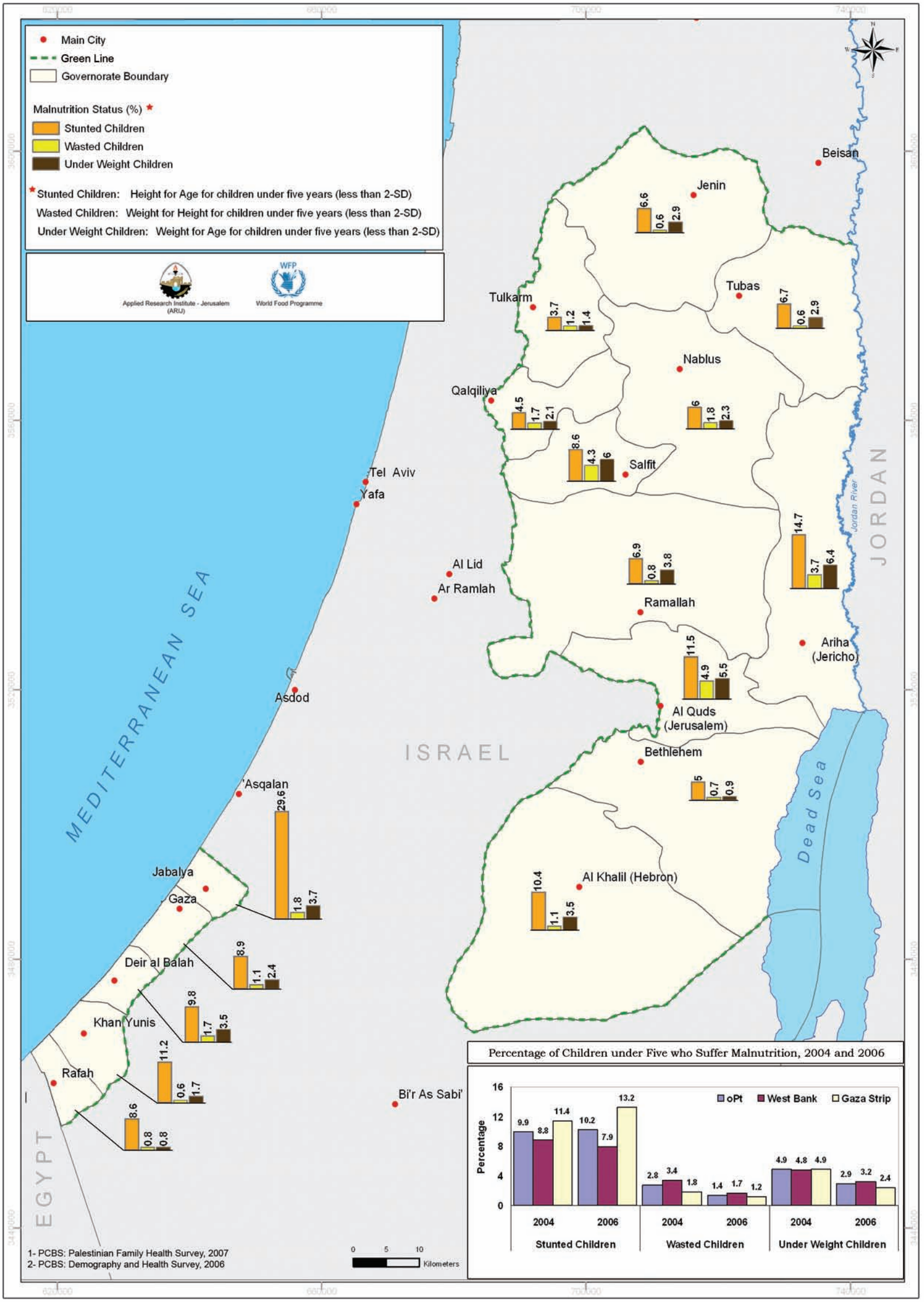
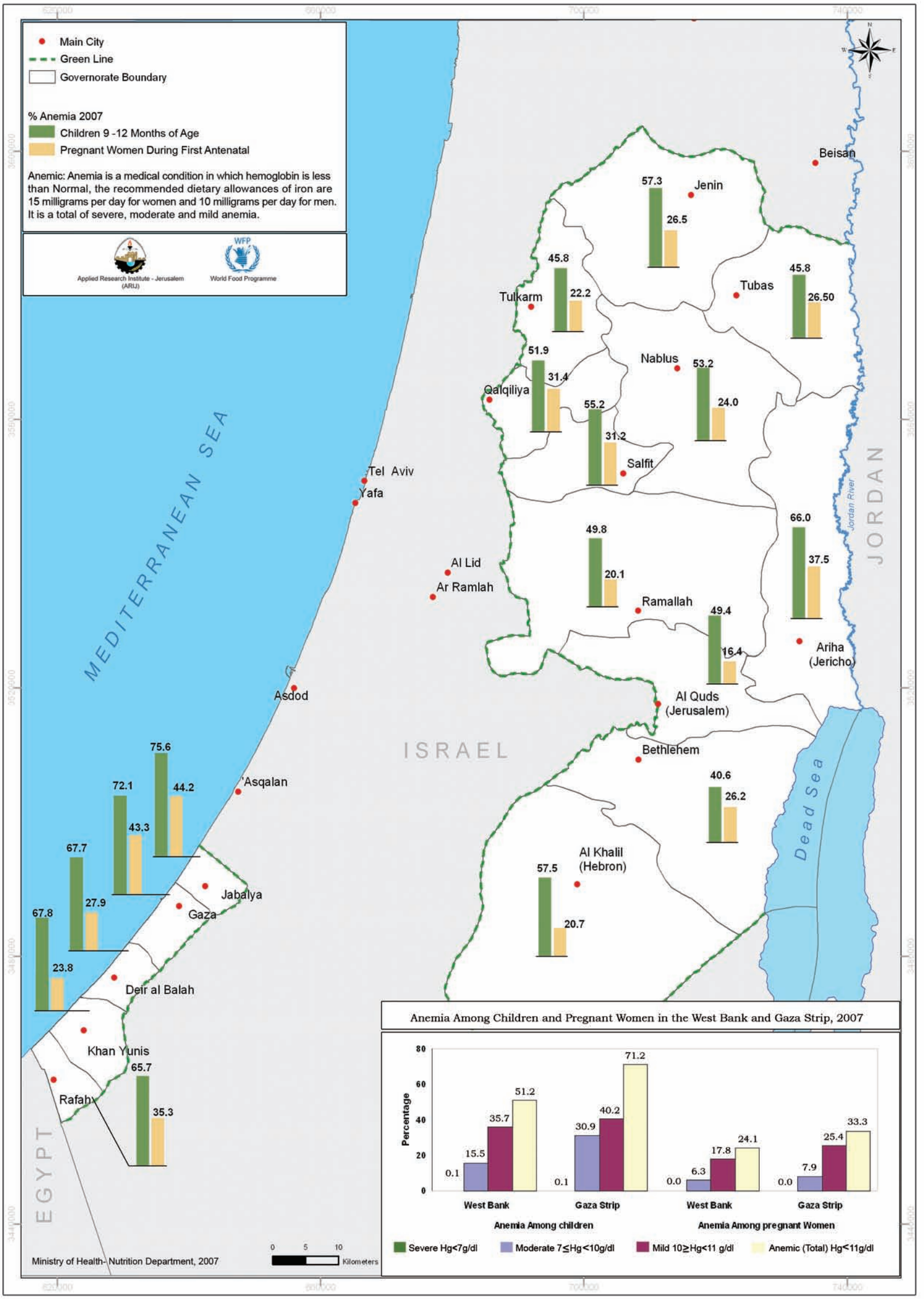
[105] Madi A.S., Abu Hassan H., Al-Ghool N., Abu Ghosh O. The Impact of Closure and High Food Prices on Performance of Imported Staple Foods and Vegetable and Fruits Market in the oPt. Al-Sahel Co. for Institutional Development and Communications.Al Sahel. December 2009.
[106] The World Bank, 2009, Assessment of Restrictions on Palestinian Water Sector Development
[107] Palestinian Water Authority, 2008
[108] Water, Sanitation and Hygiene Monitoring Program (WASH Database), 2008.
[109] Palestinian National Authority, March 2009 – The Palestinian National Early Recovery and Reconstruction Plan for Gaza, 2009-2010. International Conference in Support of the Palestinian Economy for the Reconstruction of Gaza, Egypt, 2 March 2009.

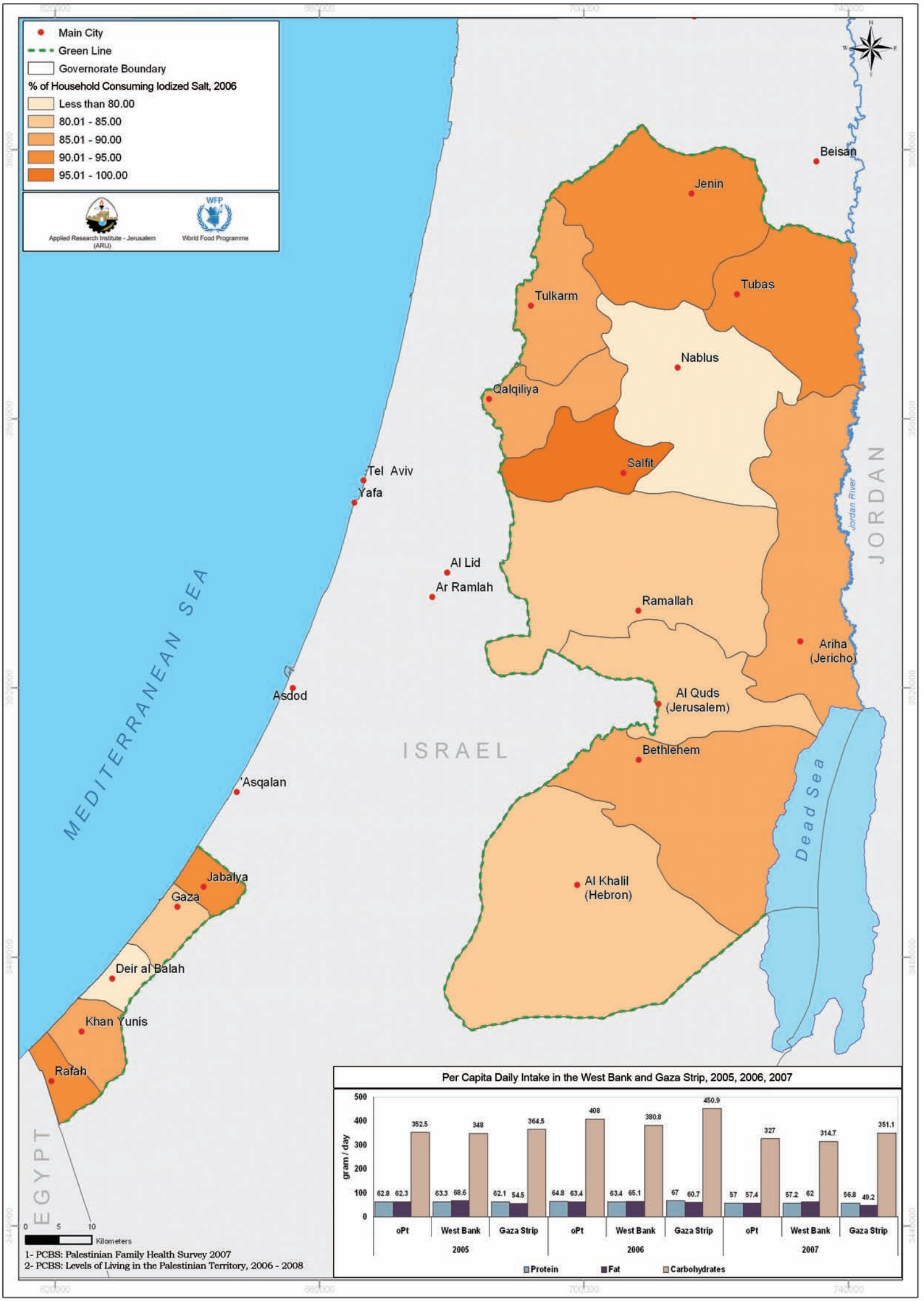
Percentage of Children Under Five who Suffer Malnutrition in the occupied Palestinian territory, 2004&2006



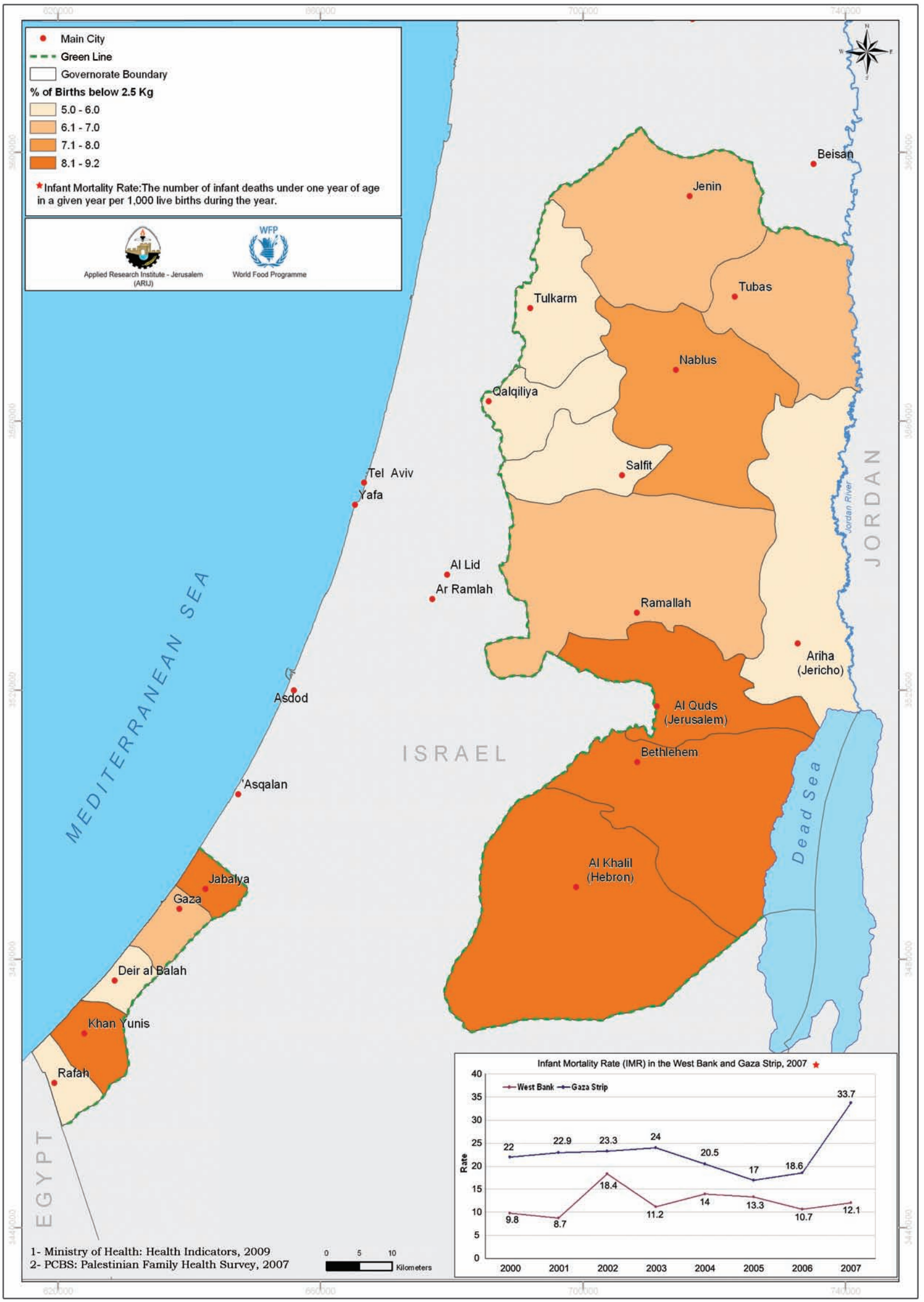
Anemia Among Children and Pregnant Women in the occupied Palestinian territory, 2007



Households Consuming Iodized Salt and Daily Intake in the occupied Palestinian territory, 2005 - 2007



Percentage of Births (Below 2.5 kg) and Infant Mortality Rate in the occupied Palestinian territory, 2006/2007

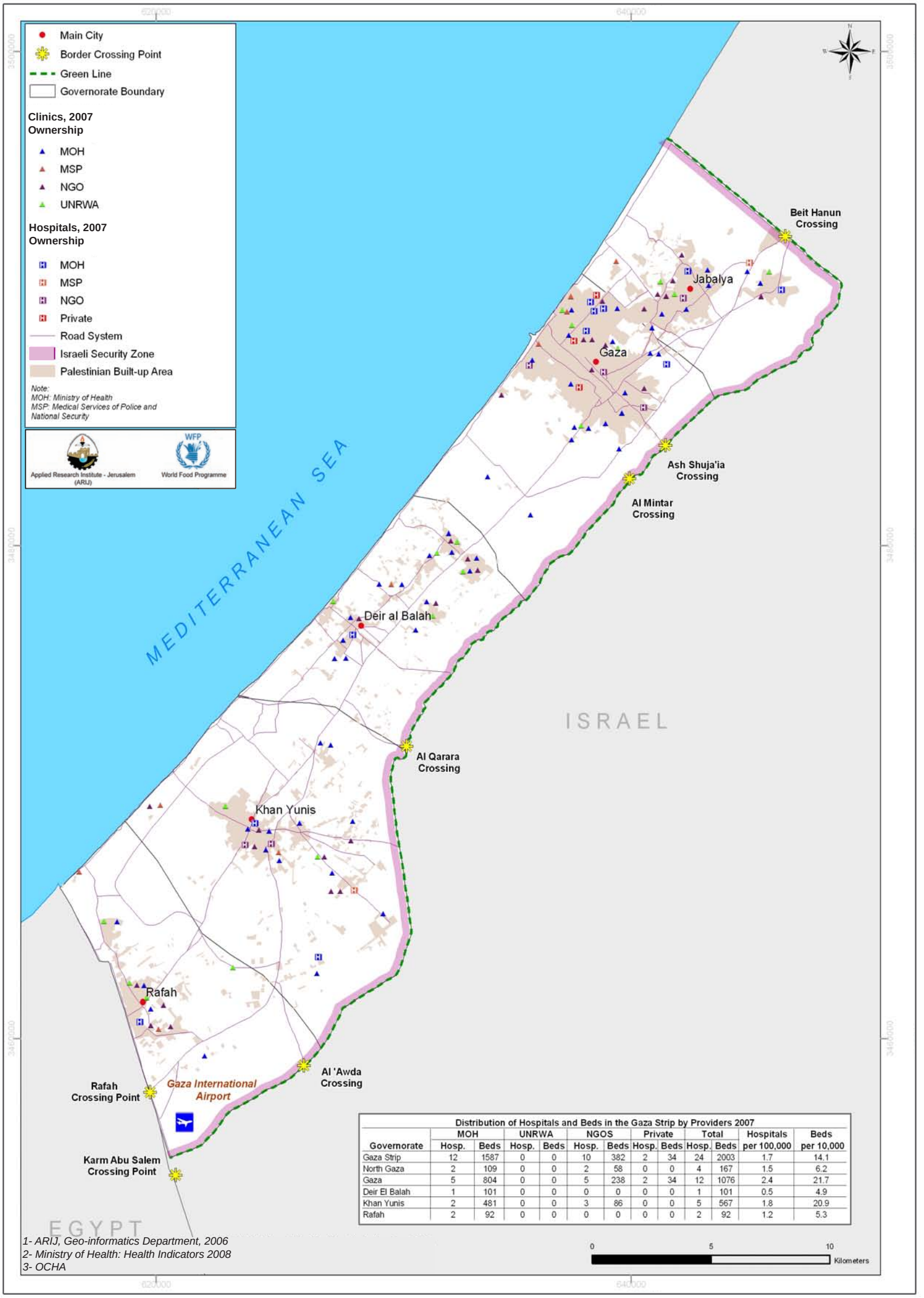


Distribution and Ratio of Hospitals and Beds in the West Bank, 2006 / 2007

Distribution of Hospitals and Beds in the West Bank by Providers 2007

Governorate	MOH		UNRWA		NGOS		Private		Total		Hospitals per 100,000	Beds per 100,000
	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds		
West Bank	12	1336	1	63	20	1143	20	397	53	2939	2.3	12.5
Jenin	1	123	0	0	1	12	2	46	4	181	1.3	5.9
Tulkarm	1	105	0	0	2	47	0	0	3	152	1.9	9.6
Nablus	2	264	0	0	2	109	2	102	6	475	1.9	14.8
Qalqiliya	1	10	1	63	0	0	1	15	3	88	3.3	9.7
Salfit	1	29	0	0	0	0	0	0	1	29	1.7	4.9
Ramallah	1	155	0	0	3	95	5	87	9	337	3.2	12.1
Jericho	1	54	0	0	0	0	0	0	1	54	2.4	12.9
Jerusalem	0	0	0	0	6	515	2	32	8	547	2.2	15.1
Bethlehem	2	393	0	0	4	215	2	37	8	645	4.5	36.5
Hebron	2	203	0	0	2	150	6	78	10	431	1.8	7.8

Distribution and Ration of Hospitals and Beds in the Gaza Strip, 2006 / 2007

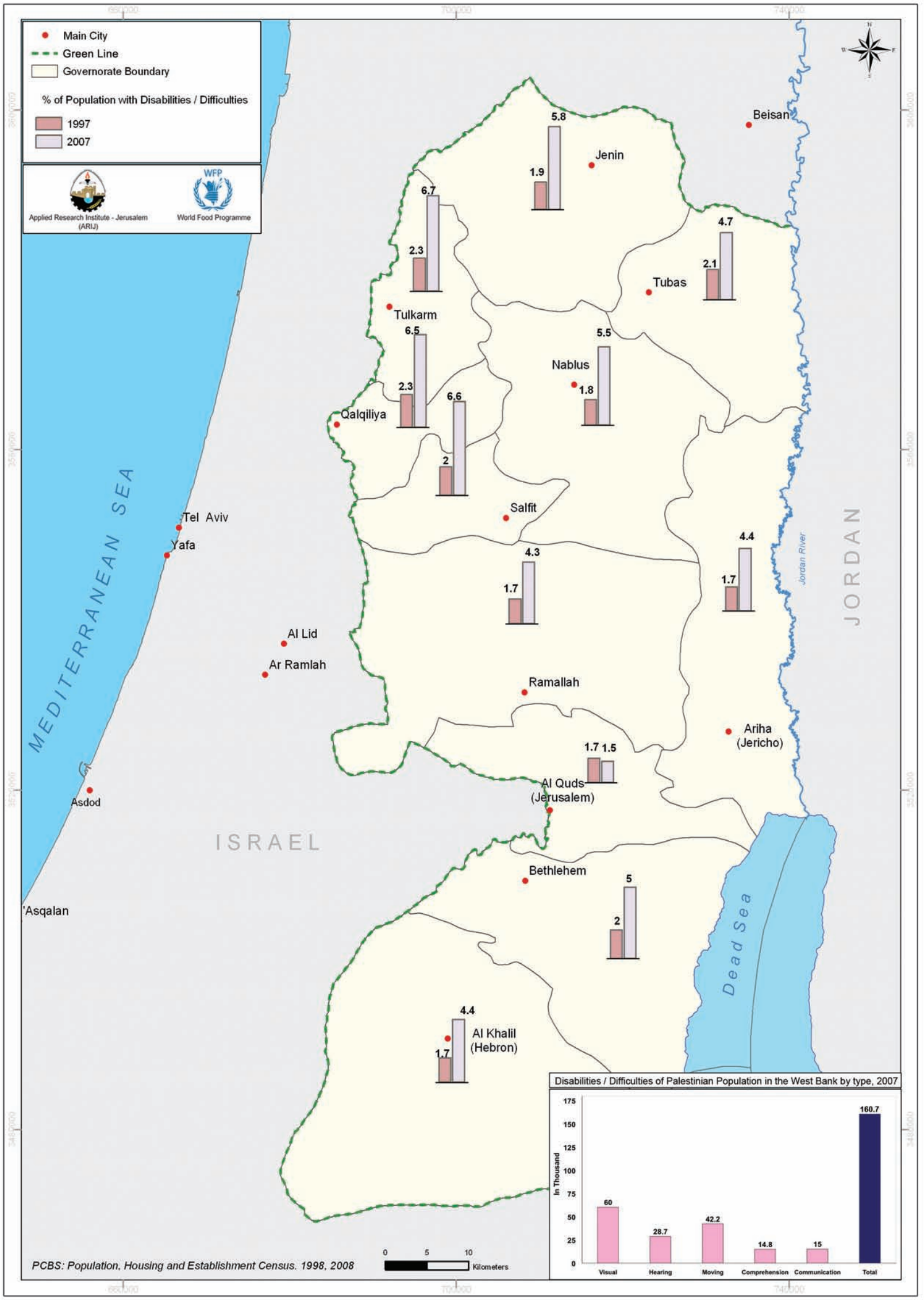


Distribution of Hospitals and Beds in the Gaza Strip by Providers 2007

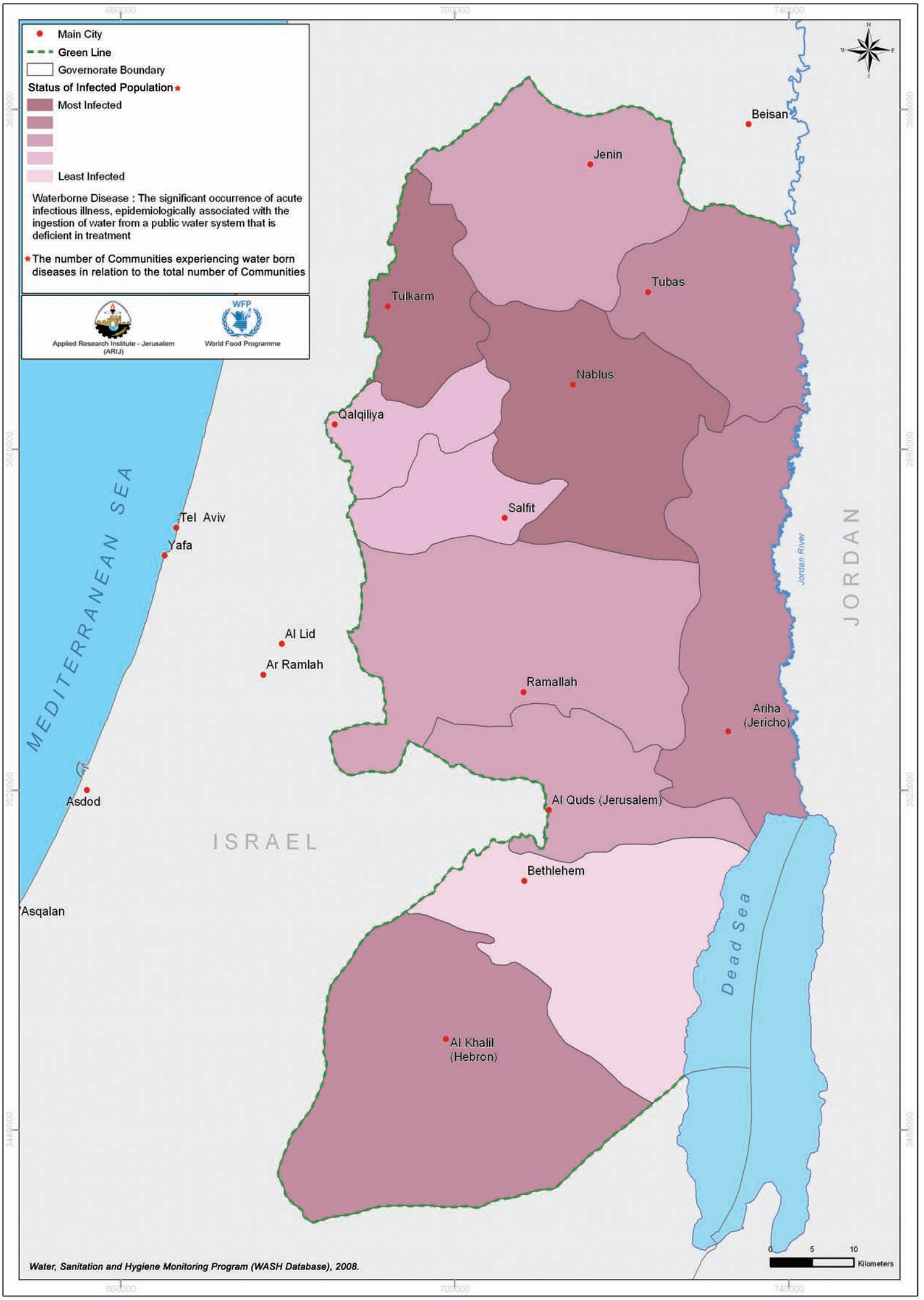
Governorate	MOH		UNRWA		NGOS		Private		Total		Hospitals per 100,000	Beds per 10,000
	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds		
Gaza Strip	12	1587	0	0	10	382	2	34	24	2003	1.7	14.1
North Gaza	2	109	0	0	2	58	0	0	4	167	1.5	6.2
Gaza	5	804	0	0	5	238	2	34	12	1076	2.4	21.7
Deir El Balah	1	101	0	0	0	0	0	0	1	101	0.5	4.9
Khan Yunis	2	481	0	0	3	86	0	0	5	567	1.8	20.9
Rafah	2	92	0	0	0	0	0	0	2	92	1.2	5.3

1- ARIJ, Geo-informatics Department, 2006
2- Ministry of Health: Health Indicators 2008
3- OCHA

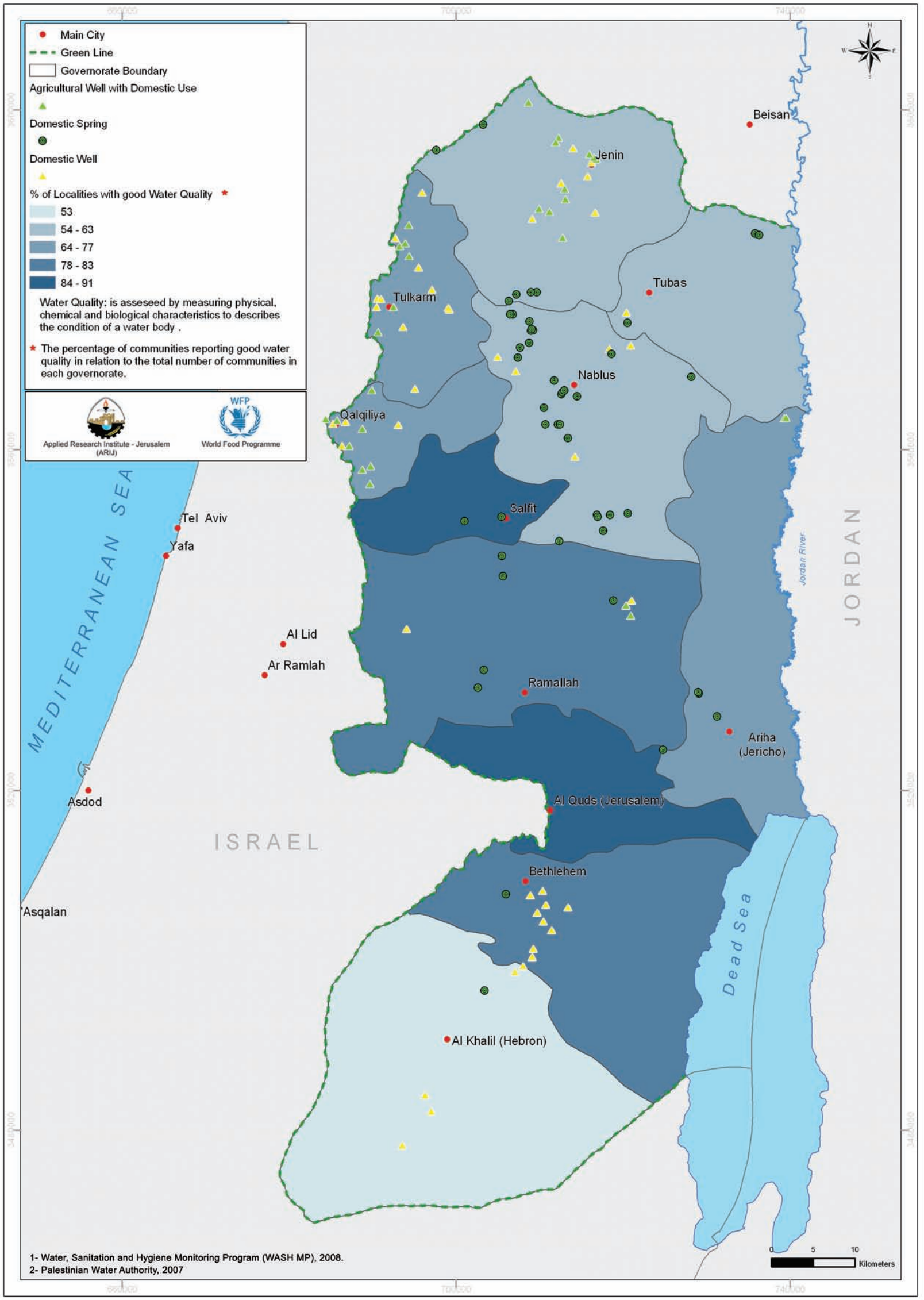
Percentage of Disability / Difficulties of Palestinian Population in the West Bank, 2007



Water Born Diseases by Governorate in the West Bank, 2007



Quality of Domestic Water Resources in the West Bank, 2007



CHAPTER FOUR:

CLIMATE CHANGE AND ENVIRONMENT

INTRODUCTION

Climate change and its consequences on environment could affect all three dimensions of food security: food availability, food accessibility, and food utilization. It could have an impact on human health, livelihood assets, food production and distribution channels, as well as changing purchasing power and market flows[110]. Its impact could be both short term, resulting from more frequent and more intense extreme weather events, and long term, caused by changing temperatures and precipitation patterns[111]. Climate change is expected to make water resources scarcer. The oPt has already high degree of aridity and pronounced rainfall variability across its territories and is therefore highly vulnerable to drought. It could have an effect not only on the natural environment but on political and socio-economic environment in the oPt[112].

ENVIRONMENT AND CLIMATIC CHANGE IMPACTS

To evaluate the environment and the potential impacts of climate changes on food security in oPt, the following sections are highlighted.

Agriculture

The agricultural sector is essential and vital for reaching food security in two ways: it produces the food people eat and it provides the primary source of livelihood. For Palestinian people, agriculture is the traditional way of life, the main mean to food security and main resort to turn to in difficult times. Climate change in the form of drought and frost have reduced crop and pasture productivity over the recent years. This condition has been compounded by drastic food and livestock feed price increases over the last years mainly in the year 2008, and a subsequent decrease in livestock sale prices, as the population does not have sufficient disposable income to pay additional amounts for them (See chapter two). Accordingly, the water scarcity caused by climate change during the winter season 2007/2008 and winter season of 2009, affected 55,000 rain-fed farmers and herder families in the oPt. Farmers are therefore running at a financial loss, and there is little prospect of early relief. Their way of life and their livelihoods thereby imperiled . Climatic change impacts in the oPt come mainly in the form of drought[113], and frost.

Drought

In the last few years, there has been a marked increase in the number of droughts in the oPt, particularly in the southern and eastern slopes of the West Bank. Eighty seven percent of the cultivated land is dedicated to rain fed agriculture and 33% of the entire landmass is used as pastureland for grazing. The total area of hyper arid, arid and climates comprises about 35% of the land area of the West Bank. Consequently, drought increases the vulnerability of rural people (rain-fed farmers and livestock herders) whose coping strategies are already exhausted due to the deterioration of economic situation, high food prices and the closure regime since the second Intifada. Drought is expected to become more frequent, more intense and less predictable as a consequence of climate change. In rural areas that depend on rain-fed agricultural for an important part of their local food supply, changes in the amount and timing of rainfall within the season and an increase in weather variability are likely to aggravate the precariousness of local food systems[114].

The most significant environmental effects of climate change for the people of the oPt, over the course of this century, are projected to be a decrease in precipitation (with significant seasonal variation) and significant warming. Climate change forecasts for the eastern Mediterranean from high-resolution regional climate models give clear scientific backing to the Intergovernmental Panel on Climate Change (IPCC) projections for the region. In its Fourth Assessment Report, the IPCC predicts that, for the southern and eastern Mediterranean, warming over the 21st century will be larger than global annual mean warming – between 2.2-5.1°C according to a realistic emissions scenario. Annual precipitation rates are deemed likely to fall in the eastern Mediterranean – decreasing 10% by 2020 and 20% by 2050 – with an increased risk of summer drought.

A prolonged drought could seriously affects crops and livestock in the oPt as it did in a number of neighboring countries. The drought condition in the oPt occur as a result of the low amount and poor distribution of rainfall, which have drastically affected the growing season of crops and grazing plants during the last few years but mainly the last two years. The amounts of rainfall in the West Bank for the last two agricultural season (2007/2008 and 2008/2009) reach 354 mm and 428 mm compared to an average historical yearly rainfall of 537.5 mm. Drought has particularly affected South Hebron and East Bethlehem governorates where precipitation were less than 20% of normal precipitation. The impact of such climate change on

[110] *The Applied Research Institute – Jerusalem (ARIJ). Status of Environment in the oPt. Chapter eleven: Climate change. West Bank Palestine. 2007*
[111] *FAO. Climate change and food security a framework document, Rome. Italy. 2008*
[112] *This week in Palestine. Jordan and Palestine threatened by global climate change, Ramallah. Palestine. 2008.*
[113] *Ministry of Agriculture. Impact of drought condition and soaring prices on livelihood of vulnerable farmers, Ramallah, Palestine. 2008*
[114] *FAO. Climate change and food security a framework document, Rome. Italy. 2008*

Palestinian Agriculture is especially high owing to already existing water scarcity in the region and dependency of Palestinian agricultural on rainfall. To be noted, the amount of rainfall in the West Bank in the last four seasons was less than the historical average rainfall amount (based on an average of 25 years)[115,116].

The same climatic conditions are affecting the Gaza Strip governorates, where the amount of rainfall in the last two seasons is less than the historical average rainfall; it reached 262 mm and 316 mm (2007/2008 and 2008/2009 agricultural season) compared to an average historical yearly rainfall of 358.5 mm.

Drought is equally affecting the farmers, who can not water their crops, and the herders who can not rely anymore on pastures (which are dry and with very limited grazing capacity as a result to drought) for grazing. Pastoralists are unable to pay for extra water (to compensate water deficit) for their animals to drink in the summer. The combined effect of rising fodder and water prices are leading to a situation wherein sheep are becoming a liability, rather than an asset, as herders are trapped in a cycle of debt with water truckers and fodder traders. There are in addition grave risks of overgrazing and degradation of the oPt ecosystem, as the number of livestock exceeds the land carrying capacity, as well as due to the restricted movement and access to grazing areas and pastures. The Jordan Valley and the Eastern slopes show the highest severity of land degradation. The main reason for the degradation is steep slopes, saline soils, overgrazing, over pumping, poor farming techniques.

Frost wave

The frost wave that took place in 2008, has affected over 12,000 farmers, many more laborers and consequently the consumer markets. In January 2008, the frost wave was the most destructive of the last ten years; it caused substantial losses to the already weak grazing period, and rain-fed crops. Such wave has had great impact on agricultural productivity, economy, market, labor and consequently food security.

Accordingly, the agriculture sector and particularly the rainfed sector is mainly affected, where the estimated losses[117] of the main rain-fed crops owing to drought and frost in the oPt over the agricultural season 2007/2008 was estimated to reach more than 113.5 million USD $. Grapes and olives have the highest percent of estimated loss (Table 4.1).

Table (4.1): Estimated losses of the main rainfed crops over the agricultural season 2007/2008 [118]

Crop	Area (dunum)	Total Production (ton)	Yield Reduction %	Losses value M US$
Wheat	207542	38395.27	40	6.9
Fodder crops	66686	22673	35	4.5
Fruits	90207	30743	35	10.7
Olives	866917	134372	40	60.7
Grape	67216	48395	35	14.1

HEALTH, DISEASES, AND PESTS

Climate change could cause new patterns of pests and diseases to emerge, affecting plant, animals and humans, and posing new risks for food security, food safety and human health. This could also affect the nutritional status of people and expose crops, livestock, fish and humans to new risks to which they have not yet adapted, and will challenge health care institutions to respond to new parameters. Many diseases may spread in the oPt, because of the change of the rainfall distribution and rainfall intensity in the oPt, ponds may form the available breeding habitat of mosquitoes and, hence, leads to the population's increase. The effects of this phenomenon are expected to be most severe in the Gaza Strip.

BIODIVERSITY

Palestine's biodiversity comprises about 3% of the global biodiversity. The ongoing crisis presents threats to preserving agro biodiversity. The oPt's biodiversity is considered as one of the 25 recently-defined as global biodiversity hot spots[119]. Plant species in the oPt are becoming increasingly rare and endangered, due both to the ongoing destruction of their natural habitat by agricultural practices, unregulated urbanization, settlement expansion, industrialization trends combined with high population growth in oPt, as well as over-harvesting of wild species, land degradation, and detrimental climatic and environmental changes.

[115] *FAO, 2008. Climate change and food security a framework document, Rome. Italy.*
[116] *Ministry of Agriculture, 2009: Rainfall seasonal report, general directorate of soil and irrigation, Palestine.*
[117] *Abdou Qasem, 2009: land management in drought planning. Director General of soil and irrigation. Ministry of agriculture, Palestine*
[118] *Ministry of Agriculture, 2008: Impact of drought condition and soaring prices on livelihood of vulnerable farmers, Ramallah, Palestine.*
[119] *Applied Research Institute Jerusalem (ARIJ), 2007. Status of Environment in the oPt. Chapter Ten: Biodiversity. West Bank Palestine*

It is predicted that in the oPt, a number of species will disappear within the next 10 years. As a result 370 species are expected to become rare or very rare in the West Bank and the Gaza Strip. The central highlands ecosystem in the West Bank is affected by climatic change where it is characterized by high numbers of rocks and thus soil erosion (without terracing the soils can be easily eroded) and where land degradation is one of the main problems during severe climatic conditions. The inability of many farmers to reach their fields means that large areas are falling into disrepair through neglect, and crops are being lost. The Israeli practice of clearing agricultural fields for security purposes is in all probability having an impact on agro biodiversity. Secondly desertification is another challenge facing oPt mainly in Eastern Slopes region and the Gaza Strip, since it is exposed to over-grazing and over urbanization respectively, and where the temperatures are high and rainfall amounts are low making the area susceptible to climatic change. Accordingly, slight climatic change or continuous drought seasons can affect the plant species richness and growth in the region[120].

FORESTS

Forests cover approximately 3.94% of the total area of the West Bank and 0.55% of the Gaza Strip. The demand on forest in the oPt was mainly represented by fuel wood and grazing of sheep and goats. Since 1971, both types of natural and human-made forests were exposed to destruction perpetrated by both Israelis and Palestinians. Large areas of these forests have been confiscated by Israel and declared as closed military areas and military bases, and/or uprooted for the construction of settlements and the West Bank Barrier. The area of land confiscated was larger than 0.37 million hectares, including almost 93% of the total forest and rangelands of the oPt[121]. Palestinians also deplete forested areas through woodcutting used for fuel (either as biomass or for coal production). These activities, combined with natural destructive elements such as wind, snow, soil erosion, ageing, and accidental fires left dramatic scars on forests in the West Bank and the Gaza Strip. They resulted in a vast reduction of the natural and human-made forested areas[122].The current rate of deforestation will have a destructive effect on the oPt's climate, by disrupting the natural carbon sequestration process, in which carbon dioxide (CO_2) from the atmosphere is absorbed by trees, plants and crops through photosynthesis, and is stored as carbon in biomass (tree trunks, branches, foliage and roots) and soils.

WATER RESOURCES

The presence of the Jordan River, and aquifer systems as physical water resources in the oPt, however, do not automatically translate into access to water for the Palestinians and provide an optimistic estimate of accessible water. The Palestinians have been denied their riparian rights to the Jordan River since the occupation of the West Bank in 1967. Also, a series of military orders issued immediately after the 1967 occupation, declared all water resources to be Israeli state property, granted full control over them, and prevented the Palestinian from developing their utilization of groundwater resources[123]. Israel is currently exploiting more than 80% of the annual safe yield of the groundwater basins in the West Bank to meet 25% of its water needs. Water consumption by the West Bank Palestinians is almost 73 liters a day per person (L/c/d) compared to about 300 L/c/d for Israeli settlers[124]. In other words, the per capita consumption in Israel is 4 to 5 times higher than the Palestinian per-capita consumption in the oPt. In addition, the Palestinian average consumption is under the World Health Organization (WHO) recommended standard of 150 L/c/d for optimal water supply[125].

Most of the West Bank governorates suffer from severe shortage in supplied water quantities. In the year 2008, a total of 88.6 MCM water was supplied to the Palestinian communities in the West Bank governorates. The total real deficit in domestic water supply for the same year reached 62.4[126] MCM for the whole of the West Bank. Thus, on average, domestic water supply covered only 73 % of the demand. Regarding the access to water supply, currently approximately 9% of the population of the West Bank, living in 134 communities, remains unconnected to any form of water networks. Connection to the networks alone, however does not automatically translate into regular and constant water supply. Valve closure, coupled with poor state of infrastructure, un-accounted for water and low pressure of water supplied to the Palestinian communities, causing many Palestinian communities not receiving more than 30 L/c/d.

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[120] *Applied Research Institute Jerusalem (ARIJ), 2007. Status of Environment in the oPt. Chapter Ten: Biodiversity. West Bank Palestine*
[121] *Applied Research Institute-Jerusalem (ARIJ) - Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009 and ARIJ – Geo-Informatics Department. Analysis of Satellite Images and database, 2009/.*
[122] *Applied Research Institute Jerusalem (ARIJ), 2007. Status of the Environment in the oPt. Chapter ten: Biodiversity. West Bank Palestine*
[123] *Amnesty International, 2009.Troubled Waters-Palestinians Denied Fair Access to Water.*
[124] *The World Bank, 2009, Assessment of Restrictions on Palestinian Water Sector Development*
[125] *The World Bank, 2009, Assessment of Restrictions on Palestinian Water Sector Development*
[126] *Palestinian Water Authority (PWA). 2008.*

Regarding agricultural water supply, the total amount of the water supplies for agricultural uses in the West Bank is estimated approximately at 89 MCM. It should be noted that the agricultural sector is one of the most important economic sectors in the oPt and the main water-using sector. The Palestinian agricultural sector is consuming approximately 75% of the total water consumption[127]. This water comes for the limited available local wells and springs. It is worth mentioning that the availability and access to water remains the greatest obstacle to Palestinian agricultural sector.

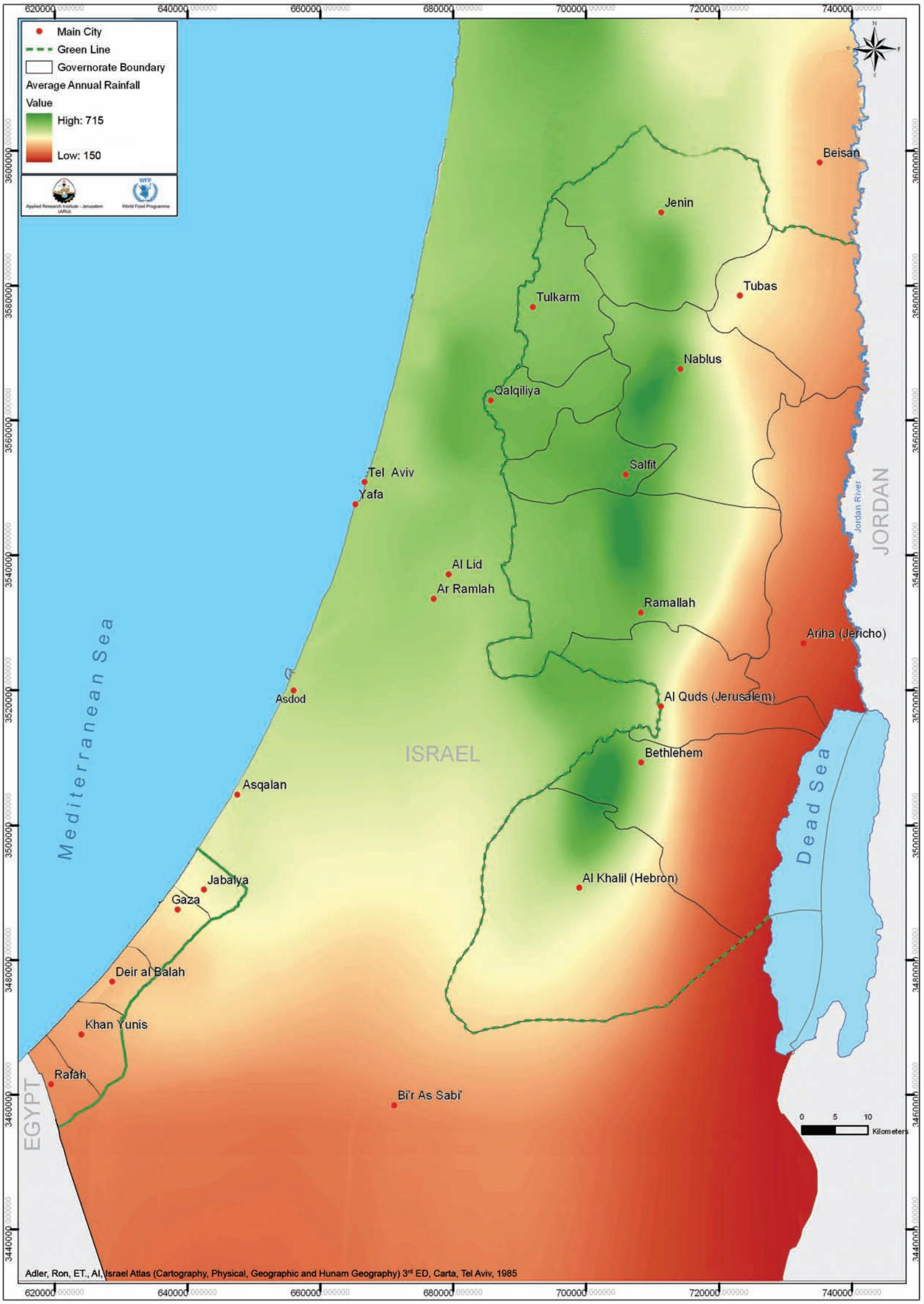
In the Gaza Strip, while water supply is theoretically available, the majority of wells (80%) are only working partially and the rest are out of use. In 2006, almost half of Gazan households were buying their water. The per capita daily consumption is only 78 litres per capita per day. Moreover, water quality is poor (around 80% of the water does not meet WHO standards for safety), system losses are at a similarly high level as in the West Bank, and supplies are unreliable. Before the December 2008 Israeli offensive, over half of the population of Gaza city had access to water for a few hours once a week. The blockade has prevented entry of necessary spare parts, materials and equipment for the water and wastewater facilities and has resulted in the construction of new wells with poor water quality and quick aquifer deterioration from untreated sewage and intrusion of sea water[128].

WASTE WATER MANAGEMENT AND SANITATION

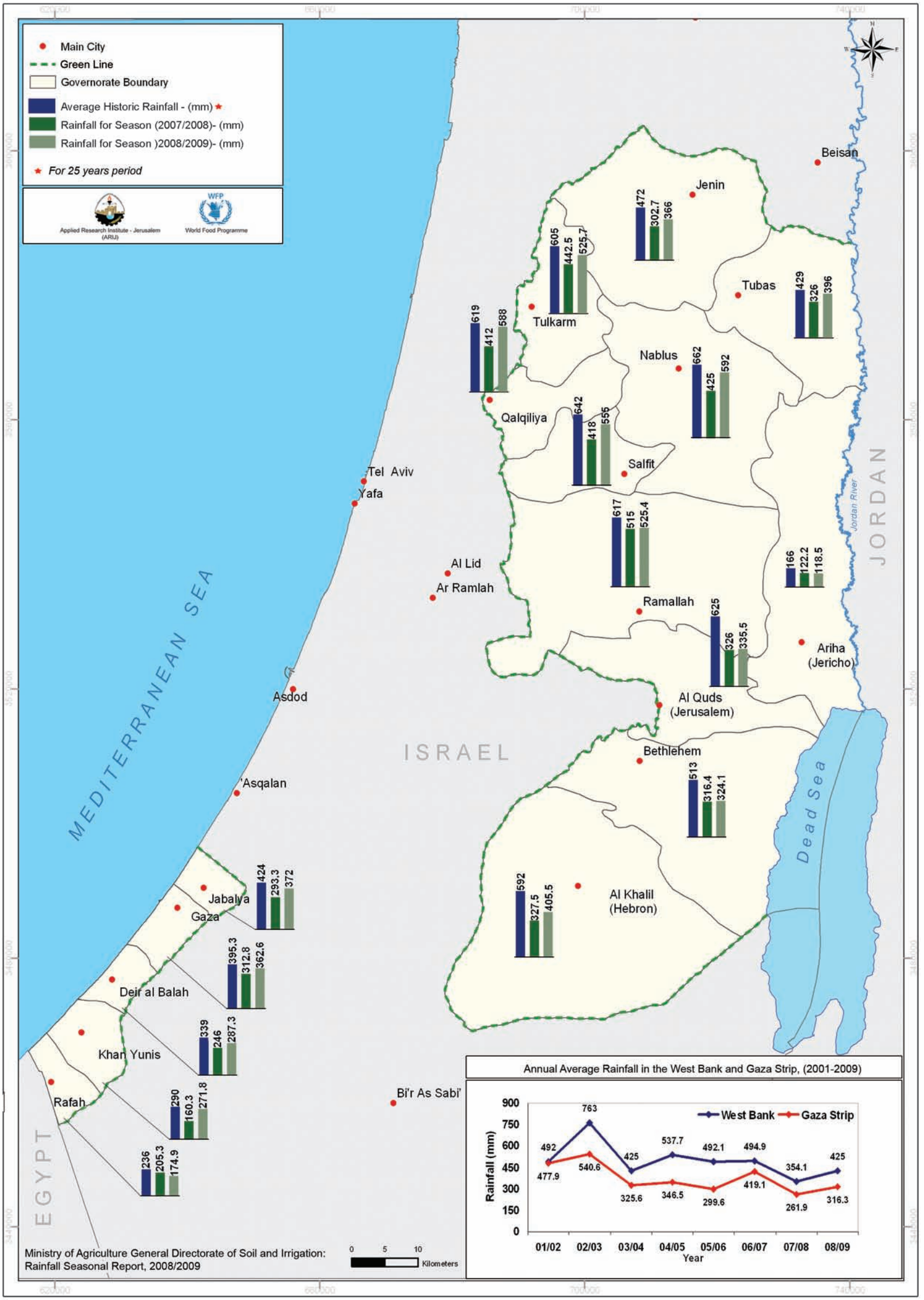
In relation to sanitation, the wastewater network connection is much less developed than the water network. Connections are limited to the major urban areas, where indeed the higher concentration of population occurs. In the West Bank, only 56 communities are connected to sewage network, whereas 513 communities use cesspits to dispose their sewage. This revealed that only 32% of the total West Bank population (753,590 people) are served with sewage networks. The areas not served by the water network generally dispose their waste either through cesspits or directly dispose their waste water into open channels into the environment, however this phenomenon also occurs in the areas served by the water network, as in the whole of the West Bank there is only one functioning waste water treatment plant in Al Bireh at Ramallah governorate, which treats only 7% of Palestinian Wastewater generated in the West Bank. As for the Gaza Strip, the sewage network served approximately 61% of Gaza population prior to the Israeli Cast Lead Operation. Part of the wastewater collected by sewage networks is treated in three centralized wastewater treatment plants. However, the treatment plants are functioning at moderate efficiency rates and do not have the capacity to treat the volume of wastewater generated by the ever expanding population. Both the partially treated and untreated wastewater is discharged into open area such as Wadi Gaza or into the Sea and sand dunes.

[127] *Palestinian Water Authority (PWA). 2008*
[128] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.*

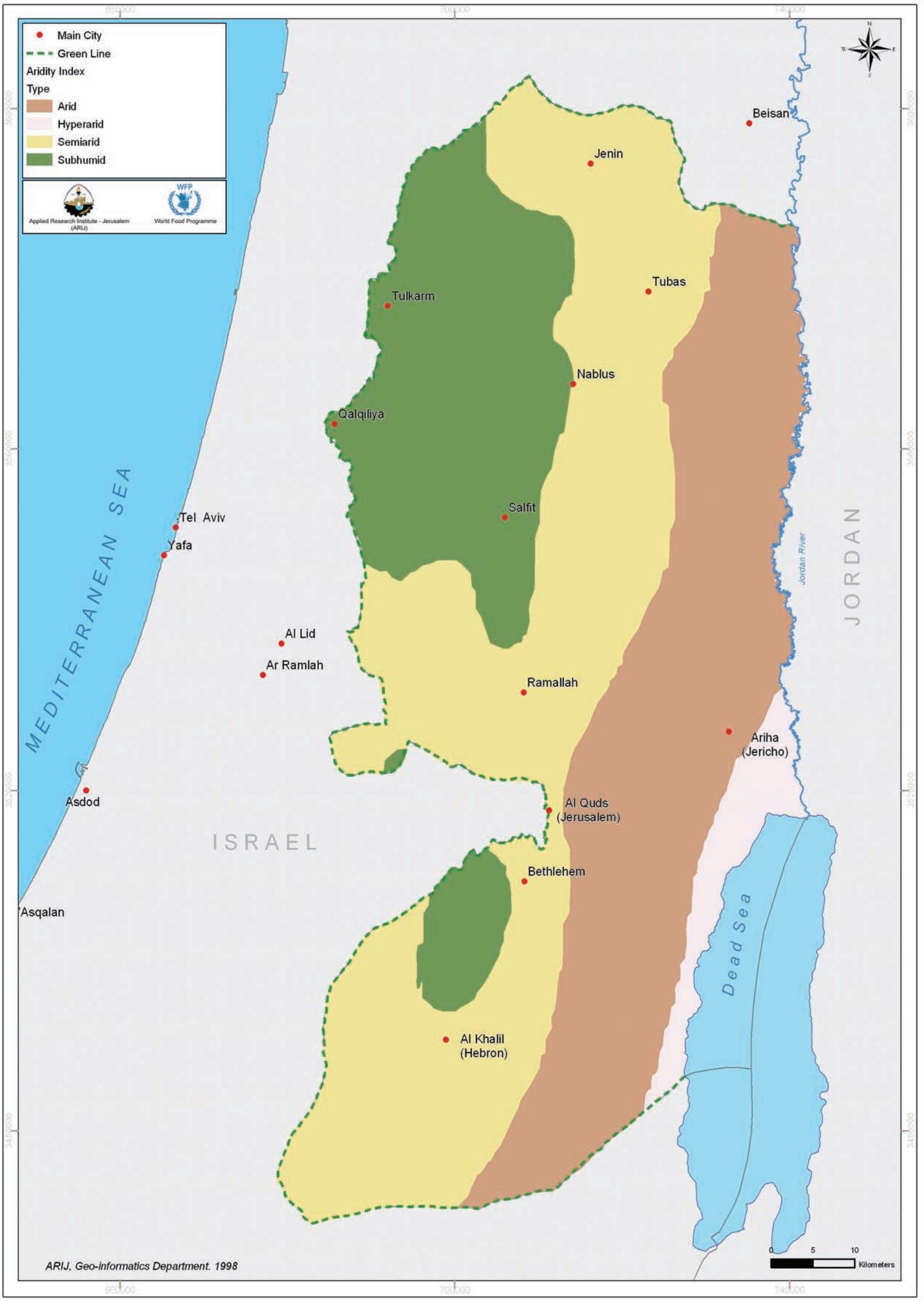
Average Annual Rainfall



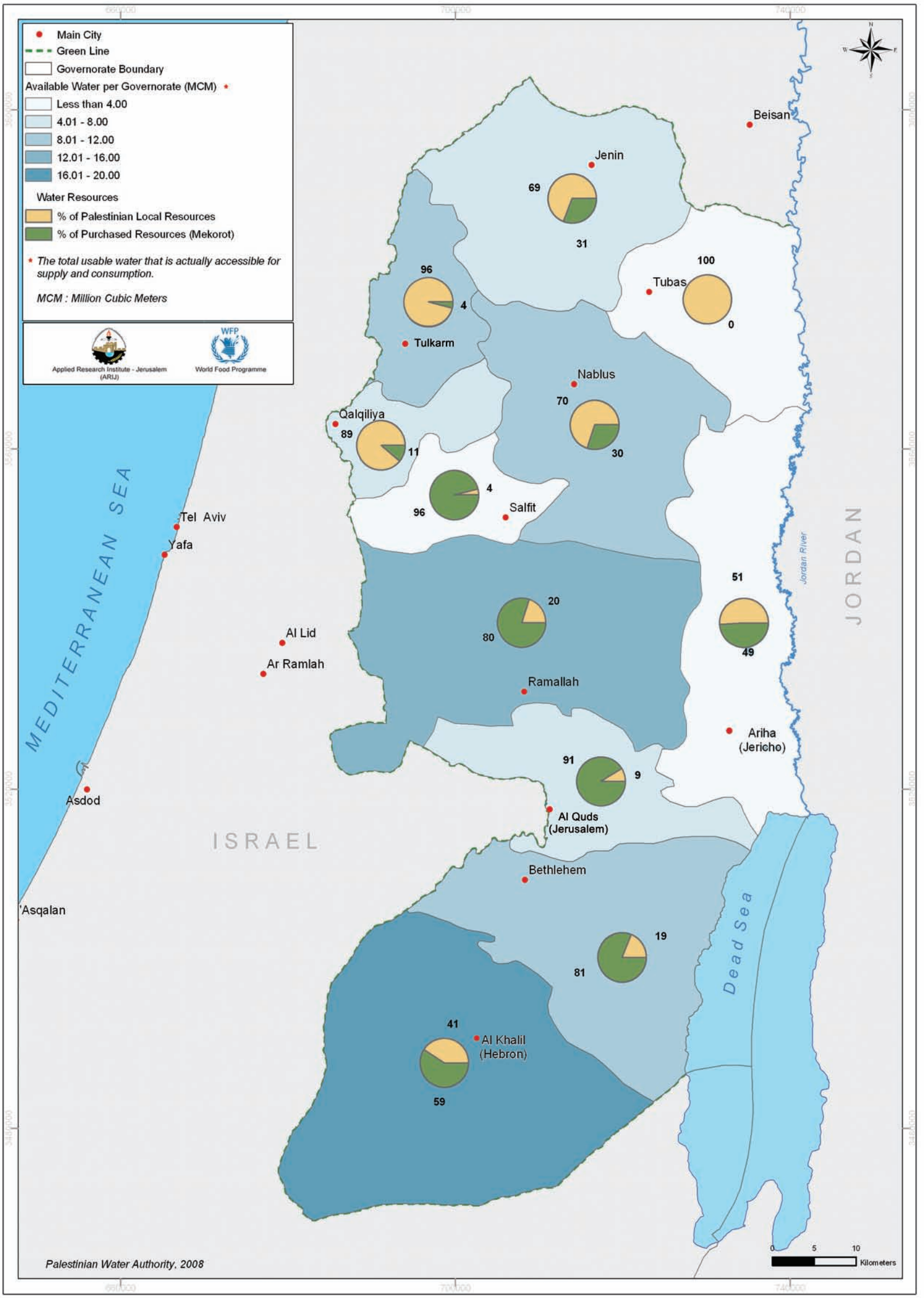
Average Annual Rainfall in the occupied Palestinian territory, 2001 - 2009



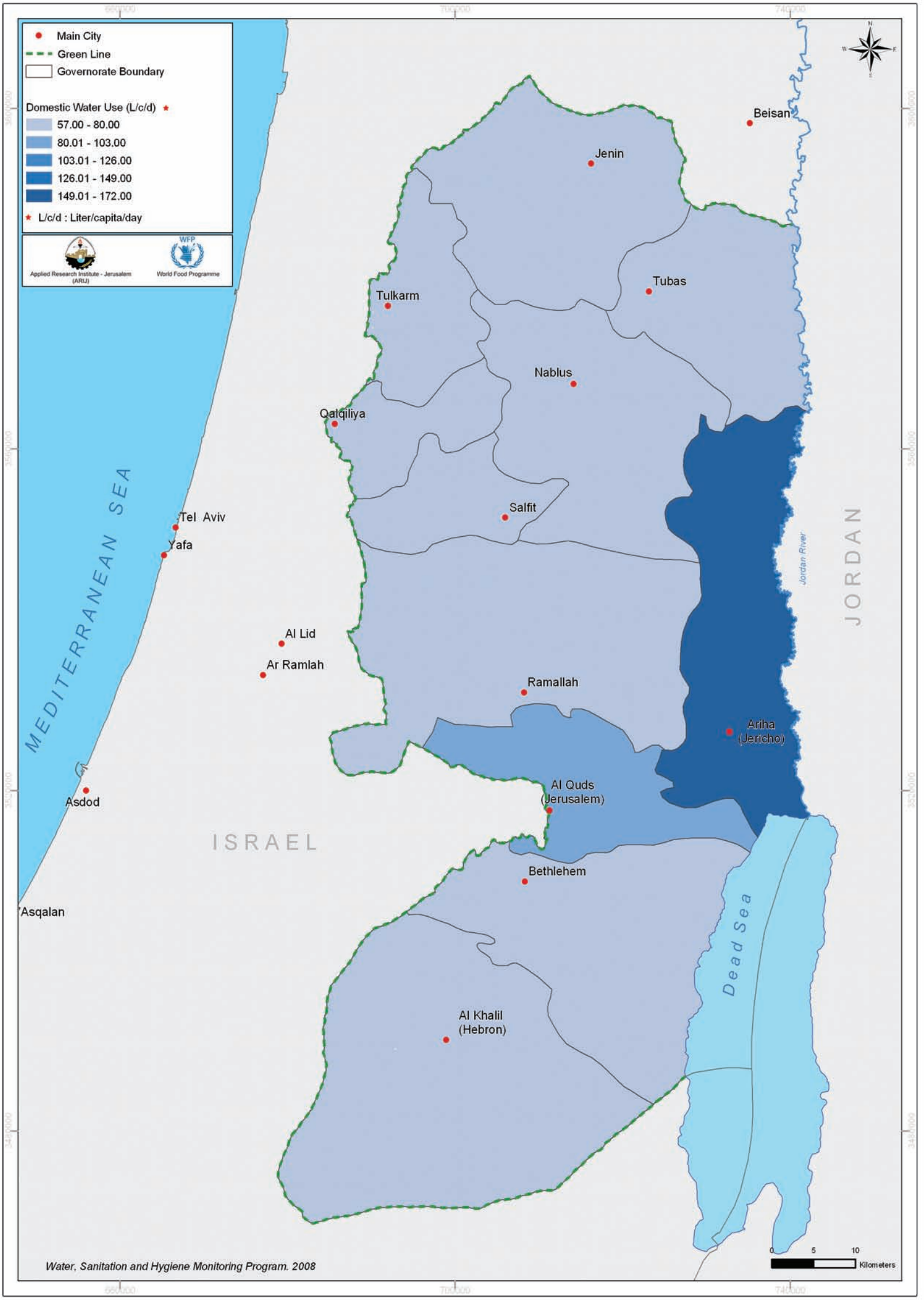
Aridity Index of the West Bank, 1998



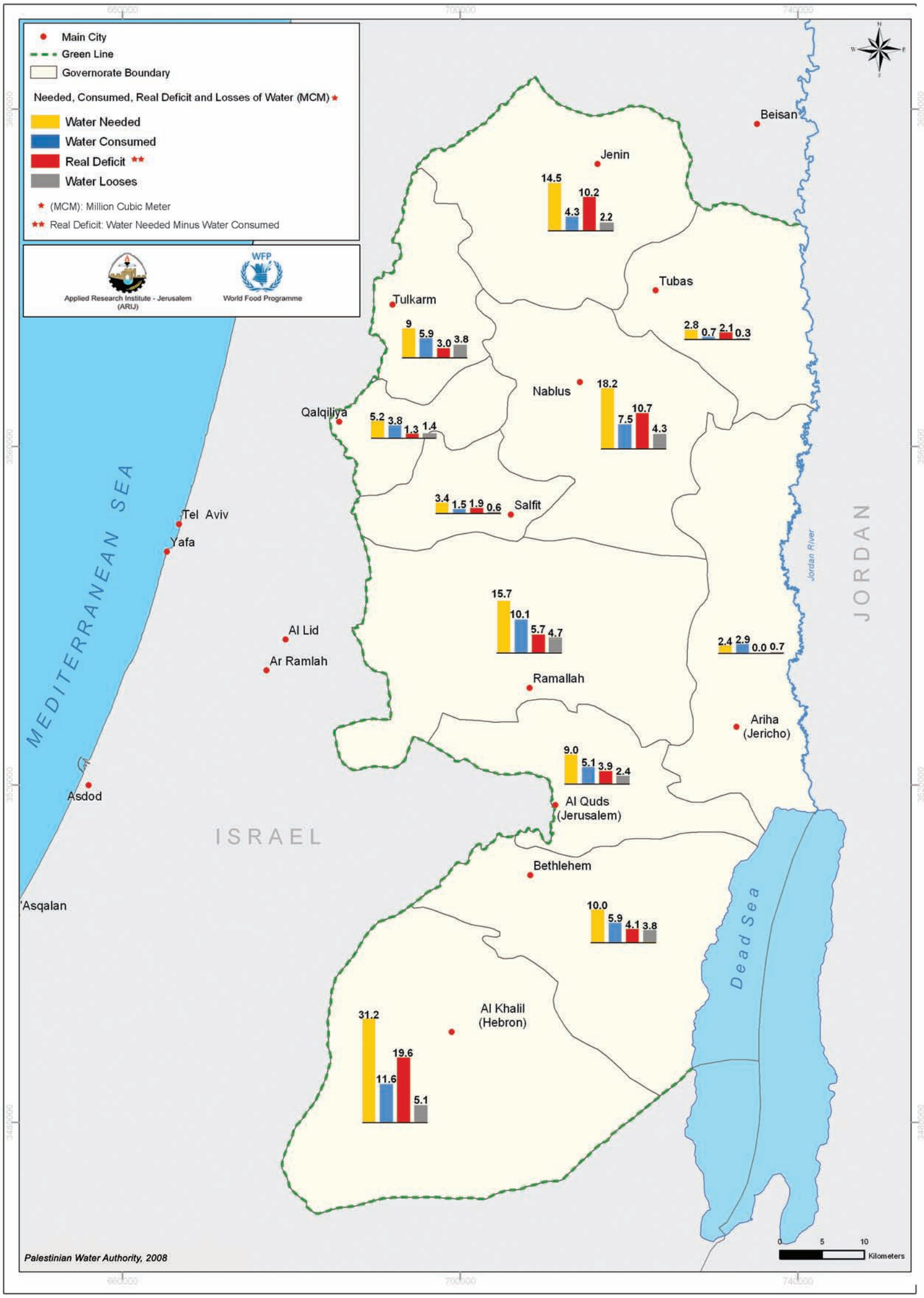
Available Water by Governorate in the West Bank, 2008



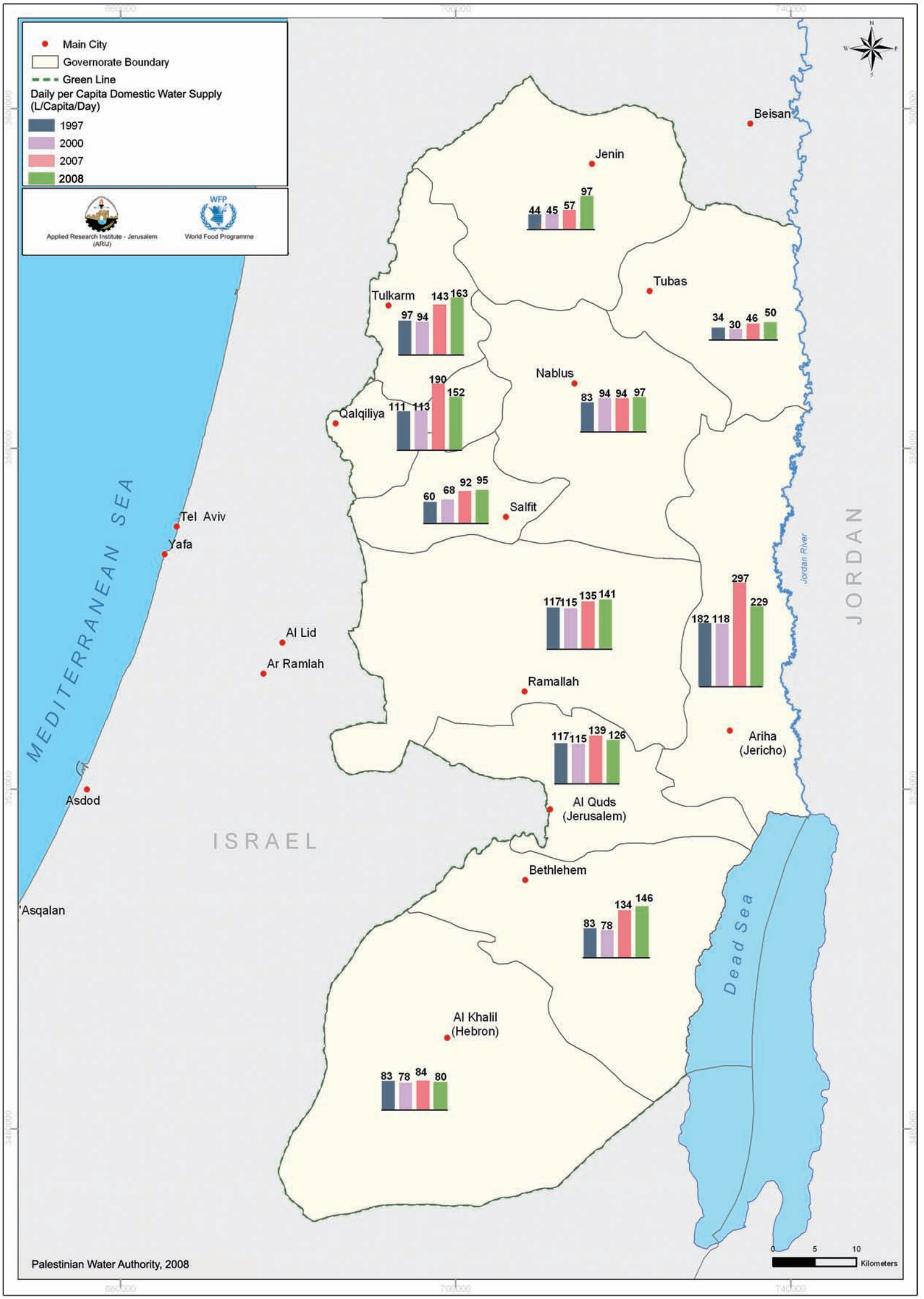
Domestic Water Use in te West Bank, 2007



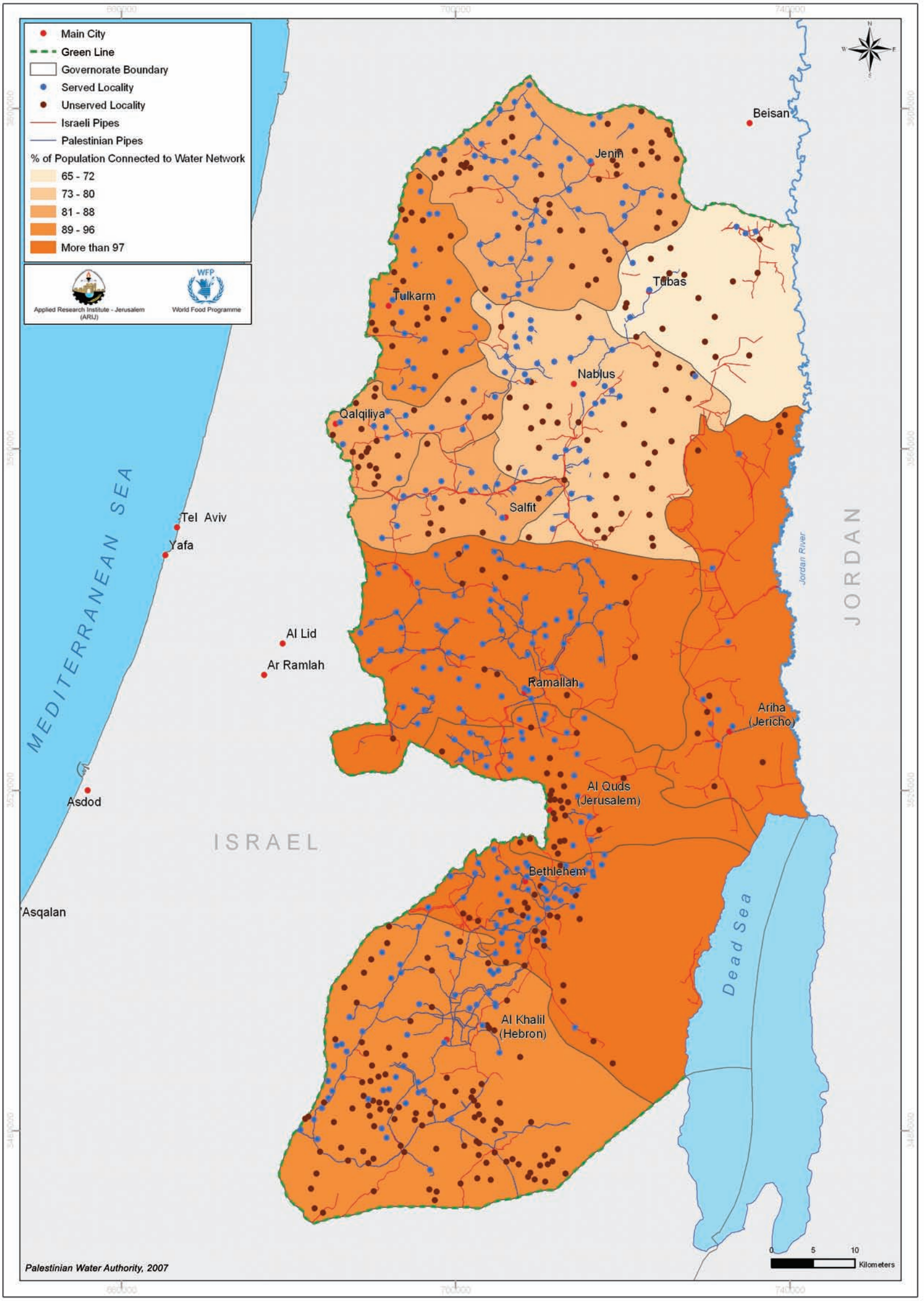
Water Needed, Consumed, Real Deficit and Losses by Governorate in the West Bank, 2008



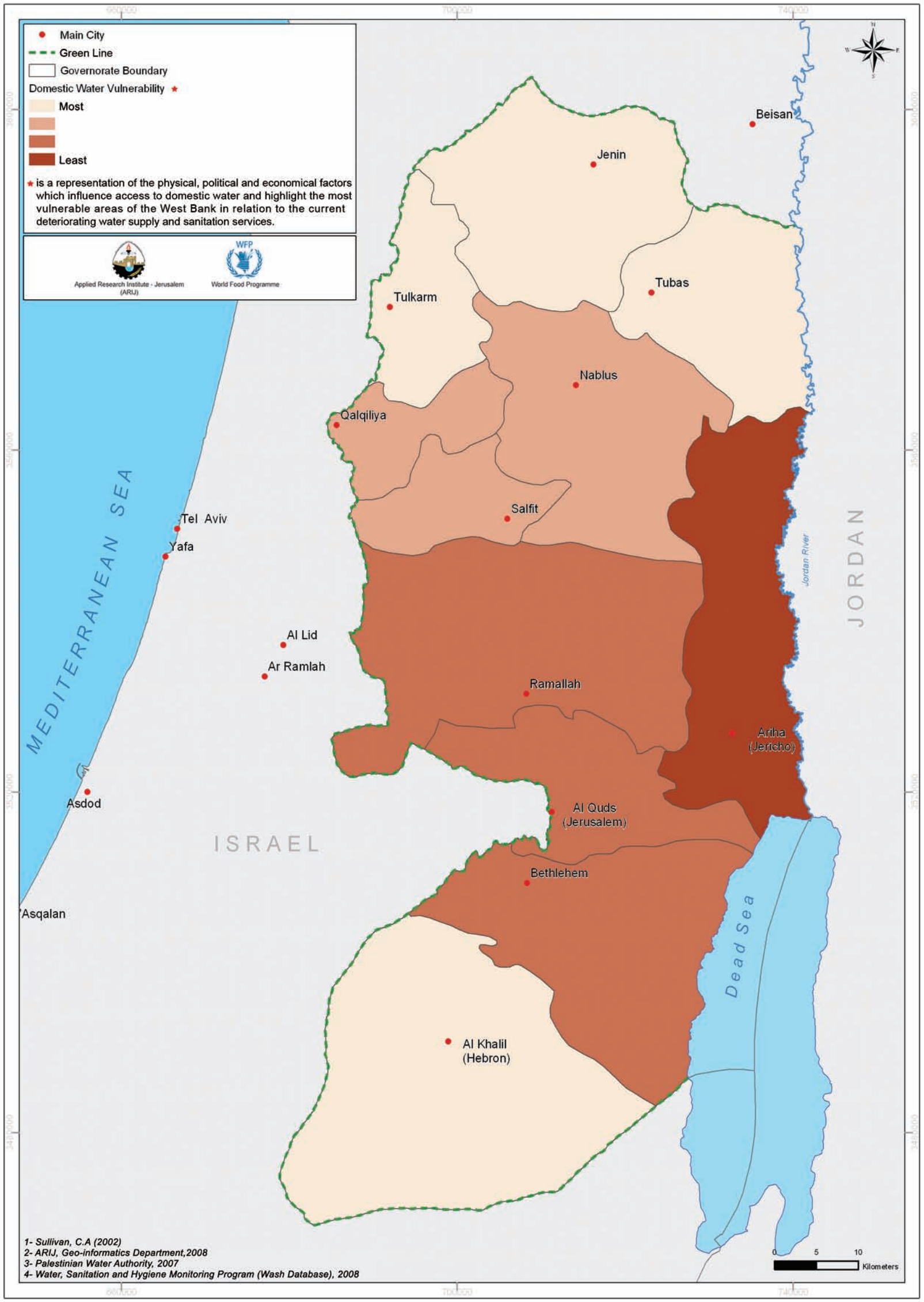
Daily Per Capita Domestic Water Supply by Governorate in the West Bank, 2008



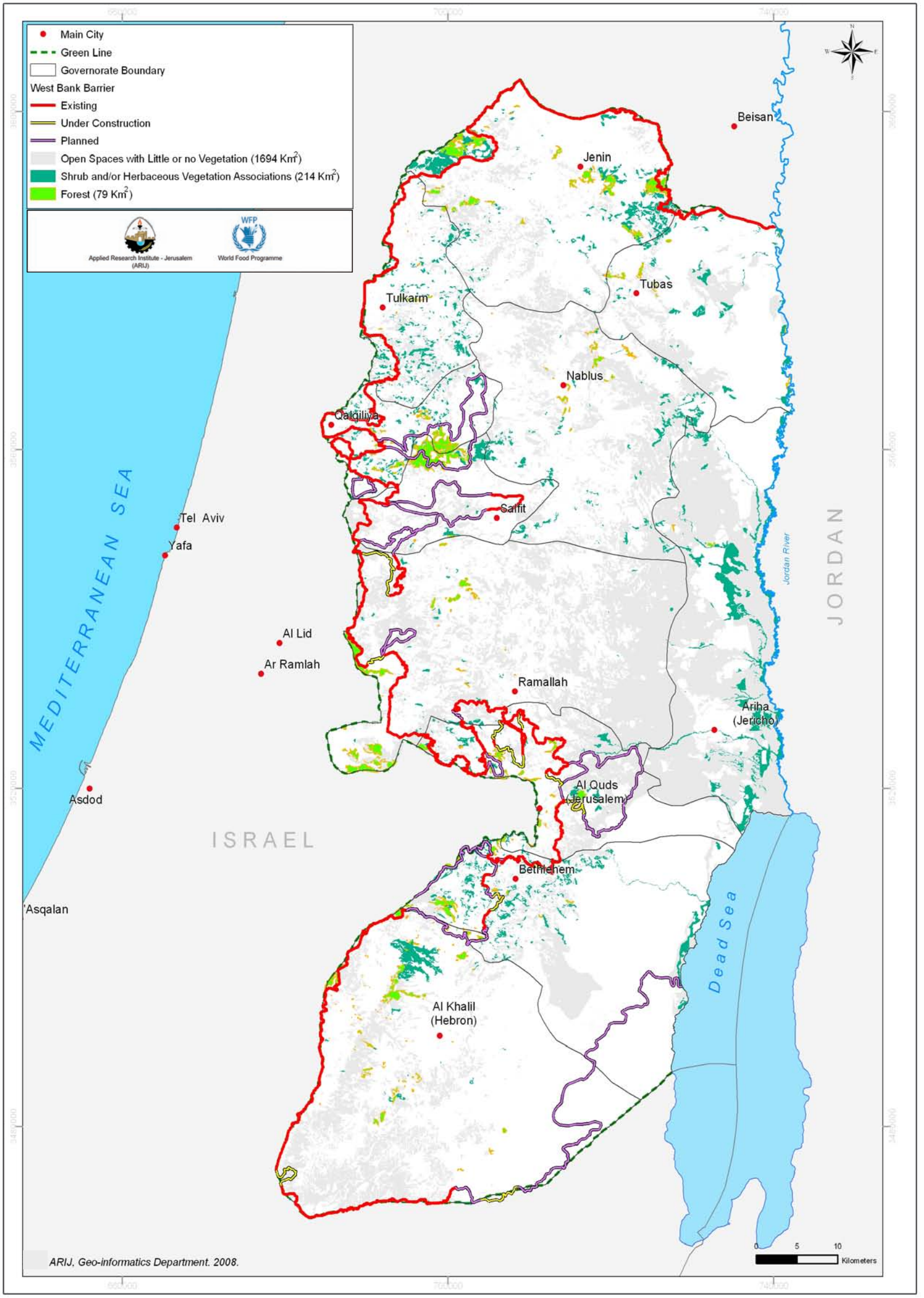
Connection to Water Network by Governorate and Locality, 2007



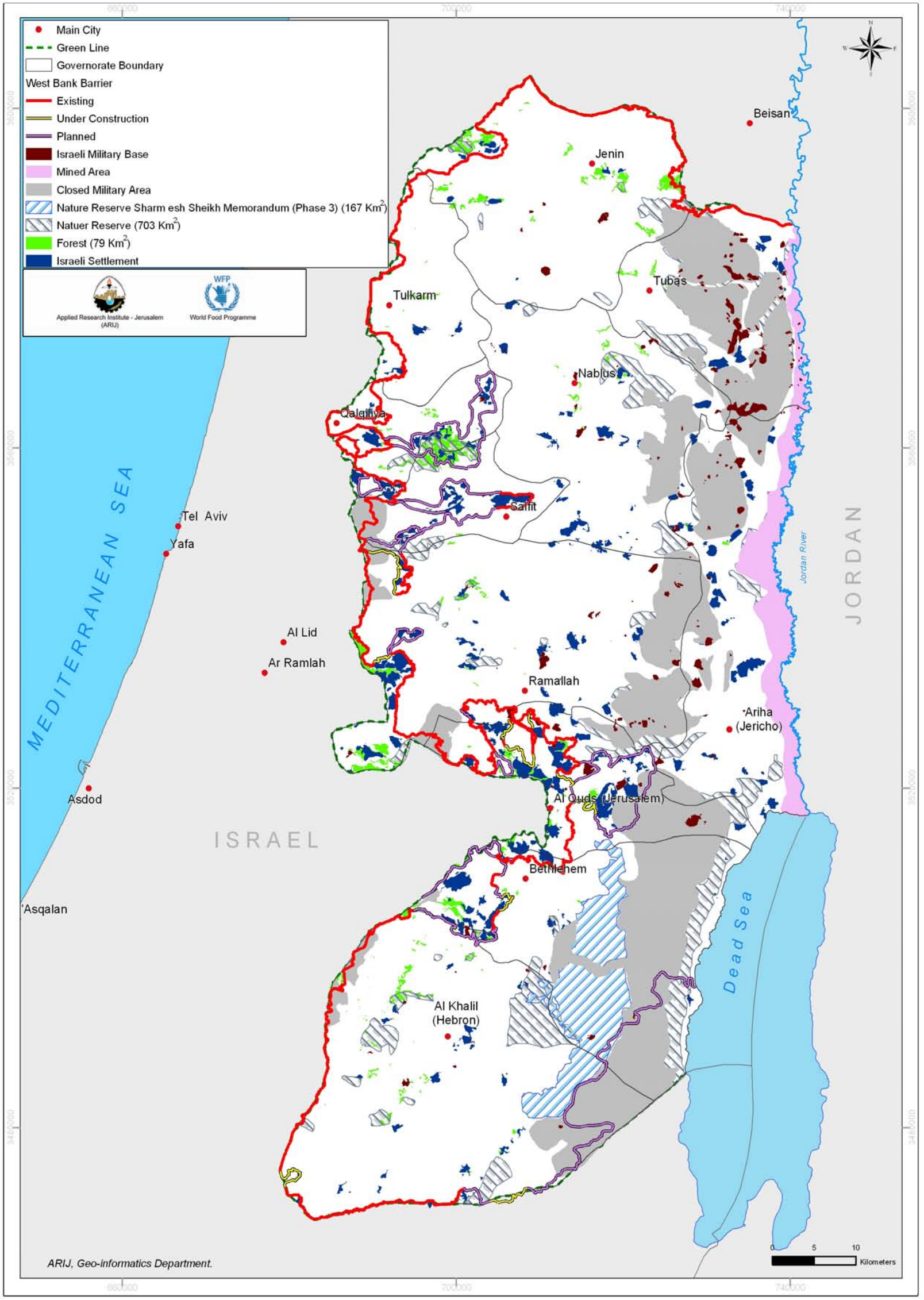
Domestic Water Vulnerability by Governorate, 2007



Open Space with Little or no Vegetation, Forest, Shrubs and/or Herbaceos Vegetation, 2008



Forests and Nature Reserves in the West Bank



CHAPTER FIVE:

RISKS AND UNCERTAINTY

INTRODUCTION

The specificities of the historical and political context in the occupied Palestinian territory (oPt) set the parameters of the current economic, social and food security situation of the population, much more that the geographical and agro-ecological characteristics of the oPt. Since 1967, the Israeli-Palestinian conflict has been marked by different periods of intensities. Following the second *Intifada* initiated in 2000, the Israeli government has tightened the movement of Palestinians in and out of the territory, and initiated the construction of the West Bank Barrier. According to the Israeli plan, the West Bank Barrier will run across 709 Km (60% of which completed to the date) and stands to isolate upon completion 13% (733 Km^2) of the West Bank total area[130].

The Gaza Strip has been under a blockade, since the Hamas Party took control in June 2007, with extremely severe restrictions on the entry of goods and virtual halt of exportations and movements of Gazan people in and out of the territory. Operation Cast Lead launched by the Israeli Army against the Gaza Strip in December 2008/January 2009 caused a large number of Palestinian deaths (about 1450) and wounded (5,455) as well as widespread destruction of housing (more than 5000 of total destruction and more than 25000 of partial destruction) and infrastructure[131]. Violence in Gaza has not fully subsided despite the unilateral ceasefire declared by Israel on 18th January 2009.

Economic growth in the oPt has markedly decreased due to the conflict, through the following: controls imposed by Israel on the entry and exit of goods, services and people; impediments to construction and infrastructure investment in the oPt; the expansion of Israeli settlements and associated violence; and the direct destruction of houses, crops, animals, water and sanitation infrastructure by the Israeli Army. After years of conflict, food insecurity affects population groups according to their livelihoods and the combined effects of violence, natural disasters and economic shocks. Most of the food insecure households in the oPt are by now chronically food insecure, but the severity of food insecurity deepens whenever the conflict situation worsens or additional shocks (natural, economic) occur[132].

The land issue is a crucial question that is affecting the creation of a Palestinian state. In 1995 the PLO and Israel signed the Oslo II agreement, which concluded that the Israeli Army engage in a phased withdrawal from areas of the West Bank and the Gaza Strip, beyond the "Gaza-Jericho" agreement (signed 1994), starting with redeployment of the Israeli Army from the major population city centers and later on a second redeployment from rural area. Accordingly, the oPt went under three categories: Areas "A," "B" and "C" designating varying levels of control (See table 5.1).

Table 5.1: Areas Definition in Oslo II Interim Agreement of September 1995

Area A	The Israeli army has pulled out fully and Palestinians hold all responsibilities for internal security and Public order.
Area B	Palestinians have full control over the civil administration and Israel continues to have overriding responsibility for security.
Area C	The Palestinians have responsibility for civil life such as economics, health, and education; while, Israel retains full control over security and administration related to the territory.

This jagged distribution has fragmented and scattered the oPt and turned it into isolated cantons, physically separated from each other.

After more than 42 years of occupation, 38% of total land area of the West Bank is under under Israeli occupation, and used for military use, checkpoints, road closures, construction of settlements and the West Bank Barrier[133]. In the absence of positive signs towards a resumption of negotiations between Israelis and Palestinians, the already severe food insecurity and vulnerability situation in the oPt is not expected to improve in the coming few years.

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[130] - OCHA. Five Years After the International Court of Justice Advisory Opinion. A Summary of the Humanitarian Impact of the Barrier. July 2009.
- According to the Applied Research Institute-Jerusalem (ARIJ) and based on aerial photo analysis -June 2009-, the West Bank Barrier runs along 781 km across the West Bank territory. The source for the planned route of the West Bank Barrier comes from a map issued April 2007 and published on the Israeli Ministry of Defense website "Israel's Security Fence" in September 2007.
[131] The Applied Research Institute-Jerusalem (ARIJ) - Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009.
[132] WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.,
[133] - The World Bank. The Economic Effects of Restricted Access to Land in the West Bank. Social and Economic Development Group, Finance and Private Sector Development, Middle East and North Africa Region. 2008.
- According to the Applied Research Institute – Jerusalem (ARIJ) some 61% (3456 km^2) of the West Bank territory falls under complete control of the Israeli Army, and is defined as area "C". It also includes the western Segregation zone (733 km^2-13% of the West Bank total area)

THE CONSEQUENCES OF THE WEST BANK BARRIER[134].

The construction of the West Bank Barrier started in 2002. Five years on, almost 60% of the 709 km long Barrier is complete, a further 10% is under construction and 31% is planned[135]. When completed, the majority of the route will run inside the West Bank and East Jerusalem; only 6.6% (51 km) of which runs along the 1949 Armistice Line (Green Line). The total area located between the Barrier and the Green Line amounts to about 13% (733 km^2) of the West Bank, including East Jerusalem and No Man's Land.

The continuing construction of the Barrier inside the West Bank, including East Jerusalem, is not only contrary to the International Court of Justice advisory opinion, but is also responsible for the humanitarian impact on the Palestinian cities, towns and villages.

In the northern West Bank, Palestinians residing in the military closed area between the Barrier and the Green Line ('Seam Zone') require permanent resident permits to continue to live in their own homes. They face restricted access to health and to education services, and are cut off from family and social networks, which are generally located on the 'Palestinian' side of the West Bank Barrier. Approximately 38,911 West Bank Palestinians[136] will reside between the Barrier and the Green Line once construction is complete, in addition to the majority of the Palestinian residents of East Jerusalem 269,450[137, 138].

The impact of the West Bank Barrier has been particularly severe on Palestinian rural communities due, in part, to the destruction of trees, crops and irrigation systems. In addition, the intrusive route of the Barrier through 8 of the 11 West Bank governorates isolates the farms, greenhouses, grazing lands and water resources of thousands of farmers. Since October 2003, Palestinians in the northern West Bank require visitor permits to reach and cultivate their land in the closed area. Permits are only issued to those who are able to prove landownership. This will be further aggravated with the completion of the Barrier as farmers will have to access their land through "agricultural gates". Entrance and movement of agricultural inputs and machinery are also restricted. The lack of access to land in the Seam Zone has severely curtailed agricultural practice and undermined rural livelihoods.

In January 2009, the 'closed area' designation was extended to the Ramallah, Hebron and parts of Salfit, Bethlehem and Jerusalem governorates (central and southern West Bank). Almost 15% of West Bank agricultural land will be lost once the construction of the Barrier is complete.

Already, food insecurity levels are higher among households living in the Seam Zone. The prevalence of food insecurity among this group affects 28% of households, 3% more than the average remaining in the West Bank[139].

AVAILABILITY OF LAND

In developing countries, land is of fundamental importance to economic activity and development: it is often the most common means of storing wealth and a powerful economic asset; it provides a foundation for economic activity in sectors as varied as agriculture, industries, housing and tourism; it is also a key factor in the functioning of market (e.g. credit), and non-market institutions (e.g. local governments)[140]. Since the Israeli occupation, Israel has restricted Palestinians from using their land and the natural resources, hence limiting development in any aspect of the Palestinian society; or to function like regular one.

Restrictions of movement of people and commercial goods, access to unskilled jobs in Israel, lack of movement of people and goods, the expansion of settlements and related infrastructure, the West Bank Barrier and lack of access to work and / or Palestinian agricultural lands, the closure of the Israeli labor market to Palestinians, the Gaza Strip blockade as well as the repeated destruction of physical assets during regular military incursions are all Israeli measures imposed on Palestinians forming key elements in the food security downturn in the oPt. Such measures are supported by Israel matrix of control tools that varied from declaring vast parts of the oPt as «closed military areas», which is forming more than 1000 Km^2 (almost 18% of the West Bank area), built 199 settlements (9% of West Bank area), 232 outposts and hundreds of military bases (49 km^2), and imposing restrictions on movement with hundreds (578 in October 2009[141]) of obstructions (checkpoints, road blocks, earth mounds, earth walls, road barriers, road gates and trenches) and with a lengthy network of bypass roads (800 Km in length - 112 Km^2)[142].

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[134] *Mainly based on OCHA. Five Years After the International Court of Justice Advisory Opinion. A Summary of the Humanitarian Impact of the Barrier. July 2009.*
[135] *- OCHA. Five Years After the International Court of Justice Advisory Opinion. A Summary of the Humanitarian Impact of the Barrier. July 2009.*
- According to the Applied Research Institute-Jerusalem (ARIJ) and based on aerial photo analysis -June 2009-, the West Bank Barrier runs along 781 km across the West Bank territory. The source for the planned route of the West Bank Barrier comes from a map issued April 2007 and published on the Israeli Ministry of Defense website "Israel's Security Fence" in September 2007.
[136] *Palestinian Central Bureau of Statistics (PCBS), Population census, 2007*
[137] *The Applied Research Institute-Jerusalem (ARIJ) - Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009 & Palestinian Central Bureau of Statistics (PCBS), Population census, 2007 & Info gathered from Village Councils and Municipalities of communities in J1 area that will be isolated by West Bank Barrier.*
[138] *According to the latest route of the West Bank Barrier (April 2007), 66 Palestinian communities will be isolated away from the rest of the West Bank, out of which 30 Palestinian communities exist in Jerusalem and under Israeli control; will be isolated away from the rest of the West Bank.*
[139] *FAO/WFP. Socio-Economic and Food Survey Report-West Bank. August 2009.*
[140] *The World Bank, The Economic Effects of Restricted Access to Land in the West Bank. Social and Economic Development Group, Finance and Private Sector Development, Middle East and North Africa Region, 2008*
[141] *OCHA, West Bank Movement and Access Update, November 2009.*
[142] *The Applied Research Institute-Jerusalem (ARIJ) - Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009.*

In addition to the seizure of large tracts of Palestinian land, the establishment and continuation of settlements is a major obstacle to peace in the oPt. Between 1989 and 2009, the settler population grew by over 220% (reaching 580,000 persons in 2009) and the land area controlled by settlements by more than 700% (according to master plan released by Israeli Civil Administration for the settlements in the year 1991 to allocate areas for future expansion[143]).

The territorial division of the West Bank distorts the land use of the Palestinians. Development is not suitable in Area C due to Israeli imposed restrictions on access to land as well as difficulties to obtain construction permits. Recurrent destruction of trees, private homes and public infrastructure, as well as settlers' encroachments on this land create a permanent state of insecurity that deters Palestinian investment[144]. As a result, economic activity in Area C is limited to low intensity agriculture.

The conflict and the fragmentation of the territory create a scarcity of land, having a direct effect on the price of land, while also putting additional pressure on remaining agricultural land in Area A and B as to cope with the population growth. The majority of Palestinian recent constructions took place in areas A and B within identified municipal boundaries under Palestinian control.

The security buffer zone along Gaza's northern and eastern border came as a part-clause of the 1994 Oslo accord, under which, the Israelis were to maintain 0.5 km wide security zone across the northern and eastern Gaza's 58 km border. This security zone occupied 29 km^2 (8%) of Gaza's area to remain under the Israeli Army control along with Palestinian security monitoring. After the Palestinian second *Intifada* broke out in September 2000, by the end of 2005 when the Israeli Army completed its disengagement (redeployment) and the latest in June 2007, and in an unilateral step, the Israeli Army expanded the security buffer zone area along Gaza's northern and eastern border to a width of 1.5 km. Accordingly, the newly defined security buffer zone occupy an area of 87 km^2 (24%) of the Gaza Strip area[145].

Before the blockade in 2006, the agricultural sector in the Gaza Strip employed 40,000 people, generating livelihoods for a quarter of the population. Approximately 5,000 farmers were dependent on the export of cash crops, the two largest ones being carnations and strawberries (others crops exported were cherry tomatoes, green peppers and certain potato and cucumber species). The Israeli authorities have completely banned exports since 2007, with the exception of 147 truckloads of cut flowers and strawberries allowed out of Gaza, compared to a monthly average of 1,090 truckloads exported during the first 5 months of 2007 to the West Bank, Israel and Europe.

In the Gaza Strip, access to land is prevented in the buffer zone that runs along the border with Israel with a width of circa 300 meters. Farmers living near the border fence have seen their greenhouses, orchards and fields destroyed, and access in the Buffer Zone further curtailed[146].

In addition to land restriction, the Israeli Army currently prohibits Palestinians from fishing beyond three nautical miles (nm) from the shore. This prohibition set end of 2008 followed a previous reduction of the fishing zone in October 2006 from 12 to 6 nm. The limits in fishing distance provoked over-fishing in shallow coastal waters, depleting stocks and compromising the future viability of the fishing industry.

Land cultivation is a fundamental means of survival for many Palestinian communities in the West Bank and the Gaza Strip. Both non agricultural livelihoods and agricultural livelihoods are in danger of further erosion with the current fragmentation of the oPt. If systematic Israeli restrictions on movement of people and good, access to land and water persist, livelihood opportunities will remain limited in the oPt. The removal of restrictions is an essential prerequisite as to start the revival of the economy and allow free access to agricultural areas within the oPt.

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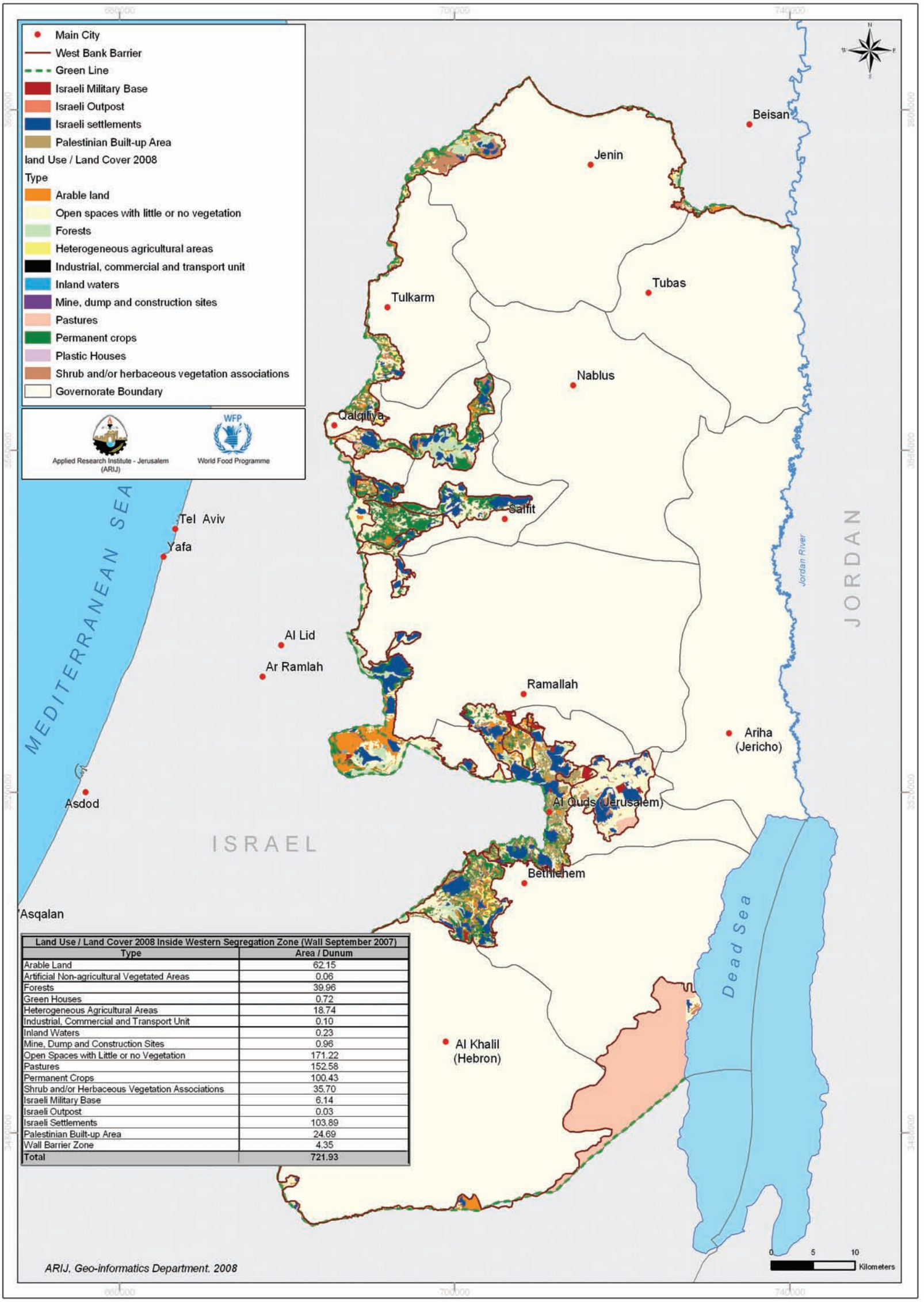
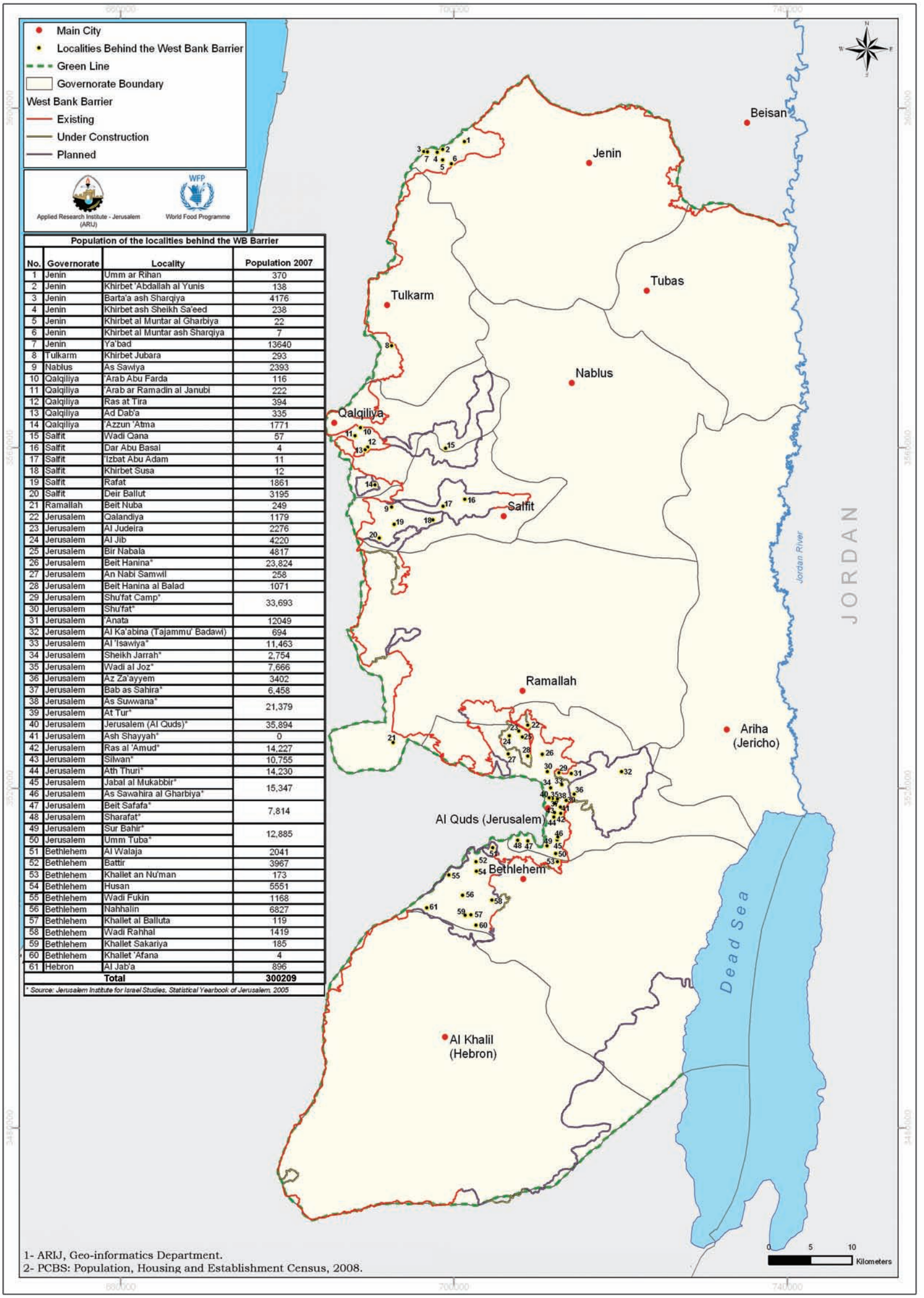
[143] *The Applied Research Institute-Jerusalem (ARIJ) - Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009*
[144] *The World Bank, The Economic Effects of Restricted Access to Land in the West Bank. Social and Economic Development Group, Finance and Private Sector Development, Middle East and North Africa Region, 2008*
[145] *The Applied Research Institute-Jerusalem (ARIJ)- Urbanization Monitoring Department. Analysis of Satellite Images, "Monitoring Israeli activities in the oPt" project funded by EU. November 2009.*
[146] *WFP/FAO. Food Security and Vulnerability Analysis Report in the oPt. December 2009.,*

Land Use / Land Cover Area Isolated by the West Bank Barrier, 2008



Land Use / Land Cover 2008 Inside Western Segregation Zone (Wall September 2007)	
Type	Area / Dunum
Arable Land	62.15
Artificial Non-agricultural Vegetated Areas	0.06
Forests	39.96
Green Houses	0.72
Heterogeneous Agricultural Areas	18.74
Industrial, Commercial and Transport Unit	0.10
Inland Waters	0.23
Mine, Dump and Construction Sites	0.96
Open Spaces with Little or no Vegetation	171.22
Pastures	152.58
Permanent Crops	100.43
Shrub and/or Herbaceous Vegetation Associations	35.70
Israeli Military Base	6.14
Israeli Outpost	0.03
Israeli Settlements	103.89
Palestinian Built-up Area	24.69
Wall Barrier Zone	4.35
Total	721.93

Distribution of the Palestinian Locality behind the West Bank Barrier and their Population, 2007

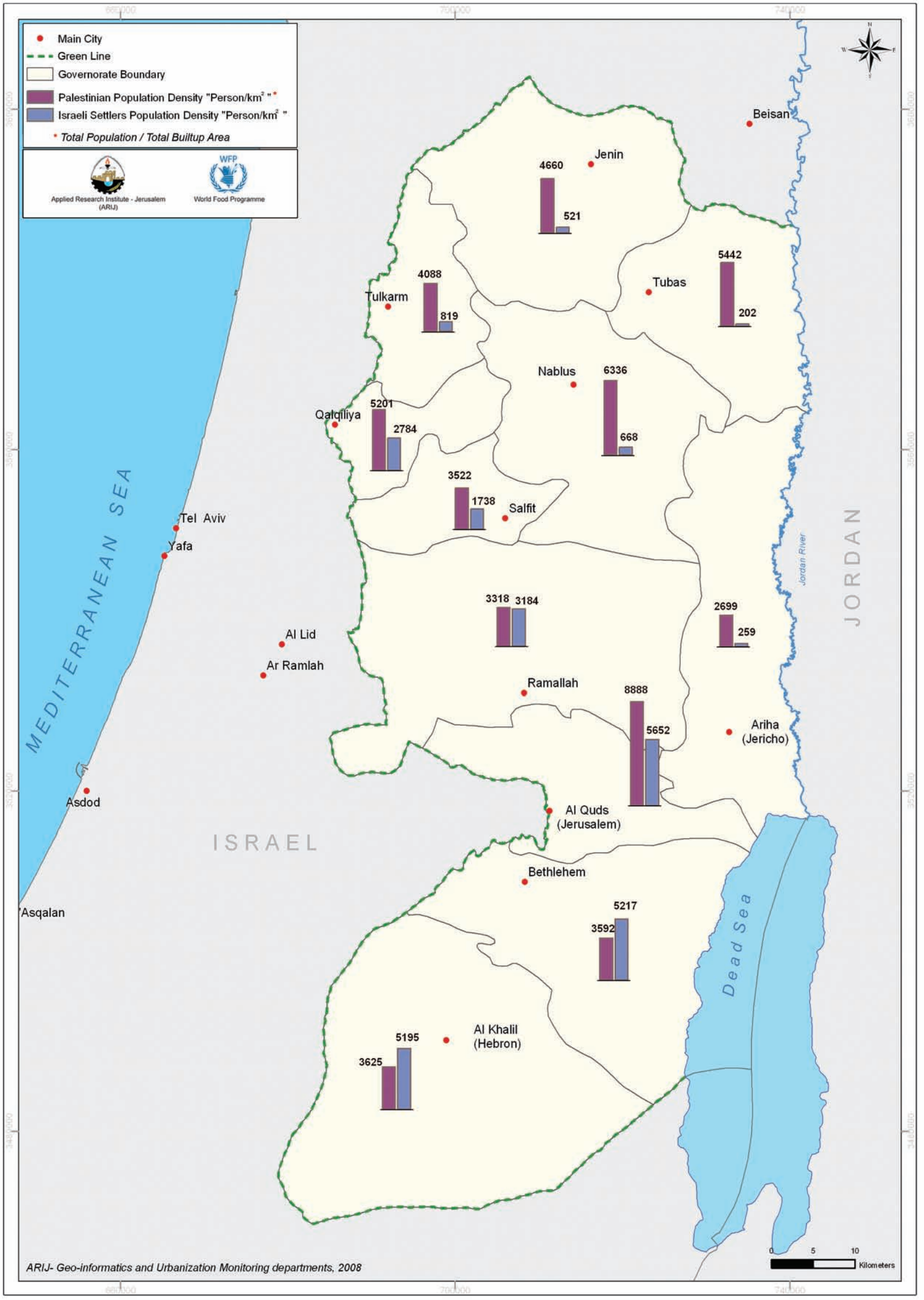


Population of the localities behind the WB Barrier			
No.	Governorate	Locality	Population 2007
1	Jenin	Umm ar Rihan	370
2	Jenin	Khirbet 'Abdallah al Yunis	138
3	Jenin	Barta'a ash Sharqiya	4176
4	Jenin	Khirbet ash Sheikh Sa'eed	238
5	Jenin	Khirbet al Muntar al Gharbiya	22
6	Jenin	Khirbet al Muntar ash Sharqiya	7
7	Jenin	Ya'bad	13640
8	Tulkarm	Khirbet Jubara	293
9	Nablus	As Sawiya	2393
10	Qalqiliya	'Arab Abu Farda	116
11	Qalqiliya	'Arab ar Ramadin al Janubi	222
12	Qalqiliya	Ras at Tira	394
13	Qalqiliya	Ad Dab'a	335
14	Qalqiliya	'Azzun 'Atma	1771
15	Salfit	Wadi Qana	57
16	Salfit	Dar Abu Basal	4
17	Salfit	'Izbat Abu Adam	11
18	Salfit	Khirbet Susa	12
19	Salfit	Rafat	1861
20	Salfit	Deir Ballut	3195
21	Ramallah	Beit Nuba	249
22	Jerusalem	Qalandiya	1179
23	Jerusalem	Al Judeira	2276
24	Jerusalem	Al Jib	4220
25	Jerusalem	Bir Nabala	4817
26	Jerusalem	Beit Hanina*	23,824
27	Jerusalem	An Nabi Samwil	258
28	Jerusalem	Beit Hanina al Balad	1071
29	Jerusalem	Shu'fat Camp*	33,693
30	Jerusalem	Shu'fat*	
31	Jerusalem	'Anata	12049
32	Jerusalem	Al Ka'abina (Tajammu' Badawi)	694
33	Jerusalem	Al 'Isawiya*	11,463
34	Jerusalem	Sheikh Jarrah*	2,754
35	Jerusalem	Wadi al Joz*	7,666
36	Jerusalem	Az Za'ayyem	3402
37	Jerusalem	Bab as Sahira*	6,458
38	Jerusalem	As Suwwana*	21,379
39	Jerusalem	At Tur*	
40	Jerusalem	Jerusalem (Al Quds)*	35,894
41	Jerusalem	Ash Shayyah*	0
42	Jerusalem	Ras al 'Amud*	14,227
43	Jerusalem	Silwan*	10,755
44	Jerusalem	Ath Thuri*	14,230
45	Jerusalem	Jabal al Mukabbir*	15,347
46	Jerusalem	As Sawahira al Gharbiya*	
47	Jerusalem	Beit Safafa*	7,814
48	Jerusalem	Sharafat*	
49	Jerusalem	Sur Bahir*	12,885
50	Jerusalem	Umm Tuba*	
51	Bethlehem	Al Walaja	2041
52	Bethlehem	Battir	3967
53	Bethlehem	Khallet an Nu'man	173
54	Bethlehem	Husan	5551
55	Bethlehem	Wadi Fukin	1168
56	Bethlehem	Nahhalin	6827
57	Bethlehem	Khallet al Balluta	119
58	Bethlehem	Wadi Rahhal	1419
59	Bethlehem	Khallet Sakariya	185
60	Bethlehem	Khallet 'Afana	4
61	Hebron	Al Jab'a	896
		Total	**300209**

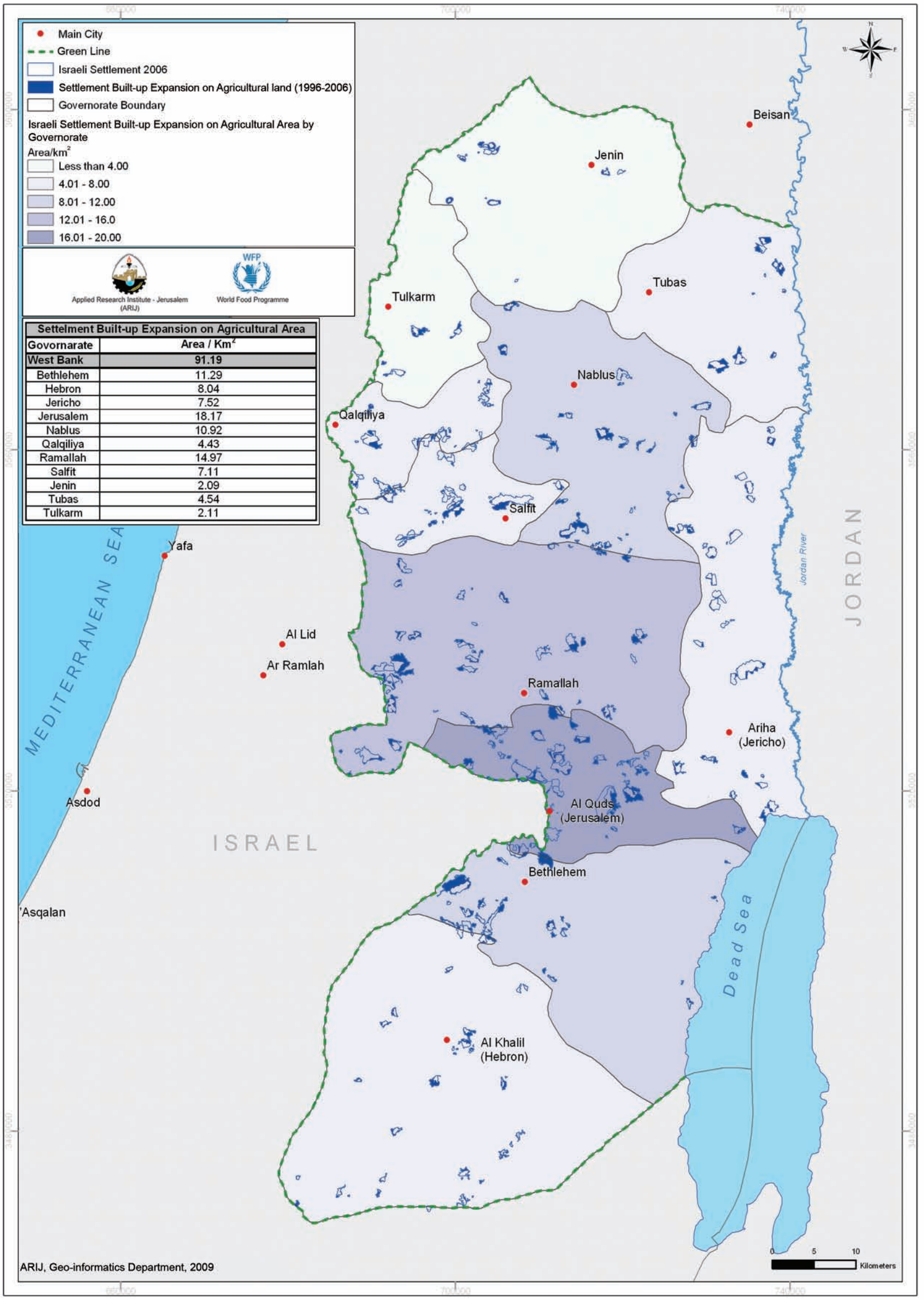
** Source: Jerusalem Institute for Israel Studies, Statistical Yearbook of Jerusalem, 2005*

1- ARIJ, Geo-informatics Department.
2- PCBS: Population, Housing and Establishment Census, 2008.

Population Density Comparison between Palestinians and Israeli Settlers in the West Bank, 2007/2008

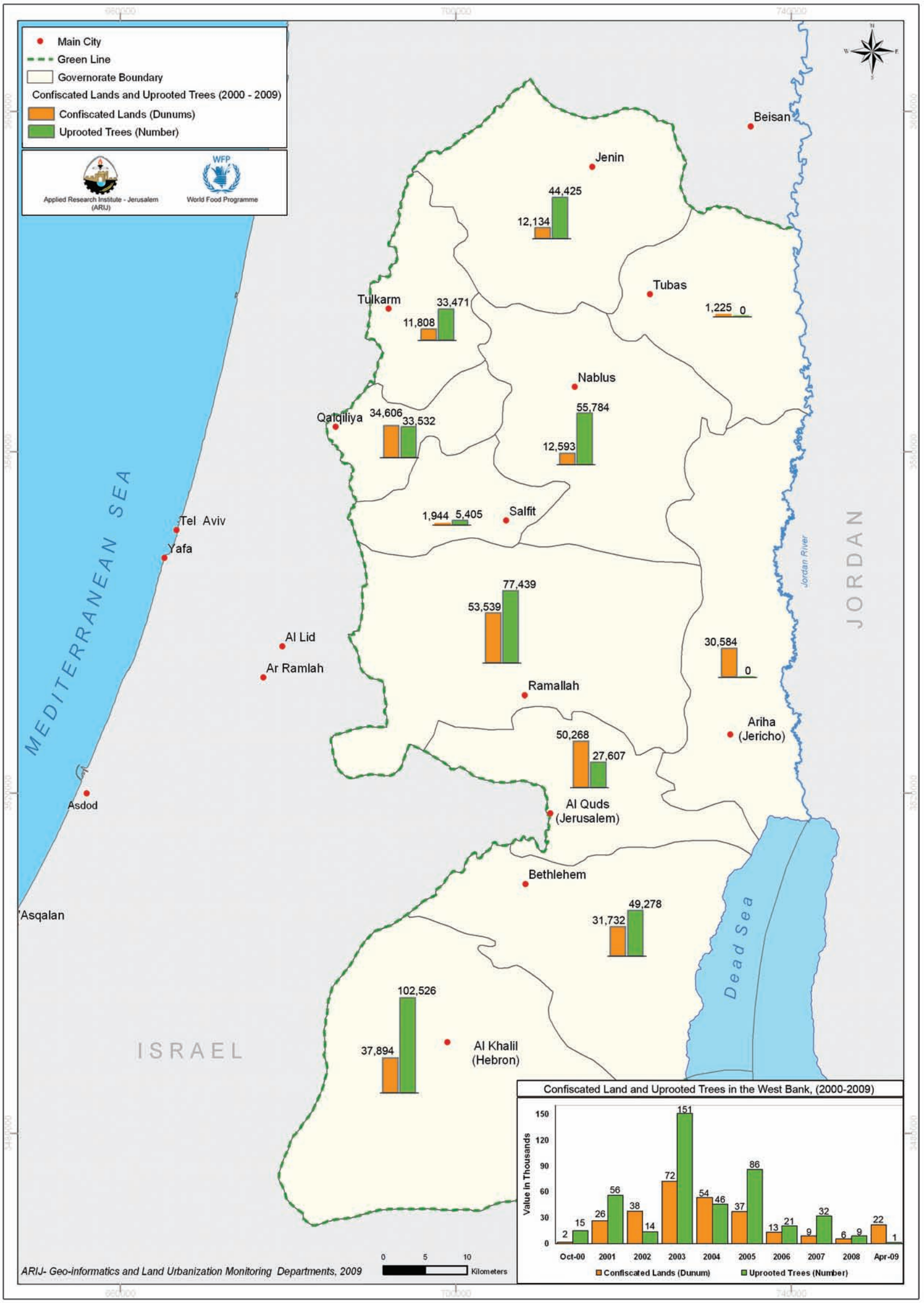


Settlement Built-up Expansion on Agricultural Areas in the West Bank between the Years 1996 and 2006



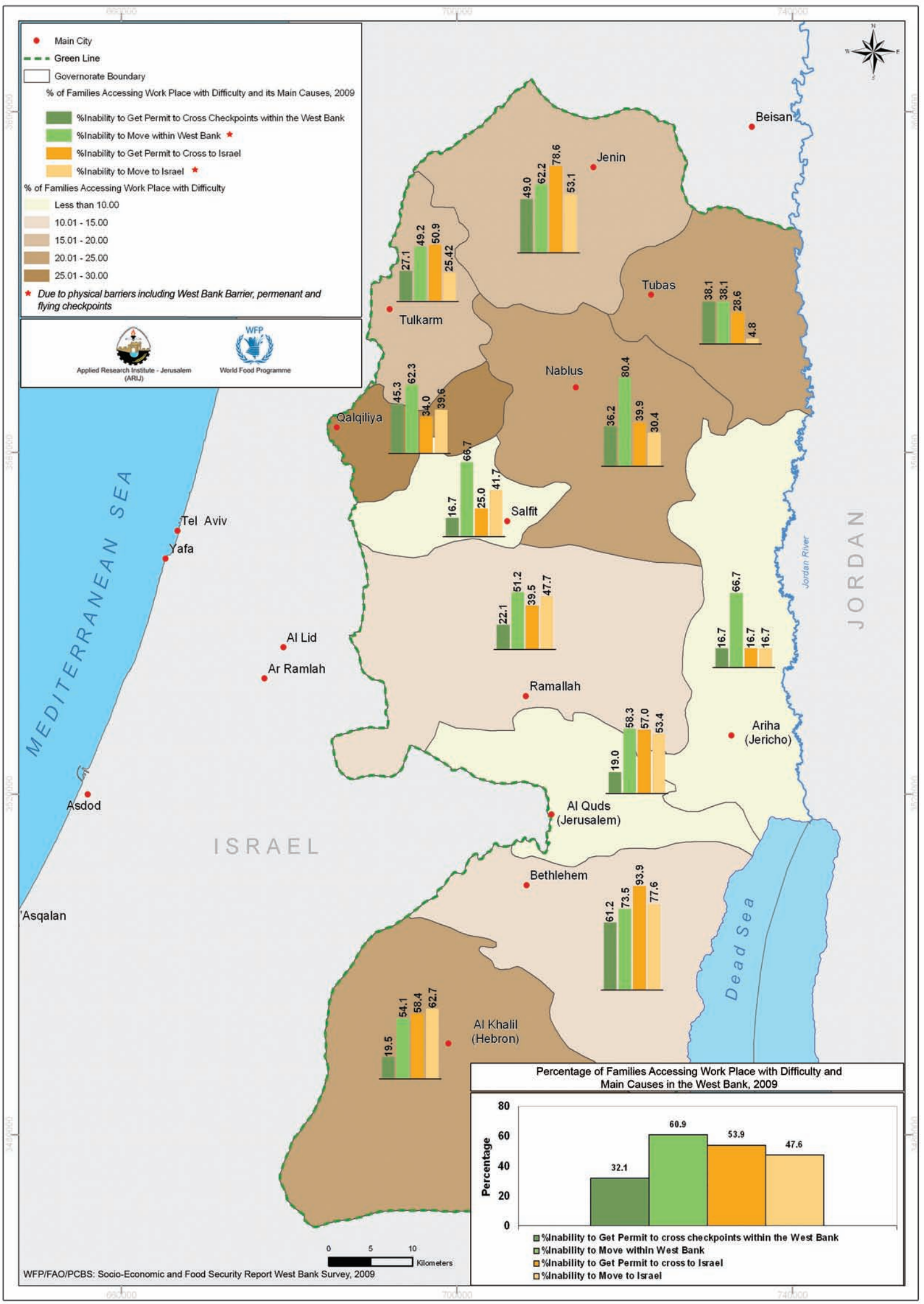
Settelment Built-up Expansion on Agricultural Area	
Govornarate	Area / Km²
West Bank	91.19
Bethlehem	11.29
Hebron	8.04
Jericho	7.52
Jerusalem	18.17
Nablus	10.92
Qalqiliya	4.43
Ramallah	14.97
Salfit	7.11
Jenin	2.09
Tubas	4.54
Tulkarm	2.11

Confiscated Lands and Uprooted Trees in the West Bank, 2000 - 2009

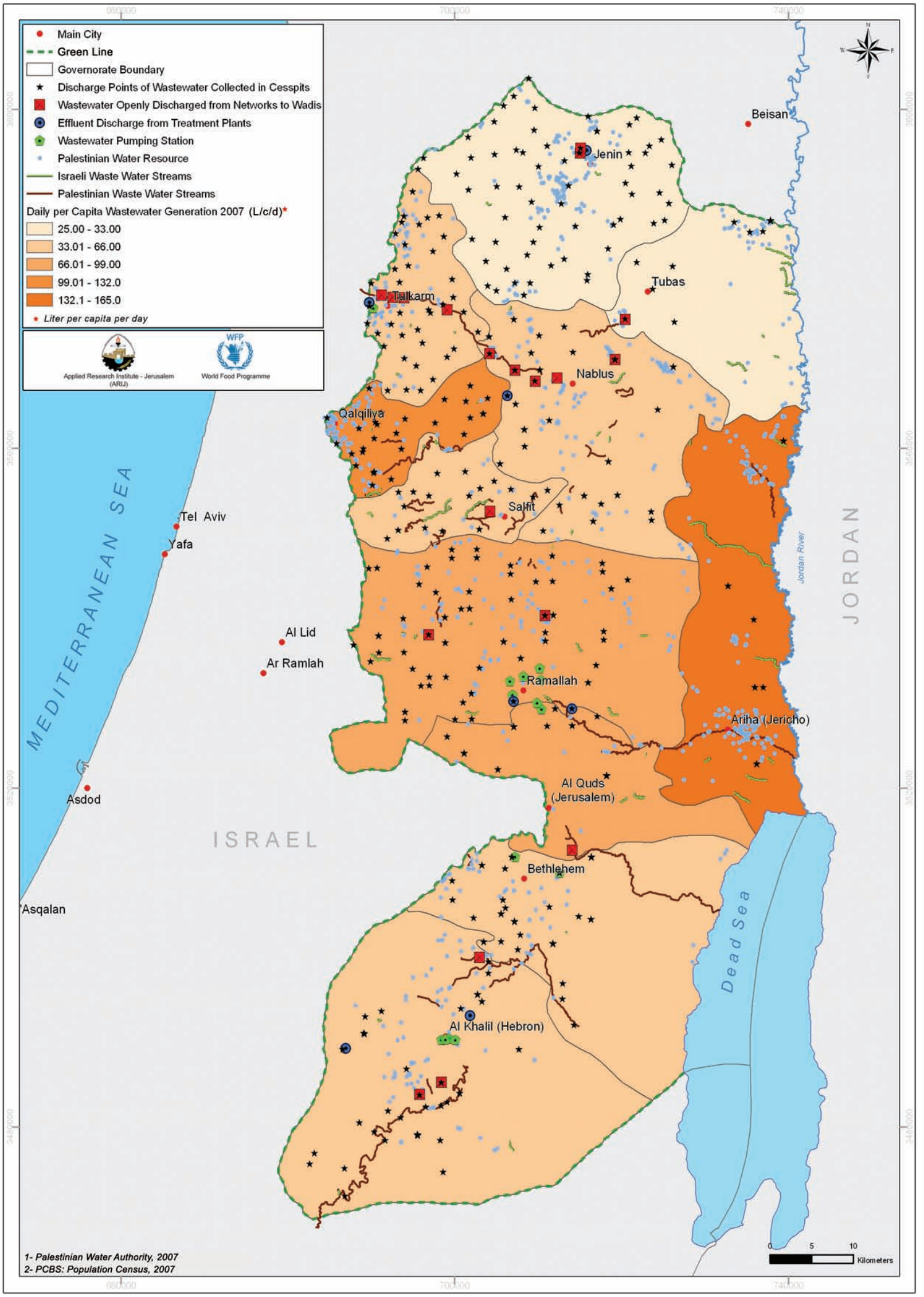


Mobility Restrictions in the occupied Palestinian territory, 2009

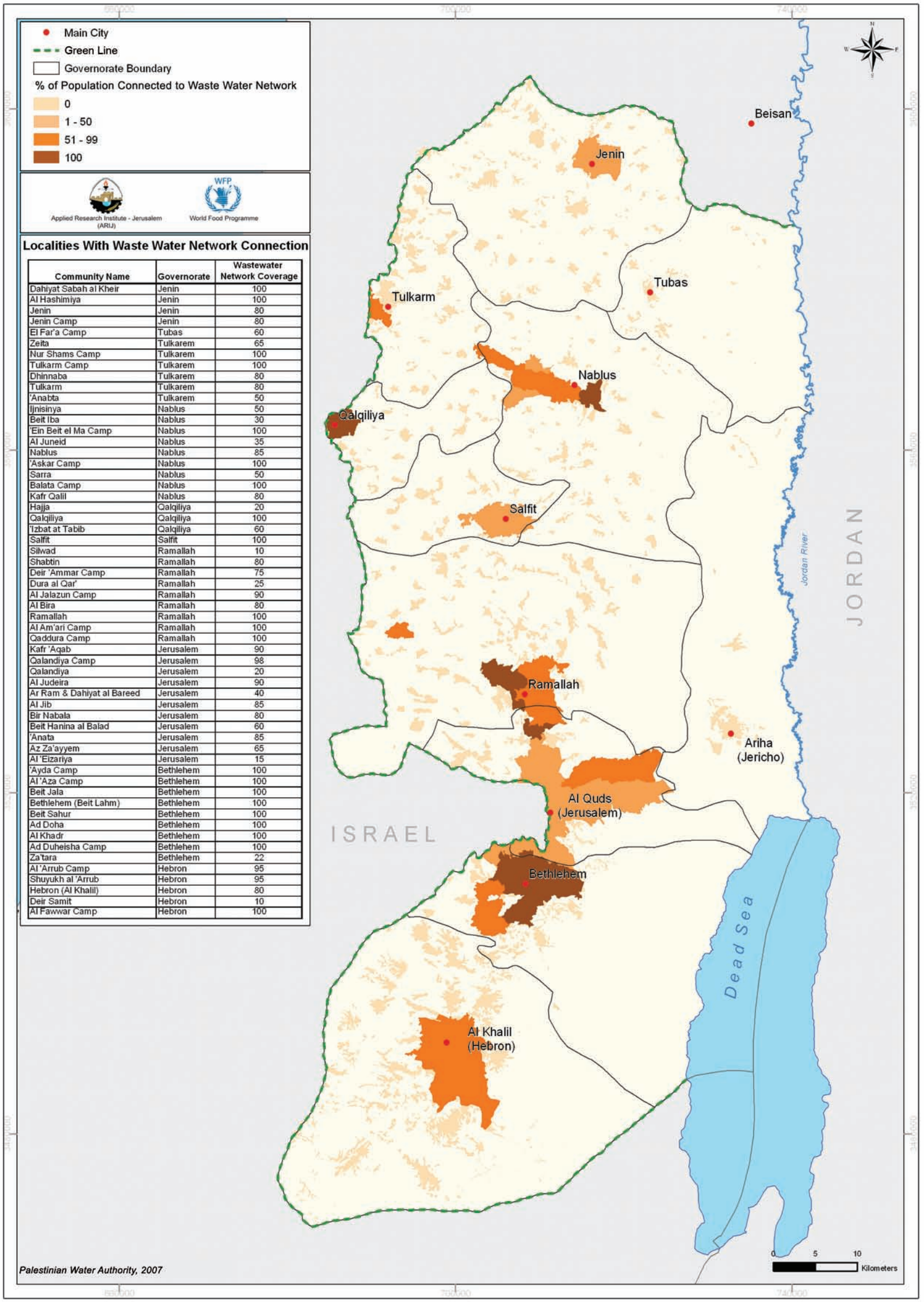
Mobility and Access to Work Place in the West Bank, 2009



Waste Water Discharge and Per Capita Waste Water Generation in the West Bank, 2007



Connection to Wastewater Network by Village Boundary, 2007



Localities With Waste Water Network Connection

Community Name	Governorate	Wastewater Network Coverage
Dahiyat Sabah al Kheir	Jenin	100
Al Hashimiya	Jenin	100
Jenin	Jenin	80
Jenin Camp	Jenin	80
El Far'a Camp	Tubas	60
Zeita	Tulkarem	65
Nur Shams Camp	Tulkarem	100
Tulkarm Camp	Tulkarem	100
Dhinnaba	Tulkarem	80
Tulkarm	Tulkarem	80
'Anabta	Tulkarem	50
Ijnisinya	Nablus	50
Beit Iba	Nablus	30
'Ein Beit el Ma Camp	Nablus	100
Al Juneid	Nablus	35
Nablus	Nablus	85
'Askar Camp	Nablus	100
Sarra	Nablus	50
Balata Camp	Nablus	100
Kafr Qalil	Nablus	80
Hajja	Qalqiliya	20
Qalqiliya	Qalqiliya	100
'Izbat at Tabib	Qalqiliya	60
Salfit	Salfit	100
Silwad	Ramallah	10
Shabtin	Ramallah	80
Deir 'Ammar Camp	Ramallah	75
Dura al Qar'	Ramallah	25
Al Jalazun Camp	Ramallah	90
Al Bira	Ramallah	80
Ramallah	Ramallah	100
Al Am'ari Camp	Ramallah	100
Qaddura Camp	Ramallah	100
Kafr 'Aqab	Jerusalem	90
Qalandiya Camp	Jerusalem	98
Qalandiya	Jerusalem	20
Al Judeira	Jerusalem	90
Ar Ram & Dahiyat al Bareed	Jerusalem	40
Al Jib	Jerusalem	85
Bir Nabala	Jerusalem	80
Beit Hanina al Balad	Jerusalem	60
'Anata	Jerusalem	85
Az Za'ayyem	Jerusalem	65
Al 'Eizariya	Jerusalem	15
'Ayda Camp	Bethlehem	100
Al 'Aza Camp	Bethlehem	100
Beit Jala	Bethlehem	100
Bethlehem (Beit Lahm)	Bethlehem	100
Beit Sahur	Bethlehem	100
Ad Doha	Bethlehem	100
Al Khadr	Bethlehem	100
Ad Duheisha Camp	Bethlehem	100
Za'tara	Bethlehem	22
Al 'Arrub Camp	Hebron	95
Shuyukh al 'Arrub	Hebron	95
Hebron (Al Khalil)	Hebron	80
Deir Samit	Hebron	10
Al Fawwar Camp	Hebron	100

Israeli Security Zone in the Gaza Strip, 1994 - 2007

Location of Destroyed Sites by Type as a result to the Israeli Attack in the Gaza Strip, 2008 - 2009

Destroyed Agriculture Lands by Type as a result to the Israeli Attack in the Gaza Strip, 2008 - 2009

Destroyed Agricultural Area	Area Dunums	%
Arable Land	31791	56%
Heterogeneous agricultural areas	6891	12%
Permanent crops	16726	29%
Permanently irrigated land (green houses)	1557	3%
Total	**56966**	**100%**
Total Destroyed Area	**89692**	**Dunums**

CHAPTER SIX:

oPt FOOD SECURITY – Why, How Many, Who, Where, Response Options .

INTRODUCTION[147]

Food security exists when all people, at all time, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Food insecurity exists when this access is jeopardized[148].

After years of conflict, food insecurity affects population groups according to their livelihoods and the combined effects of violence, natural disasters and economic shocks, rather than because of their refugee/non-refugee status. Most of the food insecure households in the oPt are by now chronically food insecure, but the severity of food insecurity deepens whenever the conflict situation worsens or additional shocks (natural, economic) occur.

WHY PEOPLE ARE FOOD INSECURE IN THE oPt?

As detailed in the previous chapters, the basic causes of food insecurity in the oPt are essentially linked to the conflict with Israel, with external factors (international economic context, weather-related events) playing a smaller role. In addition to the direct effects of violence, land use restrictions imposed by the Israeli Army to the bulk land area of the West Bank (identified as Area "C"), in addition to Israeli dominance over natural resources in particular water are the main elements affecting food security. Furthermore, the closure policy is the main element affecting food security through internal (mobility inside the West Bank), external (access from the West Bank and the Gaza Strip to Israel and East Jerusalem), and external international (access from the West Bank to Jordan and access from the Gaza Strip to Egypt) restrictions.

These basic causes of food insecurity translate into underlying and immediate causes of food insecurity at household level, including: (i) limitations on food availability: negative effects on agricultural production, fisheries and food trade/market supplies; (ii) insufficient economic access to food: prices artificially high but lack of opportunities to secure employment and higher household incomes; and (iii) impaired food utilization: poor water, sanitation, hygiene, access to health care, and declining quality of the diet. Based on the population growth rate registered in the 2007 PCBS Population and Housing Census, the Palestinian population is projected to double in approximately 20 years. This is anticipated to magnify food insecurity prevalence and depth and possibly become a national concern.

HOW MANY PEOPLE ARE FOOD INSECURE IN THE oPt?

The combined results of the FAO/WFP Socio-Economic and Food Security Survey Reports (SEFSecs) in the West Bank and the Gaza Strip indicate that about 38% of households in the oPt were food insecure during the second half of 2008 and second trimester of 2009. Based on a total population of 3.8 million and taking into account the largest size of food insecure families, this represents nearly 1.6 million food insecure people.

These include 625,200 food insecure persons in the West Bank (25 %) and 973,600 in the Gaza Strip (61%). In addition, 269,300 persons in the West Bank (11%) and 218,950 persons in the Gaza Strip (16%) are vulnerable to food insecurity. While 35% of West Bank households can be considered food secure, only 17% are food secure in the Gaza Strip.

Although methodologies employed for the estimates differ, this is a similar proportion as in mid-2008 and 2003-2004, and slightly above the 2006 level of 34% food insecure households. As such, in the West Bank, the result indicates no improvement since the worsening of the situation due to the rise of food and fuel prices early 2008. In the Gaza Strip, Food security has markedly worsened since the blockade started in 2007 and further more immediately after the Israeli military offensive at the end of 2008.

In total, food insecurity level is significantly higher in Gaza Strip than in the West Bank with a difference of 36%. Gaza Strip suffers worse socio-economic conditions; including higher population density, higher unemployment rates, lower income and daily wages, lower purchasing power, and higher poverty rates (see chapter two). Scarcity of water, undermining agricultural livelihoods, restrictions on fishing and fishing areas, tight restrictions on movement and entrance of goods, continuous blockade since June 2007, various Israeli incursions, and the last Cast Lead Operation in December 2008/January 2009, are all factors increasing the number of households suffering food insecurity in Gaza Strip.

While the SEFSec define food insecurity in the oPt by combining income and/or consumption levels (US $/capita) and trends in food and non-food expenditures (decrease/no change), the Food Consumption Score estimates the amount and variety of food consumed in the households during the 7 days preceding the survey, by counting the number of times specific food items (grouped in specific food groups) are

[147] *Food Security chapter is mainly based on extracts from the WFP/FAO Food Security and Vulnerability Analysis Report (December 2009). World Food Summit (1996)*
[148] *FAO. The state of food Insecurity in the world 2001, Rome. 2002.*

consumed[149]. In the West Bank, 10% of households had 'poor' food consumption, 18% 'borderline' and 72% 'acceptable'. In the Gaza Strip, 14% of households had 'poor' food consumption, 23% 'borderline' and 63% 'acceptable'.

WHO ARE THE FOOD INSECURE IN THE oPt?

In the West Bank, at locality level, higher food insecurity rates affects refugee camps and rural populations (29%), and refugees (28%) more than non-refugee populations (24%). Households living in urban localities show to be more affluent compared to rural and camp dwellers, as a relatively high percentage of urban households falls within the category of food secure or marginally food secure families. The trend seems opposed to findings from data collected during the first half of 2008, when urban dwellers resulted to be more vulnerable to food insecure, due to increasing food prices particularly in urban centers.

In the Gaza Strip, the prevalence of food insecurity was also higher in rural areas (67%) and in refugee camps (62%) than in urban areas (60%) during the 2nd trimester of 2009. Rural areas are more affected than urban areas by 7%. Refugee households were less likely to be food insecure than non-refugees (58% versus 64%). However, only 2% of the total population in Gaza is rural, hence the absolute number of food insecure people is much higher in urban areas.

In both the West Bank and the Gaza Strip, rural households, female-headed households, unemployed headed-households, households whose head has a low level of education attainment, households with a large number of female and child members and families with a high number of dependents are more likely to be food insecure than households without these characteristics. Food insecure households also rely more on casual work and low-paid, unskilled labour as their main source of income, compared to food secure households.

Food insecurity is also higher among certain groups such as: social hardship cases (destitute families), school children, poor farmers, herders and marginalized community, fishermen, pregnant and nursing mothers and children under 5, families affected by the Israeli "Cast Lead Operation" in December 2008 / early January 2009 which lost their assets, housing, etc,.

WHERE ARE THE FOOD INSECURE IN THE oPt?

Food insecurity is highest in the northern parts of West Bank and lowest in the central area of the West Bank. At governorate level, Jenin is still the governorate most affected by food insecurity, with 34.5% of households suffering from food insecurity, followed by Tubas and Hebron, where 33% of households are affected respectively. The southern average is strongly affected by the high food insecurity levels recorded in the governorate of Hebron. Livelihoods in Hebron is a special case among the West Bank governorates, since it has been more impacted by the drought conditions, increasing water scarcity over the past few years undermining agricultural livelihoods, the proximity of Israeli settlements combined with settlers' violence, which have made it difficult for residents of the southern governorates to pursue their professions in a sustainable way. The same challenge is highlighted in the Jenin case and its suffering in the past years from Israeli attacks, losses in agricultural lands, and restrictions on movement.

Salfit, on the other hand, found to have the lowest food insecurity levels, where only 9% of households suffer from food insecurity. According to FAO-WFP SEFSec report, the main cause behind lower food insecurity levels is the contribution of own production towards household consumption in Salfit, which is much higher than in other governorates: 70% of Salfit households derive 50 NIS of their adult equivalent monthly consumption from the households own food production. This compares favorably to the West Bank average, where own household production contributed to the consumption of only 30% of households. In addition, Salfit receives higher levels of aid assistance than in other governorates pertaining to the West Bank. Hence, families who are able to rely on their own production for food intake and receive food aids are less vulnerable to price and supply shocks, and thus their food security levels are more stable.

Food insecurity was also slightly more prevalent among households located in the Buffer/Seam Zone (between the green line and the West Bank Barrier) compared to other locations in the West Bank (28%).

[149] *Three groups are constructed by applying thresholds that define a 'poor' food consumption pattern, 'borderline' food consumption, and 'acceptable' food consumption. Essentially:*
• a 'poor' food consumption consists of cereals (bread and rice), potatoes, sugar and oil consumed on a nearly daily basis, vegetables 4 times during the 7 days prior to the survey and very rare consumption of animal products and fruits; quantities are also likely to be low and below kilocalorie requirements for household members with additional needs (pregnant and lactating women, physically active adults);
• a 'borderline' diet is similar but includes a slightly more frequent consumption of vegetables (5 times during the 7 day period), meat and eggs (3 to 4 times) and fruits (twice); quantities are probably just sufficient to meet kilocalorie requirements;
• an 'acceptable' diet is yet more diversified with consumption of the various food groups on a nearly daily basis; the amounts consumed are expected to be sufficient.

In the Gaza Strip, at governorate level, Rafah, Gaza City and Khan Younis governorates show the highest prevalence of food insecurity (between 62% -66%), most likely because factories and outlets of the large manufacturing and construction sectors most hardly hit by the import restrictions were located in these areas. The Cast Lead Operation of December 08/January 09 also caused large damage in Rafah.

COPING STRATEGIES

The resilience of Palestinian households to the continuous degradation of their food security situation, particularly in the Gaza Strip, can be attributed to a significant extent to the efficacy of their coping mechanisms. Support from relatives within or outside the oPt (credit through traders between the West Bank and the Gaza Strip, remittances) and local charities, is essential in this regard. The vast majority of households also resort to changes in their food consumption patterns (quantities, quality) in order to decrease food expenditures. In the Gaza Strip, food insecure households were unable to further reduce the amount of food purchased, and only quality could be further decreased.

However, most of the coping strategies, even if they are reversible (e.g. switching to less preferred but cheaper food, decreasing the amount of food consumed, foregoing health or education expenditures, and purchasing food on credit) can have a permanent cost on lives and livelihoods, through poorer health and nutritional status, excessive indebtedness and loss of future opportunities for higher skills and better paid jobs. Low-cost strategies such as suspension of payment of utilities and use of life savings have been exhausted for most households.

INTERVENTIONS AND RECOMMENDED RESPONSE OPTIONS

Humanitarian assistance is a crucial complement to households' own coping mechanisms. One third of West Bank households had received assistance in the 2nd semester of 2008, of which about half benefited from food parcels and more than one third got cash. Accounting for the worse food security situation in the Gaza Strip, 71% of Gazan households received assistance in the first semester of 2009 composed in it vast majority by food assistance (more than 90%), enabling most households to secure a diet with an acceptable amount and diversity of food.

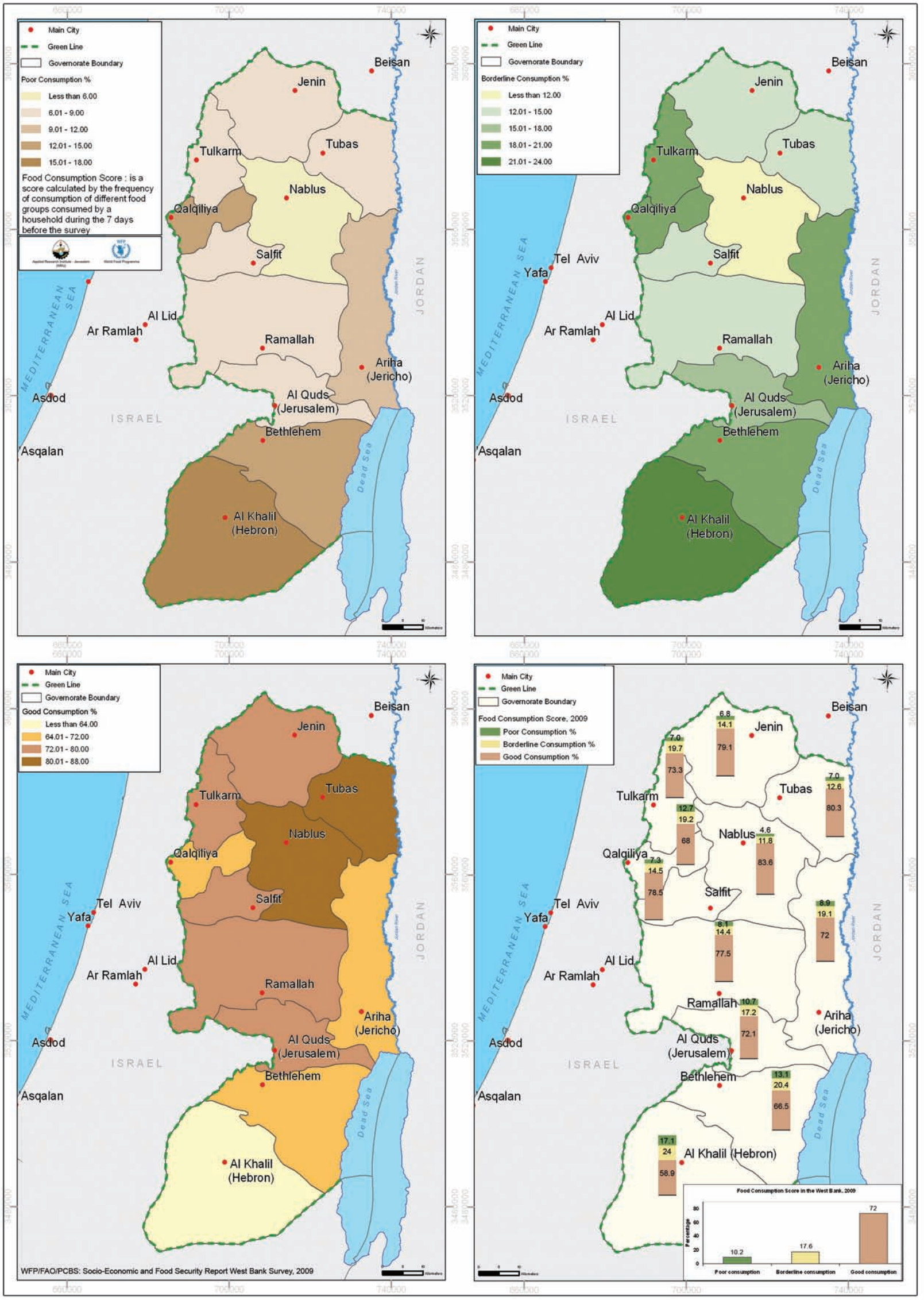
Since the beginning of the conflict with Israel, external assistance to the oPt has played a crucial role in mitigating the negative effects of the conflict on the food security situation of the population. Depending on the political situation, the focus of aid to the oPt has shifted between humanitarian and development assistance since 1967. In recent years, while the importance of social solidarity mechanisms must be acknowledged (including networks of relatives, friends and neighbours, as well as local charities and NGOs), support from UN, bilateral and non-governmental agencies with food, cash, vouchers and inputs has been instrumental to maintain a minimum level of food intake and access to other essential services, thus preventing a humanitarian disaster to unfold.

A number of interventions to increase local food availability, improve households' economic access and strengthen food utilization and nutritional status are already ongoing and would deserve being expanded. While humanitarian food and non-food assistance in the oPt is essential to prevent further degradation of food security and malnutrition levels, to reduce reliance on potentially damaging or risky coping strategies (poor food consumption, sale of assets, indebtedness, withdrawal of children from school, distress migration/displacement, over-exploitation of natural resources, illegal or exploitative work), it is insufficient to lift households out of food insecurity.

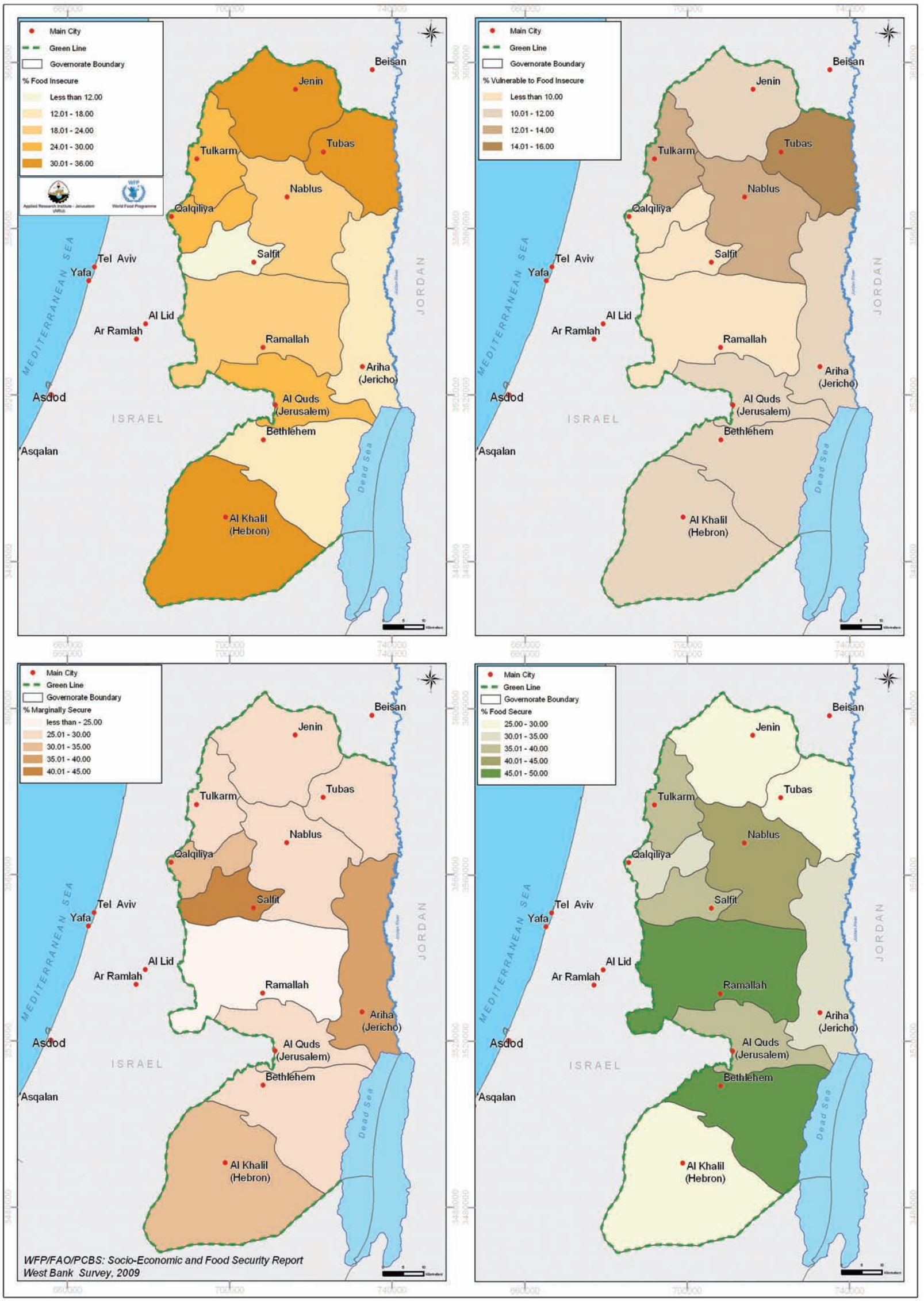
As long as access to the oPt remains restricted by Israel and prevents the delivery of material and services, as well as the mobility of persons and goods into and outside of both the West Bank and the Gaza Strip, the efficiency and effectiveness of humanitarian, recovery and longer-term assistance will remain low. Food and livelihood assistance should therefore be complemented by protection efforts to reduce risks to livelihoods linked to the violence and closure regime, in order to prevent - and not only respond to - lives and livelihoods threats.

However, it is clear that food security, livelihoods and protection interventions will have limited impact until the basic causes of food insecurity, loss of livelihoods and protection needs are addressed. The resolution of the peace process and end of the occupation are needed to lift constraints on economic investment, development of infrastructure and services, and growth. As long as the basic causes of food insecurity are not removed, reliable and steady financial and in-kind contributions from the donor community are required to avoid breaks of essential food and non-food assistance, and to enable the provision of levels of assistance sufficient to raise beneficiaries out of their poverty and food security gap. This also includes budgetary support to the Palestinian National Authority given the high reliance of households on public employment for their income.

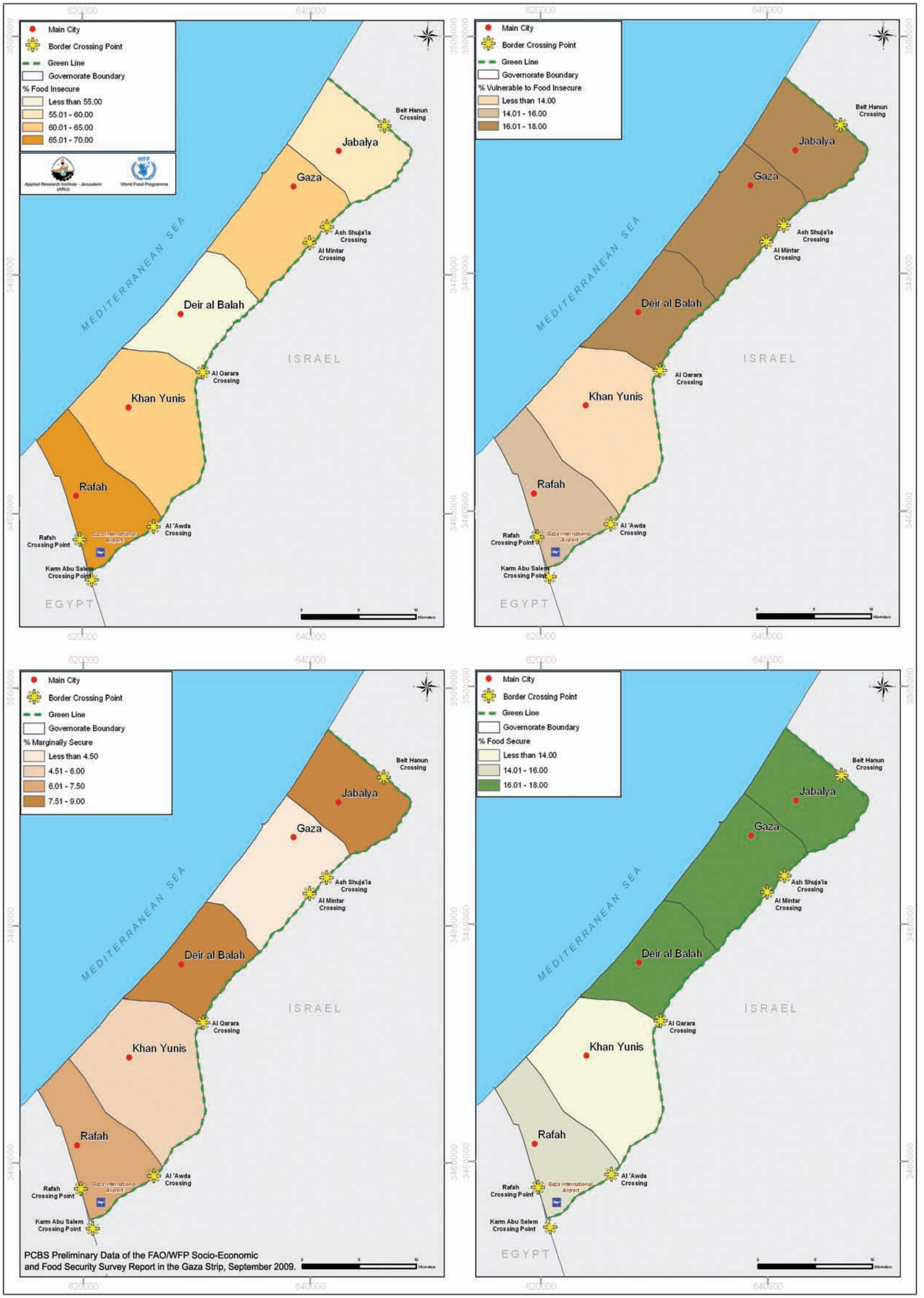
Food Consuption Score in the West Bank , 2009



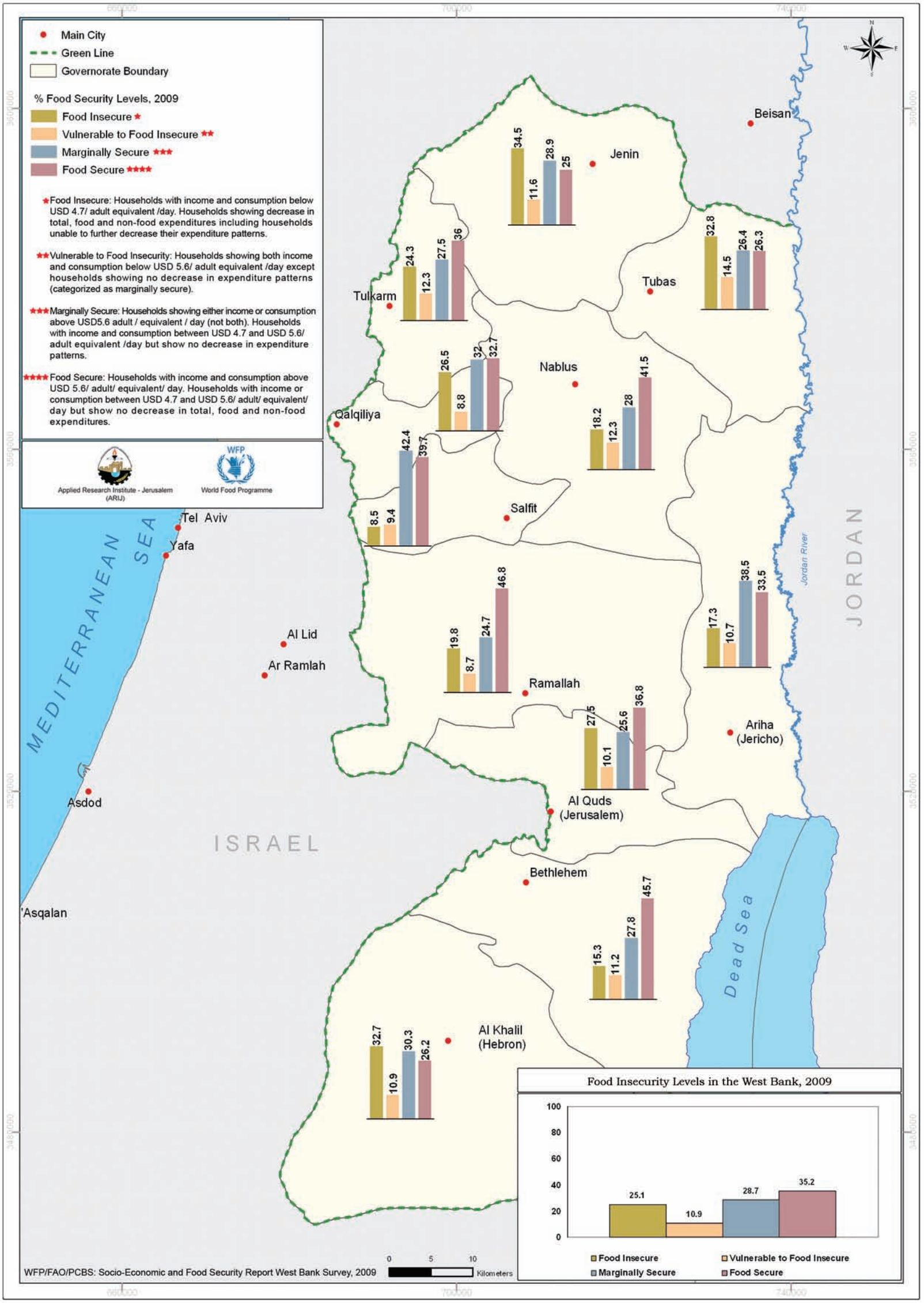
Food Security Levels in the West Bank, 2009



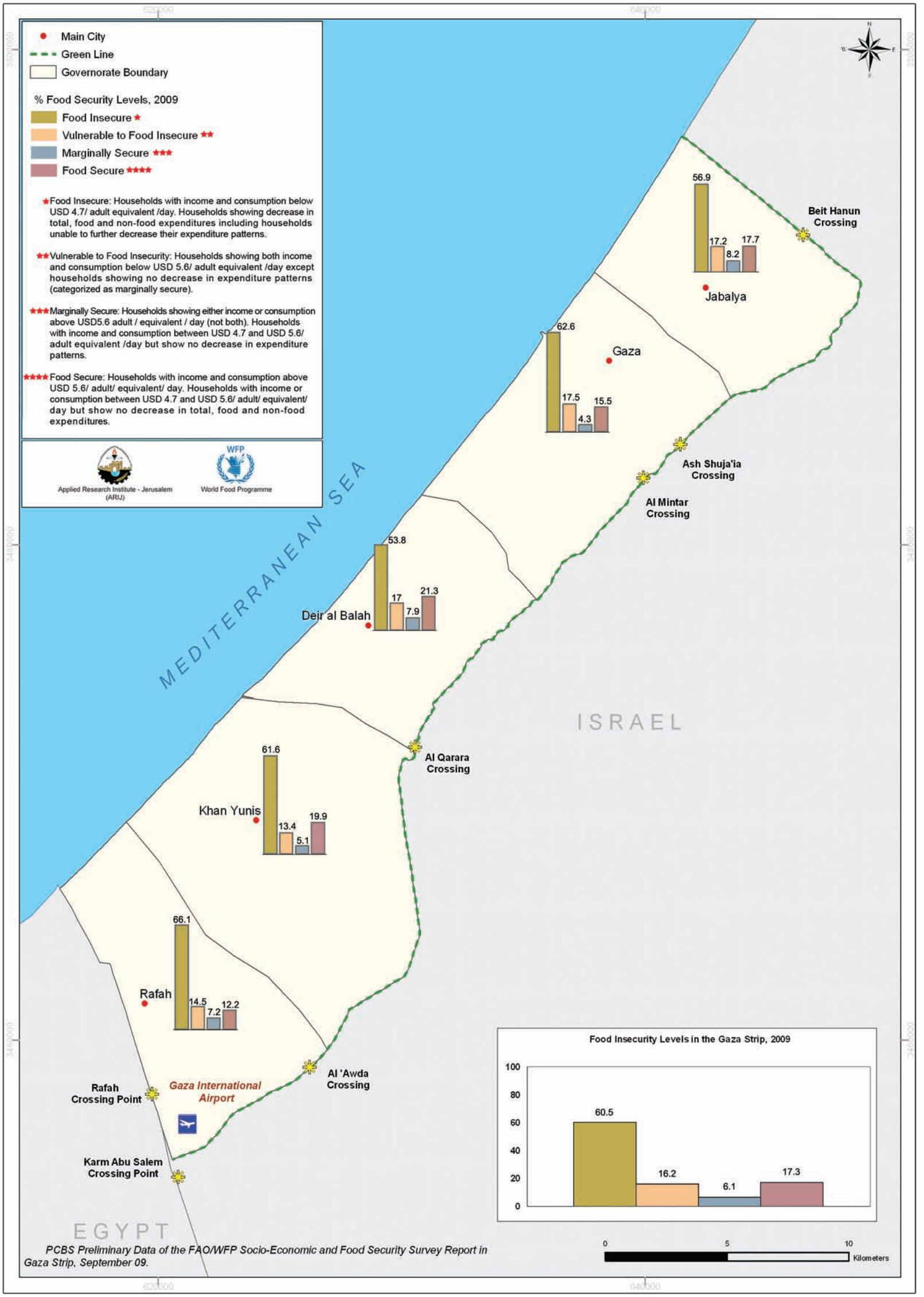
Food Security Levels in the Gaza Strip, 2009



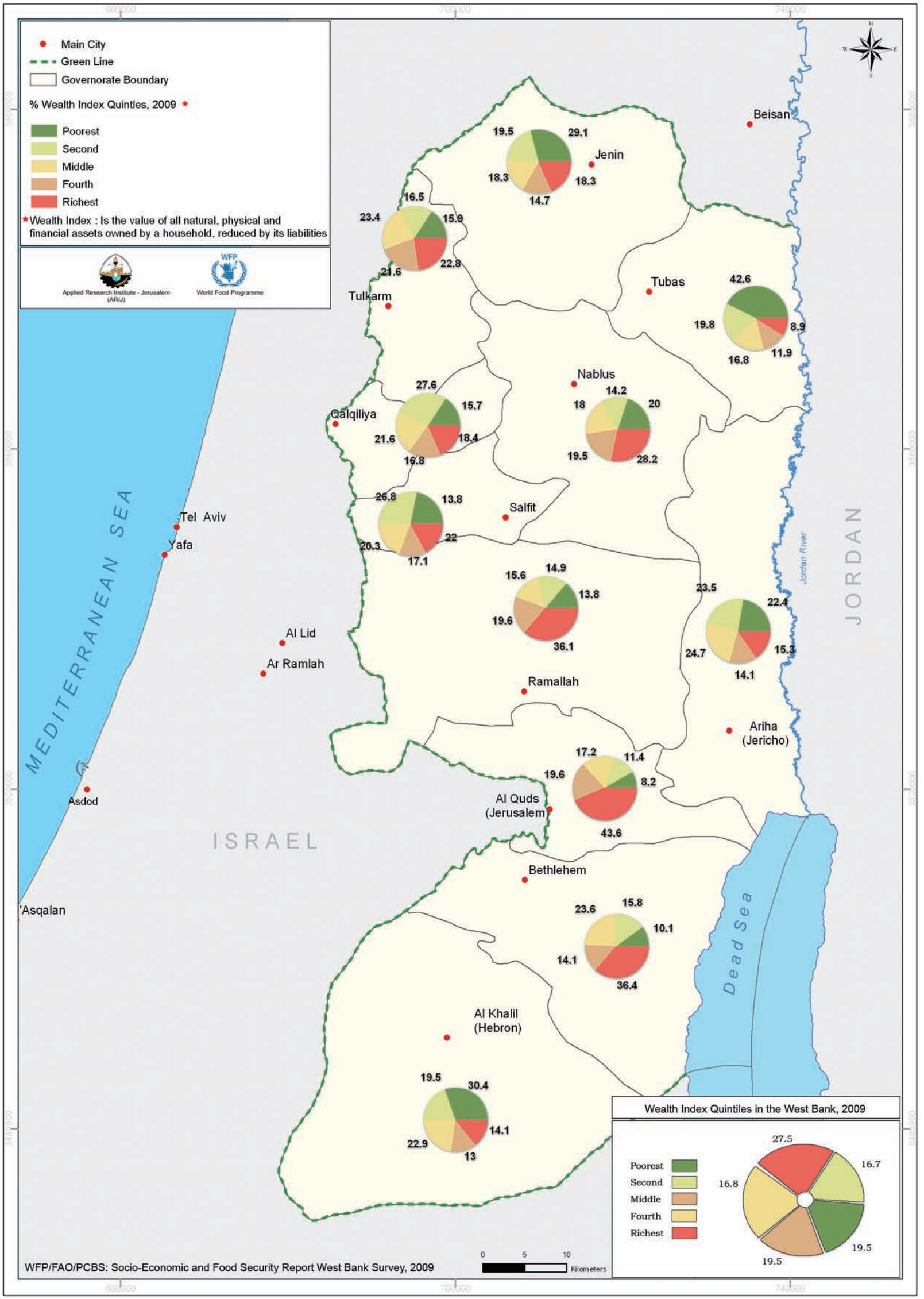
Comparison Between Food Security Levels in the West Bank, 2009



Comparison between Food Security Levels in the Gaza Strip, 2009

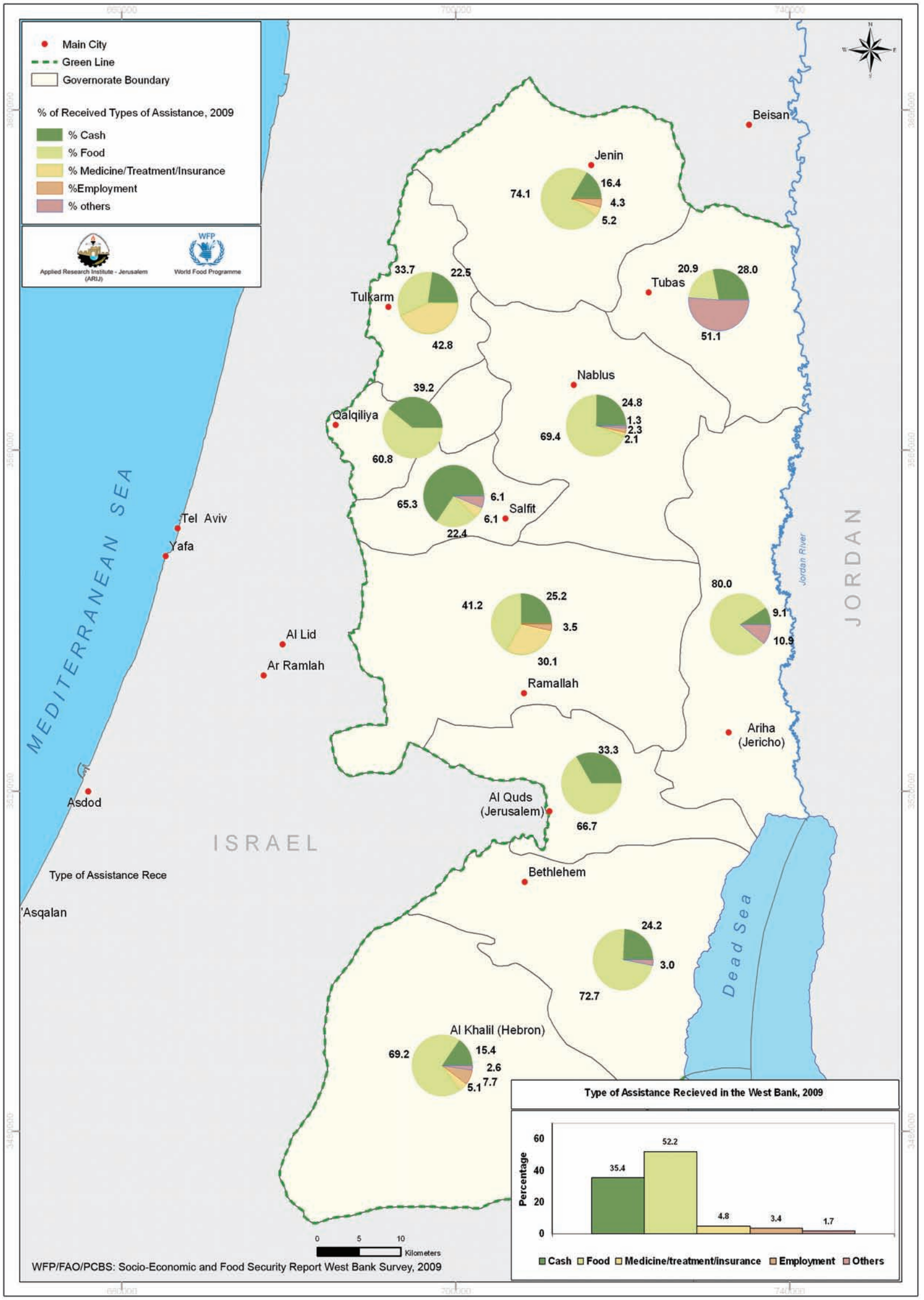


Wealth Index Quintiles in the West Bank, 2009

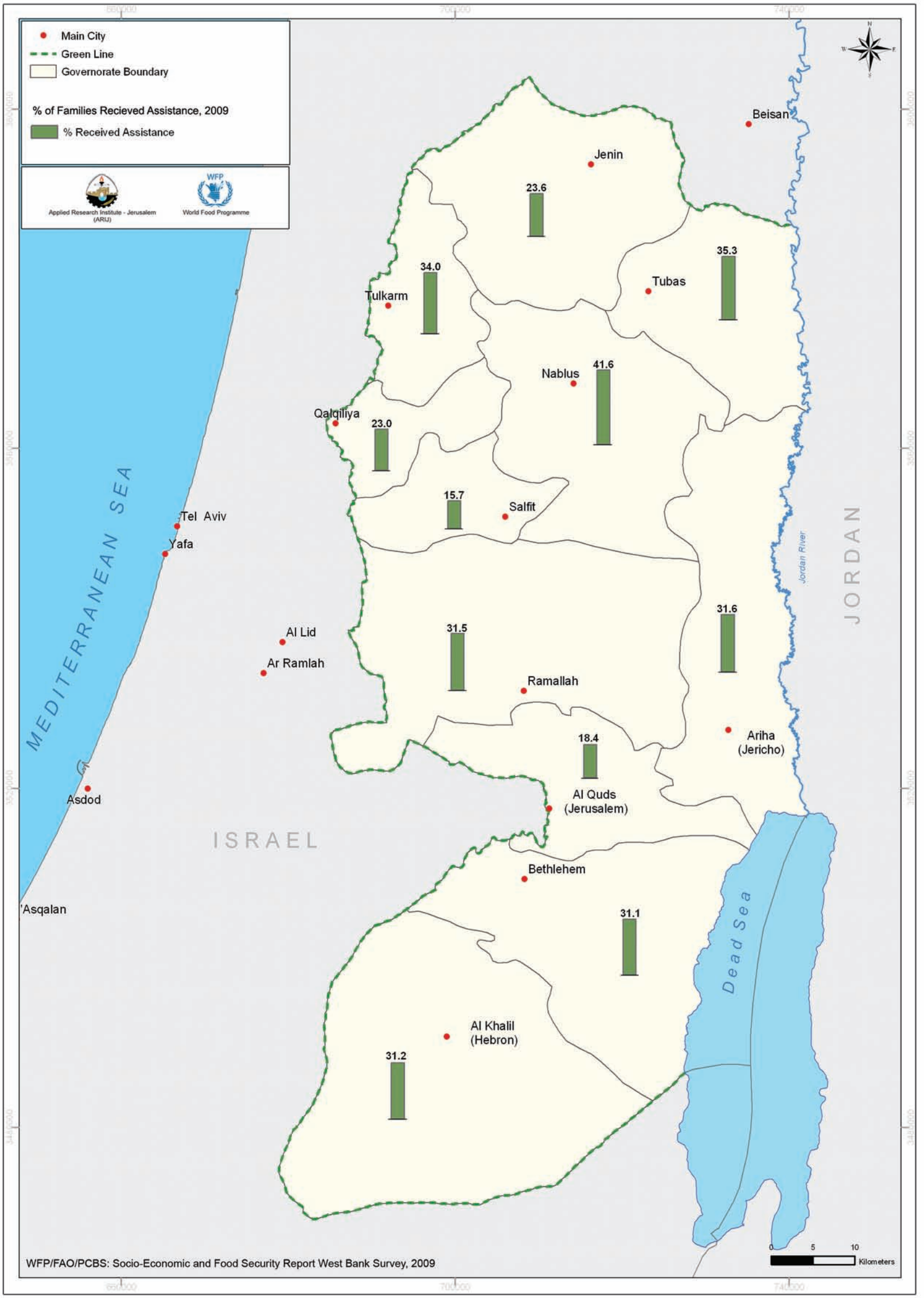


Wealth Index Quintiles in the West Bank - Poorest, 2009

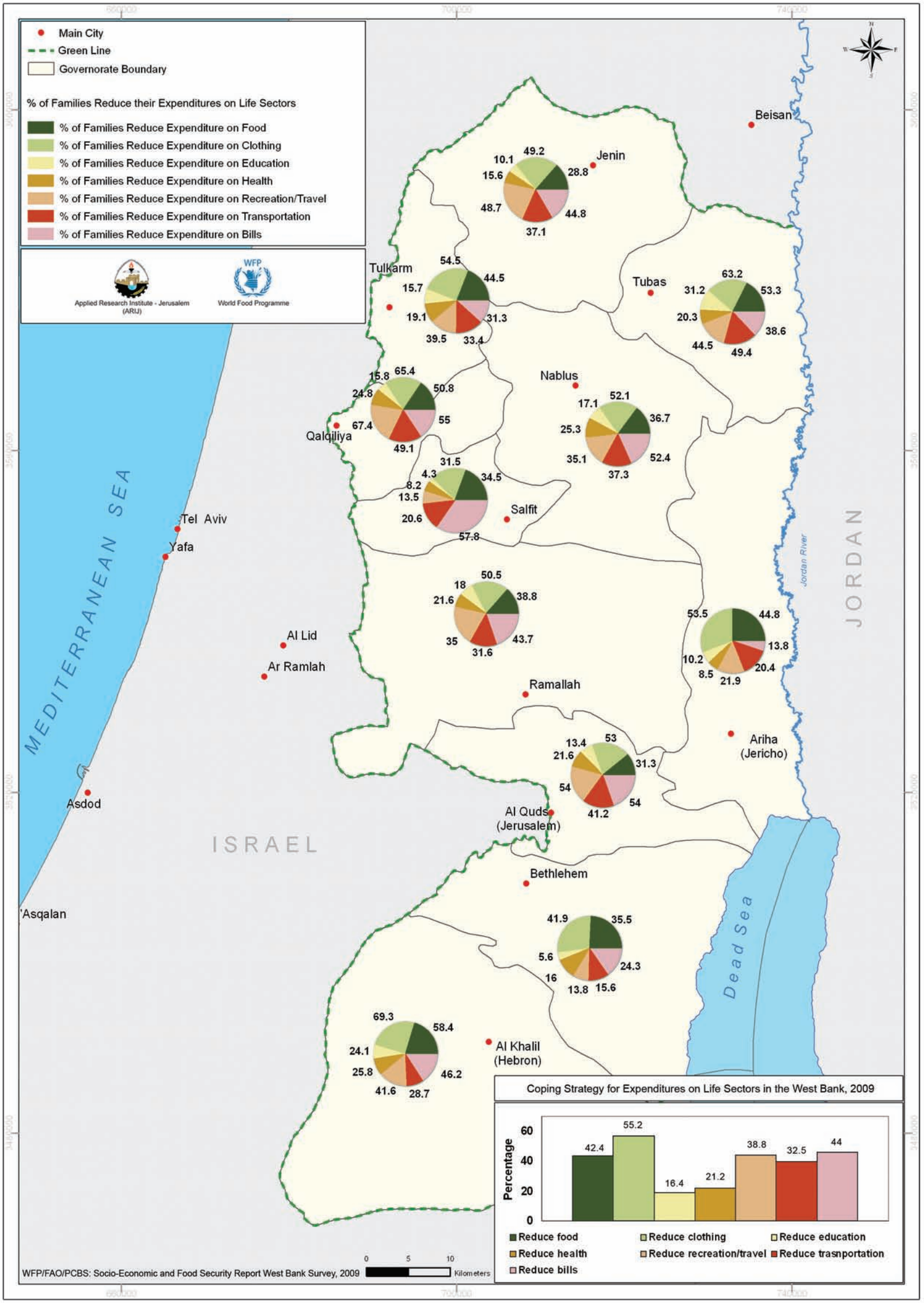
Type of Assistance Recieved in the West Bank, 2009



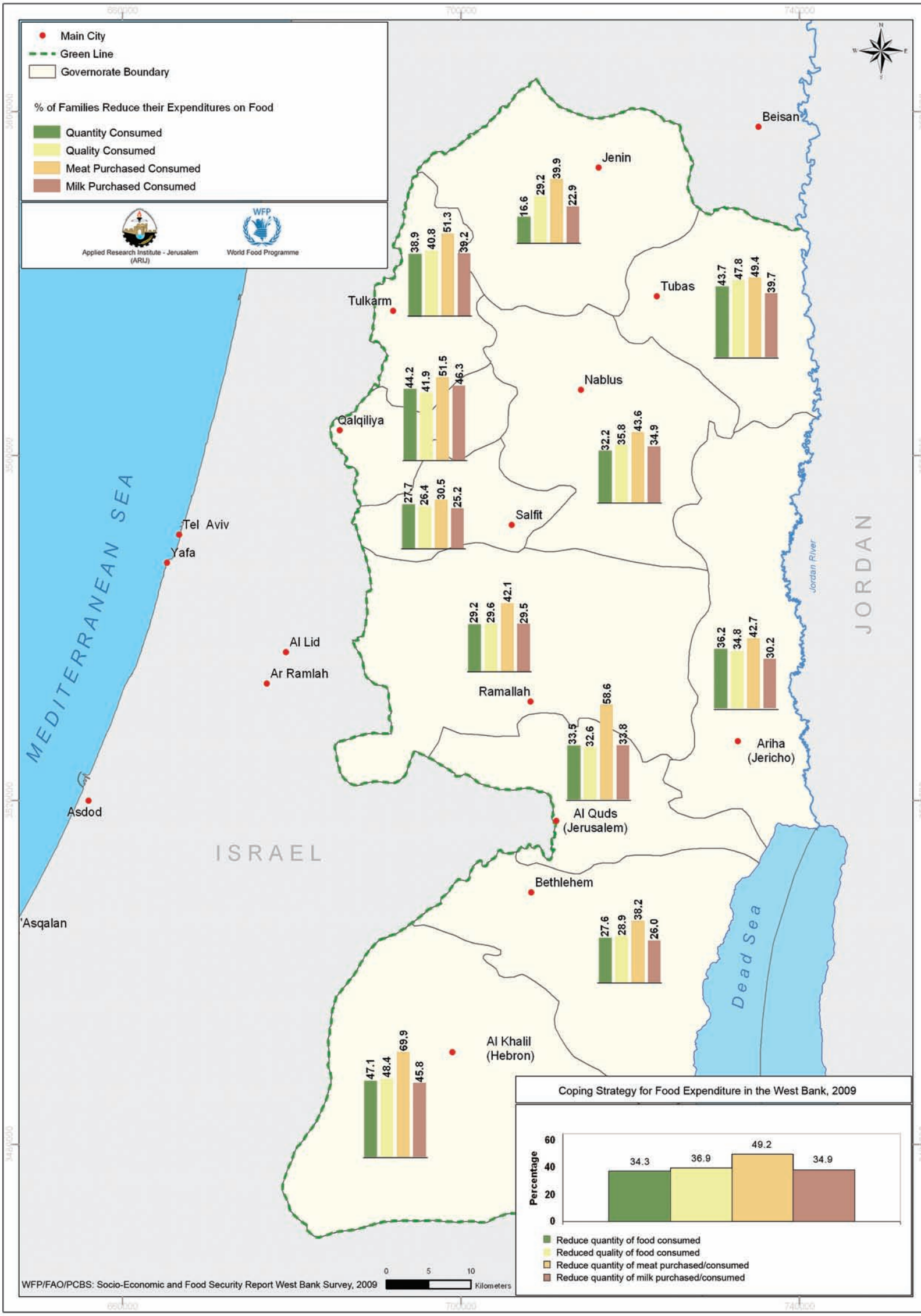
Families Recieved Assistance in the West Bank, 2009



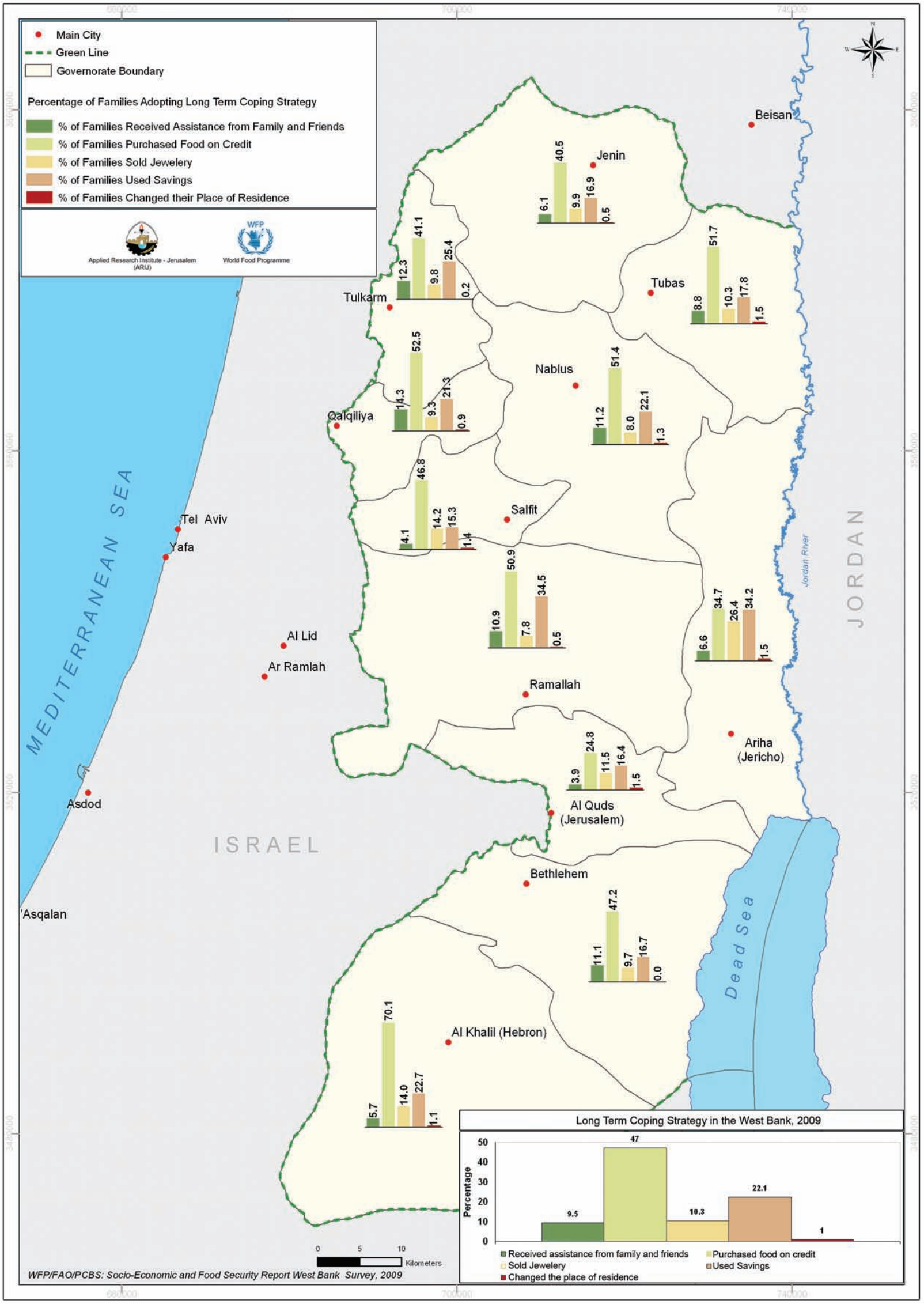
Coping Strategy for Sustainable Livelihood in the West Bank - Expenditures of Life Sectors, 2009



Coping Strategy for Sustainable Livelihood in the West Bank - Food Expenditures Reduce, 2009



Long Term Coping Strategy For Sustainable Livelihood in the West Bank, 2009



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العالية، والتي تؤدي إلى التوسع العمراني على حساب الأرض الزراعية.

مما سبق ذكره، هناك العديد من التحديات التي يفرضها الوضع السياسي-الاجتماعي الراهن ومن المرجح أن هذا الوضع لن يتغير إلا بمعالجة الأسباب الجذرية المتعلقة بالوضع السياسي-الاجتماعي لانعدام الأمن الغذائي الفلسطيني. تجدر الإشارة إلى أنه من الضروري الأخذ بعين الاعتبار الأمن الغذائي ضمن الإطار الأوسع الذي يخلق مجالا للتأييد (مثل الحق في الغذاء) والعمل على المدى الطويل لتحقيق الأمن الغذائي للفلسطينيين. فان النتائج التي توصل إليها الأطلس توفر الأساس لاتخاذ السياسات الملائمة. من ثم، هناك أهداف واستراتيجيات محددة تحتاج إلى تطوير وتفعيل وتنسيق بين الجهات الفاعلة ذات الصلة على المستويين المحلي والدولي.

الاعتماد على استيراد المواد الغذائية، وانعدام النمو الزراعي المحلي كما هي الحالة الفلسطينية، يعرض الفلسطينيين لتقلبات الأسواق الدولية. ومن الجدير بالذكر هناك اعتماد كبير على المواد الغذائية المستوردة المستخدمة في الاستهلاك الغذائي للأسر الفلسطينية. حيث أن فقط ٦٠٪ من المواد الغذائية الرئيسة تنتج محليا، واقل من ٥٪ من الحبوب والبقول المستهلكة في الأراضي الفلسطينية المحتلة يتم إنتاجها محليا. كما إن التجارة الفلسطينية مرتبطة بشدة وعلى نحو متزايد بإسرائيل، حيث شكلت حوالي ٨٠٪ من القيمة الإجمالية للتجارة في عام ٢٠٠٨. في عامي ١٩٩٩ و٢٠٠٧، استأثرت إسرائيل على ٦٣٪ و٧١ ٪ على التوالي من مجموع التجارة الفلسطينية. لا ننسى أن الإنتاج المحلي من المواد الغذائية، واعتماد المناطق الريفية على الإنتاج الزراعي، والتي تتعرض لصدمات مناخية كبيرة بما في ذلك انخفاض معدل هطول الأمطار، وعدم انتظام توزيع مياه الأمطار، وتأخر هطول الأمطار، تتسبب في فشل نمو المحاصيل. فمن الجدير بالذكر أن الزراعة يمكن أن تكون الملجأ للأسر الفلسطينية، حيث أنها توفر المأوى والغذاء غير المكلفان وفرص العمل لهؤلاء العمال العاطلين عن العمل من المناطق الحضرية وخاصة في أوقات الأزمات. كما إنها تساهم بحوالي ١١٪ - ٢٠٪ من الاقتصاد الفلسطيني، وتوظف حوالي ١٥٪ من القوة العاملة الرسمية، و٣٩٪ من القوى العاملة غير الرسمية، وتمثل نحو ٢٠٪ من صادرات الأراضي الفلسطينية المحتلة. إلا أن الأجرة اليومية في القطاع الزراعي بشكل عام أقل من متوسط الأجرة اليومية في جميع القطاعات الاقتصادية الأخرى بنسبة ٢٠٪.

ورغم ذلك فان الإنتاج الزراعي ينبغي له تأمين الغذاء لنحو ٣,٧٦ مليون فلسطيني يعيشون في الأراضي الفلسطينية المحتلة، فان مجموع مساحة الأراضي الزراعية المستغلة حاليا من قبل الفلسطينيين تغطي ٣٠,٥٪ (١٨٣٤,٨ كم٢) من مساحة الأراضي الفلسطينية، و٥٤,٤٪ من مجموع الأراضي القابلة للزراعة.إن تحليل التوازن بين إنتاج الغذاء والاستهلاك في الأراضي الفلسطينية المحتلة أظهر أن القطاع الزراعي يغطي استهلاك السكان الفلسطينيين من الخضروات الرئيسة مثل البندورة، الخيار، الباذنجان، الكوسا، الفاصوليا، الملفوف، والقرنبيط، والفائض من الإنتاج عادة يتم تصديره لإسرائيل. من ناحية أخرى، فإن الإنتاج المحلي من البطاطا، البصل، البطيخ، والثوم لا يفي استهلاك الفلسطينيين، والنقص عادة يستورد من إسرائيل أو من دول أخرى عن طريق إسرائيل. فيما يتعلق بإنتاج الفواكه، هناك نقص عام في إنتاج الفاكهة المحلية حيث لا تلبي الطلب عليها، إلا أن الإنتاج المحلي من الزيتون والعنب والخوخ والحمضيات تلبي طلب الاستهلاك المحلي مع فائض. على مستوى الإنتاج الحيواني، هناك نقص كبير في إنتاج اللحوم الحمراء والأسماك والحليب ومنتجات الألبان والعسل، في حين أن هناك بعض الفائض الذي تم تسجيله من لحوم الدواجن والبيض. وأظهرت تقديرات وزارة الزراعة انخفاضا كبيرا في عدد رؤوس المجترات الصغيرة بنسبة ١٤,٤٪، وهذا أدى إلى زيادة كبيرة في أسعار اللحوم الحمراء للمستهلكين بنسبة ١٥٠٪ الأمر الذي يحد من فرص تناول الفقراء للحوم وخاصة الحمراء.

تحاول العائلات الفلسطينية الحفاظ على الدخل من خلال محاولة تخفيف الاستهلاك، والتحول نحو النفقات الغذائية ذات السعرات الحرارية الغنية بالطاقة، بعيدا عن البروتين والمغذيات والأطعمة الغنية المكلفة. وهذه الحالة قد تسبب سوء التغذية ونقص المغذيات الصغرى، ينتج عنها عواقب صحية خطيرة، يمكن أن تؤثر سلبا على صحة أفراد الأسرة ويعرض للخطر المكاسب المحتملة في المستقبل. فعلى سبيل المثال ينتشر فقر الدم على نطاق واسع في أوساط الأطفال والنساء الحوامل في الأراضي الفلسطينية المحتلة، ففي عام ٢٠٠٧، تم تسجيل نقص الحديد وفقر الدم في حوالي ٦١,٦٪ من الأطفال، و٢٩,١٪ من النساء الحوامل. كما أن نسبة فقر الدم بين الأطفال أو النساء الحوامل في قطاع غزة دائما أعلى مما هي عليه في الضفة الغربية بنسبة ٢٠٪ و٩٪ على التوالي. هذا يمكن أن يكون نتيجة لعمليات الحصار المستمرة والهجمات على غزة مما يعرض سكانها لأمراض سوء التغذية. الأطفال هم الفئة الأكثر تضررا من سوء التغذية، ففي عام ٢٠٠٦، تم تسجيل ١٠,٢٪ أطفال قصيري القامة (يعود ذلك إلى نقص البروتين والمغذيات الدقيقة، بما في ذلك الحديد والفيتامينات)، و١,٤٪ ناقصي وزن و٢,٩٪ تحت الوزن الطبيعي في الأراضي الفلسطينية المحتلة.

المرافق والممارسات الصحية هامة جدا للصحة، فإن الممارسات الصحية الجيدة وتوفر المرافق الصحية تساعد على تجنب الأمراض الرئيسة. ان البنية التحتية لشبكات المياه والصرف الصحي في الأراضي الفلسطينية المحتلة ضعيفة جدا، مما يساعد على ظهور أمراض مختلفة منذ الطفولة منها أمراض المعدية الخاصة بتلوث المياه، ومثل هذه الظروف تنتشر خاصة في محافظات شمال الضفة الغربية، حيث أن سكانها يعانون من هذه الأمراض كما في نابلس وطولكرم، حيث أن أكثر من ٢٥٪ من السكان مصابون بالإمراض الناجمة عن تلوث المياه أو المياه الملوثة (Water Born Diseases). وعلاوة على ذلك، ان سكان قطاع غزة يعانون من نفس الظروف، حيث أن كميات مواد الصرف الصحي الممكنة في قطاع غزة محدودة منذ حزيران ٢٠٠٩ وغير كافية لضمان تصليح وتطوير ما دمرته الحرب.

كما أن هناك نقص في موارد المياه في الأراضي الفلسطينية المحتلة والتي تعتبر هامة جداً للقيام بنشاطات الانسانية الاساسية، والعمليات الحيوية داخل جسم الانسان. تبلغ كمية المياه اليومية التي يتزود بها الفلسطينيون للأغراض المنزلية ١٢٨ لترا للفرد الواحد، أما استهلاك الفلسطينيين الحقيقي يصل إلى ما يقرب ٧٣ لترا للفرد يوميا، بينما يستهلك المستوطنون الإسرائيليون ما معدله ٣٠٠ لتر للفرد يوميا. ومن الجدير بالذكر أن منظمة الصحة العالمية تعرف معدل النقص في مستوى المياه بأنه ١٥٠ لتر للفرد يوميا. بلغ العجز الإجمالي الحقيقي في المياه للاستخدام المنزلي لعام ٢٠٠٨ حوالي ٦٢,٤ مليون متر مكعب لكامل الضفة الغربية. وبالتالي فان متوسط الإمداد بالمياه للاستخدام المنزلي لا يغطي سوى ٧٣٪ من الطلب. كما ويستهلك القطاع الزراعي الفلسطيني حوالي ٧٥٪ من إجمالي استهلاك المياه. وتأتي هذه المياه من الآبار والينابيع المحلية المتاحة والمحدودة. ومن الجدير بالذكر أن توفر المياه وإمكانية الحصول عليها لا تزال أكبر عقبة أمام القطاع الزراعي الفلسطيني.

إن عدم استقرار الظروف المناخية مثل قلة الأمطار وسوء توزيعها، والأمطار العاصفة، والصقيع، والجفاف المبكر في المناطق الزراعية، وارتفاع سرعة الرياح لها آثار كبيرة على الغطاء النباتي والإنتاج الحيواني. حالة الجفاف في الأراضي الفلسطينية المحتلة تحدث نتيجة انخفاض كمية الأمطار وعدم انتظام توزيعها. حيث وصلت كميات الأمطار في الضفة الغربية وقطاع غزة للموسمين الزراعيين (٢٠٠٨/٢٠٠٧ و٢٠٠٩/٢٠٠٨) إلى ٣٥٤ ملم و٤٢٨ ملم و٢٦٢ ملم و٣١٦ ملم مقارنة بمتوسط هطول الأمطار السنوي التاريخي ٥٣٧,٥ ملم و٣٥٨,٥ ملم على التوالي. من ناحية أخرى، فان الصقيع كان الأكثر تدميرا في السنوات العشر الماضية، حيث تسببت موجات الصقيع في خسائر كبيرة للمراعي، والمحاصيل البعلية. تبعا لذلك، فإن الخسائر المقدرة للمحاصيل البعلية الرئيسة (الحبوب، المحاصيل الحقلية، الخضروات، الزيتون وأشجار الفاكهة) نتيجة الظروف الجوية في الضفة الغربية وقطاع غزة (الجفاف وموجات الصقيع) خلال الموسم الزراعي ٢٠٠٧ / ٢٠٠٨ وصلت إلى ١١٣,٥ مليون دولار.

إن الإجراءات العسكرية والإدارية التي يفرضها الاحتلال الإسرائيلي، منذ اندلاع انتفاضة الأقصى في عام ٢٠٠٠، أدت إلى تدهور الأوضاع الاجتماعية والاقتصادية والأمن الغذائي الفلسطيني. القيود المفروضة على حركة الناس والسلع التجارية، وفرص عمل العمال (غير المهرة) في إسرائيل، وتقييد حركة الناس والبضائع، وتوسيع المستوطنات والبنية التحتية ذات الصلة، وإقامة الجدار، ونقص فرص الحصول على عمل و/ أو استغلال الأراضي الزراعية الفلسطينية، وإغلاق سوق العمل الإسرائيلي أمام الفلسطينيين، وإغلاق قطاع غزة، فضلا عن التدمير المتكرر للموجودات والممتلكات المادية خلال التوغل العسكري. هذه الإجراءات تشكل عناصر أساسية في انخفاض مستوى الأمن الغذائي في الأراضي الفلسطينية المحتلة. كما تتخذ الإجراءات الإسرائيلية أشكالا مختلفة منها إعلان أجزاء واسعة من الأراضي الفلسطينية المحتلة بأنها «مناطق عسكرية مغلقة» ، وهذه تشكل أكثر من ١٠٠٠ كم٢ (تقريبا ١٨٪ من مساحة الضفة الغربية)، وبناء ١٩٩ مستوطنة و٢٣٢ بؤرة استيطانية، بالإضافة إلى الإجراءات الإدارية الأخرى مثل إعلان مساحات كبيرة من الأراضي الفلسطينية أنها «مناطق أمنية عازلة» (٥٥٠ كم٢) والجدار العازل في الضفة الغربية، والذي سيمتد مسافة ٧٠٩ كم (تم انجاز ٦٠٪ منه حتى الآن) والذي سيحرم الفلسطينيين الحق في استخدام أراضهم، كما تم اقتلاع أكثر من ٢,٥ مليون شجرة منذ عام ١٩٦٧ حتى الآن.

وقد تأثر الإنتاج المحلي سلبا بصورة مباشرة من القيود والإجراءات الإسرائيلية. فتشديد القيود على الفلسطينيين في الوصول إلى أراضيهم يحد من القدرة على زيادة إنتاج الغذاء في القطاعات التي تعمل عادة على تلبية نسبة كبيرة من الطلب المحلي، مثال الدواجن واللحوم الحمراء والخضار الطازجة وزيت الزيتون، الخ. من بين أولئك الذين يملكون ويزرعون أراضيهم، ٥٩٪ يتعرضون للقيود المفروضة على التنقل داخل الضفة الغربية، حيث تشكل هذه القيود المصدر الرئيس في صعوبة الوصول إلى أراضيهم. كما إن عملية الإنتاج والوصول إلى السوق، تعيقها مدة وتكاليف النقل. وعلاوة على ذلك، فإن الإنتاج الزراعي المحدود الإنتاجية يتأثر سلبا بندرة المياه، وبالتالي ينتج عن ذلك ضغطا إضافيا على المزارعين ورعاة الماشية. في قطاع غزة، فان التوسع في الزراعة في ظل الظروف الحالية يعتبر محدودا جدا نتيجة للنقص في المدخلات الزراعية الأساسية، وغياب سوق التصدير وعمليات التوغل العسكرية، كما أن توفر الأرض الزراعية محدودة بسبب الكثافة السكانية

موجز تنفيذي

تعود جذور انعدام الأمن الغذائي للفلسطينيين إلى القيود المفروضة على إمكانية الحصول على الغذاء، والى ضعف الدخل وتدهور سبل العيش، مما يؤدي إلى زيادة الصعوبات لدى الأسر في الحصول على كميات كافية من الأغذية وبجودة عالية. حالة انعدام الأمن الغذائي في فلسطين هي حالة غير اعتيادية، حيث أنها ليست نتيجة لنقص الغذاء، وإنما نتيجة للقيود المفروضة على الحركة الاقتصادية والفيزيائية، والقيود المفروضة على الحدود الفلسطينية والحركة الداخلية، وعلى وصول المنتج المحلي إلى المراكز الحضرية المأهولة بالسكان، وعلى وصول العمال إلى أماكن عملهم، وهذا بدوره ينعكس على إمكانية الحصول على الغذاء.

وجد أن ما يقرب من ثلث الأسر الفلسطينية تعاني من انعدام الأمن الغذائي في عام ٢٠٠٩، حيث وصل عدد الذين يعانون من انعدام الأمن الغذائي إلى ١,٦ مليون فلسطيني في الضفة الغربية وقطاع غزة. يعتبر مستوى انعدام الأمن الغذائي في قطاع غزة أعلى مما هو عليه في الضفة الغربية بفارق ٣٦٪. إن انعدام الأمن الغذائي في قطاع غزة يؤثر حاليا على ٦١٪ من سكان القطاع (٩٧٣,٦٠٠ نسمة)، ويعود ذلك بشكل أساسي نتيجة للحرب التي شنتها القوات الإسرائيلية على قطاع غزة أواخر عام ٢٠٠٨ وأوائل عام ٢٠٠٩، والحصار الإسرائيلي على قطاع غزة المقام على غزة منذ أواسط عام ٢٠٠٧. وعليه إن الأشخاص الذين يعانون من انعدام الأمن الغذائي هم من أكثر الناس حساسية للصدمات الاجتماعية والاقتصادية، والسياسية، والعالمية، وهم أكثر اعتمادا على المساعدات.

وجدت أعلى معدلات لانعدام الأمن الغذائي في مخيمات اللاجئين وتلتها المناطق الريفية (٢٩٪)، والأسر التي ترأسها نساء (٣١٪ من الأسر المتأثرة) في الضفة الغربية. بالإضافة إلى ذلك، فان الأجزاء الشمالية من الضفة الغربية، والمناطق الجنوبية من قطاع غزة يعانون أشد المعاناة من انعدام الأمن الغذائي. حيث أن محافظتي جنين ورفح هما من أكثر المحافظات تأثرا، حيث أن ٣٤٪ و٦٦٪ من الأسر فيهما على التوالي تعاني من انعدام الأمن الغذائي.

في هذا السياق، ولفهم الوضع والأسباب الكامنة وراء انعدام الأمن الغذائي الفلسطيني، فان السمات الرئيسة تحتاج إلى معالجة، مع التركيز على الوضع السياسي والاقتصادي في الضفة الغربية وقطاع غزة، ومعدلات النمو السكاني، ونسبة الإعالة والبطالة والفقر، أسعار المواد الغذائية ومؤشر أسعار المستهلك، وانخفاض الدخل النقدي، وانخفاض القدرة الشرائية للمستهلكين، والنفقات الغذائية والطاقة الإنتاجية، التعليم وسوء التغذية، والبيئة ونوعية الغذاء، والقدرة على الوصول إلى الأسواق وغيرها.

لقد حصلت زيادة كبيرة في العدد الإجمالي للسكان الفلسطينيين في الفترة الواقعة بين عامي ١٩٩٧ و٢٠٠٧، وصلت إلى ٣٠٪. ومن ناحية أخرى، فقد بلغ معدل النمو السنوي ٣,٢٪ في عام ٢٠٠٧، مما أدى إلى زيادة عدد الأشخاص المعتمدين ماليا (المعالين)، حيث أن ما يقرب من نصف مجموع السكان الفلسطينيين يعتمدون على غيرهم في معيشتهم. وهذه الحالة تزيد من الضغط على أفراد المجتمع الذين هم في سن العمل وعلى المجتمع لتوفير الغذاء لهم. إن فقدان الأعمال وفرص العمل يعني مزيدا من الضغوط، حيث وصل معدل البطالة بين الفلسطينيين في الربع الثالث من العام ٢٠٠٩ إلى ٢٥,٨٪ في الأراضي الفلسطينية المحتلة (في قطاع غزة بلغ ٤٢,٣٪). من ناحية أخرى، فان أكثر من نصف الفلسطينيين يعتمدون على رواتبهم كمصدر رئيس للدخل، ومع ذلك، فإن الدخل الشهري للأسر الفلسطينية على أساس متوسط الرواتب الشهرية يبين وجود عجز في تغطية نفقات الأسرة. كما أن عدد الفلسطينيين الذين يعيشون في فقر (أولئك الذين يعيشون بميزانية شهرية أقل من ٦٤٠ دولارا) في زيادة مستمرة منذ عام ٢٠٠٠. وعلى أساس مستويات الاستهلاك في عام ٢٠٠٧ فان ربع الأسر في الضفة الغربية، و٥٢٪ من الأسر في قطاع غزة هي اسر فقيرة. أما على أساس مستويات الدخل (باستثناء التحويلات والمساعدات الغذائية)، فان ٣٤٪ من الأسر في الضفة الغربية، و٧٠٪ من الأسر في قطاع غزة تعيش في فقر مدقع. هذا العدد ارتفع بشكل كبير في قطاع غزة بعد الحرب الإسرائيلية في أواخر كانون الأول عام ٢٠٠٨، وأوائل كانون الثاني عام ٢٠٠٩، حيث تشير التقديرات إلى أن ٨٠٪ من السكان يعيشون تحت خط الفقر، وتعتمد على المساعدات الغذائية من الجهات المانحة في سد على الأقل بعض احتياجاتها من المواد الغذائية.

إن ارتفاع معدلات البطالة إلى جانب انخفاض الأجور يؤثر على دخل الناس، مما يؤدي بهم إلى الحد من الإنفاق والاستهلاك. الزيادة في مؤشر أسعار المستهلك عموما، ومؤشر أسعار المستهلك للمواد الغذائية على وجه الخصوص، على مدى السنتين الماضيتين، أثرت كثيرا على قدرة الأسر في الحصول على الغذاء من حيث النوعية والكمية. تشكل المواد الغذائية تقريبا ٣٨٪ من مؤشر الأسعار الاستهلاكية، مما يجعلها عاملا محددا رئيسيا للتضخم في الأراضي الفلسطينية المحتلة. لقد ارتفع مؤشر أسعار المستهلك بشكل سريع منذ عام ١٩٩٧، وكانت أعلى معدلات له بين عامي ٢٠٠٥ و٢٠٠٨، وبالمثل ارتفع مؤشر سعر المستهلك من الطعام (FCPI). وعموما فقد ارتفع مؤشر سعر المستهلك من الطعام بنسبة ٣٣٪ في الفترة بين نيسان ٢٠٠٧ ونيسان ٢٠٠٩ في الأراضي الفلسطينية المحتلة، كنتيجة لارتفاع الأسعار الدولية للأغذية والقيود المفروضة على الاستيراد. كما وارتفع مؤشر سعر المستهلك من الطعام بوتيرة أسرع في قطاع غزة مما هو عليه في الضفة الغربية، ويرجع ذلك أساسا إلى زيادة القيود المفروضة على القطاع والهجوم الإسرائيلي في نهاية عام ٢٠٠٨، ولم ينخفض خلال النصف الأول من عام ٢٠٠٩.

إن تأثير الأزمة الاقتصادية على الفقراء وانعدام الأمن الغذائي يكون كبيراً، لا سيما في ضوء الأثر السلبي لارتفاع أسعار المواد الغذائية والوقود. فقد زاد متوسط سعر السلع الغذائية الرئيسة في الأراضي الفلسطينية المحتلة بشكل ملحوظ منذ عام ٢٠٠٥ وحتى عام ٢٠٠٩، حيث وصلت نسبة الزيادة إلى ٥٠٪. وقد شهد العام ٢٠٠٨ أعلى نسبة في ارتفاع أسعار المواد الغذائية وصلت إلى ٢٢٪. فعلى سبيل المثال، لقد أظهرت مستويات الأسعار للطحين والأرز ارتفاعا متزايدا منذ عام ٢٠٠٣ في كل من الضفة الغربية وقطاع غزة. إن أسعار هاتين السلعتين شهدت زيادة كبيرة في عام ٢٠٠٨ (الطحين الذي شهد زيادة ١٤٣٪ سنويا في الضفة الغربية، و١٣٩٪ في قطاع غزة). في عام ٢٠٠٩، بدأت أسعار الدقيق تتراجع، في حين بقيت أسعار الأرز في ارتفاع. أما أسعار الخبز فارتفعت ٦٠٪ في الضفة الغربية و٢٥٪ في قطاع غزة.

أما بالنسبة لأسعار اللحوم ومنتجات الألبان، ولحوم الضأن ولحم البقر والدجاج فهي في ارتفاع منذ عام ٢٠٠٦. وكان سعر الدجاج يتذبذب، وقد بلغ ذروته في قطاع غزة عقب حرب إسرائيل على القطاع في ٢٠٠٨/٢٠٠٩، نتيجة لتدمير مزارع الدواجن، ونقص غاز الطهي خلال فصل الشتاء، إضافة إلى عوامل ارتفاع الأسعار الأخرى. كما ارتفعت أسعار الحليب خلال الفترة من عام ١٩٩٧ إلى عام ٢٠٠٩ في كل من الضفة الغربية وقطاع غزة. أما أسعار الفواكه والخضروات فهي المجموعة الوحيدة من المواد الغذائية التي شهدت ارتفاعا أقل من ٥٠٪ خلال الفترة من كانون الثاني ١٩٩٧ إلى نيسان ٢٠٠٩. معظم الفواكه والخضروات مزروعة محليا، وبالتالي فان أسعارها تحددها العوامل المحلية كالعرض والطلب، أكثر مما تحددها الأسعار الدولية، والقيود التي تفرضها إسرائيل.

إن انخفاض الدخل وارتفاع أسعار المواد الغذائية أجبرت الأسر الفقيرة على تغيير أنماط الاستهلاك الغذائي. فقد ذكر تقرير تحليل الأمن الغذائي في الأراضي الفلسطينية لبرنامج برنامج الأغذية العالمي لعام ٢٠٠٩ أن ٤٨٪ من الأسر التي شملها الاستبيان في الضفة الغربية خفضت من النفقات خلال النصف الثاني من عام ٢٠٠٨، ونتيجة لذلك اضطرت الأسر إلى شراء كمية أقل من المواد الغذائية، والاستعاضة عن الأطعمة العادية بأطعمة أرخص أو أقل رغبة فيها. كما وتشير مسوحات منظمة الأغذية والزراعة الدولية وبرنامج الأغذية العالمي حول الأوضاع الاجتماعية والاقتصادية والأمن الغذائي أن حوالي ٤٢٪ من سكان الضفة الغربية قد قلصت نفقاتها على الغذاء، وأكثر من ثلث السكان خفضت كمية ونوعية المواد الغذائية التي تم الحصول عليها، و١٤٪ قلصت عدد وجبات الطعام، و٤٩٪ خفضت استهلاك اللحوم.

تلعب المعونات الغذائية دورا رئيسيا في تمكين الأسر في غزة من تأمين نظام غذائي بكمية مقبولة وتنوع في الغذاء. في الواقع، ٨٠٪ من الذين يعانون من انعدام الأمن الغذائي في قطاع غزة تلقوا مساعدات غذائية. المعونات الغذائية هي مصدر ٥٠٪ إلى ٦٠٪ من المواد الغذائية المستهلكة من قبل أولئك الذين لا يستطيعون استهلاك وجبات مناسبة. كما إن انخفاض استهلاك المنتجات الحيوانية يؤدي إلى انخفاض تناول المغذيات الضرورية والتي قد ينجم عنها نقص في الحديد، وفيتامين (A) وغيرها من المغذيات الكبرى الضرورية.