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# Environmental Challenges in Palestine and the Peace Process

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## Introduction

Positioned at the crossroads of three continents, geographic Palestine is a tiny piece of land rich with biodiversity, fertile agricultural fields, and varied ecological systems. The preservation of this unique environmental interplay is a responsibility which lies equally upon the people of Palestine, as well as its occupiers. In recent years, however, attention has focused far more on conflicting political claims to the land than to its preservation and sustainable development. Throughout history, as well as in the current Middle East peace process, narrow political agendas have proven to be the leading contributor to the destruction of the Palestinian environment. Although in the current peace process there may be mention of environmental protection, measures are developed almost exclusively along security lines.

Soon after its occupation of the West Bank and Gaza Strip in June 1967, Israel seized absolute control over the West Bank and Gaza Strip's land and natural resources.

From that time until today, Palestinians are permitted to use only a small fraction of the total amount of their water resources. Vast areas of the West Bank and Gaza Strip have been confiscated or closed off to Palestinians. Israeli colonies continue to be built on illegally confiscated Palestinian (mainly agricultural) land. A devastated Palestinian economy is still controlled largely by Israel. Also, a dangerously dilapidated infrastructure has been nearly completely ignored. Collectively, these measures have adversely affected the Palestinian environment, leading to, among other disasters: desertification of the eastern slopes, degradation of agricultural and range lands, unregulated dumping of solid waste and raw sewage, in addition to severely depleted underground water aquifers.

The Palestinian people, by and large, support the current peace negotiations with Israel and sincerely hope to revert the current inequitable and unjust allocation of land and water resources. They, of course, prefer to develop their communities within a framework of sustainability, political stability, and sovereignty. However, the actual outcome of the current peace process has not yet ensured Palestinian sovereignty over their land and water resources. To the contrary, Israel has manipulated the standing agreements, specifically the Oslo Accords, to legitimize its control over the natural resources of the West Bank and Gaza Strip, carving Palestine into disconnected cantons where sustainable development and environmental protection are impossible in the foreseeable future. The Palestinian struggle after the Oslo II Interim Agreement has become, to a large degree, rooted in the fear of losing a most basic human right, that is, the right to live in a clean, safe and sustainable environment.

The Oslo II Interim Agreement was accepted by the Palestinian Authority as an interim step towards the establishment of a Palestinian state. It is interim in nature and should therefore be applied as such by the concerned parties. That is, "neither sides shall initiate or take any step that will change the status of the West Bank and the Gaza Strip pending the outcome of the permanent status negotiations." Yet, in reality, Israel is currently orchestrating the Oslo II Interim Agreement into a permanent arrangement by creating *de facto* realities on the ground that will undoubtedly affect the outcome of the final status negotiations. These realities include:

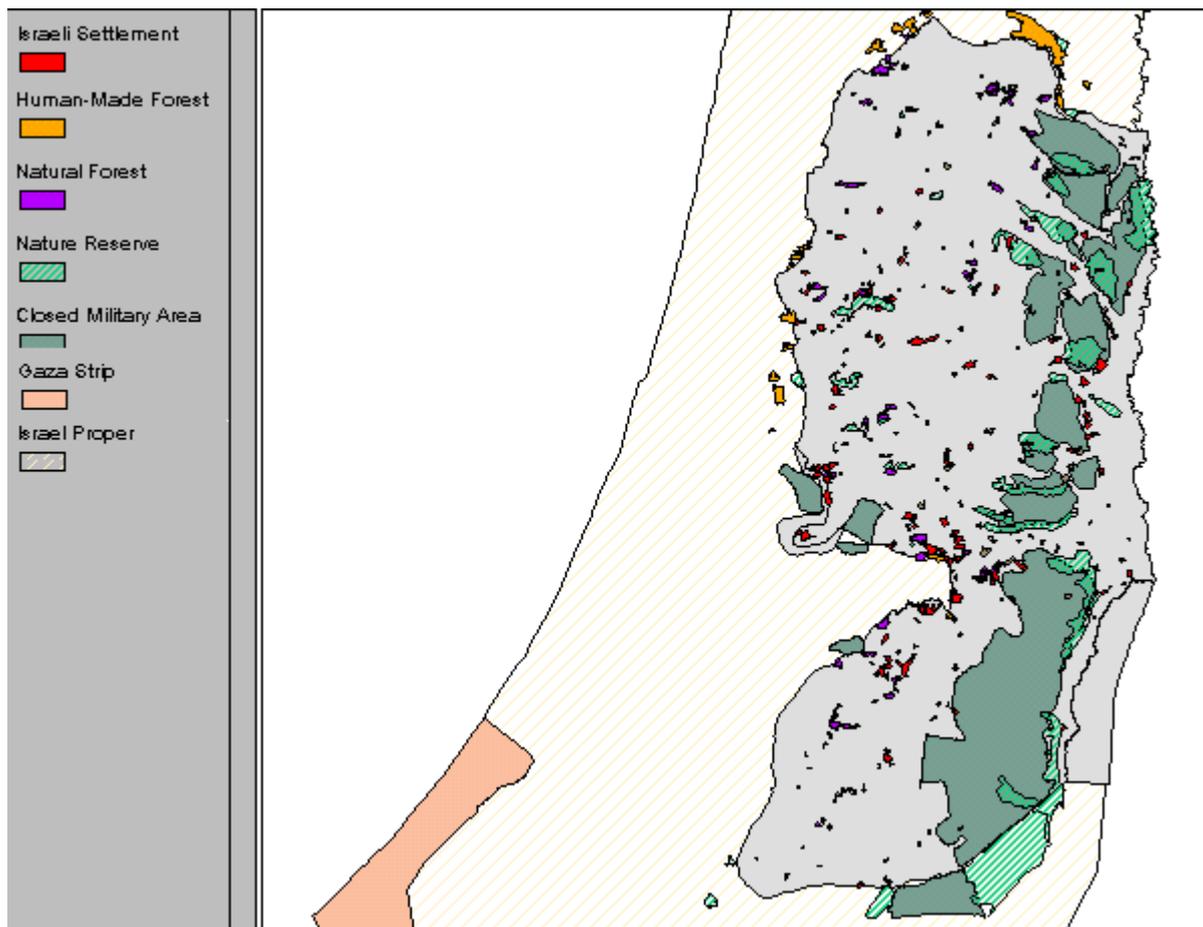
- The building of a comprehensive network of by-pass roads for the exclusive use of Israeli settlers in the West Bank and Gaza Strip;
- The expansion of Israeli colonies in the Palestinian territories;
- The physical and demographical re-structuring of East Jerusalem;
- The confiscation of Palestinian land and demolition of Palestinian houses; and
- The partial Israeli implementation and noncompliance with over 27 items in the Oslo II Interim Agreement, especially the refusal to re-deploy the Israeli military from the Palestinian territories according to the agreed upon timetable (Chapter two, Article 10, item 1-3).

Moreover, in its process of modification of actual settings, Israel failed to comply with the Oslo II Interim Agreement regarding the impacts of these realities on the Palestinian environment and the extensive damage they are imposing on the Palestinian agricultural land, forests, wild life, and human habitats. The Israeli-orchestrated new realities and violations to the standing peace agreements are chronic

challenges to Palestinians, making their living environment unbearable and their economic development and national planning virtually impossible.

## The Geopolitical Integrity Of The Palestinian Territories

Under the pretext of its security and by means of over 1,500 military orders, Israel has seized control over the West Bank and Gaza Strip's natural resources and rendered large tracts of Palestinian land available only for its own use. Presently, over 70% of the West Bank and 22% of the Gaza Strip lands are inaccessible to Palestinians. These lands are used for the construction of Israeli colonies or have been declared by Israel as 'state' land, nature reserves, military bases or closed military areas. These tracts of land declared 'closed military area' alone encompasses approximately 100,000 hectares of the West Bank (20% of the West Bank's area) and are mainly located in its eastern region. As a result, the eastern parts of the West Bank are currently empty of any substantial Palestinian communities. Most have been made unreachable to Palestinians ([Figure 1](#)).



**[Figure 1: Restrictions on Land Use in the West Bank](#)**

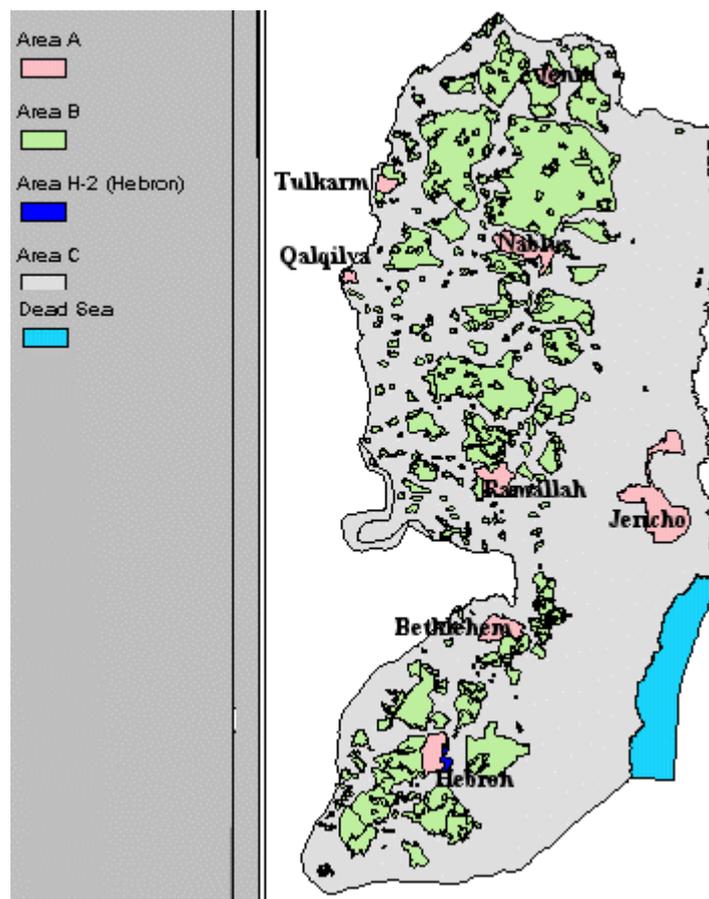
Soon after the Madrid Conference in 1991, marking the start of the current peace process in the Middle East, Palestinian negotiators requested that closed military

areas in the West Bank be opened and all restrictions imposed by Israel on Palestinian use of them be lifted immediately. This request stems from the need of additional land to absorb the growing Palestinian population and, at the same time, decrease pressure on limited environmental resources.

The closed military areas in the West Bank provide the only refuge remaining for Palestinians to sustainably grow and develop in their land and to diffuse the current high population densities which reach approximately 870 inhabitants per square kilometers in the West Bank and 3,400 people per square kilometers in the Gaza Strip. The Israeli response to this vital request came through the Oslo II Interim Agreement, signed by the Israeli Government and the Palestinian Authority in September 1995. All closed areas, and, moreover, most Palestinian owned lands vacant of houses (including agricultural lands, range and natural grazing areas) were placed under the sole control of Israel by categorizing them as Area C.

### Areas A, B, C

According to the Oslo II Interim Agreement, the West Bank has been divided into three main areas ([Figure 2](#)):



**[Figure 2: Geopolitical Map of the West Bank After Oslo II](#)**

- **Areas A**, in which the Palestinian Authority has full control except on matters to be discussed in the final status negotiations, such as water and territory. This area is presently limited to main parts of the eight major cities of the West Bank, namely Jenin, Nablus, Tulkarm, Qalqilia, Ramallah, Bethlehem, Jericho, and Hebron. It covers a total area of 160.2 km<sup>2</sup>, comprising approximately 3% of the total West Bank land which was occupied by Israel in 1967.
- **Areas B**, in which the Palestinian Authority has partial control, limited to land and providing civil services such as education and health, while all security issues are under the sole control of Israel. These areas comprise 400 Palestinian villages and hamlets. They cover a total area of 1,334.2 km<sup>2</sup> and constitute almost 23% of the West Bank lands which were occupied by Israel in 1967.
- **Areas C**, in which the Palestinian Authority provides civil services, however, Israel retains full control over land, security, people and natural resources. Areas C cover a total area of 4,327.9 km<sup>2</sup>, comprising the remaining 74% of the West Bank land which was occupied by Israel in 1967. All currently existing Israeli colonies in the West Bank lie within these areas.

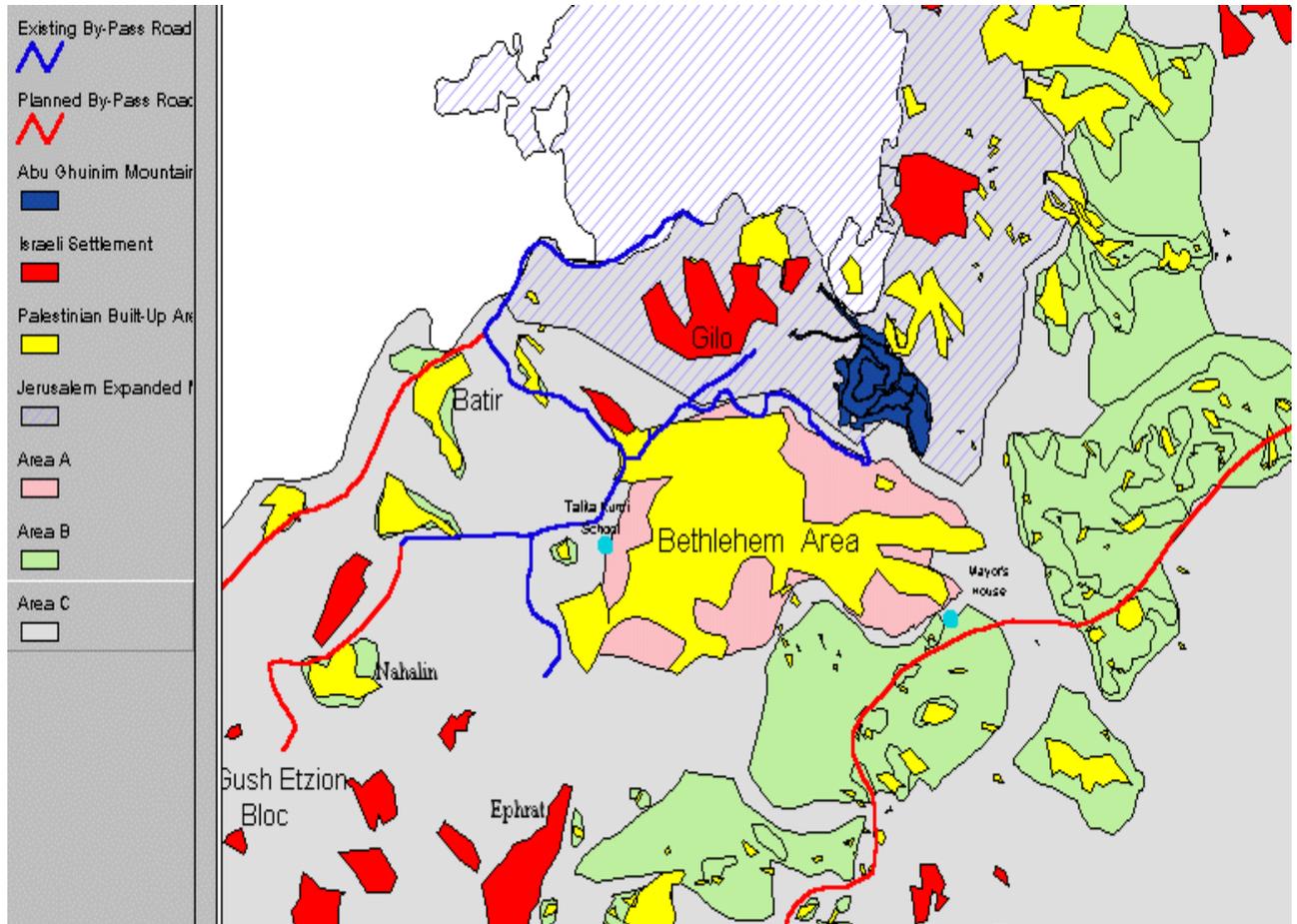
In addition, a small area of the city of Hebron, which houses the major Israeli settlement of Qariyat Arba', is identified as Area H2. This area remains under the Israeli control where Israel will retain all powers and responsibilities for internal security and public order.

In practice, the Oslo II land classification scheme of the Palestinian territories translates into the physical fragmentation of Palestinian communities. This jagged distribution of areas A, B, and C ([Figure 2](#)) has partitioned the West Bank into isolated cantons of Areas A and B which are physically separated from each other by Areas C. A situation similar to islands dispersed in a sea.

Because Areas C are totally under Israeli control, the Oslo II Interim Agreement grants Israel the authority to block access to all Palestinian communities and prevent free movement between them by simply closing off Areas C to Palestinians. This authority has been used by Israel on several occasions since March 1996, of which the latest was in September 1996, where Palestinians were confined within their small and isolated communities. This action has proved to be an effective tool for the Israeli government to collectively punish Palestinians and prevent Palestinian movement in and between the West Bank and Gaza Strip whenever Israel feels that its 'security' necessitates it.

Furthermore, several Palestinian built-up areas were assigned as Areas A or B, yet portions of their community lie in Area C. Thus, many neighborhoods in a town or village are physically separated from the core part of their communities. In the case of an Israeli closure, children of these neighborhoods are not allowed to reach their schools, sick people are denied access to hospitals, and visiting relatives or friends are impossible. One clear example is in the Bethlehem District ([Figure 3](#)). Several neighborhoods in the towns of Beit Sahour and Beit Jala are excluded from Area A and classified as Area C. The Mayor of Beit Sahour, who happens to live in one of these excluded neighborhoods, is denied access to the municipality and therefore to adequately serve his community during the harsh times of Israeli closure. Also, Talita

Kumi Secondary School, one of the most prominent and largest schools serving the Bethlehem area, is located in Area C. On several occasions since the signing of Oslo II, Talita Kumi's over one thousand students were not allowed to reach their school.



**Figure 3: Area Divisions around Bethlehem**

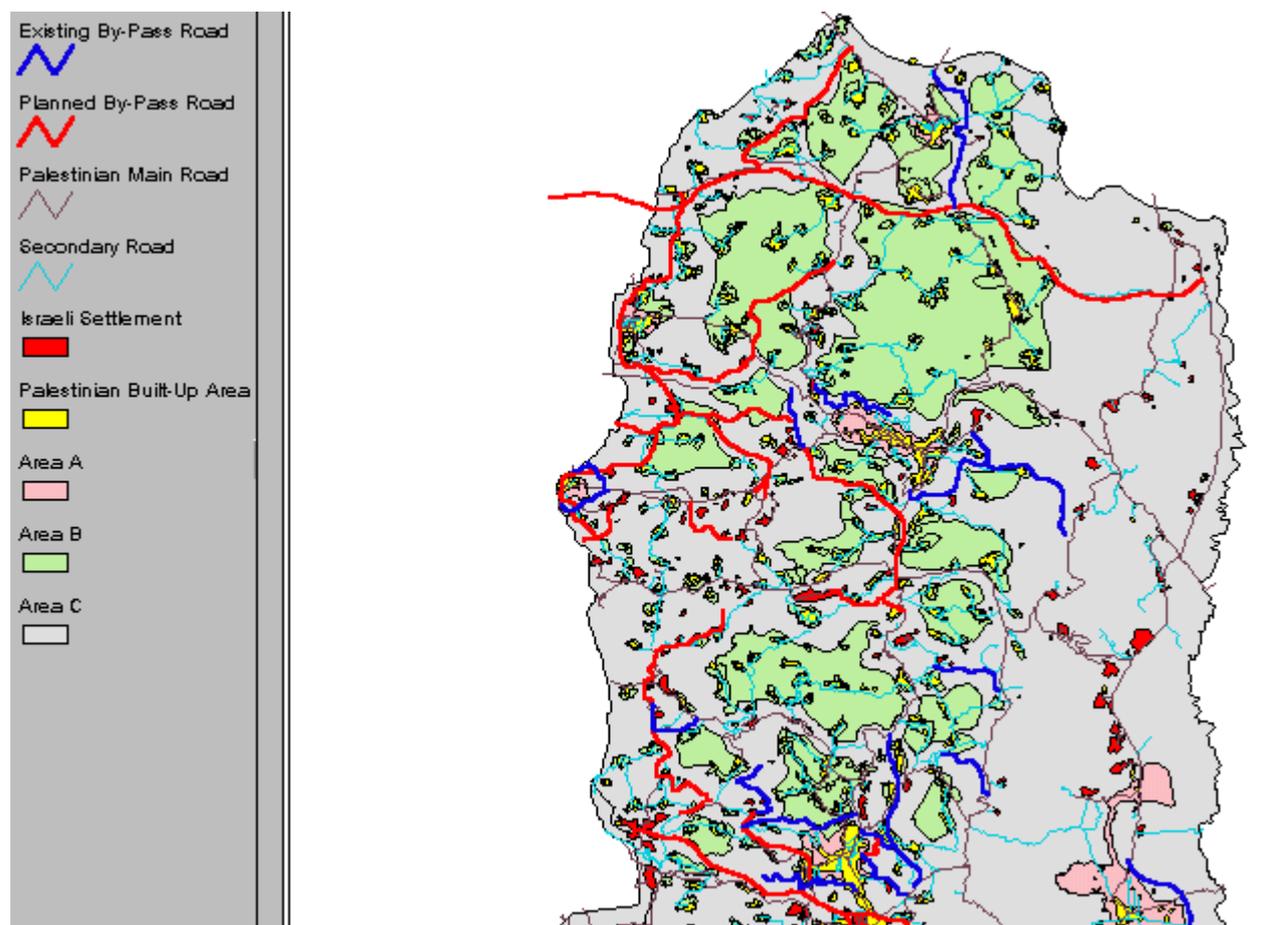
Further restricting movement and trade, Israel has thus far refused to apply certain items of Oslo II Interim Agreement which call for the creation of a permanent travel route between the West Bank and the Gaza Strip. During the past 12 months, Israel has not granted West Bankers travel permits to Gaza. As of the writing of this paper, Israel has not fulfilled its commitment to provide two safe and free passageways for Palestinians between the Gaza Strip and West Bank.

The lack of geographical continuity in the lands under Palestinian control has created a major physical impediment towards accomplishing sustainable national development in Palestine. Such fragmentation of the Palestinian communities makes it impossible to construct an effective and resourcefully efficient national infrastructure, such as building a national electric grid and water supply network, or formulating an integrated national policy for the agricultural and water sectors. If such a situation is to continue beyond the intended interim period, maintaining the stability and the environmentally sustainable and progressive economy required for an independent Palestinian entity (state) will be doomed. This would not only be a direct blow to Palestinian self-determination, but also sharply contradict international

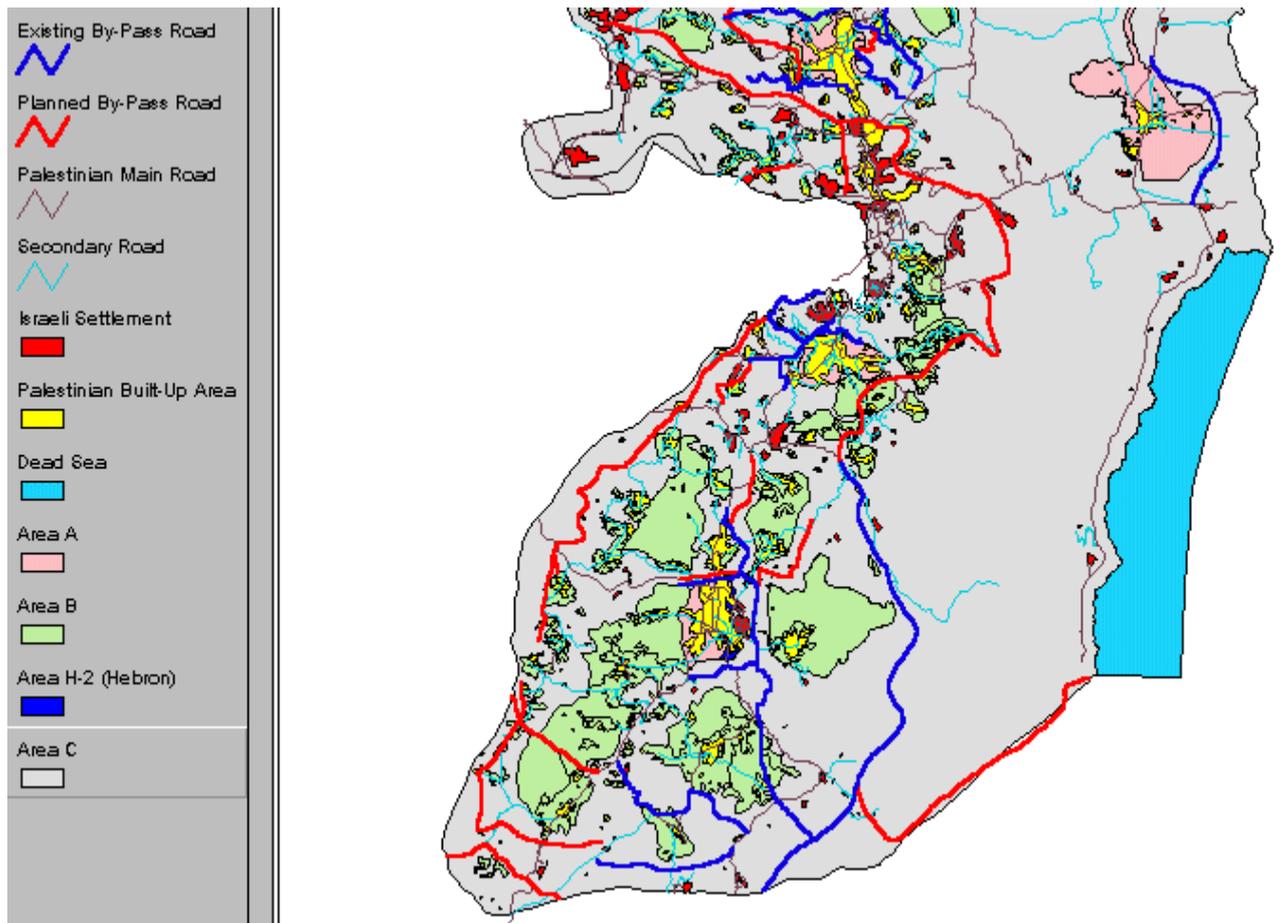
resolutions, namely United Nations Resolution 242 and 338 which are the essence of the peace process begun in Madrid in 1991.

## By-Pass Roads

Regardless of the time schedules stated in the Oslo II Interim Agreement, Israel made its re-deployment schedule from certain areas in the West Bank contingent upon building lateral roads to secure a 'safe passage' for Israeli settlers in the West Bank. These lateral roads, mentioned briefly in the Oslo II Interim Agreement, have grown into a whole infrastructure of by-pass roads which crisscross the West Bank and Gaza Strip, creating a separate road infrastructure from the existing Palestinian road network and converting the area into an asphalt jungle (Figures 4a and 4b). These post-Oslo II by-pass roads have been designed to serve only Israelis traveling in the West Bank. Some of these by-pass roads are accessible only to Jews, such as the by-pass road passing west of Bethlehem city, connecting Jerusalem with Gush Etzion settlement.



**Figure 4a: By-Pass Roads in the Northern Parts of the West Bank**



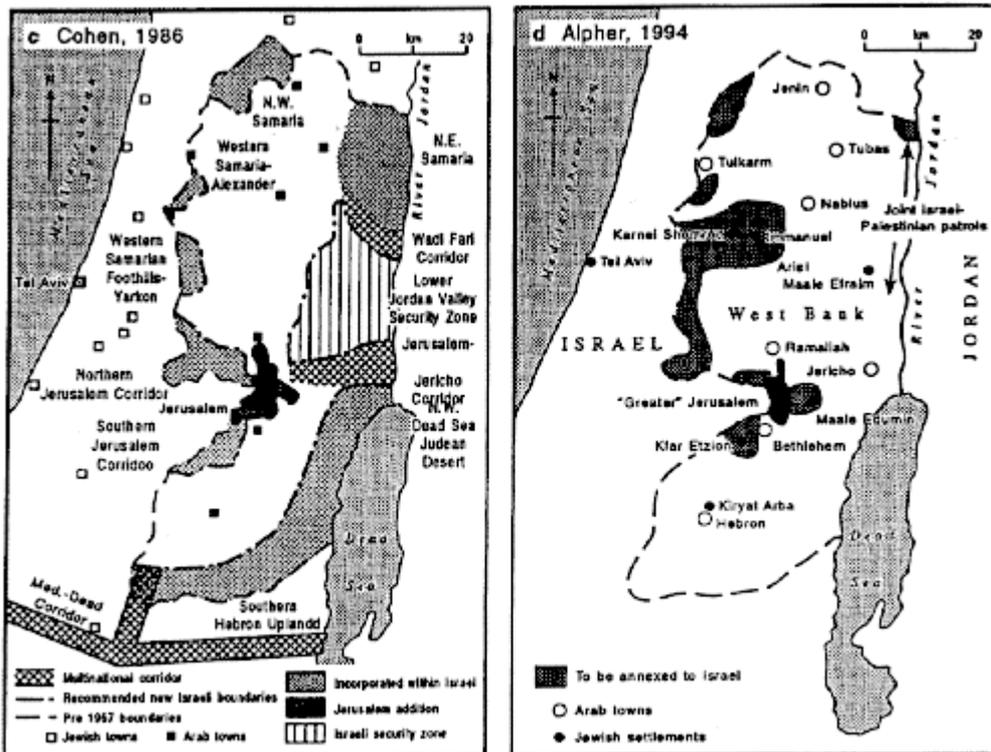
**Figure 4b: By-Pass Roads in the Southern Parts of the West Bank**

To fully serve their 'security' purpose, the use of the by-pass roads and their surrounding vicinity by Palestinians is subject to many restrictions. Exits to by-pass roads in several locations throughout the West Bank have military checkpoints which filter traffic and prevent Palestinian owned vehicles from using the roads. By-pass roads also enjoy a safety buffer of 50 to 100 meters on each side, where no Palestinian activity can take place, such as building houses and opening factories. Moreover, existing Palestinian houses located in areas close to newly planned by-pass roads are being demolished.

By-pass roads encircle every major Palestinian city and community in the West Bank (Figures 4a and 4b), and therefore create boundaries which limit the expansion and development of the Palestinian communities which they encircle, and further disconnect Palestinian communities from each. Land currently available to Palestinians does and will not accommodate natural population growth, the absorption of Palestinian returnees, nor the development of a strong economic infrastructure.

A cross examination of the overall geographic extension of both the existing and planned by-pass roads in the West Bank with the various previously prepared plans for the separation lines between Israel and the West Bank uncovers the true nature and actual purpose behind the construction of these roads (Figure 5). These are as follows:

- Enabling Israel to divide the West Bank into small isolated cantons where geographic unity and integrity is impossible. Therefore, the creation of a Palestinian state on Palestinian land becomes physically unattainable. This objective has been clearly affirmed by the new Israeli Likud government in its political platform which states that "The government of Israel will oppose the establishment of a Palestinian state or any foreign sovereignty west of the Jordan River."



**Figure 5: Two Previous Israeli Proposals for Palestine/Israel Border Re-demarcation.**

- Creating *de facto* new physical borders for the West Bank and isolating uninhabited but Palestinian owned border areas to facilitate their annexation to Israel proper. Thus Israel is using by-pass roads to unilaterally re-draw the geopolitical map of the region, and further deprive Palestinians of areas of their homeland.
- Providing the means to reserve large stretches of Palestinian land for the expansion of Israeli colonies. The main clusters of Israeli colonies in the West Bank continue to be surrounded by by-pass roads in a manner which allows the encircling of Palestinian lands where houses have not yet been built. This objective is consistent with the current Israeli Likud government's political platform which calls for the consolidation and development of Israeli colonies in the West Bank.

It is worth mentioning that the by-pass roads so far built in the West Bank exceed 276 kilometers in length while the planned roads are estimated at 452 kilometers. With the safety buffer zone they enjoy, the construction of these by-pass roads requires the

confiscated and destruction of approximately 109,200 hectares of Palestinian land, mostly of which is agricultural. Many farm lands were totally destroyed by the construction of by-pass roads, depriving owners of their main source of income. Other farm lands were split into several pieces, rendering it impossible to cross from one side of the land to another.

In this regard, the Palestinian Ministry of Agriculture has expressed its deepest concerns for the loss of large areas of precious agricultural land in a country where agriculture is the largest production sector of the Palestinian economy, generating 22-30% of the gross domestic product (GDP), and providing employment to over 15% of the population. Under these circumstances, the Palestinian Ministry of Agriculture is facing great obstacles in formulating a sustainable and effective national policy for the development of the agricultural sector in Palestine which will guarantee adequate utilization of the scarce land and water resources.

## **Israeli Colonies**

Presently, there are 18 Israeli colonies in the Gaza Strip housing an estimated 4,000 Israeli settlers and another 189 in the West Bank with a population of approximately 300,000 settlers of whom 165,000 reside in East Jerusalem. Settlements in the occupied Palestinian territories are environmentally unsustainable, incongruent with indigenous land use and, furthermore, their existence is in direct violation to international laws, especially the Fourth Geneva Convention, Article 49, item 6, which states that: "The occupying power shall not deport or transfer part of its own civilian population into the territory it occupies".

The fate of Israeli colonies was not mentioned in the articles of the Oslo II Interim Agreement, rather it was left for the final status negotiations. However, the full implementation of the Oslo II Interim Agreement demands that Israel freeze settlement activities in the Palestinian territories until further decisions are made. In violation of this, Israeli settlement activities have continued. Although the previous Labor Government, headed by the late Mr. Rabin, adopted the decision to freeze the expansion of Israeli colonies in the West Bank and Gaza Strip, colonies continued to grow at a fast rate, especially in the East Jerusalem area. The current Likud Government has further violated the Oslo II Interim Agreement by abolishing the freeze on settlement expansion and going so far as to formally declare their full support for the enlargement of existing colonies and the construction of new ones.

Palestinian objection to the existence of Israeli colonies in the West Bank and Gaza Strip is not limited to the issue of their illegality. These colonies impose a serious threat to the quality of the Palestinian environment and have been one of the leading causes of its degradation. Firstly, most colonies are built on confiscated Palestinian agricultural or grazing lands which has led to the uprooting of thousands of fruit trees and, as a direct result of the drastic reduction in land cover, has increased soil erosion. From the signing of the Oslo I Accords in September 1993 through June 1996, Israel has uprooted over 32,500 fruit trees, confiscated 29,500 hectares of land, and bulldozed 3,250 hectares in the process of expanding colonies and opening new roads to serve them.

Secondly, Israeli settlers in both the West Bank and Gaza Strip consume unsustainable amounts of scarce Palestinian water resources. While the average per capita Palestinian water consumption, for all sectors, is 107-156 cubic meters per year, an Israeli settler uses 640-1,480 cubic meter per year. While Palestinians are often not supplied with enough drinking water during the summer months, Israeli settlers extravagantly fill their swimming pools and water their green lawns.

Thirdly, few colonies are provided with wastewater disposal systems. Generally, raw wastewater from colonies is dumped in open valleys, reaching Palestinian villages, destroying agricultural areas, and polluting surface and ground water. Similarly, solid waste from colonies are dumped without restriction on Palestinian land, fields and side roads. Several of these cases has been documented by the Applied Research Institute of Jerusalem (ARIJ) in its environmental profiles of the West Bank.

A crucial, yet often overlooked fact, is that the geographical distribution of Israeli colonies in the Palestinian territories severely restricts the growth of Palestinian communities. In most cases, colonies either surround Palestinian communities and, therefore, prevent their natural growth, or they confiscate huge tracts of Palestinian land, ensuring that the land is available for future settlement expansion. A clear example of such a case may be found by examining the village of Nahalin west of Bethlehem city and also in the greater Bethlehem area itself ([Figure 3](#)). The Bethlehem area is presently surrounded by either colonies or by-pass roads from all directions, greatly limiting its expansion and threatening its future development. From the south, Bethlehem is surrounded by the Gush Etzion bloc of colonies, from the west by Har Gilo settlement, Bitar Elite settlement as well as two by-pass roads, from the East by Taqoa settlement and a by-pass road, and from the north by Gilo settlement, a by-pass road. Also from the north lies the site of the proposed settlement Har Homa to be built on the forested mountain of Abu Ghnaim.

In sum, colonies are a focal point for land destruction and pollution of the Palestinian environment. Their existence creates a major political dilemma for the Palestinian Authority and the Israeli Government, and their further expansion will not only render Palestinian geographic integrity impossible, but also will adversely affect the environment and quality of life today as well as for future generations to come.

## **A Dry Peace**

It is rather unfortunate that the ongoing peace process in both its bilateral and multilateral tracks has so far failed to address the heart of the water disputes in Palestine and Israel. While some progress regarding water allocation has been achieved between Israel and Jordan, little progress has been made between Israel and the Palestinian Authority.

In the Oslo II Interim Agreement, Israel does recognize, in principle, Palestinian water rights. There is no doubt that this is considered by Palestinians to be an important breakthrough, as it is the first time that Israel has officially recognized Palestinian water rights. Enumeration of these rights, however, will be decided upon in the final status negotiations. A further setback lies in the second and third principles of the Agreement which undermine the significance of Palestinian water

rights by stressing the obligation to maintain existing water allocation patterns and the need to develop new water resources.

Israel currently utilizes 85% of the West Bank water resources, leaving Palestinians with a meager 15%. To maintain this inequitable water allocation pattern, the per capita water consumption among Palestinians, in all sectors other than agriculture, has been limited to 25 cubic meters per capita in the West Bank and 50 cubic meters per capita in the Gaza Strip. In comparison, the per capita water consumption in Israel is approximately 100 cubic meters per year. Yet, the actual Palestinian per capita water demand is estimated at 125 cubic meters per year and thus consumption is expected to increase if the restrictions imposed by Israel are lifted.

While Palestinians are striving to promote economic development in Palestine, the Oslo II Interim Agreement states that future Palestinian water needs in the West Bank are as little as 70 - 80 mcm/year. In reality, this amount expresses the immediate needs of Palestinians to satisfy domestic demand during the interim period. It certainly fails to consider the needs of the main Palestinian economic sectors such as agriculture, industry and tourism. Moreover, out of the 70-80 mcm/year, only 28.6 mcm/year of water will be made available by Israel to meet immediate Palestinian needs during the interim period. The remaining quantities of 41.4 to 51.4 mcm/year are to be "developed by the Palestinians themselves from the Eastern Aquifer and other agreed sources in the West Bank".

By reviewing the details of this agreement on water, it becomes clear that the Palestinians were granted very little. Furthermore, the 28.6 mcm/year of water which are to be supplied to the Palestinians by Israel is in fact no gift nor is it an additional water resource for Palestinians. Rather, Palestinians are required to pay the full cost of the 5 mcm of water to be supplied to the Gaza Strip, making this supply nothing but a pure commercial agreement of water trade. On the other hand, the agreement stated that at least 17 mcm/year of water given to the West Bank originates from the Eastern Aquifer, which is, by definition of all international laws, Palestinian owned and replenished.

The tapping of additional water from the Eastern Aquifer is currently difficult and may not be economically feasible, considering the depth of the Eastern Aquifer and its complicated topography. Also, the drilling of several new wells agreed to by Israel to meet the needs of the Palestinian community is stalled.

Despite its slight contribution to Palestinian water needs, it is regrettable that, so far, Israel has not transferred the responsibilities of the Israeli-administered West Bank Water Department to the Palestinian Water Authority, as stipulated in Article 40 of the Oslo II Interim Agreement. Such a violation impedes the development of a national Palestinian water institution to exercise its powers and responsibilities in planning and managing, and developing water resources.

Thus, in essence, the Oslo II Interim Agreement made available for Palestinians very little water, most of which is already legally owned by Palestinians. As a result of this, the suppressed Palestinian water demand will remain. So far, Palestinians in the West Bank and Gaza Strip have not seen the translation of this Agreement to actual water in their taps, but they are witnessing severe water shortages. This is especially

true in the Gaza Strip where the aquifers are depleted and polluted by sea water intrusion to an irreversible level, and where the majority of the available water fails to meet the WHO standards for domestic use. Therefore, by definition, the Oslo II Interim Agreement contains a dry peace for the Palestinians. This agreement on water was described by Professor Frank Fischer, a prominent Jewish water economist from MIT, as a "shameful act" which by no means provides Palestinians with a fair share of their water.

## Jerusalem

Jerusalem is the crux of the Palestinian-Israeli conflict. Among all the cities in historic Palestine, Jerusalem possesses a special political, economic and religious status for people around the world, especially its residents --Palestinians and Israelis. Upon Israeli obstinacy, the issue of Jerusalem was overlooked in the Oslo II Interim Agreement and was postponed until the final status negotiations which have been stalled since their initiation in May 1996.

The final status negotiations on Jerusalem are expected to last for a maximum of three years. Aspects of Jerusalem to be discussed includes: sovereignty over the city, legal structure, religious freedom, and cultural rights. However, in the meantime, the Israeli government has not stopped its unilateral practices in Jerusalem by which it creates *de facto* realities on the ground. These *de facto* realities are clearly affecting the outcome of the negotiations on the final status of Jerusalem, to favor Israel, an action that is in total violation to United Nations' resolutions, particularly 298 and 242, as well as standing Palestinian-Israeli Oslo Agreements.

Measures leading to strong demographic shifts have been staged by Israel in order to create an exclusive Jewish population in Jerusalem. De-development strategies have been adopted to restrict expansion of the city's Palestinian communities. In this process, infrastructure and services for this group of residents, by the Israeli Jerusalem Municipality, have become inadequate and do not provide a healthy living environment. Overcrowding has become the norm and the pressure on Jerusalem's land and natural resources has been devastating as well.

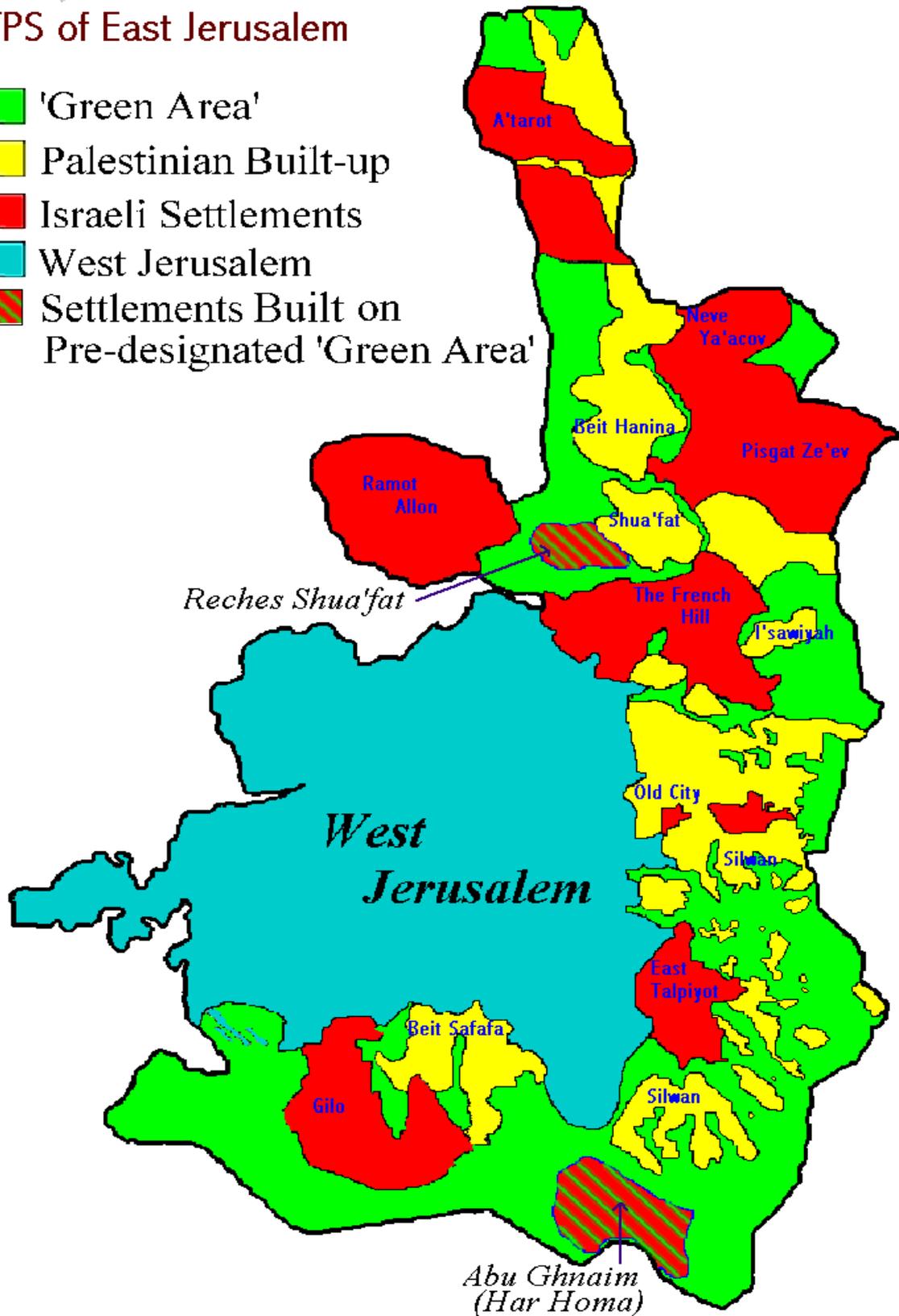
Severe restrictions are placed upon the development of Palestinian built-up areas in East Jerusalem. As of today, and for the last 28 years of Israeli occupation, not a single new Palestinian neighborhood has been built in East Jerusalem, while more than 15 large Jewish colonies have been built and several more are planned. These restrictions have been approved under the pretext of the Town Planning Scheme (TPS) for East Jerusalem.

Soon after the 1967 war, Israel prevented Palestinians from building in East Jerusalem areas which lacked approved TPS. The process for approving TPS for a Palestinian community however has been made extremely complicated and requires several stages of paperwork and numerous signatures. Presently, less than 25% of the Palestinian neighborhoods have had town planning schemes approved. Moreover, in those few "lucky" neighborhoods, major parts of the land were designated as a 'Green Areas': an area designated for public open space or for the preservation of unhindered views of the landscape. Palestinians simply can not be built on them. The color green,

symbolizing these 'green areas' predominate Palestinian town plans in East Jerusalem and occupy 44% of the land ([Figure 6](#)).

### TPS of East Jerusalem

- 'Green Area'
- Palestinian Built-up
- Israeli Settlements
- West Jerusalem
- Settlements Built on Pre-designated 'Green Area'



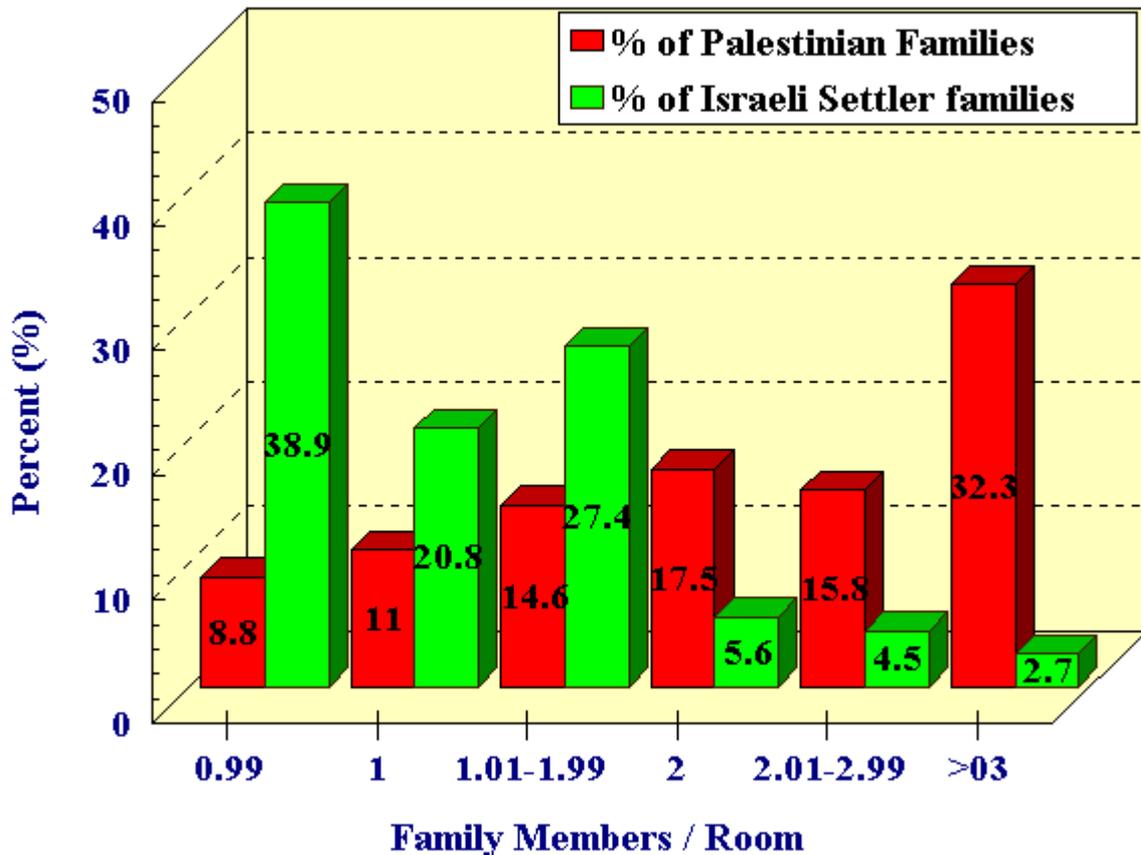
**Figure 6: Town Planning Scheme for East Jerusalem**

This land classification of East Jerusalem has left only 13.5% of the land available for Palestinians to live on and develop (Table 1). In practical terms, this classification translates to an average living density of 17,245 people per square kilometers in the Palestinian neighborhoods of Jerusalem, which is considered unhealthy by international standards.

| <b>Land Use</b>                     | <b>%</b> |
|-------------------------------------|----------|
| <b>Israeli colonies</b>             | 34%      |
| <b>For expansion of Settlements</b> | 8.5%     |
| <b>Green Areas</b>                  | 44%      |
| <b>Palestinian built-up</b>         | 13.5%    |

Furthermore, restrictions are imposed by the Jerusalem Municipality on construction even when building permits are granted. These restrictions are expressed in the following building codes:

- Palestinians are only allowed to built on 15%, 25%, or 50% of the land plot, depending on the zoning and area of construction. In contrast, Israeli Jews building in East Jerusalem colonies are allowed to build on as much as 200% of the land.
- Palestinian buildings in East Jerusalem are confined to one or two stories, whereas Israeli colonies can have buildings up to eight stories.
- Palestinians owning land larger than 0.1 hectare in size are required to divide the land into parcels of a maximum of 0.1 hectare in order to be granted building permits on such lands. This law is strictly applied even when the land is only few square meters larger than 0.1 hectares.



**Figure 7: Density per room among Palestinians and Israeli Settler families of East Jerusalem**

Accordingly, building houses for Palestinians in East Jerusalem has been extremely difficult and has therefore led to drastic overcrowding. Over 30% of the East Jerusalem Palestinian families live in a density of more than 3 people per room ([Figure 7](#)).

Palestinian houses built without a license have been or are threatened to be demolished by the Israeli government. As Reported by the Palestine Human Right Information Center (PHRIC) in mid-1994, the Israeli government policy of denying Palestinians building permits, its demolition of unlicensed Palestinian houses, and its continued land expropriation has rendered approximately 21,000 Palestinian families either homeless or has forced them to live in caves, sub-standard housing, or to double and triple-up with other families. PHRIC has documented over 210 Palestinian homes demolished by the Israeli authorities in East Jerusalem since mid-1986 for licensing reasons.

Furthermore, most of the lands designated as 'Green Areas' in East Jerusalem, which are supposedly left to conserve the beauty of the nature, are neither pla, developed into gardens or parks, nor are they green. Obviously these 'Green Areas' were selected in places where Israel would like to save the land until the time is ready to build Israeli colonies on them. In this respect, Teddy Kollek, the previous mayor of Jerusalem, was quoted saying "when asked to defend the loss of 1,262 dunums of public open space in Reches Shu'fat, Mr. Kollek stated that the green paint was originally applied to the map of Reches Shu'fat in order to prevent Palestinian

construction on the land until the time was ripe to build a new neighborhood for Jews."

The settlement of Reches Shua'fat is not the only one to be built on a pre-designated green area ([Figure 6](#)). A forested mountain located at the southern end of the 1967 extended East Jerusalem municipal boundary is another example. Abu Ghnaim, with an area of approximately 2 km<sup>2</sup>, has been forested by both the Jordanians pre 1967 and the Israelis after 1967. It currently hosts around 60,000 pine trees and provides an oasis for several hundred precious wild animals and plants. A few years ago, the forest, although largely privately owned Palestinian land, was confiscated for the purpose of building an Israeli settlement to host 6,500 housing units for Israeli Jews.

Such laws as mentioned above are not only discriminatory but they also encourage low efficiency of land use, unhealthy living environments, and immense pressure on Jerusalem's scarce land resources. Those land resources that are available for Palestinians are insufficient to absorb the high population, and consequently have led to the deterioration of housing conditions ([Photo 1](#)). This crisis is further exacerbated by the weak infrastructure and inadequate municipal services. Over 40% of the Palestinian communities in East Jerusalem lack sewage collection networks. Waste collection and disposal is inadequate. Medical waste is disposed of in open dumping sites without prior treatment or further management. Roads are in miserable condition, while traffic jams are the major factor in dangerous levels of air pollution.



**[Photo 1: Overcrowding in East Jerusalem - Town of Silwan, 1996.](#)**

## What's Next

The major environmental challenges in Palestine after the Oslo II Interim Agreement are not a direct result of the content of the agreement, rather they are a result of Israeli non-compliance with and partial implementation of the agreement itself. A renewed commitment by Israel to the full and immediate implementation of the agreement is absolutely necessary to restore Palestine's geographical integrity. By halting the confiscation of land and the expansion of Israeli colonies, by ceasing further construction of by-pass roads, by eliminating the restrictions on their use by Palestinians, Israel would not only begin to fulfill its obligation to a just and comprehensive settlement, but also demonstrate its foresight and wisdom by safeguarding the sustainable future of Palestine's natural resources. After all, the environment knows no geopolitical boundaries and degradation in Palestine will not necessarily stop at that border checkpoint to Israel.

Although Palestinians will continue for quite sometime in the future to engage in difficult political negotiations, they can not be expected to endure, among other things, inadequate drinking water, the loss of agricultural lands, and the denial of freedom of movement --particularly to the holy city of Jerusalem. It is precisely these deteriorating and neglected conditions which collectively have created the current volatile atmosphere in the Palestinian territories --an atmosphere which could erupt with any event, such as last September's opening of the "Jerusalem Heritage Tunnel".

## Acknowledgment

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1. Chapter two, Article 31, item 7 of **the Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip (Oslo II)**, Washington, D.C., September 28, 1995.
2. Palestine Report, *The PA on Israel's Standing Violations*, Jerusalem Media and Communication Center, Volume 2, No. 6, 19 July 1996, Jerusalem.
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