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The Environmental Impacts Assessment of The Israeli Segregation Plan on Battir Village

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1. Background

Historic Palestine (and the Palestinian Territories in the West Bank and the Gaza Strip including East Jerusalem), is relatively a small piece of land of about 27 thousand square kilometers located in the eastern Mediterranean region. In addition to its historic and cultural importance, it represents unique existing complex ecosystems, due to the variety of its climate, topography and environmental characteristics.

Four different geographical areas exist in this small area of land, each geographical area may represent one or more different ecosystems.

These geographical areas are:

1. The Mediterranean Region that comprises the coastal area, the semi coastal area, the internal plains and the central mountains of the west bank.
2. The Irano - Turanian Region, which extends along the eastern slopes of the central mountains.
3. The Saharo - Arabian territories that lays on the southern part of Palestine .
4. The Sudani penetration territory which is located in the Rift Valley.

In these different geographical regions, the quantities of rain, the evaporation rate, the ambient temperature, humidity, soil types and characteristics and the other climate and environmental conditions are mostly different. Consequently, flora and fauna that are generally determined by such conditions have been diversified. In the peripheral areas between these geographical regions, the prevalence of new species was observed as a result of natural breeding.

This unique and important environmental characteristic of historic Palestine is subjected to continuous deterioration as a result of population growth and human activities. One of the most destructive human made projects in this regard is the construction of the Segregation Wall that divides historic Palestine physically and ecologically.

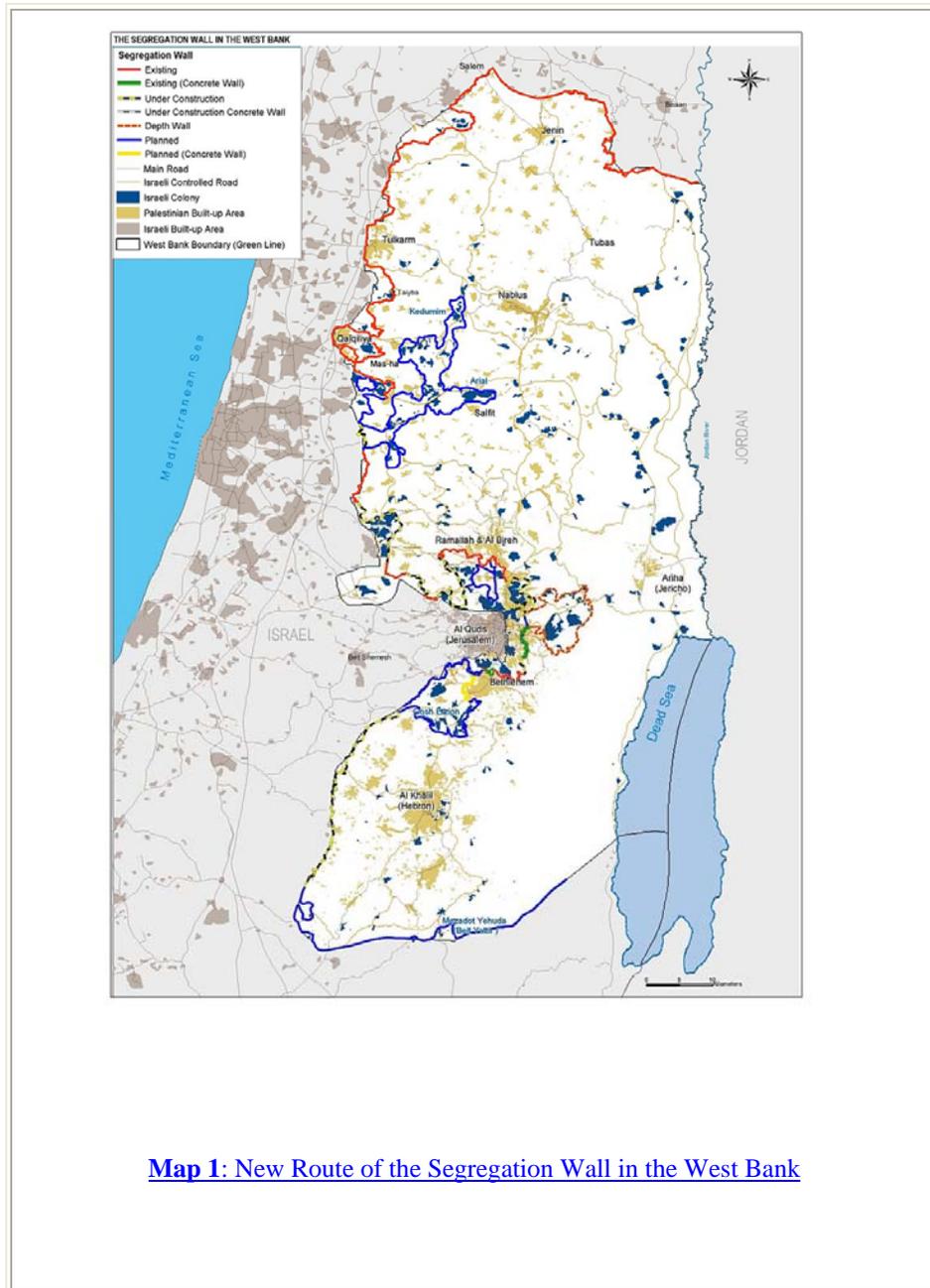
On 16 June 2002, began implementing unilaterally a segregation plan in the West Bank and issued military orders to seize Palestinian lands under the pretext of security. In most areas, the Segregation Zone (SZ) consists of a 40 -100 meters wide double layered fence that comprises barbed wires, trenches, military roads and footprint detection tracks as well as a 4-5 meters high electrified metal fence supplied with security cameras. In areas with sizeable population and/ or in-close perimeter with the Armistice Line as in the case of the Palestinian city of Qalqiliya, the Segregation Wall consists of 6-8 meters high concrete wall supplied with rigid concrete cylinder military watchtowers lined-up about 200 meters apart.



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20 % of the Segregation Zone length will be constructed along the Armistice Line with the rest running deep inside the West bank ([Map 1](#)).

The length of the Segregation Zone will be 645 km with an average height of about eight meters and an average width of around one hundred meters. The estimated cost of the wall is 3.4 billion USD. [See Map 1](#)





The next table shows the current status of the Segregation Zone. Construction of the Segregation Zone is progressing at an accelerated rate.

Table 1: Current Status of Western Segregation Plan (Km)

Existing (Fence)	169
Existing (Concrete Wall)	9
Total Existing	178
Planned (Fence)	285
Planned (Depth Wall)	41
Total Planned	326
Under Construction (Fence)	139
Under Construction (Concrete Wall)	2
Total Under Construction	141
Total length	645

A preliminary assessment of the environmental impacts of the construction of the Segregation Zone can be summarized as follows:

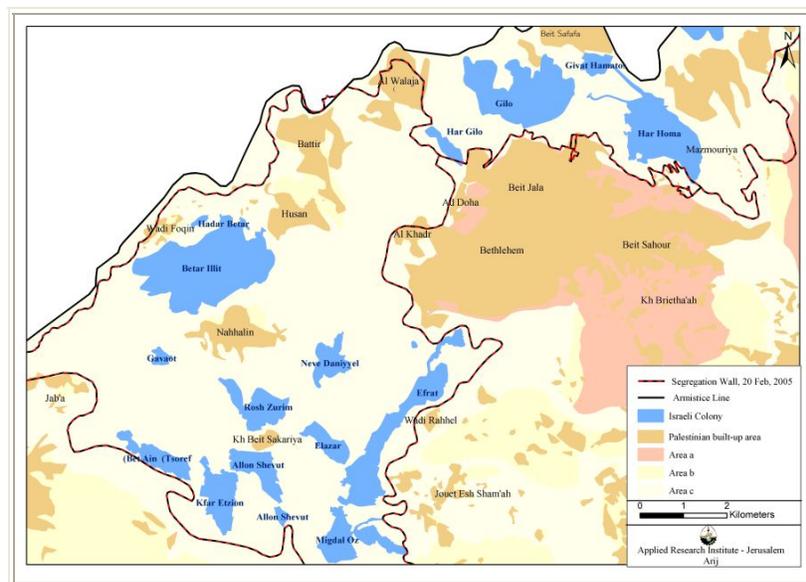
- Loss of high valuable agricultural lands, uprooting of plants and high damage to the agro-biodiversity. The land between the Segregation Zone and the Armistice line constitutes some of the most fertile land in the West Bank.
- Significant damage to the biodiversity, the free movement of flora and fauna between the different ecosystems will be restricted by the wall. The natural habitat of the native life will be fragmented and damaged.
- Significant socio-economical negative impacts as result of land confiscation, land annexation, uprooting of trees and the loss of the sources of income from the confiscated or damaged land by the Segregation Zone. More than 500,000 Palestinians are living within one km strip of the Segregation Zone.
- A significant damage to the landscape of areas of important and exceptional land configuration.
- High spread of dust on the surrounding of wall areas because of the construction works of the Segregation Zone.

In the southern part of the West Bank, west of Bethlehem, the Segregation Zone will encircle six Palestinian villages within a closed area called Etzion Block. This Block will cover 72 square km of the West Bank land. The six villages are Al Walaja, Battir, Husan Nahhalin, Wadi Fukin and KHALLET Sakariya. The total Population of these villages is projected to 18,741 inhabitants in 2005 (Table 2).

Table 2: The Villages Encircled within Etzion Block

Name of Village	Population in 2005
Al Walaja	1,644
Battir	4,092
Husan	5,535
Nahhalin	6,215
Wadi Fukin	1,165
Khallet Sakariya	90
Total	18,741

People and vehicles will be allowed to pass between the western villages in the closed area and the other part of Bethlehem Governorate via two tunnels passing under road 60 and the Segregation Zone at Al-Khader – Husan junction. [See Map 2](#)



[Map 2: Villages encircled in Etzion Block](#)

Within the Etzion Block, 37,000 settlers live in 12 settlements and 5 outposts. They travel freely without restrictions through route 60 and the Segregation Zone gates. The Segregation Zone will be constructed, south north, east of Efrat Settlement parallel to route 60 whereas route 60 will be restricted for settlers' movement. The Segregation Zone then will be extended from near Beit Jala towards Walaja village, leaving part of this village outside Jerusalem area on the West Bank side. 17 houses have been destroyed and other 53 houses have been issued to house demolition orders as part of 92 villagers' houses lying within the affected area of the Segregation Zone. The Segregation Zone then will extend along the Armistice Line on Battir, Husan, Wadi Fukin and Nahhalin land.



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Map 2 shows the Segregation Zone extension and the encirculated 72 square km on the West Bank side. The Etzion closed area is lying on one of the most fertile land in the West Bank. The area has the highest annual rainfall average, best soil types and rich natural systems. The springs, which spread in the area, are feeding the natural systems and the biodiversity. The area in both sides of the Armistice Line is a meeting point and a habitat for Fauna living in the surrounding of the springs without any of the Armistice Line restrictions. This Environmental Impacts Assessment Study will focus on assessing the environmental impacts of the Segregation Zone on Battir village and the surrounding area. The study has been prepared based on the village council request. The village council claims that the Israeli side didn't prepare an EIA study including Trans-boundary EIA as required by the international and regional bilateral agreements. [See Photo 1](#)



[Photo 1: An Overview of Battir Village](#)



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2.A profile of Battir:

As mentioned above, Battir village is lying within the closed Etzion Block. The Segregation Zone will pass through Battir land south of the armistice line dividing its land into three strips. The first strip will be behind the Segregation Zone, while the second will be used and destroyed by the Segregation Zone construction. The third strip will be a buffer zone with restricted uses.

The main objective of the study is assessing the environmental impacts of the Segregation Zone during both the construction phase and the post construction phase.

For this Purpose the study outlines and focus will be as follows:

1. Description of the Segregation Wall.
2. Scoping and public consultation.
3. The environmental settings;
4. The legal framework.
5. The Segregation Zone impacts boundary.
6. The Segregation Zone project alternatives.
7. The Segregation Zone Potential Environmental Impacts.
8. Impacts Mitigations and Recommendations.

2.1 Segregation Wall (Segregation Zone) Description:

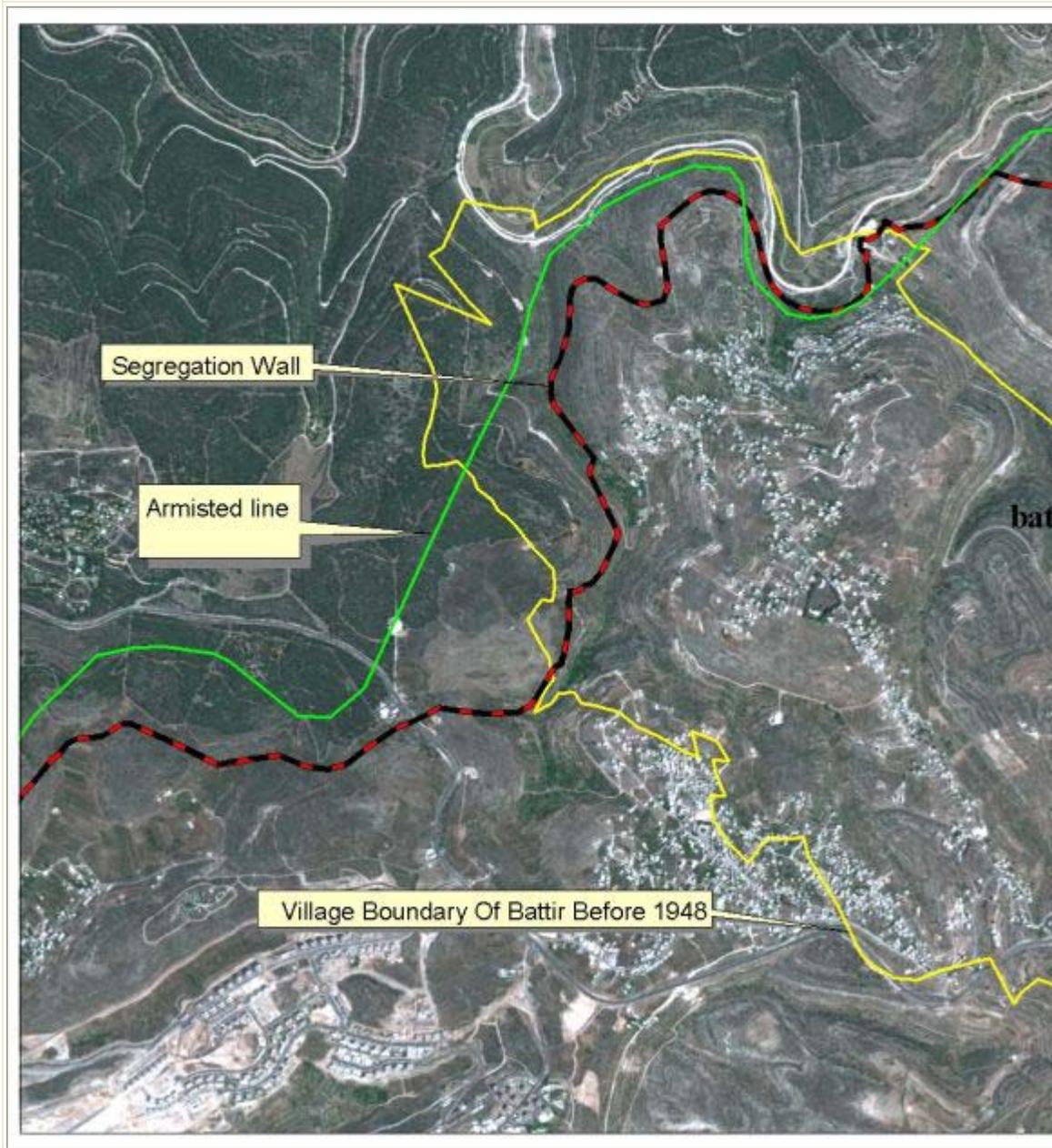
Battir Village is lying adjacent to the Armistice Line south west of Jerusalem. Since 1949 Battir village has expanded on an area of about 7167 dunums. Part of this area, about 671 dunums is lying behind the Armistice Line (Green Line) inside Israeli boundary. Battir citizens have continued cultivating this parcel of land based on 1949 Rhodos agreements between Jordan and Israel Governments. The Agreement stated that the Israeli authorities will allow for Battir residents of Battir to continue cultivating their own land inside the Armistice Line and they will preserve the railway which lies along the Armistice Line safe from any attack.

On the 20th of February 2005 the Israeli Government approved a new route for the Segregation Zone. According to this new route, the Segregation Zone will not pass along and on the Armistice Line of 1949. 3.3 km of the Segregation Zone will cross the north-west boundary of Battir village inside Battir Village land. It will cross the Valley and Battir hills and the rich cultivated and irrigated land without any consideration to the values of this land to its owners and without any consideration to the damage that it will create to the natural life and natural systems. In this case, about 330 dunums of Battir land will be expropriated and used for the construction of the Wall. A total of 1297 dunums will be isolated behind the Wall. In addition, around 495-660 dunums will be restricted as a buffer zone. ([Map 3](#))



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The Segregation Zone will consist of concrete wall, roads, electronic fence, ditches, trenches and razor wires on a chain of land averaging 100 meters in width. The concrete wall will be around 8 meters high and it will totally separate the land and the natural life on both sides of the wall. The construction of the wall will affect the boys' school which is the only male school in the village. It will destroy also high valuable irrigated agriculture land and uproot olive trees and other crop trees. [See Map 3](#)



[Map 3: Battir Village Boundary and Impact of Segregation Wall](#)



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Photo Courtesy of ARIJ

[Photo 2: Battir Boys' School to the right of the railway Hassan Mustafa Boys Secondary School, which will be affected by the Wall.](#)



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2.2 Scoping and Public Consultation :

The purpose of scoping is identifying issues and information that should be considered in the EIA process. The EIA study team has conducted study tours, field visits, surveys and data collection campaigns for this purpose.

A questionnaire was prepared and filled with the needed information from a random sample consists of 86 households. All consulted households had filled the questionnaire.

According to their answers and the information provided:

- 85 participants will lose 41.6% of their properties behind the Segregation Zone.
- 43 participants will lose around 4% of their land under the Segregation Zone facilities.
- 9 participants representing 10.5% of the participants are depending on agriculture as the only source of income.
- 71 participants, representing 82.6% of the sample, rely on agriculture as a second source of income.
- Participants are producing from the land that will be confiscated around four tons of vegetable crops and around 15,000 liters of olive oil.

All participants will be affected by the Segregation Zone construction and they reject its establishment on their land. The Study Team has consulted also Battir village council, farmers, and landowners. Also, they have collected information and relevant data from the available literature.

It was impossible for the Study Team to consult the surrounding Israeli communities due to the Israeli closure and restrictions on Palestinians movements. But, based on the available sources of information, most of the Israeli citizens are with the construction of the Segregation Zone and they call it the Security Fence. Israelis believe that the Security Fence will bring for them peace and security. Contrary and in this regard, Palestinians believe that the Wall will raise the tension in the region and destroys the peace opportunities as it will be built over Palestinians' land, destroying and annexing their land, properties, and their sources of living. Palestinians believe that security could be achieved through achieving peaceful and justice settlement of the Middle East Conflict.

Palestinians also ask a question; if the Wall is to be built for security reasons, not for annexing more Palestinian land, why they are building it inside the West Bank over the Palestinian land? The citizens of Battir have similar question; we and the Israelis have lived together as good neighbors for long decades, their train is moving peacefully inside Battir properties without even one single accident, we enter our land behind the Armistice



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Line also without any accidents, so, why they are building the Wall and why they are confiscating and destroying our school, our land and our crops. It is obvious that the Israelis do not consider the environmental price both neighbors will pay for the Wall establishment as they are supporting the Wall construction.

Furthermore, **the following issues of concern have been identified in the scoping and public consultation sessions:**

- a. The negative impacts on agricultural land.
- b. The loss of properties and land.
- c. The loss of sources of income.
- d. The demolition of the only secondary school in the village;
- e. The uprooting of trees and vegetations, natural and cultivated, like olive trees.
- f. Concern regarding the free movement of wildlife in the area and the destruction of their habitat:
- g. Concerns regarding the free movement of people over their land and the free movement of people between the closed area and the other urban areas in the region.
- h. The spring systems and the natural movement of water systems;
- i. The displacement of people and the demolition of their homes.

Other preliminary conclusions from the scoping sessions could be summarized as follows:

- The Segregation Zone construction generates unacceptable levels of environmental impacts
- The Segregation Zone construction generates high level of people rejection and concerns at both local and international levels.
- The construction of Segregation Zone is contradicting and against the provisions of the local, regional and international laws, agreements and conventions.

During the scoping sessions the Study Team has collected all relevant information including the environmental settings in the area.

3.The Environmental Settings :

In this section, relevant information of the existing conditions in the study area that provide the baseline information needed for carrying out the EIA study will be documented. Physical, biological and socio economical base line conditions are the components of the existing environmental settings of the region.



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3.1. The Physical conditions:

3.1.1. Geography:

Battir is a small Palestinian Village, situated around 6.4 km west of Bethlehem city. It comprises a total area of about 7163 dunums, (based on the village borders identified during British Mandate). This area is divided into built-up areas of around 1317 dunums, agriculture area of around 3225 dunums, open space of around 3074 dunums and confiscated area of 272 dunums.

3.1.2. Water resources:

Water is an important resource for Battir villagers as they rely on springs' water in irrigating their crops. All houses are connected to public water network. The famous Battir springs are flowing along the valley ridge toward the Armistice Line. These springs enable Battir citizens to have heavy agriculture uses on their land. Seven springs are continuing their flow and one was destroyed during the construction of the railway lines. The seven springs are: Al Balad spring, Jhameh spring, Aba Yaseen spring, Al-Fouar spring, Amdan spring, Al Leghsar spring and Bardamoh spring. The springs' water is the main source drinking water for domestic animals as well as for wildlife.

3.1.3. Land use:

Battir and the surrounding villages are well known of their springs and high valuable agriculture land. They represent the source of fruits and vegetables for Bethlehem District. Lands surrounding the springs are cultivated with irrigated crops and they are cultivated most of the year.

Battir is also located within an area of exceptional – high landscape quality. The area on both sides of the Armistice Line is covered with agriculture plants and forest trees, olive trees are spreading in rain-fed areas. See Photo 3 & Photo 4



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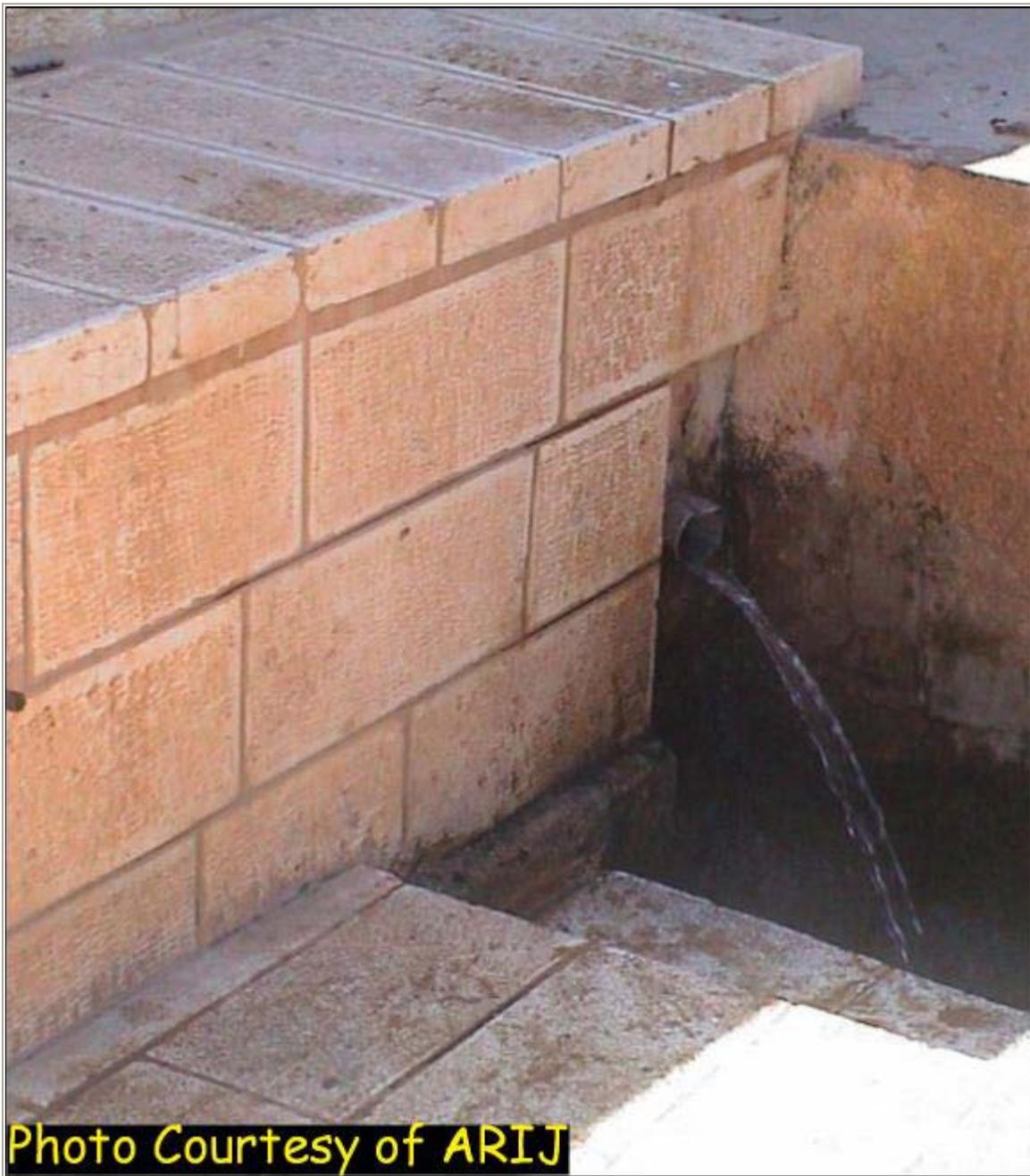


Photo Courtesy of ARIJ



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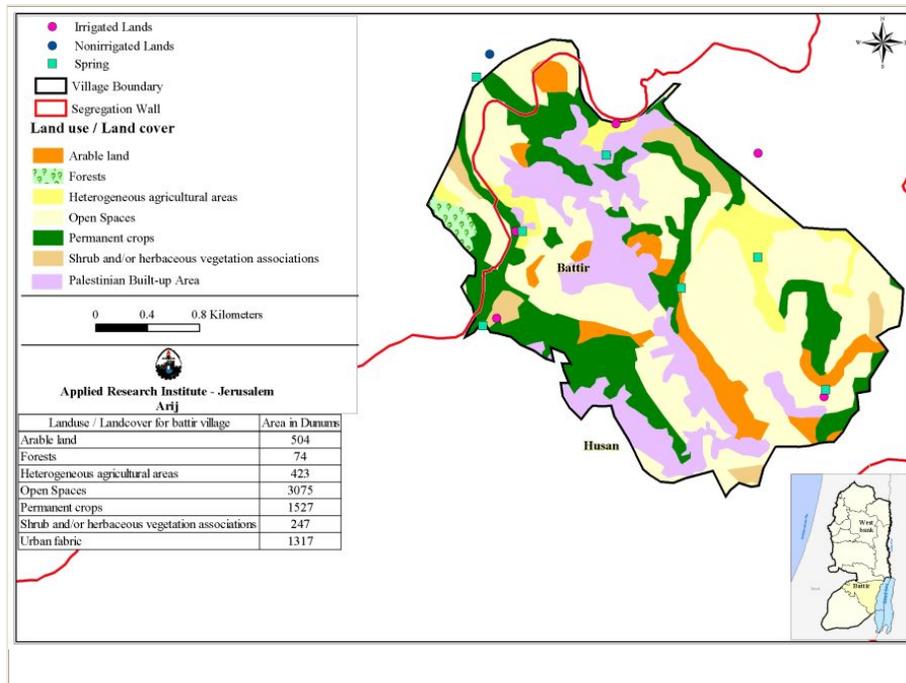


Battir agriculture area and water springs: to the left agriculture land and to the right water springs in Battir valley.

The proposed Segregation Zone corridor ([Map 4](#)) will pass mainly on arable land, permanent cultivated land and open space areas. The open space area is an open habitat



for wildlife. Battir springs are flowing permanently and they are flowing toward the proposed Segregation Zone alignment. The suitable agricultural land are mainly located on the northern and western parts of Battir area, in the same time, urban expansion is mostly takes place toward the south. Battir land which is lying behind the Armistice Line is mainly agricultural land. Table 3 lists the break down of land use in Battir area.



Map 4: Land use/ land cover map of Battir village

Table 3: land use Distribution and Classification for Battir area

Percentage	Area / dunums	Land uses \ land cover
7.03	504	Arable land
1.03	74	Forests
5.90	423	Heterogeneous agricultural areas
42.90	3075	Open space
21.30	1527	Permanent crops and cultivated land
3.45	247	Shrub and/or herbaceous vegetation associations
18.38	1317	Built-up area
100%	7167	Total



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3.2. The Socio-economical conditions:

3.2.1 General:

Battir is a relatively small village. Its current population is around 4092 inhabitants. The Projected population of Battir village according to PCBS in the year 2006 will be 4220 inhabitants. Population growth is estimated to around 3% per year.

Before the Israeli occupation Battir residents used to earn their living from agriculture through growing olives and fruit trees, vegetables, and field crops. After 1967 most of Battir workforce has turned to take part of the Israeli labor market. The PCBS census of 1997 estimated the size of the labor force in Battir village to be around 942 workers of which 846 persons were employed (90 %) mostly in the Israeli labor market. After the year 2000, a significant decrease in the number of workers in the Israeli labor market has taken place. As a result, unemployment has increased and the majority of Battir work force has returned back to work in their home village and the surroundings, they rely on agriculture as a major source of income and living.

Nowadays, Battir economic infrastructure consists of agriculture fields, sales-shops, two toilet paper factories, grocery stores and transportation services. Around 10 % of Battir work force is working in the agriculture sector, 3 % are working in the industrial and trade sectors, 20 % are working in services and governmental sectors, and 60 % are construction labor mostly in the Israeli labor market (SouBattir village council).

3.2.2. Education, Health and Other Services:

Only two schools are providing primary and secondary education in Battir. The first is a secondary school for male lying adjacent to the armistice line and the other for female situated near Al-Balad Spring and supervised by UNRWA. Around 812 students are following-up their education in these schools. 51.7 % of these students are males.

Table 2: Battir schools

School Name	Sex	Supervising Authority
1. Hassan Mustafa Boys Secondary School	Male	Governmental
2. Battir Elementary School	Female	UNRWA



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Two small health centers, one pharmacy, one laboratory and three private clinics are operated in the village. All other health services are available in Bethlehem health facilities and in the other neighboring cities.

The village is connected to water network. All of the population of the village has access to the water network supplied. Battir village is not connected to a sewage network; households of Battir rely on cesspits only. Solid wastes are managed by the village council. Only one truck is collecting the waste of four villages including Battir, Husan, Wadi Fukin and Nahhalin.

3.2.3. Agriculture :

Battir citizens are largely depending on agriculture as a major source of income. The total area used for agriculture is 4034 dunums. **It is cultivated as follows:**

dunums are cultivated with olive trees,	3600
dunums are cultivated with vegetables	177.3
dunums are grapes yards,	100
dunums are cultivated with stone fruits,	70
dunums are cultivated with figs trees; and	54
dunums are used for field crops,	21
dunums are cultivated with pomes trees,	19
dunums are cultivated with medical plants	7.5
dunums are cultivated with nut trees,	5

Olive trees are part of the cultural heritage of the Palestinian people. They don't permit any harm to these olive trees and they call it the Holly Tree. The average Battir production of vegetables crops is around 10 tons and of field crops is around 1300 kg (figure 1).



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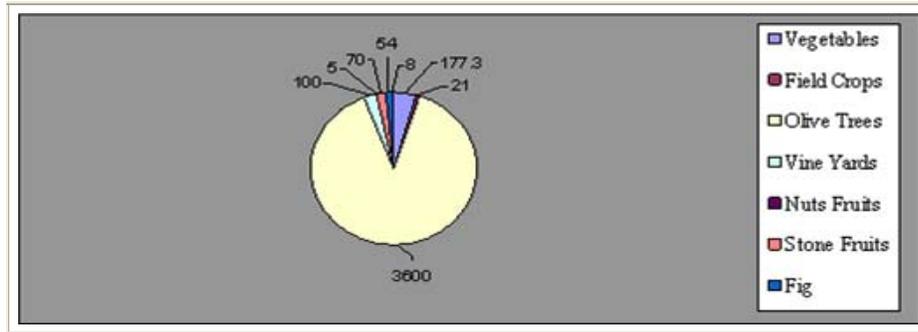


Figure1: the cultivated areas in Battir divided based on the cultivated crops types.

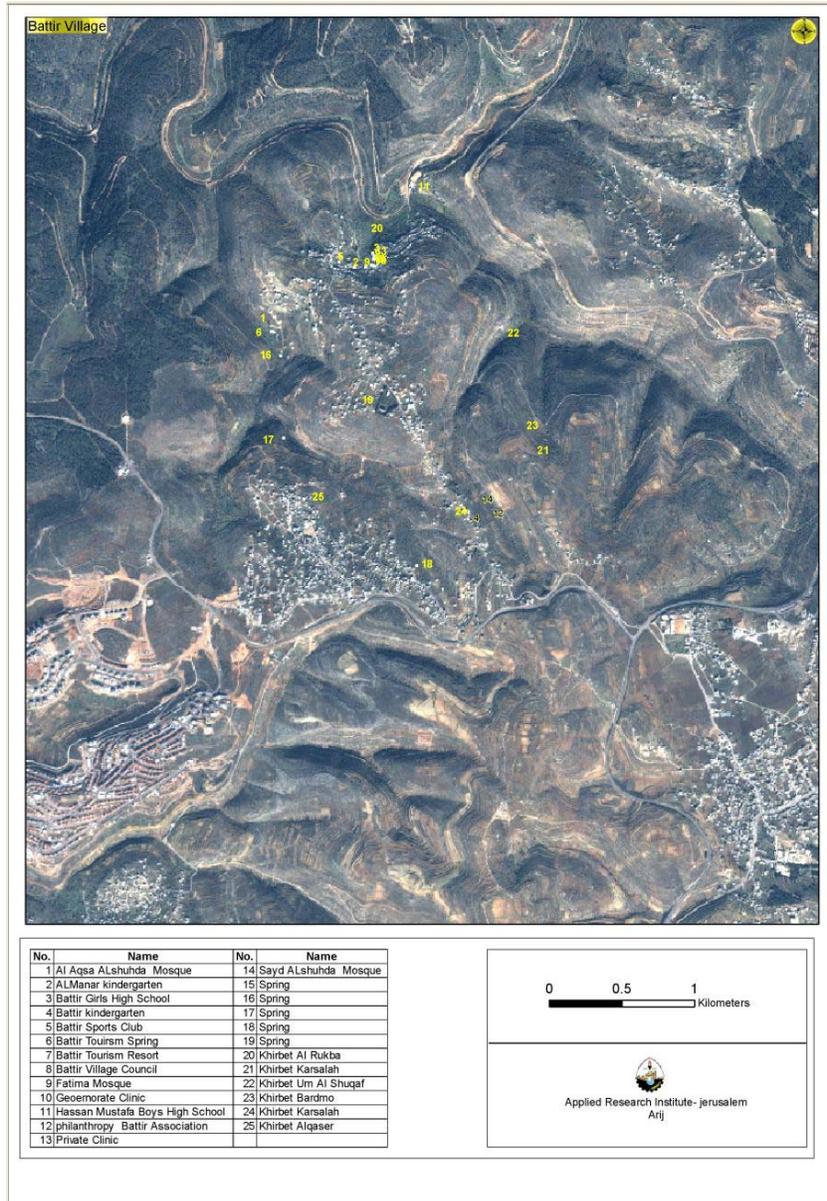
3.2 4. Historic and Archeological Sites:

Battir has been built on the ruins of an ancient town called “Bether”. Ruins of this town are found and they could be seen in the village in a form of a spring and a pool connected to a complex system of channels carrying water to the neighboring fields. Most of the archeological sites are buried but remnants of a wall, towers, rock-hewn, and agricultural structures are visible. **Other important archeological sites that could be found in Battir include (Map 5):**

- Khirbet Al Rukba which lies on the northern side of Wadi Battir.
- Khirbet Bardmo which is a Roman archeological site.
- Khirbet Karsalah which lies on Alhareq Mountain. It has coins since the Roman and Islam time.
- Khirbet Alsharqeya which contains caves, grottos and tombs that date back to the Cannanite period.
- Khirbet Um Al Shuqaf,
- Khirbet Alqaser,
- Jameh Spring.



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[Map 5: Main locations in Battir village](#)

3.3. Biodiversity :

The area North and North West of Battir on both sides of the Armistice Line is a habitat of wide range of wild species. The average annual rainfall in the area exceeds 600 mm which is the highest in the west bank. The presence of forests, open land and water resources has encouraged fauna to live in the area and has provided better conditions for flora to grow and spread. The forest and the difficult configuration of the wadi and the



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surrounding maintain provide suitable shelter and habitat for wild animals to live in. Also, the restricted uses of land and movement of people on the borders between the West Bank and Israel has provided safe habitat for wild animals and native species.

The land surrounding the springs is maintained wet most of the year due to the permanent flow of water from these springs; therefore, this conditions provide suitable habitats for aquatic and terrestrial plant species to live.

Villagers have observed variety of wild animal including Mountain Gazelles, Hyenas and Wolves, Cairo spring mouses, Indian crested porcupine, Palestinian mole rats and the Red foxes in the area. Wild animals come from all over the area including the Israeli side to the springs' sites looking for water. The only spring lying in the Israeli side was destroyed by the railway lines. Agro biodiversity is also rich in the area due to presence of water for irrigation, good soil quality and land suitability. People cultivate field crops and fruit trees rain-fed crops and irrigated. Olive, grapes and vegetables are permanent crops produced in Battir area. The forest comprises mainly of pine trees and some native plants and vegetations. The Hebrew University databases and ARIJ Flora database provided a useful source for the distribution of recorded plant species in Battir and the surrounded area (table 5)

Table 5: Number of species found in Battir and the surrounded area

Number	Species
1	<i>Micromeria nervosa</i>
2	<i>Sternbergia clusiana</i>
3	<i>Ballota saxatilis</i>
4	<i>Dianthus strictus</i>
5	<i>Marrubium vulgare</i>
6	<i>Mentha longifolia</i>
7	<i>Micromeria myrtifolia</i>
8	<i>Micromeria nervosa</i>
9	<i>Origanum syriacum</i>
10	<i>Pinus halepensis</i>
11	<i>Quercus calliprinos</i>
12	<i>Sideritis pullulans</i>
13	<i>Stachys palaestina</i>
14	<i>Sternbergia clusiana</i>
15	<i>Teucrium divaricatum</i>



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4. The Legal Framework

Before considering the relevant regulations and the legal framework of the Segregation Zone establishment, **the following facts should be taken into consideration:**

1. Up to 85% of the Segregation Zone will be constructed outside the Armistice line on the West Bank land. The same situation apply to Battir area with exception that all the Segregation Zone will be constructed on Battir land.
2. The size, location and potential impacts of the Segregation Zone project require Transboundary Environmental Impact Assessment. The Israeli side didn't carry out such study and they haven't considered the need for this study disregarding the environmental impact of the Segregation Zone over their territories inside the Armistice Line and cross the borders. None of the affected people were consulted during the process of its approval and decision making.
3. The Segregation Zone will totally separate Historic Palestine into pieces and the Etzion Block is a microcosm of such separation. The Segregation Zone Gates provide controlled movement of people and do not consider the free movement of wild life on both sides of the Wall. The Segregation Zone passes through the best ecological and high biodiversity rich sites in the West Bank
4. The Segregation Zone annexes and confiscates more than 10% of the West Bank land. Restrictions on land uses and people activities and movement will cover the whole neighborhood of the Segregation Zone.
5. The Segregation Zone construction will be a reason for the destruction of houses like Al-Walaja case, schools like Battir case, agriculture land and biodiversity habitat, and uprooting of trees as in everywhere along the Segregation Zone.

In this context, the relevant regulations and legal frame work applied to the construction of the Segregation Zone are as follows:

1. The local laws and regulations including the Israeli and Palestinian laws.
2. The regional agreements such as the bilateral Israeli Palestinian Agreements.
3. The international laws and conventions including the International Court of Justice Recommendations, the Convention on Environmental Impact Assessment in a Trans-Boundary context, The Convention on Biological diversity.



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4.1. The relevant Israeli laws and regulations:

4.1.1. nature protection:

Quoting under the title; Nature, Open Space and Biodiversity, page 189, of the official Report of the Israeli Ministry of Environment “ the Environment in Israel, 1998”: “Israel commitment to nature conservation is by no means a recent development. Concern for all living things coupled with prohibition against environmental degradation may be traced back to biblical sources”.

In the same page under subtitle; Geography and Diversity, the Report indicates that “In juxtaposition to its small area, Israel is characterized by a wide range of physical conditions and by a rich variety of flora and fauna. Its geographic location at the junction of three continents coupled with the climate changes throughout the history of this region has been largely responsible for the country’s high diversity of species”.

In order to protect its natural and landscape resources, Israel has enacted the *National Parks, Natural Reserves, National Sites and Memorial Sites Law* of 1998. The law provides legal structure for the protection of natural habitats, natural assets, wildlife and sites of Scientific, historic, architectural and educational interest in Israel. The law has declared a list of protected national assets including wildflowers, shrubs, trees, ferns as well as animals such as gazelle, ibex and vulture. The law prohibits destroying these protected national assets.

The forest ordinance of 1926 has declared carob and olive trees as protected trees.

The Wildlife Protection law of 1955 defines protected wildlife as any animal that has not been designated as a pest or game.

In this context, and based on Israel legal obligations regarding, natural and landscape resources protection, wild life protection, natural assts protected, forests protection and any related legal instruments, it is expected from the Israeli government to respect its obligations under its national law and it is also expected from the Israeli environmental institutions and community to stand against the Segregation Zone construction **as the Wall will:**

- Destroy the Israeli national assets such as wild flowers, shrubs and trees and endanger their ecological development. The proposed Segregation Zone corridor and its surrounding are a habitat of such assets and of wild animals listed as protected national assets. It is also a habitat of wild life defined by the Wildlife Protection law.



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- Cleaned or uprooted thousands of olive and carob trees which are protected trees.
- Fragment wildlife habitat
- Fragment the valuable sources of its biological diversity characterized by its geography, climate and location diversity and characteristics.

The Segregation Zone is destructive project that will affect the environment of the Whole region. The building of the Segregation Zone does not show or prove the Israeli commitment towards the protection and conservation of nature and environment.

4.1.2. Environmental Impact Assessment (EIA):

The EIA Regulations were promulgated under the Planning and Building Law of 1982.

The regulation requires conducting EIAs for projects and plans expected to have significant environmental impacts. The regulation categorizes and nominates plans that require EIA. Such categories include roads, dams and other major projects. One of the Segregation Zone components is a two lane road with a length equal to that of the length of the Segregation Zone. Consequently, and as a result of the expected significant impacts of the Segregation Zone construction, EIA is required.

According to the EIA Regulations, chapter 2 of the EIA report must include presentation of alternatives and specifications of the reasons for preferences of the proposed site and for planning principles. In this regard, the developer (the Israeli Government) is required to specify the environmental consideration that has been taken in to an account for selecting the proposed site. It is clear that, as mentioned in section 4.6 bellow, environmental consideration was ignored and a real EIA was not conducted.

Any real EIA report will consider and select different route and configuration for the Segregation Zone with less cost that provides better security fencing.

4.2. The relevant Palestinian laws and regulations:

Most of the Segregation Zone will be built over Palestinian land controlled by the Israeli Occupation Forces. The Segregation Zone will annex and create a buffer zone over a vast strip of land owned by Palestinian citizens. The Palestinian Environmental law of 1999 and the Palestinian Environmental Policy require carrying out EIA and approval from the Palestinian Environmental Authority for the construction of such project.

Based on Annex 2 of the Policy, the Segregation Zone will:

1. Displace people and communities.
2. Be located in or near environmentally sensitive areas.



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3. Generate unacceptable levels of environmental impacts.
4. Create public concerns.

Consequently, as the Segregation Zone will create such impact an EIA is required in accordance with the provisions of the Policy and the Environmental Law.

4.3. The Israeli Palestinian bilateral agreements:

Article 12 of Oslo II Agreement regarding environmental protection provides measures and obligations that both sides must undertake including:

Para. 7. Both sides shall ensure that a comprehensive EIA shall be conducted for major development programs.

Para. 14. Israel and the Palestinian side shall cooperate in implementing principles and standards, which shall conform to the internationally accepted principles and standards concerning the protection of endangered species and of wild fauna and flora, including conservation of migratory species of wildlife and preservation of existing forests and nature reserves.

These Paragraphs of article 12 are presenting obligations to the Israeli side to prepare EIA for the Segregation Zone and conserve wild flora and fauna including their habitat. The Agreement recognizes the international accepted measures in this regard.

4.4. The Convention on Environmental Impact Assessment in a Trans -Boundary Context:

The aim of the convention is to assess and minimize the environmental impacts of projects likely to cause significant adverse Trans-Boundary impacts. **Parties to the convention are required to:**

- Notify potentially affected parties as early as possible about proposed project and the nature of decisions in regard to that project.
- Insure that an EIA is undertaken for projects determined by the convention that are likely to cause significant environmental impacts

Provide opportunities to the affected foreign public to participate in the EIA process;
Ensure that the results of the environmental assessment are taken into account before the final decision about the project is made.

Provide to the potentially affected party information regarding the assessment process, the proposed project and the potential for significant, adverse Trans-Boundary impacts;

Ensure, in cooperation with the potentially affected party that the public of the affected Party be provided with the opportunity to comment upon the project.



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Ensure that the assessment document contain all of the information contained in Appendix II of the Convention.

Provide the potentially affected party with the assessment documentation;

Consult with the potentially affected party regarding the potential trans-boundary impact of the project and measure to reduce this impact;

Insure that the final decision regarding the project takes into consideration the results of the assessment including the comments from the Potentially Affected Party;

The convention has come into force in 1997.

The Segregation Zone is the first in the world in its size, shape and potential adverse impact. Therefore, such project is not included in the list of projects subject to the Convention in Appendix I. However, Appendix III provides general criteria to assist in the determination of the environmental significance of activities that should comply with the provisions of the Convention. Based on those criteria, the Segregation Zone should comply with the Convention requirements and obligations.

The Israeli government has decided to build the Segregation Zone without any consideration to the Convention and the adverse environmental impacts of the Project. Neither EIA studies were carried out nor Trans-Boundary EIA.

The Convention represents the international recognized standards and principles concerning undertaking Trans-Boundary EIA.

4.5. The Convention on Biological Diversity of 1992:

One of the main objectives of the Convention is the conservation of biological diversity and the sustainable use of its component. The convention aims to promote the protection of ecosystems, natural habitats and the maintenance of viable population of species in natural surroundings.

The principle behind the adoption of the convention is reaffirmed in article 3 of the Convention as follows: States have, in accordance with the charter of the United Nation and the principles of the international law, the sovereign rights to exploit their own resources pursuant to their own environmental policies and the responsibility to ensure that activities within their jurisdictions or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.

Parties to the convention are required to;

- Introduce appropriate procedures requiring environmental impacts assessment of its proposed project that are likely to have significant



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adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures.

- Introduce appropriate arrangement to ensure that the environmental consequences of its programs and policies that are likely to have significant adverse impacts on biological diversity are duly taken into consideration.
- Promote on the basis of reciprocity, notification, exchange of information and consultation on activities under their jurisdiction or control which are likely to significantly effect adversely the biological diversity of other states or areas beyond the limits of national jurisdiction, by encouraging the conclusion of bilateral, regional or multilateral arrangements, as appropriate;
- In the case of imminent or grave danger or damage, originated under its jurisdiction or control, to biological diversity within the area under jurisdiction of other states or in areas beyond the limits of national jurisdiction, notify immediately the potentially affected States of such danger or damage, as well as initiate action to prevent or minimize such danger or damage.

The Convention entered into force on 29 December 1993. It is one of the most widely ratified international treaties on any environmental issue. Nowadays, 188 party has ratified the convention. Israel signed the Convention on June 11, 1992 and ratified it in August 7, 1995.

The above mentioned convention obligations are part of the convention measures that contracting parties shall comply to. In this regard, Israel has to comply with the provision of the convention including the above mentioned obligations. Israel is required to carry out EIAs for the Segregation Zone as it likely to have significant environmental impacts on biological diversity. Israel is required to notify and consult the Palestinian part. Israel is also required to prevent and minimize the dangers and damages created by the Segregation Zone.

The destruction of the biodiversity habitat and the permanent segregation and subdivision of these habitats will not be prevented or minimized with the continuous building of the Segregation Zone.

According to the principles of the UN charter and the international law, Israel has no right to construct the Segregation Zone as it will cause damage to the environment of areas beyond the limits of its national jurisdiction.

Based on the convention aims to promote the protection of ecosystems, natural habitats and the maintenance of viable population of species in natural surroundings, Israel shall



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protect the 1967 borders and its surroundings which have been for tenths of years rich natural habitat of viable population of species.

The Convention is recognized in Article 12, Paragraph 14 of Oslo II Agreement as the internationally accepted principles and standards agreed upon between the Israeli and the Palestinian parties.

4.6. The International Court of Justice (ICJ) Advisory Opinion on the legal consequences of the construction of the wall in the Palestinian Occupied Territories (POT) , July 2004:

The ICJ has given an advisory opinion providing that the legal consequences of the construction of the Wall include:

- Israel obliged to comply with the international obligation it has breached by the construction of the wall
- Israel obliged to put an end to the violation of its international obligations – obligation to cease forthwith the works of the construction of the wall, to dismantle it forthwith and to repeal or render ineffective forthwith the legislative and regulatory acts relating to its construction, save where relevant for compliance by Israel with its obligation to make reparation for the damaged caused.

Israel obliged to make reparation for the damaged caused to all natural or legal persons affected by the construction of the wall

Environmental issues and concerns have been included in the core of the ICJ advisory opinion. The ICJ has recognized in a number of Paragraphs specially Paragraphs 133, 134, 152, 153 **the significant environmental impacts of the construction of the wall as the construction of the wall:**

- imposes substantial restrictions on the freedom of movement of Palestinians
- has serious adverse impacts to the agriculture land
- involves the disappearance of vast amount of property, private agriculture land and olive trees, wells, citrus grows and hothouses, upon which thousands of Palestinians rely for their survival;
- increases the difficulties for population regarding access to health services, educational establishments and primary sources of water.
- enforces many Palestinians to leave their living areas and effectively deprives a significant number of Palestinians to " Freedom to choose their residence "



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- tends, together with the establishment of the Israeli settlements, to alter the demographic composition of the OPT.
- impedes people to exercise their rights to work, to health, to education and to an adequate standard of living
- aggravate food insecurity in the region as a number of 25,000 new beneficiaries of food aid are added.
- cutting off, Palestinians between the Armistice line and the Wall, from their land and workplaces, schools, health clinics, and other social services.

cutting off, Palestinians between the Armistice line and the Wall, from their land and workplaces, schools, health clinics, and other social services.

The ICJ also has stressed on the fact that much of the Palestinian land on the Israeli side of the wall consists of fertile agriculture land and some of the most important water wells in the region.

In Paragraph 153, the ICJ has concluded that Israel is obliged to return the land, orchards, olive groves and other immovable property seized from any natural or legal person for purposes of construction of the wall in the OPT. furthermore, Israel has an obligation to compensate persons in question for the damage suffered. Also, Israel is obliged to compensate, in accordance with applicable rules of international law, all natural or legal persons having suffered any form of material damage as a result of the wall's construction.

As regard water resources, the construction of the wall will effectively annex most of the western aquifer system which provides 51% of the West Bank water resources.

As indicated above, The ICJ Advisory Opinion has addressed very well and clearly analyzed the major environmental issues and concerns connected to the construction of the SZ. The ICJ has provided the legal solution of Wall construction based on the applicable rules of international law. The ICJ has felt that the price of building the Wall is so huge and beyond the limits of any justification including the security arguments.

5. The Segregation Zone impacts boundaries:

This EIA study will focus on assessing the environmental impacts of the Segregation Zone within Battir area. The environmental impacts were assessed in the scoping sessions and their extent, and magnitude will define the spatial boundaries of the EIA study that will be established in order to adequately address all direct, indirect and cumulative and Trans-Boundary impacts on the assessed valued environmental components affected by the construction of the Segregation Zone.



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The potentially adverse environmental impacts of the construction of the Segregation Zone on agriculture, biodiversity, water resources, socio-economical conditions, education, landscape and demography exceed the boundary of Battir area to cover both sides of the Wall all over the surrounding areas including the closed Etzion Block and even Bethlehem district. During the process of impacts analysis, the spatial boundary will be defined for each environmental impact separately.

6. Project alternatives:

Decisions regarding the Segregation Zone are taken at a high governmental level in Israel. **Any possible alternative for the Segregation Zone establishment should include the following options and alternatives:**

1. No wall to be built and the existing situation not to be changed (alternative zero, no action).
2. To Build the Segregation Zone along the Armistice line
3. To build the Segregation Zone inside the Armistice line
4. To build the Armistice line on its proposed location on the Palestinian land
5. To build a control fence, with different and less components from the existing Segregation Zone, in the alignments mentioned in 2 and 3 using more technological control means than physical barriers.

While studying these alternatives, it is obvious that:

- Option 1 will have no environmental impacts and will receive no objection.
- Options 2 and 3 will have no Palestinian objections and will have potential adverse environmental impacts.
- Option 5 will have no Palestinian objections and will have less environmental impacts and legal constraints depending on the fence structure.

Building a wall or a fence as in 2, 3 and 5 proves that the Israelis are building the Wall for security reasons. In the same time, building the Segregation Zone as in 4 proves that the purpose of building it is annexing more Palestinian land and forever.

It is the responsibility of the Israeli government to select the alternative with the lowest significant environmental impacts, public rejections and concerns. Furthermore, it is believed that there is no justification for choosing the alternative with the most complex and severe potential environmental impacts.



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7.The Segregation Zone potential environmental impacts:

The establishment of the Se is being carried out in three stages:

- The site selection and planning phase
- The site preparation and construction stage
- The permanent operation stage

The potential environmental impacts will be assessed during these two stages of the SZ development. Impacts identified will be described qualitatively and relatively based upon experts' judgments, witnesses and evidences during both stages and for the whole project. The significance of the environmental impacts will be identified and measured. The overall assessment of the size and the significance of the environmental impacts indicate that the construction phase has temporary adverse effects, meanwhile, the location and the permanent operation stage will have long term significant environmental impacts.

In this context, the assessment process will be carried out as follows:

- Assessment of the Segregation Zone location impacts
- Assessment of the Segregation Zone site preparation and construction impacts
- Assessment of the Segregation Zone overall impacts after construction

7.1 Assessment of the Segregation Zone location and alignment impacts :

The choice of the location and alignment of the Segregation Zone is a major determinant of the size and number of the environmental impacts. Such impacts will essentially result from the loss of open land, agriculture land, water resources, high value landscape, flora and fauna in addition to the socio-economical impacts. The selection of the Segregation Zone alignment or corridor that it will pass through may minimize or maximize the environmental impacts of the Segregation Zone. If the Segregation Zone will pass along the Armistice line, part of the impacts such as the socio- economical impacts will be reduced. In the same time, other impacts such as the destruction of agriculture land, trees, wildlife habitat, water resources and natural systems and landscape value may not be changed.

The Segregation Zone alignment will extend from the north east side of Battir along the armistice line ([aerial image 1](#)). Then it will pass south-westward along Battir valley on Battir side crossing the northern slopes of Battir hill down crossing the valley up on the eastern slope of the valley toward west Husan inside Battir properties. Around 330 dunums of Battir area will be destroyed and used for the construction of the Wall and a



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total of 1297 dunums will be isolated and annexed behind it. Also, around 495-660 dunums will be restricted as a buffer zone ([Map 3](#)). The potential environmental impacts of the selected alignment and location of the Segregation Zone are characterized **as follows:**

1. The socio economical impacts :

The proposed location and alignment of the Segregation Zone will affect adversely the social and economical characteristics of the neighboring communities as it annexes and closes behind the land of Battir and ;

- Deteriorates the living and working conditions as a result of the loss of sources of income from agriculture activities and the loss of properties.
- Destroys the unique male school in Battir
- Controls the development of the Buffer zone in side the built up areas and the land of Battir
- Destroys the crop and farm lands specially, the irrigated land around the springs and the olive yards

2. Adverse impacts on water and agriculture resources:

The existing alignment of the Segregation Zone will cut the people properties and affect the water courses and the natural water drainage system in the area. The Segregation Zone will cross the valley which flow during the winter time and will prevent the natural flow of rain water along the slops.

Such alignment will destroy and annex part of the most valuable agriculture land in the area. Albalad spring water, for example, is used to irrigate agriculture land behind the armistice line and between the Armistice line and Segregation Zone. Such land will be isolated and seized behind the Segregation Zone. The rain-fed areas that will lie behind the Segregation Zone are mostly cultivated with crop trees majority with olive trees.

7.2. Assessment of the Segregation Zone site preparation and construction impacts

The physical activities of the Segregation Zone site preparation and construction will affect a strip of land of around 100 meter width and 3.3 km long within Battir land and its surrounding. This designated area will be confiscated and used for the Segregation Zone construction. The impacts of the Segregation Zone site preparation and construction activities are summarized in table 6.



Table 6: Significant Environmental Issues

Site Preparation and Construction Activities	Agricultural Resources	Water Resources	Air Quality	Socio-economical	Biodiversity
Demolition of existing activities & resources	High	Medium	High	High	High
Leveling (cut & fill) activities	Medium	Low	High	Low	Medium
Heavy Machinery Operation	High	Medium	High	Medium	High
Infrastructure construction	Medium	High	Low	Low	Medium
Construction of the SZ components	Low	Medium	Low	Low	Low
Transportation	High	High	High	High	High

The Adverse Impacts of the Segregation Zone site preparation and construction will include:

- The demolition of existing activities in the working area that will include: the school, home yards, irrigated agriculture land, trees, water channels, natural water drainage system, fauna and flora natural habitats, and historic connection roads. The demolition activities will destroy agriculture land, water systems, and natural habitats scenic views, and affect the social and economical condition in the area. Unacceptable levels of dust and noise will accompany the demolition activities.
- The area then will be subject to cut and fill for the purpose of preparing the working site for lying down its infrastructure and building the Segregation Zone components. Such activities will destroy the rest of flora and fauna habitats, more agriculture land, more of the natural water drainage systems, and produce unacceptable levels of dust and noise. Runoff erosion is also expected from cut and fill areas.
- All demolition and site preparation will be carried out by the use of heavy machinery which produce an acceptable level of noise, nuisances to neighborhoods, and destroy as a result of its movement and work activities the land cover and resources. Heavy Machinery is usually producing noise and nuisance exceeds the maximum allowable limits in any national and international standard that exceed 80 dB in a usually natural calm area.
- The building of the Segregation Zone infrastructure and the Wall component will include: concrete foundation, roads and new rain water drainage system, different type of fences and electronic control systems, and a concrete wall. The impacts of these works will include dust and noise as a result of the construction work and heavy equipments use in addition to the space needed and affected by the work.



- The movement of vehicles, heavy machinery will continue during the whole construction time. The difficult topography of the area will oblige the transportation units to use more suitable access routes and to disturb the whole surrounding area.

The overall impacts and disturbance of the working area during this phase will be characterized on noise, soil erosion and contamination, air contamination, natural vegetation destruction, wild life habitat destruction, water contamination and water systems disturbance, trees and agricultural land destruction, and the destruction of ancient water irrigation systems and transportation routes. A list of potential environmental impacts associated with the Segregation Zone construction activities are described in table 7 below

Table 7. list of the Segregation construction activities and their potential impacts

Activities	Potential Impacts
The use of heavy machinery and equipments	<ul style="list-style-type: none"> • Generate high noise levels and create dust problems and nuisance; • cause erosion due the damage creating to natural terraces and stream banks • compact soil and changing surface and ground water flows • contaminate water and soil as a result reapers oils spills and machinery fluids dumping • damage wild life habitats
Materials extraction	cause erosion and siltation
Storing materials	damage valuable ecosystems and habitats
Clearing and leveling	<ul style="list-style-type: none"> • create dust • destroy existing cropland, vegetation, ecosystems and habitats • produce areas of bare soil which cause erosion, siltation, and alter natural water flow.
Excavation	cause erosion, salutation, and alter natural water flow when excavated soil is piled inappropriately.
Filling	<ul style="list-style-type: none"> • Block water courses • Destroy valuable ecosystems • May cause a risk of landslide in future
Cut and fill	<ul style="list-style-type: none"> • cause soil erosion



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	<ul style="list-style-type: none">• alter hydrology and degrade water quality• damage ecosystems and habitats
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It is expected that the Segregation Zone construction impacts will continue as long as the Segregation Zone works continue. The boundaries of the adverse impacts will be limited within the Segregation Zone site and not far on its surrounding except for the damage to the biodiversity habitat and the natural drainage system which could expand in the whole region.

All significant adverse impacts are irreversible and impossible to mitigate except if the Segregation Zone activities will not start and the existing situation will continue.

7.3. Assessment the overall impacts of the Segregation Zone after establishment :

The Segregation Zone will be established over a strip of land of up to 100 meter width and 3.3 km length on most Battir valuable land. It will close behind around 1297 dunums representing 18% of the total area of Battir. The total directly affected Battir land is around 2122 dunums representing around 30% of the total area of Battir as shown in table 8. Such damage will have significant social and environmental impacts whereas; people will loose their properties, land, and their agricultural and living resources.

Table 8: The directly affected areas as a result of the Segregation Zone establishment:

Directly Affected Area	Area in dunums	Percentage
Annexed behind the Armistice line	671	9.37
Annexed between the GL and the Segregation Zone	626	8.74
Annexed for the Segregation Zone construction	330	4.6
Restricted as buffer zone	495	6.9
Rest of Battir area	5041	70.37

Both sides of the Segregation Zone will be separated completely from each others. People can pass through controlled gates that will be opened at certain location of the wall. The wall will be equipped with electrical fence and different installed barriers, together with its width, will prevent also fauna and flora from passing through and destroys its natural routes. Furthermore, the Segregation Zone will affect the natural drainage system of rainwater.



The land use or land cover of the land that will be annexed between the Armistice line and the proposed alignment of the Segregation Zone is shown in table 9 below:

Table 9. Land use in the area that will be located between the Armistice line and the proposed alignment of the Segregation Zone.

Land use \ land cover	Area / dunums	Percentage
Arable lands	4.00	0.64
Forests	74.00	11.82
Heterogeneous agricultural areas	23.00	3.67
Open space (natural habitat)	313.00	50.00
Permanent crops	180.00	28.75
Shrub and/or herbaceous vegetation associations.	32.00	5.11
Total	626.00	100%

The boundaries of the Segregation Zone impacts will be deep on both of its sides. Such boundaries will include:

- The people affected including the land owners and the beneficiaries of the confiscated land resources.
- The wild life habitat limits which could expand over a wide area that begins from the springs sites and ends at the western side of the forests on the other side of the proposed route of the Segregation Zone. Taking into consideration that all springs flowing in the area are located in the Palestinian side.
- The affected area as result of the change on the water systems.

The overall assessed adverse environmental impacts of the permanent establishment of the Segregation Zone are summarized as follows:

1. Impacts on agriculture:

As seen in table 8 around 30% of the land that will be located between the Armistice Line and the proposed alignment of the Segregation Zone is agricultural land. In addition, most of Battir historic land which is lying behind the Armistice line is agricultural land, too. The rain fed land is mostly cultivated with olive trees and other fruit trees.

Part of the cultivated land is classified as high value agricultural land due to the presence of fertile soil and permanent water resources.



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The area located down of Albalad spring has long history of irrigation since the Roman time, whereas, people have used water channels to carry water from the springs to the crop fields. These channels have been rehabilitated recently with the help of USAID. These lands will be lost as it will be destroyed for the Segregation Zone construction or isolated and annexed behind the Segregation Zone. Continuous loss of agricultural land will take place because of the shortage of land for other uses such as housing after the Segregation Zone construction and the annexation of land. With such great loss of fertile agriculture land, crops and fruit trees the impact on agriculture is Significant and irreversible. Land will be lost and part of it will be used for the Segregation Zone expansion.

2. Soil erosion:

The Segregation Zone will cross-hilly and steep terrain in the area which increases the potential and susceptibility to erosion effects. The area before the Segregation Zone construction is stable and lacks any reason of erosion.

Part of the Segregation Zone components is a drainage channels. These channels will carry the water that used to flow all over the area to new water ways. Such changes will damage the existing natural and historical water drainage system, create and concentrate new run-off water flow and consequently, increase the erosion in the area.

3. Impacts on scenic value of the region:

Battir and its surrounding is one of the most beautiful areas in the West Bank. The high rainfall average and the presence of water springs together with exceptional land configuration have given Battir area special scenic characteristics. On one side spreading farmlands and on the other side forest trees are covering the whole mountains. The train lines and its movement have added more magic to the view. This beautiful artistic landscape and scenic quality will decline and will be damaged by the erection of the wall and the destruction of a strip of green area by changing it into rigid and awful manmade constructions and facilities.

Part of its long historic scenic value is reflected through the flow of springs' water through open channels to farmlands along the valley whereas, the Segregation Zone will be constructed.

The Segregation Zone will have significant impacts on the scenic value of the area and will destroy such valuable resource in of the region.

4. Impacts on biodiversity:



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As mentioned in table 9, part of the annexed land is a composition of forest land integrating with olive and other crop trees and vegetation spreading along Battir side. On the Israeli side, the view continues with the expansion of a forest land deep inside. The vegetation and land cover shown in table 9 represent the diversified nature of the area. Most of the forest and open land could be considered open natural habitat for the wild life.

Native wild animals used to move freely particularly between the sources of water in Battir side and the forest in the other side. The control over the borders has given these animals safe living and potential for growth. Hunting has been restricted in the area. The presence of trees, rich vegetation and suitable land configuration has provided fauna with safe habitat.

Similarly, Flora has found in the area suitable habitat to grow. The presence of springs water, high rainfall and forests' trees have encouraged flora to develop. Grazing and overgrazing was restricted in the area as the borders are restricted military zones. These healthy conditions have provided flora with suitable habitat to grow without risks.

The Segregation Zone will have significant adverse environmental impacts as it will:

- Destroy and clear part of the land which is an important habitat for flora and fauna for the Wall construction and work activities.
- Isolate fauna from sources of water or shelter
- Physically fragments the habitat of both flora and fauna without any safe and free passages.
- Destroy the movement routes of wildlife.
- Affect the agro-biodiversity of the region.
- Destroy the native trees which have been growing in the areas for thousands of years.
- Cause a continuous loss of biodiversity habitat because of the shortage of land for other uses such as housing after the Segregation Zone construction and the annexation of land.

The borders area should be considered as protected area for its rich biodiversity and for valuable scientific and educational values. The construction of the Wall will limit and endanger the biodiversity value of borders area.

5. The impacts on water resources and quality:

Battir area is considered high sensitive recharge and ground water area. Springs that are spreading all over the area are permanent valuable sources of drinking and irrigation



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water. Any risk of pollution or changes on the natural flow of rain water will have significant adverse impacts on these springs water quality and flows.

All cut and fills, soil erosion, siltation of the nearby water bodies and agriculture, and the construction works of the Segregation Zone will affect the water quality in the area. Siltation and erosion will continue from the Segregation Zone foundation.

The Segregation Zone will alter the hydrology of the area. It will create a damming effect on surface and subsurface water flows. Water will flow through collection channels along the upper side of the Segregation Zone to drainage system altering the natural drainage system in the area, in the same time; land on one side of the Segregation Zone can become much wetter than prior to its erection, while land on the opposite side will be drier. Such damming effect will also affect adversely the crop production in the rain-fed agricultural land and the ecosystems species composition.

6. The socio-economical impacts:

The Segregation Zone will have significant adverse socio-economical impacts that include:

1. loss of land and properties, whereas, 85 from 86 households who have participated in the Questionnaire mentioned above in the scoping will loose important part of their properties and land. These properties have great value as they represent sources of living for their owners.
2. loss of agricultural production which according to the questionnaire represents the major source of living for around 10.5% of Battir families and a second source of income for 82.5% of Battir households.
3. loss of the cultural heritage including the olive trees and the ancient irrigation channels that will be cleared from the Segregation Zone site.
4. the destruction of the only boys' school in the village which represents the village culture and its loss represent a shock for all village citizens. Boys, including young's in the first classes, will be obliged to catch their classes in the neighboring villages or will be distributed in rooms her-and- there in the village. They will loose their feeling and ambition toward education.
5. the loss of freedom of people to move and to communicate with others as they will be closed in Etzion Block and they will be limited by the Segregation Zone even near their houses.
6. the demographic changes as a result of new land use pattern and the loss of land. Around 30% of Battir land will be affected, consequently, people priorities will be changed; some who loose their sources of living such as agriculture may leave Battir and big losses of agricultural land as a result of its need for other uses such as housing will take place. It is expected that the remaining area of Battir will not



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- have the capacity to contain the different land uses needs and the population growth. The carrying capacity of the area will be reduced and affected.
7. the daily seen of the Segregation Zone and the annexed land will increase the stress and its related consequences. The stress will affect people health, people safe living and people behaviors. People feeling of loss will have negative unmeasured contra reactions that will affect their communities and the Israelis.

Such socio - economical impacts will have significant adverse effects on the quality of life, public health, poverty level, education quality, people stability and the sustainable development of communities.

7. The impacts on historical and archaeological resources:

It is expected due to the shortage of land for basic uses such as housing after the Segregation Zone construction and the annexation of land, the historic and archeological sites will be affected and may disappear. The damage will include the historic inherited agricultural practices and the archeological and cultural values in the area.

The Segregation Zone will interrupt the historic transportation routs that link Jerusalem to the south. It will destroy part of the ancient springs irrigation system in the area and up-roots olive trees which have great cultural value.

8. Impacts Mitigations and Recommendations:

Both the Israelis and Palestinians are living in the same boat that it is impossible to separate or divide. Living together in a peaceful and good neighborhood relation require a firm immediate settlement of the Palestinians rights and the Israeli security issues through peaceful negotiation, not by building such Segregation Zone.

Avoiding adverse potential environmental impacts is a first step and task that should be carried out during the planning stage. In this context, the choice of the suitable alternative based on environmental consideration will mitigate an important part of the Segregation Zone environmental impacts. It is important to consider alternative zero “no action” and to compare it with the other options.

One of the main objectives and focuses of an EIA study is the compliance with applied and enforce rules and regulation. Environmental rules and regulations are mainly designed to mitigate adverse environmental impacts and enhance positive environmental impacts. **In this regard the Segregation Zone:**

- Does not comply with the Israeli environmental regulation wherever Israeli environmental regulation applies.



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- Is built mostly over Palestinian land in the West Bank and on territories under the Israeli control
- Contradicting Israeli obligation according to Oslo agreement
- Does not comply with related international conventions in particularly those Israel has ratified.
- Does not respect the ICJ Advisory opinion.

Furthermore, it is expected from an EIA study to provide a frame of compliance to all applied national, bilateral and international regulations and standards. Consequently, alternative 1 (as in 6. above) is suggested and the most suitable or alternative 5 is suggested under severe environmental conditions. The selection of any of those alternatives will minimize the legal constraints to the minimum and enhance the project compliance.

Mitigation of most Segregation Zone adverse environmental impact is impossible at this stage as most of these impacts are permanent and residual and impossible to mitigate. **It is impossible to mitigate impacts such as:**

1. The annexed land behind the Segregation Zone will be inaccessible to its owners;
2. The annexed land under the Segregation Zone structure
3. The school that will not be accessible
4. The agriculture land that will be affected
5. The wild life habitat that will be fragmented isolated or destroyed.
6. The alteration of the hydrology of the area
7. The damages that affect the habitat of endangered species
8. The damages to cultural heritage including olive trees clearing and archeological sites lost.

9. Conclusions and final comments*In conclusion, it is clear that:*

- The Segregation Zone is illegal and contradicting all applied rules, regulations and standards.
- Most of the Segregation Zone environmental impacts are permanent and irreversible as long as the Segregation Zone is standing and in the same time impossible to mitigate.
- The selection of alternatives for the Segregation Zone Alignment and fencing structure are carried out based on no environmental consideration. They selected alternatives with their highest adverse environmental impacts.
- No real EIA and Trans-boundary EIA have been carried out and at least the Palestinian public was not consulted.
- Land confiscations have been carried out by military measures, not by just legal procedures.



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- The Segregation Zone is the most environmental destructive manmade project have been developed in the region and, may be, worldwide as it is developed in one of the most important, fragile and sensitive environment in the world. It is also because it will be constructed in the most diversified geographically, ecologically and climatically in a relatively small peace of land.

Consequently, the EIA study has come to a conclusion that: in order to save and conserve the sensitive and valuable characteristics of this area and overcome all impacts arising from the construction of the Segregation Zone, It is important as early as possible to stop the Wall construction, to dismantle the assembled parts and to restore the lost and destroyed environmental components. In the same time, to look for technological means to control the borders and find peaceful solution to the Middle East Conflict.



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