

**THE IMPACT OF ISRAEL'S SEPARATION BARRIER  
ON AFFECTED WEST BANK COMMUNITIES**

**REPORT OF THE MISSION  
TO THE HUMANITARIAN AND EMERGENCY POLICY GROUP (HEPG)  
OF THE LOCAL AID COORDINATION COMMITTEE (LACC)**

**MAY 04, 2003**

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### **Executive Summary**

In summer 2002, in the context of continuing attacks on civilians in Israel, the Government of Israel began construction of a separation barrier ("The Wall") – a complex series of walls, barriers, trenches, and fences – within the western border of the occupied West Bank. The international community requested a report on the Wall out of concern at the impact it could have on Palestinian livelihoods and the viability of local economies, as well as on humanitarian assistance and donor development projects.

The Local Aid Coordination Committee (LACC) commissioned the study, which was carried out under the direction of a Steering Group composed of members of the donor Humanitarian and Emergency Policy Group (the European Union Presidency (HEPG chair), the European Commission, the Government of Norway, the US Government, UNSCO, and the World Bank), plus the International Monetary Fund.

Thus far, the Government of Israel has initiated two construction phases. Phase One passes through the northwestern governorates of Jenin, Tulkarm, Qalqiliya and Salfit, and Phase Two extends the Wall's alignment 45 km east of Salem checkpoint in Jenin governorate. The Wall's construction is also progressing in the Bethlehem and Jerusalem areas. While approximately 147 km of the Wall are under active construction as part of Phase One, as of early April only relatively small portions of the Wall had been completed – 4.5 km of electronic fencing in the northern section running south from Kfar Salam, over 4 km of wall to the west of Qalqiliya and to the northwest of Tulkarm, and about 3 km near Jerusalem. The future alignment of additional sections of the Wall – primarily east of Jerusalem and along the central and southern portions of the "seam area" separating the West Bank from Israel – remains under discussion, complicated by the number of large settlement blocs surrounding Jerusalem and south of Hebron. A second "eastern fence" that would incorporate other settlements and, in the process, sever Palestinian population concentrations in the West Bank from the Jordan Valley, is also reportedly under consideration, although not yet approved nor budgeted.

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Phase One of the Wall's alignment does not coincide with the Green Line. In some places the Wall is located as much as six kilometers inside the West Bank. As a result, ten Israeli settlements and approximately 12,000 Palestinians in fifteen villages and hamlets will find themselves on the western, Israel-facing side of the Wall. These communities will be physically separated from the rest of the West Bank, and will become isolated Palestinian pockets in which the inhabitants could find themselves effectively cut off from their lands and workplaces, and/or their schools, health clinics and other social services. The prospect that the Wall's negative impact on living conditions will induce migration flows is of particular concern to many local inhabitants. The Wall will also feature "depth barriers," 150 meters in length, to be erected a few kilometers east of the principal barrier in order to funnel access into communities east of the Wall through a limited number of checkpoints. The "depth barriers" and the circuitous route of the Wall will pose additional complications to many communities east of the Wall – including the towns of Tulkarm and Qalqiliya (the latter of which will be virtually surrounded by the Wall, with only one access route out to the east).

Overall, it is feared that the Wall will isolate, fragment, and, in some cases, impoverish those affected by its construction. The "footprint" of Phase One construction has been estimated at 11,500 dunums (2875 acres, or 11.5 sq. km). When completed, this first phase of the Wall will cut across roads and water networks and will form a barrier between Palestinians on each side and their agricultural lands, water wells, urban markets, and public services. The impact of the Wall on agriculture is of particular concern because of its predominance in the economies of the governorates of Jenin, Tulkarm and Qalqiliya, through which Phase One construction is progressing. The Wall may severely constrain the delivery of basic social services and commercial exchange, raising transaction costs and dampening investment through the creation of uncertainty – and certainly will do so if it does not feature a sufficient number of access points that offer relatively free movement to persons and goods.

Access is thus of great concern. Many Palestinian land owners report having already been denied access to land traversed by the leveled alignment on which the Wall will be built; others are only allowed to cross by foot or donkey cart – making it difficult to work agricultural land or to transport harvested produce to market. According to the IDF plans submitted to the Israeli High Court, Phase One of the Wall will incorporate 26 "agricultural crossings" along its route, with an additional five crossings in the "depth barriers" located further to the east.

In order to obtain the land on which the Wall is being constructed in the West Bank, private property is requisitioned pursuant to military orders that are signed by the Military Commander of the West Bank. (Procedures in Jerusalem differ slightly since this land, having been annexed, is considered by the Government of Israel as part of the State of Israel and not as occupied territory. In this case, land is obtained pursuant to the 1949 Land Seizure Act in Emergency Time.) Such orders become valid the date signed (even if not delivered to the property owner), and may in fact be issued retroactively after the seizure has taken place. Property owners have one week to file an appeal with the Legal Advisor to the Military Commander for review by an IDF Appeals Committee.

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While the Military Commander has the authority to reverse a recommendation of the Appeals Committee, thus far this does not appear to have occurred – every appeal with the Committee against requisitioning land for the construction of the Wall (numbering in the hundreds) has been rejected, although in some cases the amount of land requisitioned has been reduced. Appeals by property owners to the Israeli High Court have also not been successful.

The 1995 Interim Agreement states that neither party will “change the status of the West Bank and the Gaza Strip pending the outcome of the permanent status negotiations” (Chapter 5, Article XXXI, paragraph 7) and that “the integrity and status” of the West Bank and Gaza Strip territory “will be preserved during the interim period” (Chapter 2, Article XI, paragraph 1 and Chapter 5, Article XXXI, paragraph 8). The Government of Israel argues that the construction of the Wall in the West Bank is a temporary measure, and is thereby compatible with the Interim Agreement. However, the extent and nature of the Wall’s construction, its cost, and, in particular, its location inside the West Bank and east of the Green Line suggest to Palestinians more permanent implications.

The report recommends that the donors, through the LACC, ensure that the progress and socio-economic impact of the Wall on affected Palestinian communities be reported on regularly, and that donors provide assistance to affected Palestinian communities and households. While the nature of the reporting exercise has yet to be defined, factors to be tracked might include: the Wall’s actual trajectory; the construction and operation of access points in the Wall; the extent of access to land, services and markets provided to communities to the west of the Wall’s alignment; Wall-induced migration; the success rate/status of legal appeals; and the impact of the Wall on affected donor investments.

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### **The Wall and This Study**

1. In summer 2002, the Government of Israel (GOI) began construction of a "separation barrier" – a complex series of walls, barriers, trenches, and fences – within the western border of the occupied West Bank.<sup>1</sup> The GOI explains the need for the Wall as a direct response to Palestinian suicide attacks on Israel from across the Green Line, intended to prevent infiltration by Palestinian militants.<sup>2</sup> The first phase of construction, involving extensive land requisition and clearing of land and structures along an approximately 126 kilometer route through the northwestern governorates of Jenin, Tulkarm, Qalqiliya, and Salfit, was officially launched on June 16, 2002.<sup>3</sup> Works are

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<sup>1</sup> In popular discourse, the separation barrier is referred to as the "Wall". For ease of exposition, that term is adopted for the remainder of this report.

<sup>2</sup> GOI's position has been that the Wall does not constitute a possible political border between Israel and a future Palestinian state. At June 16 and June 23 Cabinet meetings, Prime Minister Ariel Sharon and then-Defense Minister Benjamin Ben-Eliezer reportedly reaffirmed the Wall's security purpose. "This map does not present a border, but rather obstacles," according to Prime Minister Sharon. (Gideon Alon, "Peres Threatens To Walk Out As Cabinet Approves Fence Plan", Ha'aretz, June 24, 2002.) "It is a security fence. It is not diplomatic. It is not political," stated Minister Ben-Eliezer. "This fence has one single goal – to defend the lives of Israeli citizens. Every day that passes without the fence being erected as quickly as possible is likely to cost us more lives." (Amos Harel and Gideon Alon, "Construction of Security Fence Begins", Ha'aretz, June 17, 2002.) . According to Aluf Benn, however ("Defense Ministry Wants Fence Moved Deeper Into West Bank", Ha'aretz, March 23, 2003), ministers who took part in a tour of the alignment on March 17, 2003 told the press that the Prime Minister wants to use the Wall "to outline the temporary borders of Palestinian state according to Bush's road map." In a recent reaction, former Foreign Minister Shimon Peres said "This is not anymore a security barrier but a political frontier. We will have a serious problem (Jerusalem Post, 23 March, 2003). Commenting on the current alignment of the Wall in an editorial of March 24, 2003, Ha'aretz made the following points: "...the fence was not meant to delineate the permanent border between Israel and the Palestinian state....Therefore, the fence should have gone up along the Green Line.....Moving the fence deep into Samaria gives it the significance of a political border....the fence is going to become a new obstacle to reaching an agreement between the two peoples." According to the Palestinian Authority's official website ([www.pna.gov.ps/new/separation.html](http://www.pna.gov.ps/new/separation.html)), the purpose of the Wall is "to annex parts of the Occupied Palestinian Territories."

<sup>3</sup> Amos Harel and Gideon Alon, "Construction of Security Fence Begins", Ha'aretz, June 17, 2002.

also underway on 21 km in the Bethlehem and Jerusalem areas.<sup>4</sup> Of these 147 km, there are reports that 80 will be completed by May with the remaining 67 to be finished by July.<sup>5</sup> Phase Two construction has also begun on a 45 km stretch running east from Salem checkpoint in northernmost Jenin governorate.<sup>6</sup> GOI reportedly intends that the Wall, or at least a series of “buffer zones”, should extend along the entire western face of the West Bank,<sup>7</sup> a distance of approximately 360 kilometers (Map 1 shows the Wall's current construction and projected alignment).

2. Motivated by concern that Palestinian livelihoods and the viability of local economies could be harmed by the construction of the Wall, the international donor community through the Local Aid Coordination Committee (LACC) commissioned a study of the possible socio-economic impact of the Wall on affected Palestinian communities. The study has been carried out under the direction of a donor Steering Group, members of which are the European Union Presidency and European Commission, the Government of Norway, the US Government, the International Monetary Fund (IMF), and the World Bank. The World Bank was asked to manage the study on a day-to-day basis, using international consultants contracted under the Norwegian Aid Coordination Trust Fund. The fieldwork for the study was carried out between February 5 and February 15.<sup>8</sup> After review by the Steering Group, the report was shared for comment with the Government of Israel and the Palestinian Authority. Their reactions are included in Annexes IV and V, respectively. It should be stressed that this is a **preliminary investigation** of the subject, to be followed up with additional research and impact monitoring later in 2003.

3. Four maps are attached to this report: “West Bank Separation Barrier: Under Construction and Projected Alignment” (Map 1); “West Bank Separation Barrier:

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<sup>4</sup> Work on the Jerusalem periphery section reportedly began June 26, 2002 (see “Only Israelis can work on fence”, Ha'aretz, June 26, 2002).

<sup>5</sup> Moshe Reinfeld, “Court Rejects Plea To Speed Up Seam Fence”, Ha'aretz, March 4, 2003.

<sup>6</sup> Mazal Muallem and Amos Harel, “Work Starts on 45-Kilometer Fence From Salem Checkpoint To Gilboa”, Ha'aretz, January 28, 2003. According to press reports, initiation of work on this section was accelerated in the wake of the November 28, 2002 attack in Beit She'an that killed 6 and wounded 40 others (see Amos Harel, “PM Okays A New Stage For The Security Fence”, Ha'aretz, December 5, 2002).

<sup>7</sup> Aluf Benn, “Security Cabinet Approves Buffer Zone Plan”, Ha'aretz, April 15, 2002. At an April 14, 2002 meeting, the Security Cabinet approved a plan drafted by Israel's National Security Council that would reportedly “create buffer zones in border areas, from the Gilboa region in the north to the Judean desert in the south.”

<sup>8</sup> Field visits were made to the following 20 towns and villages: ‘Attil, ‘Azzun ‘Atma, Baqa ash Sharqiya, Ad Dab’a, Deir al Ghusun, Falameya, Habla, ‘Izbat Salman, Jayyus, Jenin, Kafr Sur, An Nabi Elyas, Nizlat ‘Isa, Qalqiliya, Ras at Tira, Tulkarm, Tura al Gharbiya, Umm ar Rihan, Ya’bad, and Zeita. Time constraints prevented further site visits. The importance of field visits cannot be overstated, particularly in identifying the impact on wells and irrigation networks. Local officials, farmers, and inhabitants do not readily distinguish between damage resulting from the Wall's construction and other actions carried out by settlers or soldiers within the context of occupation. Several cases of damage reported as due to the Wall were revealed, upon investigation, to have been caused by military actions not directly related to the Wall. In preparing this report, the mission drew upon the work of many sources, reviewing and verifying the information as carefully as possible through structured interviews and field visits, and presenting only what it deemed credible.

Qalqiliya and Environs” (Map 2); “West Bank Separation Barrier: Qalqiliya and Environs – Impact on Land and Water Resources” (Map 3); and “West Bank Separation Barrier: Qalqiliya Health Clinics and Schools” (Map 4). These maps were produced by the mission on the basis of 28 sets of land requisition orders (identifying parcels of land and including maps/aerial photographs of the areas), a copy of the map produced by the Yesha Council of Settlements (see footnote 17), and press reports of further land requisitions.<sup>9</sup> See also para. 9 below.

4. The report assesses the impact of the initial phase of the Wall’s construction on local economies, water systems, and social services in the vicinity of the Wall’s alignment. To the extent feasible, it also outlines the implications for other areas of the West Bank likely to find themselves in its path, but in which wide-scale land requisitioning and construction have not yet begun.

5. Most significantly, what is understood as the first phase of the Wall’s alignment **does not coincide with the Green Line separating the West Bank from Israel**. In some locales, the Wall is located as much as six kilometers inside the West Bank. As a result, the Wall will enclose on its western, internal side (facing Israel) ten Israeli settlements<sup>10</sup> – and approximately 12,000 Palestinians in 15 villages and hamlets. These communities will be physically separated from the rest of the West Bank by the Wall.

6. The Wall is not just a wall.<sup>11</sup> Depending upon location, sections will comprise some (or all) of the following elements: four-meter deep trenches on either side; a dirt path “to which access will be forbidden” where potential infiltrators would be exposed to IDF fire; a trace path to register foot prints; an electronic warning or “smart” fence; a concrete barrier topped with barbed wire; a concrete wall rising as high as eight meters; a two-lane military patrol road; and fortified guard towers placed at regular intervals. Local Palestinians have been told by Israeli field commanders that on each side of the Wall there will be a “no-go” area of various widths, possibly extending to several hundred meters.<sup>12</sup> In addition to the Wall complex, there are also plans for “depth

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<sup>9</sup> The maps appended to this report indicate the trajectory of the Wall as of mid-February 2003; modifications have occurred since then. Notably, on the basis of land requisition orders issued in late-March, it appears that the village of ‘Azzun ‘Atma (southeast of Qalqiliya) will not be to the west of the Wall as indicated in the maps, but rather will remain east of the Wall, with the Wall surrounding the village on three sides creating an enclave.

<sup>10</sup> These settlements (with a combined population of approximately 18,000) are: Elkana, Sha’arei Tikva, and Oranit in the north of Salfit governorate; Alfe Menashe and Zofin, south-east and north-east of Qalqiliya, respectively; Ya’arit and Sal’it, between Qalqiliya and Tulkarm; and Rehan, Shaked, and Hinnanit in the western region of Jenin.

<sup>11</sup> This description of the Wall’s components is drawn from the response of the Israeli State Attorney to the High Court of Justice in H CJ 7784/02, Sa’al ‘Awani ‘Abd al Hadi et al. v. Commander of IDF Forces in the West Bank, sec. 23, as cited in B’Tselem-The Israeli Information Center for Human Rights in the Occupied Territories, “The Separation Barrier: Update”, October 2002, p.2 and B’Tselem, “Behind the Barrier: Human Rights Violations as a Result of Israel’s Separation Barrier”, Position Paper, April 2003, p. 6.

<sup>12</sup> During field visits, mission members were told by residents in Ad Dab’a that they had been informed that a 300 meter zone was to be created. The Mayor of Qalqiliya said that he had been told by Israeli authorities that the zone in Qalqiliya would be 30 meters wide. The mission, despite requests, was unable to meet with GOI or IDF representatives to discuss the course of the Wall or its construction. It did, however, meet with IDF legal representatives to discuss the process of requisitioning land for the Wall.

barriers” 150 meters in length to be erected a few kilometers east of the principal barrier and designed to funnel access into communities east of the wall (such as Tulkarm) through a limited number of checkpoints. Military sources describe them as “a barrier without a fence, whose objective is to channel movement in those areas to a number of security monitoring points.”

**Table 1: Phase One Construction and the Isolation of West Bank Communities: Fifteen Villages Located West of the Wall and East of the Green Line**

	<b>Locality</b>	<b>Governorate</b>	<b>2003 Population</b>
1	Umm ar Rihan	Jenin	353
2	Khirbet ‘Abdallah al Yunis	Jenin	133
3	Dhaher al Malih	Jenin	205
4	Barta'a ash Sharqiya	Jenin	3,404
5	Khirbet ash Sheikh Sa’eed	Jenin	206
6	Khirbet al Muntar al Gharbiya	Jenin	n.a.
7	Nazlat ‘Isa	Tulkarm	2,366
8	Baqa ash Sharqiya	Tulkarm	3,869
9	Nazlat Abu Nar	Tulkarm	185
10	Khirbet Jubara	Tulkarm	309
11	‘Arab ar Ramadin ash Shamali	Qalqiliya	n.a.
12	‘Arab ar Ramadin al Janubi	Qalqiliya	181
13	Wadi ar Rasha	Qalqiliya	n.a.
14	Ras at Tira	Qalqiliya	369
15	Ad Dab’a	Qalqiliya	251
	<b>Total</b>		<b>11,831</b>

*Source: Mid-2003 PCBS population projections based on 1997 Census. PCBS does not produce population projections for communities with populations below 100 as reported in the 1997 Census. The World Bank, in preparing the report “Poverty in the West Bank and Gaza” (June 18, 2001), placed the end-1997 population of Kirbet al Muntar al Gharbiya at 26; ‘Arab ar Ramadin ash Shamali, 53; and Wadi ar Rasha, 79.*

7. The sections of the Wall now under construction in the northwest West Bank involve land clearance along the alignment ranging thus far from 30 to 100 meters in width. This “footprint” of the Wall’s first phase has been estimated at 11,500 dunums<sup>13</sup> (2875 acres; 11.5 sq km), and it is claimed that as many as 83,000 fruit and olive trees have already been damaged or uprooted.<sup>14</sup> When completed, this first phase of the Wall will cut across roads and water networks and will form a barrier between Palestinians on each side and their agricultural lands, water wells, urban markets, and public services.

8. It is feared that the Wall will isolate, fragment, and, in some cases, impoverish those Palestinians affected by its construction. The Wall may severely constrain the

<sup>13</sup> Estimates by the Palestinian Hydrology Group (PHG) presented to the mission. These estimates were not confirmed by the mission.

<sup>14</sup> Estimate by the Palestinian Agricultural Relief Committees (PARC) presented to the mission. These estimates were not confirmed by the mission.

delivery of basic social services and commercial exchange – and certainly will do so if it does not feature a sufficient number of access points for the movement of persons and goods, and if movement through the Wall is seriously hampered. Concern was also expressed to mission members by many Palestinians interviewed in the course of fieldwork that families cut off by the Wall from livelihoods and/or services might have to migrate east into the West Bank.

9. Projections of the remaining course of the Wall are complex and subject to a great deal of speculation, as no official map of the entire route has been released by the GOI. The following estimates must, therefore, be treated as illustrative. Based on reports of land requisitions and housing demolitions<sup>15</sup> and Israeli press articles on IDF plans for the Wall's future alignment<sup>16</sup>, it appears that approximately 95,000 Palestinians could find themselves located between the Wall and the Green Line – i.e. approximately 4.5 percent of the population of the West Bank, excluding East Jerusalem.<sup>17</sup> Some 61,000 of these could be located in the "Jerusalem envelope" – areas outside Israeli-annexed East Jerusalem that would be encompassed by the Wall (depending on the Wall's ultimate route, the number could conceivably be far greater; Israeli press reports mention as many as 200,000 in the envelope area alone<sup>18</sup>). Some representatives of settlers' organizations have proposed amendments to the Wall's already (partially) approved alignment to ensure that certain settlements are on the western side of the Wall – in the process affecting an additional 20,000 Palestinians;<sup>19</sup> other settlers' representatives have opposed the Wall altogether, believing that it embodies implicit restrictions on settlement expansion in the West Bank as well as potentially fixing a future political border. Recent reports suggest that the Ministry of Defense (MOD) favors an alignment that would place

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<sup>15</sup> For example, Mazal Mualem, "The Security Fence Has Already Netted Some Innocent Victims," Ha'aretz, August 19, 2002, for land requisitions near Bethlehem, and Akiva Eldar, "Fuad Divides Jerusalem and Gives Squatters' Their Rights", Ha'aretz, August 22, 2002, for land requisitions near Atarot (north Jerusalem).

<sup>16</sup> See Nadav Shragai, "IDF Plan puts Rachel's Tomb Inside Jerusalem's New Security Boundaries," Ha'aretz, August 29, 2002, for description of the section of the Jerusalem "envelope" around Rachel's Tomb and the Bethlehem access road.

<sup>17</sup> This estimate is derived as follows. In addition to the 12,000 in 15 villages already identified in Phase One construction as being between the Wall and the Green Line, a projection of the Wall's alignment through the remaining West Bank (on the basis of topographical data, existing road networks, inhabited areas, and press reports of land requisitions) made by the mission identifies the following West Bank populations and communities as likely to end up between the Wall and the Green Line: Central Section (excluding the Jerusalem "envelope") – 19,000 in 7 communities (Al Lubban al Gharbi; Rantis; Qibya; Shuqba; Shabtin; Al Midya; Ni'lin); Southern Section – 2,000 in five communities (Wadi Fukin, Wadi Rahhal, 'Arab al Fureijat, Khallet Sakarya, Khalet Afana); Jerusalem envelope – 61,000 in eight communities (Beit Hanina al Balad, Ar Ram/Dahiyat al Bareed, Bir Nabala, Rafat, 'Anata, Al 'Ezariya, An Nabi Samwil, Az Za'ayyam).

<sup>18</sup> Nadav Shragai, "Fence Proposal Fires Controversy Among Settler Leaders", Ha'aretz, February 4, 2003.

<sup>19</sup> *Ibid* and Nadav Shragai, "New Fence Plan Irks Left, Right", Ha'aretz, February 5, 2003. The map presented by leaders of the Yesha Council of Settlements to the Minister of Defense and the IDF Central Command commander deviates significantly from the route approved by the GOI in the northern region by incorporating another dozen settlements (including Ariel) that are inhabited by 38,000 settlers. In the central region, the settlers' route lies further to the east of the path the GOI is reportedly planning, and encompasses seven additional settlements with 6,000 inhabitants; between the two prospective alignments are 13 Palestinian villages and approximately 20,000 persons. In the south, the settlers' proposal brings most of the settlements on the south of Mt. Hebron within the fence. (See Map 1)

the settlements of Kedumim, Ariel and Immanuel west of the Wall<sup>20</sup>, and has also proposed an initial alignment for an “eastern fence” – whereby the Wall would run deep inside the West Bank and would surround the main Palestinian population centers in a northern and a southern pocket.<sup>21</sup>

### **The Genesis and Prospective Alignment of the Wall**

10. The idea of constructing barriers to restrict Palestinian movement through the so-called “seam area” (the strip of land extending along the two sides of the Green Line) between Israel and the West Bank has been debated for several years in Israel. In November 2000, two months after the outbreak of the *Intifada*, then-Prime Minister Ehud Barak approved the construction of “a barrier to prevent the passage of motor vehicles”<sup>22</sup> along the northwestern part of the seam line south to the Latroun area. Implementation did not begin until July 2001, however, following decisions by Prime Minister Ariel Sharon’s Security Cabinet to implement the restrictions on vehicle traffic as well as to erect additional barriers against pedestrian movement in selected areas based on assessed security threats.<sup>23</sup> Part of “the framework of the struggle against terrorism” – the action plan that the Security Cabinet approved – “entails stepped-up actions to foil infiltrations and prevent people from staying in Israel illegally. These will include increased operational activity and vigorous enforcement efforts in the seam line area with an emphasis on dealing with infiltrators and employers, as well as people in Israel illegally and Israelis who provide lodging for them.”<sup>24</sup>

11. During the *Intifada*, tight restrictions have been placed on the movement of Palestinian people and goods within the West Bank. Despite these restrictions, the seam area has remained relatively porous, and tens of thousands of Palestinians have continued to cross informally into Israel in search of employment.<sup>25</sup> Palestinian communities near

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<sup>20</sup> “The fence planners intended to get as many Jews and as few Palestinians into the western side”, Aluf Benn, “Defense Ministry Wants Fence Moved Deeper Into West Bank”, Ha’aretz, March 23, 2003.

<sup>21</sup> “The Defense Ministry has completed two alignments of the fence – a western one parallel to the seam line and an eastern one, severing Palestinian population concentrations in the West Bank from the Jordan Valley... Sharon spoke of the importance of the eastern fence on a tour with cabinet ministers along the seam line last week... The eastern fence is planned along the mountain slopes, along the ‘Alon axis’ from Mehola to Ma’aleh Adumim and from there to the Judean Desert. The fence will leave two Palestinian enclaves which may come under Palestinian rule in the future.” Aluf Benn, *op.cit.*, Ha’aretz, March 23, 2003.

<sup>22</sup> Yehezkel Lein, “The Separation Barrier: Position Paper, September 2002”, B’Tselem-The Israeli Information Center for Human Rights in the Occupied Territories, Jerusalem, p. 3.

<sup>23</sup> *Ibid.* In June 2001, Prime Minister Sharon established a steering committee headed by the director of the National Security Council, “to formulate a set of measures to prevent Palestinians from infiltrating into Israel across the seam area.” On July 18, 2001, the Ministerial Committee on National Security approved the steering committee’s recommendations, which included the barrier recommendations.

<sup>24</sup> Prime Minister’s Office Press Release, “Ministerial Committee on National Security Approves Seam Line Area Plan,” July 18, 2001.

<sup>25</sup> In August 2001, the National Security Council estimated that there were between 30,000 and 50,000 Palestinians remaining inside Israel illegally, and that of these, some 15,000 were living in Israel on a permanent basis. In February 2002, the Civil Administration estimated that some 70,000 Palestinians

the Green Line benefited disproportionately from these informal labor flows and close commercial links with Israel.<sup>26</sup>

12. Despite the July 2001 Security Cabinet decision, while work advanced on vehicle barriers, little progress was made on pedestrian barricades through April 2002 when the Security Cabinet again discussed the matter.<sup>27</sup> On April 14, the Security Cabinet issued a directive to “begin immediate construction of a fence in the ‘Anin area... the Tulkarm sector and the Jerusalem sector.”<sup>28</sup> A “Seam Area Administration” within the Ministry of Defense was tasked with overseeing the project and producing plans for its first sections.<sup>29</sup> Shortly thereafter, the IDF began requisitioning private Palestinian land in the northern West Bank; tenders for contractors were issued (even before the Security Cabinet approved the plan on June 23<sup>30</sup>);<sup>31</sup> and the leveling of land and structures and the digging of trenches commenced.<sup>32</sup>

13. Plans for the first phase of construction were reviewed and approved by the Security Cabinet at its August 14 meeting; although press reports in the period after June 23 referred to modifications to the Wall’s route,<sup>33</sup> other changes that might have been accepted in August are unknown. Local area maps distributed by the Israeli army to Palestinian farmers and villagers as part of the land requisition process demonstrate that plans for the first phase have continued to evolve during implementation. Since the Israeli government has disclosed few details on prospective plans for the Wall, however, the exact scope of this evolution remains unclear. Similarly, the mission remained unaware of any final decision that might have been taken concerning the eastern portion of the Jerusalem envelope.<sup>34</sup> A second phase of Wall construction, the 45-km northern section from Salem east to Gilboa and the Beit She’an Valley, was reportedly agreed upon by Prime Minister Sharon and Defense Minister Shaul Mofaz in December 2002.<sup>35</sup>

14. While approximately 147 km of the Wall are under active construction as part of phase one, to date only relatively small portions of the Wall have been completed – four

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crossed illegally into Israel every day to find employment. Mazal Mualem, “The Great Security Plan that Came Apart at the Seams,” Ha’aretz, July 31, 2002.

<sup>26</sup> Amira Hass, “Unnecessary Measures Will Be Taken,” Ha’aretz, June 8, 2001. Despite the closure of the road between the Israeli-Arab village of Baqa al Gharbiya and the Palestinian villages of Nazlat ‘Isa and Baqa ash Sharqiya, “hundreds of Palestinians openly cross... every day on their way to work in Israel”.

<sup>27</sup> Lein, *loc. cit.*

<sup>28</sup> Decision 64/B, section E., cited in Lein, *loc. cit.*

<sup>29</sup> Amos Harel, “Ministry To Set Up Special Body To Coordinate Seam Line Defense Plan,” Ha’aretz, April 21, 2002.

<sup>30</sup> Government Decision 2077.

<sup>31</sup> Gideon Alon, “Peres Threatens To Walk Out As Cabinet Approves Fence Plan,” Ha’aretz, June 24, 2002.

<sup>32</sup> Aluf Benn, “PM Okays Green Line Border Fence,” Ha’aretz, June 4, 2002.

<sup>33</sup> For example, Amnon Barzilai, “On The Spot, Sharon Says Fence Will Pass 4 km East Of Alfei Menahem,” Ha’aretz, June 20, 2002.

<sup>34</sup> According to press reports, the path of the Wall approved in June only concerned portions of the northern and southern ring; the eastern section, for example, has not been finalized. See, for example, Shragai Nadav, “IDF Plan Puts Rachel’s Tomb Inside Jerusalem’s New Security Boundaries,” Ha’aretz, August 29, 2002.

<sup>35</sup> Amos Harel, “PM Okays a New Stage For The Security Fence,” Ha’aretz, December 5, 2002.

km of wall to the west of Qalqiliya and to the northwest of Tulkarm; 4.5 km of electronic fencing in the northern section running south from Kfar Salam; and three km near Jerusalem, starting at the road leading to Beitunia. Most recent press reports state that GOI intends to complete 80 km of phase one construction by May, with the remaining 67 km to be finished by July.<sup>36</sup> The cost of the Wall is variously estimated. Ha'aretz followed a recent ministerial tour of the Wall's alignment with estimates of NIS 2.5 billion (US\$425 million) for the section from Mehola in the Bet She'an Valley to Elkana near Rosh Ha'ayin, and a further NIS 4.5 billion (US\$957 million) for the Elkana – Mount Amasa (near Arad) stretch.<sup>37</sup>

### **Access and Isolation**

15. The Wall could effectively isolate Palestinian communities from their economic and social means of support – further exacerbating the process of economic fragmentation associated with the current internal closure and curfew regime. The extent to which such isolation and hardship occurs will be determined largely by the final alignment of the Wall, and by the degree of access provided in practice through the Wall. This aspect of the Wall's construction and future management is currently uncertain, and merits close attention in the coming months.

16. These concerns are heightened by Israeli State Attorney statements before the High Court of Justice indicating that the territory between the Green Line and the Wall will be declared a "Closed Military Area"<sup>38</sup> which, based on precedent during the *Intifada*, would imply restrictions on access to these areas by non-residents, possibly including medical personnel, social workers, and teachers.

17. According to IDF plans submitted to the Israeli High Court, the first phase of construction will incorporate 26 "agricultural crossings" along its route, with an additional five crossings in the "depth barriers" located further to the east.<sup>39</sup> Palestinian

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<sup>36</sup> Moshe Reinfeld, "Court Rejects Plea to Speed Up Seam Fence", Ha'aretz, March 4, 2003.

<sup>37</sup> Aluf Benn, "Defense Ministry Wants Fence Moved Deeper Into West Bank," Ha'aretz, March 23, 2003.

<sup>38</sup> Response of the State Attorney's Office before the High Court of Justice, October 14, 2002, in response to petition filed on September 11, 2002, against the planned route of the Wall (Petition 8352/02) on behalf of residents of Deir al Ghusun, Shweika, 'Attil, Farasin, Baqa ash Sharqiya, and Qaffin owning land on which the Wall is being built. B'Tselem, in "The Separation Barrier: Update, October 2002", states: "According to the State Attorney's Office, the Closed Military Area declaration will not apply to the residents of this strip of land", *i.e.*, communities between the Wall and the Green Line. "Residents of the Palestinian enclaves, those Palestinian communities remaining west of the barrier, will not be granted any special status entitling them to enter Israel. Rather, the State Attorney's Office response states, they 'will continue to maintain their ties with the other sections of the area' by crossing at the control points." B'Tselem, "The Separation Barrier: Update, October 2002", p.2.

<sup>39</sup> Response of the Israeli State Attorney to the High Court of Justice in HCJ 7784/02, Sa'al 'Awani 'Abd al Hadi et al. v. Commander of IDF Forces in the West Bank, sec. 22, as cited in B'Tselem-The Israeli Information Center for Human Rights in the Occupied Territories, "The Separation Barrier: Update", October 2002, p.2 and B'Tselem, "Behind the Barrier: Human Rights Violations as a Result of Israel's

farmers will reportedly be able to access their land through these gates. According to the State Attorney's Office, "Reasonable crossing arrangements will be made that will take into account the need for the movement of laborers and suitable work implements, on the one hand, and the ability to transport the produce from the farmland to villages lying east of the barrier, on the other hand."<sup>40</sup>

18. While protocols for these arrangements have not yet been issued, further indication of the nature of the gate system was given during a February 11, 2003, meeting between a senior IDF official and a staff member of UNSCO to discuss the Wall and its path. The officer described three types of gates: for the passage of persons; for the passage of agricultural vehicles; and for the transport of agricultural goods using a "back-to-back" system (requiring off-loading and re-loading between vehicles). Residents of the western side of the fence would be granted special permits by the Civil Administration to cross to the eastern side, as would farmers living on the eastern side with fields in the west.

19. Villages between the Green Line and the Wall are not the only communities that will be affected. The "depth barriers" and the circuitous route of the wall will also affect many communities east of the Wall, including the towns of Tulkarm and Qalqiliya. The latter will be wedged between two loops of the wall drawn around the nearby settlements of Alfe Menashe and Zufim. (Map 2 clearly shows the encirclement of Qalqiliya.) The synthesis of the path of the Wall with existing checkpoints and settlement roads is already having a similar isolating effect on communities close to the current construction. As the project progresses, other villages are likely to find themselves in a similar situation.

20. The actual process of construction is directly impacting local communities through the leveling of land, property, and infrastructure. Sixty-two Palestinian commercial establishments in the village of Nazlat 'Issa (located between the Wall and the Green Line) were demolished on January 21, 2003, with destruction of approximately 50 additional establishments planned in Nazlat 'Isa and Barta' ash Sharqiya located one kilometer north. Both border villages had served as commercial centers for nearby Israeli-Arab villages before the imposition of tight mobility restrictions associated with Israeli closure policies.<sup>41</sup> Many Palestinian land owners report having already been denied access to land cut by the leveled alignment on which the Wall will be built; others are only allowed to cross by foot or donkey cart – making it difficult to transport

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Separation Barrier", Position Paper, April 2003, p. 12. Mission members did witness evidence of the construction of one gate at Jayyus.

<sup>40</sup> Response of the Israeli State Attorney to the High Court of Justice in H CJ 7784/02, Sa'al 'Awani 'Abd al Hadi et al. v. Commander of IDF Forces in the West Bank, sec. 35, as cited in B'Tselem-The Israeli Information Center for Human Rights in the Occupied Territories, "The Separation Barrier: Update", October 2002, p.2 and B'Tselem, "Behind the Barrier: Human Rights Violations as a Result of Israel's Separation Barrier", Position Paper, April 2003, p. 12-13.

<sup>41</sup> At the time, IDF spokesmen stressed that the buildings in question had all been constructed without the necessary permits, and that their demolition followed ten years of court and committee hearings. Local Palestinians, however, maintained that the destructions were directly related to construction of Wall-related barriers. See, for example, "IDF Razes 62 Shops In Village On Seam Line To Make Way For Fence", Ha'aretz, January 23, 2003.

machinery and harvested produce.<sup>42</sup> These problems are coupled with heightened restrictions on movement around areas where construction is underway.

### **The Economic Impact of the Wall on Affected Communities** *(For further details, see Annex I)*

21. While reliable locality-specific labor force and establishment data are not available beyond 2001, indirect and anecdotal information suggests that Palestinian villages and towns in Jenin, Tulkarm, and Qalqiliya located on or near the Green Line generally fared better in economic terms prior to the *Intifada* than communities in the same governorates situated further from the Green Line. Several factors gave the border communities distinct advantages and greater income-earning opportunities. First, they had easier access to the Israeli labor market.<sup>43</sup> Second, the relatively porous border allowed manufacturers, farmers, and merchants from border areas to penetrate the wealthier Israeli consumer market. Third, large numbers of Israelis – both Arab and Jewish – regularly frequented the border towns to purchase lower-cost goods and services, boosting commercial and service incomes. Fourth, the population of these governorates, when compared with others in the West Bank, possess greater stocks of agricultural assets (in particular, land and livestock<sup>44</sup>), and relatively more abundant water resources.

22. However, the natural and acquired economic advantages of this region have been steadily eroded since late 2000. Progressively stricter mobility restrictions for people and vehicles have rendered the Israeli labor and commodity markets considerably less accessible since the *Intifada* began, and have drastically reduced the numbers of Israeli shoppers in local markets. Direct and indirect evidence suggests that the loss of these advantages has considerably impacted these communities.<sup>45</sup> Contributing to the economic downturn has been the destruction of both private property and public

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<sup>42</sup> Farmers and villagers reported having experienced access restrictions and/or outright prohibitions to land traversed by the Wall in interviews with mission members during field visits to the following 14 towns and villages: 'Attil, 'Azzun 'Atma, Baqa ash Sharqiya, Ad Dab'a, Deir al Ghusun, Falamyia, Habla, 'Izbat Salman, Jayyus, Kafr Sur, Nazlat 'Isa, Qalqiliya, Tulkarm, and Zeita. It was not possible to confirm with Israeli officials the veracity of these allegations.

<sup>43</sup> Field visits by the mission to the Qalqiliya municipality and several nearby villages confirm this relationship. Indirect evidence of significant labor flows – both formal and informal – from Palestinian border towns to Israel is provided by the Palestinian Central Bureau of Statistics' (PCBS) annual reports of labor force surveys. Male employment in construction (an activity that accounted for 55 percent of Palestinian employment in Israel prior to the *Intifada*) in the Tulkarm and Qalqiliya governorates, as a share of total employment, declined drastically in 2001, after border control measures were strengthened by the Israeli authorities. See PCBS, Labor Force Survey Annual Report, 1999, 2000, and 2001.

<sup>44</sup> More than half of all households in these governorates possessed land, livestock or both – the highest proportion in the West Bank and Gaza. See PCBS, Area Statistics in the Palestinian Territory, December 1998.

<sup>45</sup> The Palestinian Agricultural Relief Committees (PARC) report that unemployment in the border towns and villages was 80 percent in December, more than 30 percentage points above the West Bank average. See PARC "Agricultural Needs Assessment Study for Villages Affected by the Wall in the Districts of Jenin, Tulkarm and Qalqiliya," December 2002.

infrastructure – some built with donor assistance – at first in the context of military confrontation and now with the construction of the Wall (the World Bank estimates that through August 2002 physical damage totalling US\$110 million was inflicted upon Jenin, Tulkarm, and Qalqiliya governorates<sup>46</sup>). Globally, about 58 percent of this damage has occurred to infrastructure, 23 percent to private property, and about 21 percent to agricultural land and assets – further limiting economic opportunities for residents.

23. The process of the Wall's construction has itself had a major economic impact. While the relative intensity of the impact varies by location and economic activity, its immediate effects include: a) the destruction of agricultural land and assets and water resources; b) inaccessibility to agricultural land and assets, including water resources; c) added limitations on the mobility of people and goods, and therefore higher transactions costs;<sup>47</sup> and d) uncertainty about the future and a consequent dampening of investment in economic activities including agriculture. Uncertainty poses particular dilemmas for agricultural producers – these include questions of whether to plant at all, the choice of crops to plant, the amount of investment to make in agricultural activities, and how to market the output in the face of movement restrictions.

24. Agriculture is the greatest user of land in these three governorates, at a rate more than twice that in the West Bank overall (where just under 25 percent of the total land is devoted to agriculture). Thirty-seven percent of all the agricultural land in the West Bank is found in the Jenin, Tulkarm, and Qalqiliya governorates alone. These lands are particularly fertile: in 2000, the three governorates produced \$220 million in agricultural output, or 45 percent of total agricultural production in the West Bank. Per square kilometer of agricultural land, the three governorates produced \$430,000 in output – an output value per square kilometer 41 percent greater than that of the other West Bank governorates.

25. Out of this agricultural land, 5 percent (26 sq km) is irrigated, a proportion slightly above that of the West Bank as a whole. However, production from this irrigated 5 percent exceeds that of all of the rain-fed land – 182,000 tons vs. 155,000 tons of produce in 2000. Expressed as yield per square kilometer, nearly 7,000 tons per sq km is produced from irrigated land, compared to 319 tons per sq km from rain-fed land. Yields per sq km are considerably greater than in the other West Bank areas: 32 percent greater for rain-fed land and 56 percent greater for irrigated land (the damage sustained by these irrigation networks as a result of the Wall's first phase construction is described in Annex III.)

26. As of December 2002, documentation of the Wall-related destruction of agricultural lands and assets had been conducted in 53 communities in the Jenin, Tulkarm, and Qalqiliya governorates, an area containing an estimated population of

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<sup>46</sup> World Bank, "Two Years of Intifada, Closures and Palestinian Economic Crisis: An Update of the Economic Assessment", April 2003 (forthcoming).

<sup>47</sup> The transportation component of the consumer price index (CPI) for the West Bank, excluding Jerusalem, has increased 43.5 percent between September 2000 and January 2003. Source: PCBS.

141,800.<sup>48</sup> Direct damage to these communities from Wall and barrier preparation and construction up to then included the destruction of some 83,000 olive and other fruit trees, 615 dunums of irrigated land (including greenhouses), 37 km of water networks and 15 km of agricultural roads. In addition, a total of 238,350 dunums of land (238.3 sq km) are being isolated between the Green Line and the Wall – with 57 percent of this land cultivated, mostly with olive trees and field crops.<sup>49</sup>

**The Social Impact of the Wall on Affected Communities**  
*(For further details, see Annex II)*

27. The Wall is likely to have a profound social impact on some communities if it results in a loss of access to social services and networks. While it is too early to determine the extent of potential lost access, there are reasons for concern. The topography of the Wall is likely to create isolated pockets in which Palestinian inhabitants find themselves separated from schools, clinics, and social services. (Map 4 demonstrates the Wall's impact on education and health facilities in the Qalqiliya area.) Unless access of a much higher quality than has been evidenced under internal closure is provided, this will result in additional scale and efficiency burdens on service providers as well as a reduced quality of educational and medical service provision in some areas.

28. The prospect that the Wall's impact on living conditions will induce migration flows is of particular concern to many local inhabitants. Only limited work has been done on Palestinian displacement during the *Intifada*, and none as yet on displacement as a result of the Wall. Further information will be needed in order to assess the probability and potential magnitude of migration from communities severely compromised by the Wall. Only in time will it be possible to establish the extent to which migration is likely to become a significant factor in the evolving history of the Wall.

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<sup>48</sup> Palestinian Agricultural Relief Committees "Agricultural Needs Assessment Study for Villages Affected by the Wall in the Districts of Jenin, Tulkarm and Qalqiliya," December 2002. Mid-2002 population estimates for these communities from PCBS, Small Area Population 1997-2010, December 1999.

<sup>49</sup> *Ibid.*

***Case Study: Umm ar Rihan***

Umm Rihan, a village of about 330 inhabitants perched high on the northwestern hills of Jenin governorate, is one of fifteen Palestinian communities located between the Green Line and the first phase of the Wall. Israeli checkpoints erected on its eastern and southern access roads a few months after the *Intifada* began had already sharply limited its access to the outside world, separating it from nearby Tura Al Gharbiya and Ya'bad, on which it depends for access to all health services and secondary schooling. The village does not have a clinic, and operates only one overcrowded primary school. The Wall threatens to render this situation permanent, as it seals the roads and enfolds with Umm Rihan the Israeli settlements of Hinnanit, Shaked, and Rehan. Local fears about the future were heightened by notifications of forthcoming housing demolitions in the village, though it is located more than one kilometer from the path of the wall.

Construction on the Wall started approximately three months ago, and the concrete foundations have now been poured. Passage is still permitted through a gap left in the path of construction, but not on terms that permit the normal functioning of a comprehensive health care system. Palestinians from the rest of the West Bank are not allowed to cross the checkpoint up the road in order to enter the village, with exceptions made in only two cases. The first applies to five teachers from Ya'bad who have obtained a special permit through the Israeli Civil Administration. According to a village representative, the process of arranging a permit for one of the teachers took more than one year. Umm Rihan itself also sends teachers to Ya'bad.

The other exception are ambulances whose movement has been coordinated beforehand with the District Coordination Office in Jenin. Medical personnel are otherwise turned back by the IDF. This includes medical staff from regional health centers. Whereas regular child vaccinations were carried out in the village before the *Intifada*, families with young children now have to travel with them every month to Ya'bad in order to maintain the required schedule. Occasionally, they are visited by *Medecins Sans Frontiers*.

The villagers express concern about their future after the Wall is completed. Shortly after construction commenced, the Israeli Civil Administration issued demolition orders for seven local houses, on the grounds that they were built without permits. The village turned out en masse in the streets when the bulldozers arrived, and managed to block the demolitions. They have now collected money amongst themselves in order to have their case plead in an Israeli Military Court.

In the meantime, the Civil Administration continues to forbid any new local construction. Two months ago the village began adding a second floor to the local school, which is located next to the main road. The school is heavily overcrowded; grades 3 and 4, as well as 5 and 6, have to take their classes in the same room. After some time, the army arrived, halted work and detained the school director, Mohammed Ali, for one day. Work has since stopped.

The village is in need of additional infrastructure investment. Since 1986, the mayor has asked the Civil Administration to connect it to the electricity grid. These requests have been unsuccessful, even though a series of power pylons runs along its main road, just ten meters from the school.

*Source: Mission interviews and observations.*

**The Impact of the Wall's Construction on Water Use and Management**  
*(For further details, see Annex III)*

29. The land on which the Wall is being constructed sits over some of the best well-fields in the West Bank. While the Wall's construction does not impact on the overall water allocation between Israelis and Palestinians (this has been agreed under the Interim Agreement of September 28, 1995), it is already seriously affecting local access to water and could have long-term implications for water use.

30. Thus far, the Wall's construction is only affecting private and communal wells and networks, water from which is used primarily for irrigation – wells and networks managed by the Palestinian Water Authority and local authorities have not yet been affected. Water access problems already observed are likely to worsen as the Wall is completed, and will result in a considerable *de facto* reduction in the availability of irrigation water by West Bank Palestinians.

31. While local residents will still be able to access drinking water, doing so could involve increased costs in both money and time. To the extent that alternative access involves the use of tankered water supplies, the costs and risks of disruption are increased, as experience in the West Bank in 2002 under closure attests.<sup>50</sup>

32. Extensive field visits by the mission have provided enough data to produce a map of the wells in the Qalqiliya area already impacted or potentially affected (Map 3, page 52).<sup>51</sup> These visits included either physical inspection of wells and corresponding networks to ascertain the nature and extent of damage or visual inspection from a short distance when physical inspection was not possible due to access limitations, as well as interviews with local officials, well owners and operators, irrigating farmers, and community residents.

33. The full extent of the Wall's impact on water management in the West Bank cannot be ascertained until its final path is clearly known, though experience along the current path of the construction suggests what will happen elsewhere. As can be expected when a significant structure cuts across established irrigation networks and water lines, considerable disruption occurs unless specific mitigating measures are provided for. In many cases such measures clearly have not been taken, resulting in inconvenience at best and potential economic hardship at worst. There is no evidence

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<sup>50</sup> See, for example, *Two Years of Intifada, Closures, and Palestinian Economic Crisis*, The World Bank, April 2003 (forthcoming). The report describes how the cost of tankered water in the West Bank has risen by up to 80 percent since September 2000, and that households in remote areas are spending as much as a third of their current income on water.

<sup>51</sup> Field inspections of wells and irrigation networks were made in the following 10 towns and villages: 'Azzun 'Atma, Baqa ash Sharqiya, Deir al Ghusun, Falameya, Habla, 'Izbat Salman, Jayyus, Kafr Sur, Nazlat 'Isa, and Zeita. Sixteen wells and their corresponding networks were physically inspected; seven wells and networks were visually inspected, as physical inspection was not possible due to limitations on access. See Annex III for notes from these inspections.

*Case Studies: Field Notes of Well Inspections Conducted by Mission*

**Well no. 15-20/002, Baqa ash Sharqiya (156.45, 200.47) and  
Well no. 15-20/002A, Baqa ash Sharqiya (156.45, 200.47)**

*These two wells are located west of the Wall* and have a combined quota of 535,000 cubic meters a year. They belong to a group of four owners who drilled the first well in 1962. They feed a reservoir located east of the Wall whose pipes were severely damaged by a military bulldozer a month ago according to the farmer. This damage appeared clearly during the visit to the reservoir. Although the damage to the reservoir seems to be due to military action in the context of the occupation and independent from the construction of the Wall, damage to the network was caused by the construction of the wall as irrigated land and the reservoir lie east of its path. The well owner says the contractor is helpful and calls him whenever he breaks a pipe, inviting him to repair it. The well owner estimates the pipes alone will cost NIS 40,000. PARC promised to pay for the parts and the pipes while the owner will pay for labor. The well owner says the reservoir pipes will be even more expensive to replace. 40% of the water produced by these two wells is sold as drinking water to 15 villages (including Baqa ash Sharqiya), mostly distributed via water tankers. 14 of these villages now lie east of the Wall. They include Dhahar al 'Abed, Zabda, Ya'bad, An Nazla al Wusta, An Nazla al Gharbiya, An Nazla ash Sharqiya, Alla, Saida, Emdar, 'Akkaba, Al Khuljan and Mashaher.

**Well no. 15-17/015, 'Izbat Salman (150.28, 171.84)**

*This well is located east of the Wall* at a good distance. It was providing water to two reservoirs located exactly on the path of the Wall. These reservoirs were completely destroyed about one month before the field visit. They were supplying both drinking and irrigation water to the village of 700 inhabitants according to the mayor, Hussein Guzman. Both the well and the reservoirs were entirely privately managed. The irrigation water was sold at 1 NIS/cubic meter and the drinking water was sold at 1.5 NIS/cubic meter until one month ago, when prices rose to 2 NIS and 2.5 NIS respectively because of greater operating costs. Some of the land irrigated from the reservoirs lies west of the Wall. The mayor estimates that about 40% of the people in the village are now without tap water since the destruction of the reservoirs. He spoke with the contractor about the reservoirs and about access to the fields beyond the wall. A dirt road that crosses the path of the Wall has been blocked by a mound of earth which prevents the farmers from taking trucks to their fields to pick up their produce.

The mayor met with the military officers asking that the farmers be allowed to access their fields, that a gate be built in the Wall, that the cut pipes crossing the wall path be repaired, and the reservoirs not be destroyed. He was instructed to go to court. According to the Mayor, the authorities in Bet El said the reservoirs should not be destroyed, but they were. This well has a quota of 150,000 cubic meters a year.

**Well no. 15-18/025, Kafr Sur (155.24, 182.56)**

**This well, located west of the Wall**, is owned and operated by Mekorot, the Israeli national water company. The village of Kafr Sur has a drinking water network fed from this well. The secretary to the mayor reported that the construction of the Wall caused an interruption of supply that lasted a few days. The Israeli contractor replaced the cut pipes at his own expense. Kafr Sur has a reservoir operated by the municipality. The villagers have had no conversation with the contractor. They cultivate without irrigation land that is now west of the Wall. Access to their fields is now difficult as they are not permitted to cross the Wall path and walk through Sal'it settlement in order to reach the orchards. During the olive picking season, they had to gather at Kafr Jammal at 9:00 am and wait for a truck to bring them to their olive groves on the west of the well.

*Source: Mission interviews and observations. Field inspection notes for other wells and networks are contained in Annex III.*

that any uniform policy is being applied to water systems affected by the Wall's alignment. Indeed, the most significant factor bearing on the handling of pre-existing systems appears to be the attitudes of individual contractors. Protection of pipes passing across the Wall's alignment, or their replacement, is obviously a key factor. In some cases, contractors have replaced or permitted the replacement of pipes. As the mission's extensive field research reveals, however, this practice is rare.

### **The Process of Requisitioning Land for the Wall<sup>52</sup>**

34. In order to obtain the land on which the Wall is being constructed in the West Bank,<sup>53</sup> private property is requisitioned pursuant to military orders that are signed by the Military Commander of the West Bank based on military and security needs. These orders provide that the property will be requisitioned through December 31, 2005; however, the orders are renewable without limitation. During this period of time, the owners of the property remain the legal owners of the property and are entitled to request rental fees or compensation. The Interim Agreement signed in 1995 forbids either side from changing the status of land in the West Bank and Gaza until there is a final settlement. The Government of Israel does not consider the construction of settlements, roads, or the Wall as an infringement of the Interim Agreement.

35. Military orders are not issued pursuant to any current Israeli legislation – the orders themselves serve as the legal basis for the requisition. The orders become effective on the date signed and are valid even if they are not delivered to the property owners. In cases of urgent military operations, the IDF retains the right to requisition land prior to the issuance of a military order, which is then applied retroactively.<sup>54</sup>

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<sup>52</sup> IDF processes and procedures for requisitioning land in the West Bank were discussed by the mission with the following representatives of the IDF in Tel Aviv on February 13, 2003: Col. Daniel Reisner, Head of the International Law Department of the IDF; Lt. Col. Oded Herman, Office of the Coordinator of Government Activities in the Territories; Capt. Gil Limon, Office of the Legal Advisor of the Military Commander of the West Bank; Nisim Zimbar, Legal Department of the Ministry of Defense; and Lt. Osnat Ben-Zivi, International Law Department of the IDF.

<sup>53</sup> Procedures in Jerusalem differ slightly from those in the West Bank since this land, having been annexed, is considered by the GOI as part of the State of Israel and not occupied territory. Land is obtained pursuant to the Land Seizure Act in Emergency Time of 1949. In such cases the General Director of the Ministry of Defense is considered the competent authority for conducting land requisition and military orders are issued through his office. According to the human rights organization LAW, land owners have not in most cases received prior notification. Objections can be filed with a special committee established in Tel Aviv pursuant to the Land Seizure Act. Thus far, all cases of objections and requests for injunctions against construction have been rejected.

<sup>54</sup> The orders also entitle owners to contact District Coordination Offices (DCOs) regarding possible rental fees or compensation. However, this mechanism has not yet proved functional, since most owners are thought not to pursue compensation claims for fear that by doing so they will give further legal effect to the requisitions (this perception was confirmed by the mission in a number of interviews with affected land owners). In addition, the prospect of compensation from Israeli authorities remains uncertain. IDF authorities are of the opinion that compensation is not required since land is being seized pursuant to military needs, not through standard requisition procedures, and they are concerned about setting a precedent for compensation in such situations. (Mission discussion referred to in footnote 51.)

36. Property owners have one week in which to file an objection to the requisition with the Legal Advisor of the Military Commander, for review by an IDF Appeals Committee. The documentation necessary to substantiate an objection depends on the type of property affected. Owners of “settled land” – property which has been registered and the boundaries demarcated – need merely to submit a copy of the deed to the property. Owners of property which is not “settled” must also include proof of ownership and a map demarcating the boundaries of the property. (Such owners are still legal owners of the property, and often are registered as owners for tax purposes. They only lack deeds, since in these cases the property has never been officially surveyed.)<sup>55</sup>

37. If an objection is filed within the one week deadline, construction will be halted until a decision on the objection is issued. If the objection is filed after the one week deadline, it will still be reviewed, but construction will not be halted in the meantime. Once an Appeals Committee’s recommendation is reviewed by the Military Commander, decisions on the objections are issued and signed by his Legal Advisor. If an objection is denied, the property owner can then appeal to the High Court. In cases where an objection has been denied but construction has not yet begun, the property owner can request the High Court for an injunction to halt construction until a final Court ruling is issued. The request for an injunction needs to be made on the grounds that the Wall’s construction will cause irreparable harm to the owner’s property.

38. These procedures are problematic in a number of ways. The manner of notifying land owners of a requisition appears arbitrary in practice, despite the requirement that the District Coordination Office (DCO) deliver the requisition order to the land owner whenever feasible. Orders are sometimes left on the property or given to village representatives (*muhktars*), and according to owners and human rights organizations are rarely delivered directly to property owners.<sup>56</sup> The mission was informed that many land owners become aware of requisition orders only after construction has begun, at which point the deadline for filing an objection may have passed. Cases involving land requisitioned prior to issuance of retroactive military orders are particularly troublesome, as the property could become irreparably damaged prior to the owner being given a hearing. Filing appeals may also prove expensive, requiring the hiring of lawyers and in some cases land surveyors to draft a map to attach to the appeal. In addition, lawyers and surveyors are hampered by restrictions on freedom of movement within the West Bank, making it difficult to meet the one week deadline, especially since most lawyers and licensed surveyors are located within cities.

39. Under international law, a body responsible for reviewing an appeal should generally be independent and impartial. The military Appeals Committee, though, is a part of the entity (the IDF) issuing the orders to requisition the property,<sup>57</sup> making the

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<sup>55</sup> Military Order 291, “Military Order Regarding Land Settlement”.

<sup>56</sup> Copies of the order are also made available at offices of the Civil Administration as well as the Legal Advisor to the Military Commander of the West Bank, but due to travel restrictions resulting from closures and curfews most property owners can access these offices only with difficulty, if at all.

<sup>57</sup> Order Regarding Appeals Committee (Judea and Samaria) (No. 172), 5728-1967.

army both the issuing and the reviewing body. Rules of procedure and evidence have also been developed by the IDF, and the Appeals Committee is exempt from applying the rules of evidence applicable under Israeli law. On top of this, moreover, the Military Commander has the authority to reverse a recommendation by the Appeals Committee.

40. For a legal remedy to be credible, it needs to be effective in practice. In every case so far in which a land owner has filed an appeal against the requisitioning of land for the Wall, the appeal has been rejected by the military Appeals Committee, according to information from the Palestinian Society for the Protection of Human Rights and the Environment (LAW).<sup>58</sup> LAW estimates the number of rejected appeals to be in the hundreds. The only relief provided to date has been a reduction in some cases of the amount of land requisitioned. Interviews with land owners revealed that the IDF at times negotiates with owners who have filed appeals, and reduces the requisition.

41 According to LAW, the very few cases submitted to the Israeli High Court on appeal have all been rejected. The High Court has also rejected the vast majority of requests for injunctions against construction pending the Court's final decision on an appeal – arguing that if the land owner's appeal is entertained, construction will be stopped then and any structures removed.

42. In the cases submitted to the High Court land owners have asked for several kinds of relief. In most cases, the land owners have requested cancellation of the military orders, or a change in the location of the Wall/that it be constructed on property west of the Green Line. All requests for the cancellation of the military orders have been rejected. As for requests for changing the Wall's location, the High Court has ruled that the Wall's alignment is an issue best left to the judgment of the IDF.

43. Land owners have also asked the High Court for other kinds of relief should the military order be upheld. They have asked that the period of the requisition be shortened, that the amount of property to be requisitioned be reduced, that they be provided guarantees of free access to property not requisitioned but separated from their residence by the Wall, and/or that they be allowed time to remove certain objects, such as trees and greenhouses.

44. On every issue the High Court has ruled against the land owner. The High Court has found that the period of requisition is proportionate and reasonable given the situation, especially since the status of the property will be reviewed at the end of the initial three year period. The Court has deferred to the IDF regarding the amount of land to be requisitioned. Regarding access to separated property, representatives of the state have indicated that free access will be guaranteed via gates situated every fifteen kilometers along the security barrier. The High Court has accepted this response as a commitment on the part of the IDF, and has not indicated concern at the lack as yet of any mechanism to guarantee free passage through such gates. The High Court also ruled

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<sup>58</sup> LAW has represented several hundred land owners in the appeals process. Much of the information in this section comes from mission meetings with Azem Bishara, an advocate with LAW, since information regarding appeals is not available to the public.

that requests for free access guarantees were premature since the Wall had not yet been built. The Court indicated that land owners can file a complaint if, after construction is complete, access to their property is impeded. The Court has also accepted an IDF commitment to allow land owners to remove valuable objects from requisitioned property. According to the IDF, construction companies have been asked to assist owners to remove and replant trees, with this obligation included in the tender process. Anecdotal evidence presented to the mission suggests that the implementation of this policy appears erratic and largely depends on the individual contractor.

45. The High Court's acceptance of the IDF's commitment to ensure access notwithstanding, property owners remain concerned over the status of property bordering the Wall. Many people complained to the mission of restricted access to their property, often as a result of intimidation by contractors undertaking the Wall's construction. Since this adjacent property has not been requisitioned, however, it is not clear that any remedies are available. According to the IDF, land bordering the security barrier should remain fully accessible to property owners – although the army reserves the right to restrict access for military or security reasons. Landowners fear that denying them access to such lands might in time lead to a situation whereby said land could be expropriated through legislation that allows the confiscation of unused agricultural property.<sup>59</sup>

### **Monitoring Efforts and Coping Strategies**

46. Alarmed by the myriad implications of the Wall, Palestinian civil society organizations have mobilized to oppose it. Several organizations are mapping its progress and impact, while others are supporting affected communities through advocacy, legal help, and various forms of economic and humanitarian assistance.<sup>60</sup> The Palestinian Agricultural Relief Committees (PARC), the Palestinian Environmental NGO Network (PENGON), and the Palestinian Hydrology Group (PHG) have already undertaken preliminary surveys of several affected villages, detailing the extent of land lost in each locale and other ways in which the Wall impinges adversely on community resources like

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<sup>59</sup> Israeli authorities have used the Ottoman Land Law of 1858 to declare West Bank land as state land, on the grounds that a parcel of land has not been cultivated for a period of three years. GOI maintains that such action is justified under international humanitarian law since the regulations were in force in the West Bank prior to 1967 under Jordanian legislation, and that this allows the IDF to take possession of, and manage, properties that belong to the former enemy state (see Order Regarding Government Property (Judea and Samaria), (No. 59), 5727-1967). The High Court has upheld the legality of such actions, confirming ownership of the property by the State of Israel and rejecting appeals by Palestinian land owners on the grounds they cannot object to the use of state property (see HJC 81/285, Fadih Muhammad a-Nazar et al. v. Commander of Judea and Samaria et al., Piskei Din 36 (1) 701). According to B'Tselem, the portion of state land in the West Bank is approximately forty percent; the Israel Lands Administration has never made public the amount of land registered as state land (see Yehezkel Lein, "Land Grab: Israel's Settlement Policy in the West Bank, B'Tselem, May 2002).

<sup>60</sup> These include, among others, the Palestinian Agricultural Relief Committees (PARC), the Land Defense Committee, and the Palestinian Environmental NGO's Network (PENGON) which includes among its 21 members the human rights organization LAW, the Advanced Research Institute in Jerusalem (ARIJ), the Palestinian Hydrology Group (PHG), and the Land Research Center.

infrastructure, water wells, irrigation networks and cisterns. The Applied Research Institute – Jerusalem (ARIJ) has been updating a GIS map of the Wall by collating field visits and military maps distributed to local villages by the IDF. The in-country offices of United Nations agencies UNFPA, UNRWA, WHO, WFP, OCHA, and the ICRC are projecting the impact of the Wall on their programs or are considering launching impact studies.

47. These various efforts notwithstanding, what is needed is a monitoring system that is widely recognized as delivering objective information, and is based on indisputable methodologies. In addition, irrespective of any future decisions on the status, location, and further construction of the Wall, intervention programs for assisting affected communities need to be properly coordinated and implemented. **The mission recommends that the LACC ensure that the progress and socio-economic impact of the Wall on affected Palestinian communities is reported on regularly, and that donors provide assistance to affected communities and households without delay.** It is further recommended that the LACC receive a quarterly monitoring report on the Wall.<sup>61</sup>

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<sup>61</sup> While the nature of the monitoring exercise has yet to be defined, factors to be tracked might include: the Wall's actual trajectory; the construction and operation of access points in the Wall; the extent of access to land, services and markets provided to communities to the west of the Wall's alignment; Wall-induced migration; the success rate/status of appeals; and the impact of the Wall on affected donor investments.

## **Annex I**

### **Economic Impact of Israel's Separation Barrier on Affected West Bank Communities**

#### **Introduction**

I-1. The construction of the Wall is already negatively impacting the economies of the northern West Bank governorates generally, and the communities located between the Wall and the Green Line specifically. This annex explores the nature of this impact within the context of the depressed economic environment of the West Bank as a whole. The key issue is isolation: the Wall is cutting off communities from their primary income streams both within the West Bank and Israel. To the extent that the Wall's course deviates from the Green Line, it has the potential to separate Palestinian communities from one another and/or from their agricultural lands, assets, and markets. In addition to the anticipated loss of income (especially from agricultural activities) and the loss of income-generating assets, by reducing the geographic scope for economic activity the Wall could have other economic distortions, including shifts in production for domestic and local consumption and, potentially, encouraging a trend away from a monetized economy to barter.

I-2. The economic duress facing these border communities is not new: their relative prosperity has been steadily undermined over the last two years by curfew and closure. Access to jobs in Israel – once the primary source of income for many border communities – has been severely reduced. Income from commerce and manufacturing has fallen considerably, due to reduced purchases by workers formerly employed in Israel. Restrictions on travel within the West Bank and between the West Bank and Israel has limited the ability of customers from outside these communities to access local markets and of local agricultural producers and manufacturers to transport goods to markets elsewhere in the West Bank.

I-3. In the face of declines in employment in other sectors, agriculture has become a relatively more important source of livelihood in this fertile region. However, the ability of the agricultural sector to expand is constrained by the Wall's placement and construction, which threatens this source of income and employment particularly in communities located along its path.

#### **Population and Land Use in the Border Region**

I-4. Three northern governorates are most directly affected by the first phase of the Wall's construction: Jenin, Tulkarm, and Qalqiliya. With a combined population of approximately 500,000, they account for approximately one-fourth of the total population of the West Bank, excluding Israeli-annexed East Jerusalem.

**Table I-1. Mid-2003 Population Estimates  
Jenin, Tulkarm, Qalqiliya Governorates**

<b>Governorate</b>	<b>Population</b>	<b>Share</b>
Jenin	247,305	12.0
Tulkarm	163,397	7.9
Qalqiliya	90,729	4.4
<b>Total</b>	<b>501,431</b>	<b>24.4</b>
<b>West Bank</b>	<b>2,057,558</b>	<b>100.0</b>

*Note:* West Bank excludes Israeli-annexed portions of Jerusalem (J-1).

*Source:* PCBS, *Small Area Population: 1997-2010, December 1999.*

I-5. The total land surface of these three governorates is nearly 1000 sq km, or 17.6 percent of the West Bank. Land use data for the year 2000 (the most recent available) show that these three have more lands under cultivation than other West Bank governorates. Surprisingly, they are among the more urbanized as well, with Palestinian built-up areas – residential, commercial and industrial zones of population centers – covering 112 sq km (11.3 percent of their total area), which represents 21.1 percent of the total built-up Palestinian areas in the West Bank. Built-up land within Israeli settlements amounted to 14 square kilometers (1.4 percent of the total area within Jenin, Tulkarm, and Qalqiliya), or 10.8 percent of the total of settlement built-up areas in the West Bank in 2000. (The amount of undeveloped land owned by Israeli settlements is unknown.)

**Table I-2. Area and Land Use by Type, 2000  
Jenin, Tulkarm, Qalqiliya Governorates**

<b>Governorate</b>	<b>Total</b>		<b>Agricultural Land</b>			<b>Palestinian Built-Up Land</b>			<b>Built-Up Land in Israeli Settlements</b>		
	<b>Area (km<sup>2</sup>)</b>	<b>Share WB</b>	<b>Area (km<sup>2</sup>)</b>	<b>Pct.</b>	<b>Share WB</b>	<b>Area (km<sup>2</sup>)</b>	<b>Pct.</b>	<b>Share WB</b>	<b>Area (km<sup>2</sup>)</b>	<b>Pct.</b>	<b>Share WB</b>
Jenin	583	10.3	290	49.7	20.9	56	9.6	10.5	3	0.5	2.2
Tulkarm	246	4.4	146	59.3	10.5	39	15.9	7.3	2	0.8	1.5
Qalqiliya	166	2.9	76	45.8	5.5	17	10.4	3.3	9	5.5	7.2
<b>Total</b>	<b>995</b>	<b>17.6</b>	<b>512</b>	<b>51.5</b>	<b>36.9</b>	<b>112</b>	<b>11.3</b>	<b>21.1</b>	<b>14</b>	<b>1.4</b>	<b>10.8</b>
<b>West Bank</b>	<b>5,655</b>	<b>100.0</b>	<b>1,388</b>	<b>24.6</b>	<b>100.0</b>	<b>532</b>	<b>9.4</b>	<b>100.0</b>	<b>128</b>	<b>2.3</b>	<b>100.0</b>

*Note:* West Bank excludes Israeli-annexed portions of Jerusalem (J-1).

*Source:* PCBS, *Land Use Statistics in the Palestinian Territory: 2000.*

I-6. Agriculture is the greatest user of land in these three governorates, at a rate more than twice that in the West Bank overall, where just under 25 percent of the total land is devoted to agricultural production. Jenin, Tulkarm, and Qalqiliya together account for 37 percent of all agricultural land in the West Bank. These lands are particularly fertile: in 2000, these governorates produced \$220 million in agricultural output, 45.1 percent of total agricultural production in the West Bank. Per square kilometer of agricultural land, these governorates produced \$430,000 in output – 40.8 percent greater output value per sq km than that of the other West Bank governorates.

**Table I-3. Agricultural Land and Production Value, 1999 and 2000  
Jenin, Tulkarm, Qalqiliya Governorates**

Governorate	Area of Agricultural Land (km <sup>2</sup> )				Production Value (US\$1000)				Value per km <sup>2</sup> (US\$1000/km <sup>2</sup> )	
	1999	Share WB	2000	Share WB	1999	Share WB	2000	Share WB	1999	2000
Jenin	271	21.7	290	20.9	46,930	16.8	121,935	25.0	173.2	420.5
Tulkarm	148	11.8	146	10.5	47,034	16.8	60,667	12.5	318.0	416.1
Qalqiliya	62	5.0	76	5.5	24,001	8.6	37,321	7.7	387.1	490.4
<b>Total</b>	<b>481</b>	<b>38.5</b>	<b>512</b>	<b>36.9</b>	<b>117,965</b>	<b>42.2</b>	<b>219,923</b>	<b>45.1</b>	<b>245.3</b>	<b>429.6</b>
<b>West Bank</b>	<b>1,251</b>	<b>100.0</b>	<b>1388</b>	<b>100.0</b>	<b>279,548</b>	<b>100.0</b>	<b>487,237</b>	<b>100.0</b>	<b>223.5</b>	<b>351.0</b>

*Note: West Bank excludes Israeli-annexed portions of Jerusalem (J-1). Readers are cautioned against projecting forward the increases registered from 1999 to 2000, particularly in value and value per sq km. Most of this increase is explained by the biennial nature of olive production, the leading fruit crop in the West Bank. Of the US\$221 million increase in production value for the West Bank and Gaza between 1999 and 2000, the value of fruit tree production accounted for US\$165 million (74.5 percent). From 2000 to 2001, fruit tree production in the West Bank and Gaza declined by US\$161 million, and total agricultural production fell by US\$198 million.*

*Source: PCBS, Land Use Statistics in the Palestinian Territory, 1999 and 2000; PCBS, Agricultural Statistics, 1999-2000 and 2000-2001.*

I-7. Out of this agricultural land, 5.1 percent (26.1 sq km) was irrigated in 2000, a proportion slightly above that for the West Bank as a whole. However, total production on irrigated land (182,000 tons in 2000) exceeds production on rain-fed land, (155,000 tons in 2000), despite the small percentage of area irrigated. Expressed as yield per square kilometer, the difference is remarkable: nearly 7,000 tons per sq km on irrigated land, compared to 319 tons per sq km on rain-fed land in 2000. These yields per sq km are also considerably greater than those in other West Bank areas: 31.7 percent greater for rain-fed, and 56.0 percent greater for irrigated land (the damage sustained to these irrigation networks as a result of the Wall's first phase of construction is identified in Annex III).

**Table I-4a. Irrigated Agricultural Land, Production, and Yield, 1999 and 2000  
Jenin, Tulkarm, Qalqiliya Governorates**

Governorate	Area of Irrigated Land (km <sup>2</sup> )				Production (metric tons)				Yield per km <sup>2</sup> (mt/km <sup>2</sup> )	
	1999	Share WB	2000	Share WB	1999	Share WB	2000	Share WB	1999	2000
Jenin	9.6	14.1	7.9	11.7	56,215	15.4	47,578	13.0	5,856	6,022
Tulkarm	11.3	16.6	11.1	16.4	86,305	23.6	80,818	22.0	7,638	7,281
Qalqiliya	8.1	11.9	7.1	10.5	48,005	13.1	53,250	14.5	5,926	7,500
<b>Total</b>	<b>29.0</b>	<b>42.5</b>	<b>26.1</b>	<b>38.6</b>	<b>190,525</b>	<b>52.2</b>	<b>181,646</b>	<b>49.5</b>	<b>6,570</b>	<b>6,960</b>
<b>West Bank</b>	<b>68.2</b>	<b>100.0</b>	<b>67.6</b>	<b>100.0</b>	<b>365,137</b>	<b>100.0</b>	<b>366,788</b>	<b>100.0</b>	<b>5,354</b>	<b>5,426</b>

*Note: West Bank excludes Israeli-annexed portions of Jerusalem (J-1).*

*Source: PCBS, Land Use Statistics in the Palestinian Territory, 1999 and 2000.*

**Table I-4b. Rain-fed Agricultural Land, Production, and Yield, 1999 and 2000  
Jenin, Tulkarm, Qalqiliya Governorates**

Governorate	Area of Rain-fed Land (km <sup>2</sup> )				Production (metric tons)				Yield per km <sup>2</sup> (mt/km <sup>2</sup> )	
	1999	Share WB	2000	Share WB	1999	Share WB	2000	Share WB	1999	2000
Jenin	261.4	22.1	282.1	21.4	33,142	27.4	126,863	35.6	126.8	449.7
Tulkarm	136.6	11.6	134.7	10.2	7,654	6.3	17,881	5.0	56.0	132.7
Qalqiliya	53.9	4.6	69.0	5.2	2,643	2.2	10,053	2.8	49.0	145.7
<b>Total</b>	<b>451.9</b>	<b>38.2</b>	<b>485.8</b>	<b>36.8</b>	<b>43,439</b>	<b>35.9</b>	<b>154,797</b>	<b>43.4</b>	<b>96.1</b>	<b>318.6</b>
<b>West Bank</b>	<b>1,182.5</b>	<b>100.0</b>	<b>1,320.6</b>	<b>100.0</b>	<b>121,115</b>	<b>100.0</b>	<b>356,774</b>	<b>100.0</b>	<b>102.4</b>	<b>270.2</b>

*Note:* West Bank excludes Israeli-annexed portions of Jerusalem (J-1). Readers are cautioned against projecting forward the increases registered from 1999 to 2000, particularly in production outputs and yield per sq km. As with value, this increase is explained by the two-year cycle in olive harvest.

*Source:* PCBS, *Land Use Statistics in the Palestinian Territory, 1999 and 2000.*

### **Economic Conditions in the Northwestern Governorates**

I-8. Although data on value added by sector are not available on a governorate basis, some indication of sectoral contribution to the region's economy can be found in data on the number of private sector establishments and their employment by governorate. Table I-5 (following page) evidences the importance of agriculture to the governorates of Jenin, Tulkarm, and Qalqiliya, with over 40 percent of all West Bank private sector establishments in the agricultural sector (and their employment) located in these three governorates. Similarly, the number of water establishments (wells and irrigation networks) is disproportionate to these governorates' 25 percent share of West Bank population, although their employment potential is limited.

I-9. Also somewhat over-represented are the number of establishments engaged in wholesale or retail trade (including automobile repair), with this sector comprising more than half of all private establishments in the region. However, employment in these establishments is limited, averaging only 1.5 employees, as most are very small-scale family-run shops. Manufacturing enterprises, which, after commercial enterprises, actually engage the most residents of these governorates (approximately 12,000 persons), is also relatively small-scale – engaging, on average, 4.4 persons per enterprise.

I-10. Over half of employed persons from Jenin, Tulkarm, and Qalqiliya governorates worked in the private sector in 1997,<sup>62</sup> with Palestinian majority-owned private-sector

<sup>62</sup> Governorate-level breakdowns of employment are only available from the 1997 Census; quarterly labor surveys and annual reports do not contain such detailed breakdowns. Similarly, the biannual updates to the establishment census, while reporting the number of establishments by governorate on the basis of ownership, only report employment for private sector establishments.

**Table I-5: Jenin, Tulkarm, Qalqiliya Governorates:  
Private Sector Establishments in Operation and Persons Engaged  
by Principal Economic Activity, 1997 and 2001**

Principal Economic Activity	Year	Establishments			Persons Engaged		
		Number	Percent	Share WB	Number	Percent	Share WB
Agriculture, livestock, forestry, and fishing	1997	2,167	14.7	42.1	3,352	11.0	42.9
	2001	2,170	14.6	41.9	3,360	10.8	42.8
Mining and quarrying	1997	32	0.2	8.8	187	0.6	8.3
	2001	24	0.2	7.0	98	0.3	4.4
Manufacturing	1997	2,133	14.5	19.6	9,127	29.9	20.4
	2001	2,156	14.5	19.4	9,426	30.3	20.5
Electricity, gas, and water supply	1997	165	1.1	71.4	272	0.9	56.5
	2001	106	0.7	79.7	154	0.5	52.6
Construction	1997	47	0.3	15.3	179	0.6	8.0
	2001	32	0.2	13.7	186	0.6	6.3
Wholesale and retail trade (including vehicle repair)	1997	7,755	52.6	28.4	11,950	39.1	26.2
	2001	7,937	53.3	27.0	12,107	38.9	24.5
Hotels and restaurants	1997	526	3.6	27.6	880	2.9	20.4
	2001	529	3.6	24.9	880	2.8	15.1
Transport, storage, and communications	1997	79	0.5	20.9	293	1.0	14.4
	2001	75	0.5	18.6	440	1.4	8.5
Financial intermediation	1997	117	0.8	26.4	500	1.6	15.5
	2001	123	0.8	23.7	529	1.7	14.7
Real estate, renting, and business services	1997	435	2.9	22.6	821	2.7	17.1
	2001	433	2.9	20.7	779	2.5	14.1
Education	1997	227	1.5	22.5	933	3.1	11.9
	2001	224	1.5	21.4	1,029	3.3	11.1
Health and social work	1997	521	3.5	23.7	1,132	3.7	15.4
	2001	529	3.6	22.7	1,141	3.7	12.5
Other community, social, and personal services	1997	545	3.7	22.9	905	3.0	19.2
	2001	542	3.6	21.2	898	2.9	15.9
<b>Total</b>	<b>1997</b>	<b>14,749</b>	<b>100.0</b>	<b>27.1</b>	<b>30,531</b>	<b>100.0</b>	<b>22.2</b>
	<b>2001</b>	<b>14,884</b>	<b>100.0</b>	<b>25.9</b>	<b>31,089</b>	<b>100.0</b>	<b>20.3</b>
<b>West Bank</b>	<b>1997</b>	<b>54,467</b>		<b>100.0</b>	<b>137,415</b>		<b>100.0</b>
	<b>2001</b>	<b>57,422</b>		<b>100.0</b>	<b>152,956</b>		<b>100.0</b>

*Source: PCBS, Establishment Census 1997 and unpublished data from PCBS, Establishment Census 2001.*

establishments representing slightly less than one-third of total employment, and foreign-owned companies another quarter. Less than one percent worked for Palestinian NGOs, and a similar number for UNRWA. PA employment that year accounted for another 15 percent (a share that is likely to have increased since).<sup>63</sup> The remainder, approximately 25 percent, worked outside a formal establishment. Of these, nearly half (48.0 percent) worked in agriculture, and one-third (31.3 percent) in construction.

**Table I-6. Jenin, Tulkarm, Qalqiliya Governorates:  
Employment of Residents by Type of Establishment, 1997**

Establishment	Jenin, Tulkarm, Qalqiliya			West Bank	
	Number	Percent	Share of W. B.	Number	Percent
Private Sector, Palestinian majority ownership	26,823	31.6	18.2	147,767	43.5
Private Sector, Foreign majority ownership	20,567	24.2	30.1	68,264	20.1
Public Sector	12,938	15.3	25.3	51,148	15.1
Non-Profit Organization	562	0.7	19.6	2,868	0.8
UNRWA	535	0.6	19.0	2,815	0.8
Foreign Government and International Organizations	1,442	1.7	20.4	7,052	2.1
Not in Establishment	21,898	25.8	37.6	58,236	17.2
Not Stated	71	0.1	5.7	1,243	0.4
<b>Total</b>	<b>84,836</b>	<b>100.0</b>	<b>25.0</b>	<b>339,393</b>	<b>100.0</b>

*Note:* West Bank excludes Israeli-annexed Jerusalem (J-1).

*Source:* PCBS, *Population, Housing, and Establishment Census, 1997.*

**Table I-7. Jenin, Tulkarm, Qalqiliya Governorates:  
Employment by Place of Work, 1997**

Establishment	Jenin, Tulkarm, Qalqiliya			West Bank	
	Number	Percent	Share of W. B.	Number	Percent
At Home	967	1.1	30.7	3,149	0.9
In Home Governorate	51,665	60.9	23.5	219,819	64.8
In Other West Bank Governorates	4,478	5.3	16.4	27,224	8.0
In Israel	24,836	29.3	34.3	72,344	21.3
<i>Crafts and Related Workers</i>	7,041	8.3	32.8	21,495	6.3
<i>Elementary Occupations</i>	15,287	18.0	36.2	42,230	12.4
In Israeli Settlements	1,019	1.2	11.3	9,022	2.7
In Foreign Countries	1,789	2.1	28.8	6,221	1.8
Not Stated	82	0.1	5.1	1,614	0.5
<b>Total</b>	<b>84,836</b>	<b>100.0</b>	<b>25.0</b>	<b>339,393</b>	<b>100.0</b>

*Note:* West Bank excludes Israeli-annexed Jerusalem (J-1).

*Source:* PCBS, *Population, Housing, and Establishment Census, 1997.*

<sup>63</sup> This share is expected to have grown in recent years with the increase in the number of public sector employees overall. The IMF reports that PA employment increased from 103.6 thousand end-1999 to 124.6 thousand end-October 2002. Breakdowns by residence are not available.

I-11. By location, only 1 percent worked at home, 61 percent in their home governorate, and 5 percent in elsewhere in the West Bank (table I-7, above). Nearly 30 percent were employed in Israel. (For residents of Jenin, Tulkarm, and Qalqiliya, settlement employment was insignificant, 1 percent of employment.) Of these workers, most were basic laborers, engaged in agricultural and construction activities.

I-12. Annual labor surveys provide less disaggregated data on both economic activity and geographical area than that available from the 1997 establishment census.<sup>64</sup> Nevertheless, the labor surveys show the decline in employment associated with the *Intifada* and the imposition of tighter closure, both internal and external. Of the 21,700 jobs lost from 2000 to 2001 in the three governorates Tulkarm, Qalqiliya, and Jenin (plus the district of Tubas), the decline in construction accounted for 48.4 percent – 10,500 jobs. Agriculture witnessed the second largest drop (3,900), 18.0 percent of the total.

**Table I-8. Employment by Industry and Residence of Worker, 1998-2001  
Jenin Governorate and Tubas District; Tulkarm and Qalqiliya Governorates**

Industry	Year	Jenin and Tubas District			Tulkarm and Qalqiliya		
		Number	Percent	Share WB	Number	Percent	Share WB
Agriculture, hunting and fishing	1998	15,300	27.3	29.1	8,300	18.9	15.8
	1999	12,000	22.4	24.4	7,400	17.2	15.1
	2000	15,500	28.1	28.5	8,100	18.1	14.9
	2001	12,200	11.2	26.0	7,500	20.1	16.0
Mining, quarrying, and manufacturing	1998	6,400	11.4	9.5	6,300	14.4	9.4
	1999	4,900	9.2	7.1	5,800	13.6	8.4
	2000	4,900	8.9	7.4	5,700	12.7	8.6
	2001	3,100	18.3	5.3	4,800	12.9	8.2
Construction	1998	11,300	20.2	12.8	9,600	21.9	10.9
	1999	13,000	24.2	12.8	9,900	23.1	9.8
	2000	11,100	20.1	11.6	7,500	16.7	7.8
	2001	4,600	8.4	6.8	3,500	9.4	5.2
Commerce, hotels, and restaurants	1998	9,800	17.5	12.5	7,600	17.3	9.7
	1999	10,000	18.6	12.9	7,800	18.1	10.0
	2000	9,100	16.5	11.2	9,100	20.2	11.2
	2001	7,700	23.5	10.1	7,500	20.1	9.8
Transportation, storage, and communications	1998	2,100	3.7	10.4	2,100	4.9	10.4
	1999	1,800	3.3	9.2	1,500	3.5	7.7
	2000	2,000	3.6	9.3	1,600	3.6	7.4
	2001	1,700	5.9	8.0	1,700	4.5	8.0
Services and other branches	1998	11,100	19.9	12.0	9,900	22.6	10.7
	1999	11,900	22.3	11.6	10,500	24.5	10.2
	2000	12,600	22.8	11.7	12,900	28.7	12.0
	2001	11,900	32.7	11.3	12,300	33.0	11.7
<b>Total</b>	<b>1998</b>	<b>56,000</b>	<b>100.0</b>	<b>14.0</b>	<b>43,700</b>	<b>100.0</b>	<b>10.9</b>
	<b>1999</b>	<b>53,600</b>	<b>100.0</b>	<b>12.8</b>	<b>42,900</b>	<b>100.0</b>	<b>10.2</b>
	<b>2000</b>	<b>55,200</b>	<b>100.0</b>	<b>12.9</b>	<b>44,900</b>	<b>100.0</b>	<b>10.5</b>
	<b>2001</b>	<b>41,200</b>	<b>100.0</b>	<b>10.9</b>	<b>37,200</b>	<b>100.0</b>	<b>9.9</b>

*Source: Mission calculations on the basis of percentage distributions reported in PCBS, Annual Labor Surveys, 1998-2001.*

<sup>64</sup> Quarterly labor force surveys do not report any data at the governorate level.

I-13. Although the available survey data does not include cross-tabulations by place of residence, place of employment, and employment by sector, it is reasonable to conclude that a considerable portion of the decline in employment of Jenin (and Tubas), Tulkarm, and Qalqiliya residents was from employment across the Green Line in Israel. This conclusion is based on the relatively heavy concentration of jobs lost in these border governorates (43.3 percent of the total jobs lost in the West Bank between 2000 and 2001, based on residence, came from this region – a proportion greater than its population share), the correspondence between jobs lost by residents of these governorates and by West Bank residents employed in Israel and Israeli settlements, and the overall profiles of employment by economic activity for residents of this region and West Bank workers in Israel. Almost two-thirds of the jobs lost by West Bank residents in Israel between 2000 and 2001 were in the construction sector – 18,200 jobs, compared to 2,500 in the

**Table I-9. Employment of West Bank Residents by Industry and Place of Employment, 1998-2001**

Industry	Year	Working Within the West Bank			Working in Israel and Israeli Settlements		
		Number	Percent	Share WB	Number	Percent	Share WB
Agriculture, hunting and fishing	1998	45,200	14.9	82.2	9,800	10.2	17.8
	1999	40,500	13.1	84.0	7,700	7.1	16.0
	2000	46,200	14.0	86.7	7,100	7.5	13.3
	2001	40,800	13.2	89.9	4,600	6.9	10.1
Mining, quarrying, and manufacturing	1998	56,100	18.5	83.9	10,800	11.3	16.1
	1999	54,400	17.6	79.0	14,500	13.4	21.0
	2000	53,800	16.3	82.3	11,600	12.2	17.7
	2001	48,200	15.6	83.0	9,900	14.8	17.0
Construction	1998	38,500	12.7	42.4	52,200	54.4	57.5
	1999	41,100	13.3	41.2	58,600	54.1	58.8
	2000	42,200	12.8	44.5	52,600	55.2	55.5
	2001	33,700	10.9	49.5	34,400	51.4	50.5
Commerce, hotels, and restaurants	1998	62,200	20.5	82.2	13,500	14.1	17.8
	1999	61,900	20.0	79.5	16,000	14.8	20.5
	2000	66,900	20.3	81.6	15,100	15.9	18.4
	2001	65,500	21.2	85.1	11,500	17.2	14.9
Transportation, storage, and communications	1998	17,900	5.9	93.2	1,300	1.4	6.8
	1999	17,600	5.7	89.3	2,100	1.9	10.7
	2000	20,100	6.1	92.2	1,700	1.8	7.8
	2001	20,400	6.6	94.4	1,200	1.8	5.6
Services and other branches	1998	83,400	27.5	90.9	8,300	8.6	9.1
	1999	93,700	30.3	90.9	9,400	8.7	9.1
	2000	100,600	30.5	93.5	7,000	7.4	6.5
	2001	100,400	32.5	95.0	5,300	7.9	5.0
<b>Total</b>	<b>1998</b>	<b>303,200</b>	<b>100.0</b>	<b>76.0</b>	<b>96,000</b>	<b>100.0</b>	<b>24.0</b>
	<b>1999</b>	<b>309,300</b>	<b>100.0</b>	<b>74.1</b>	<b>108,300</b>	<b>100.0</b>	<b>25.9</b>
	<b>2000</b>	<b>329,800</b>	<b>100.0</b>	<b>77.6</b>	<b>95,200</b>	<b>100.0</b>	<b>22.4</b>
	<b>2001</b>	<b>309,100</b>	<b>100.0</b>	<b>82.2</b>	<b>66,900</b>	<b>100.0</b>	<b>17.8</b>

*Source: Mission calculations on the basis of percentage distributions reported in PCBS, Annual Labor Surveys, 1998-2001.*

agriculture sector. (2000 was an olive-harvest year, implying greater need for agricultural workers in Israel than non-harvest years. Comparing the jobs lost by West Bank residents working in Israel and Israeli settlements over the two-year period 1999-2001 shows an even greater share of job loss in the construction sector.)

I-14. This loss of jobs has translated directly into increased unemployment rates. While in 1998 Jenin (and Tubas) and Tulkarm and Qalqiliya already had unemployment rates above the overall rate for the West Bank, unemployment in these areas grew at a faster rate, such that by 2001 they accounted for more than one-third of West Bank unemployed. The unemployment rate in Jenin and Tubas then stood at 36.3 percent; in Qalqiliya and Tulkarm, 25.4 percent. For the rest of the West Bank the unemployment rate was 19.1 percent, and 22.1 percent for the West Bank overall. Including “discouraged workers” – persons who, because of their lack of employment prospects, were not actively seeking work – along with the unemployed produced “relaxed definition” unemployment rates of 41.0 percent in Jenin/Tubas and 37.2 percent in Tulkarm/Qalqiliya in 2001. (The “relaxed definition” unemployment rate in 2001 reached 28.4 percent in the rest of the West Bank, and 31.0 percent overall.)

**Table I-10. Unemployment and “Discouraged Workers”, 1998-2001  
Jenin, Tulkarm, and Qalqiliya Governorates**

Governorate	Year	Unemployment			“Discouraged Workers” and “Relaxed Definition” Rate		
		Number	Rate	Share W. B.	Number	Rate	Share W. B.
Jenin Governorate and Tubas District	1998	7,500	11.8	14.9	7,600	21.2	12.1
	1999	7,500	12.3	17.1	5,400	19.4	9.1
	2000	10,700	16.2	18.3	5,800	22.9	10.2
	2001	23,500	36.3	22.0	5,200	41.0	8.4
Tulkarm and Qalqiliya Governorates	1998	6,800	13.5	13.5	6,500	23.4	10.3
	1999	6,800	13.7	15.5	6,800	24.1	11.4
	2000	9,100	16.8	15.6	6,200	25.3	10.9
	2001	12,700	25.4	11.9	9,400	37.2	15.1
<b>Total</b>	<b>1998</b>	<b>13,300</b>	<b>12.6</b>	<b>28.3</b>	<b>14,100</b>	<b>22.2</b>	<b>22.4</b>
	<b>1999</b>	<b>13,300</b>	<b>12.9</b>	<b>32.6</b>	<b>12,200</b>	<b>21.6</b>	<b>20.5</b>
	<b>2000</b>	<b>19,800</b>	<b>16.5</b>	<b>33.8</b>	<b>12,000</b>	<b>24.0</b>	<b>21.1</b>
	<b>2001</b>	<b>36,200</b>	<b>31.6</b>	<b>33.9</b>	<b>14,600</b>	<b>39.3</b>	<b>23.5</b>
<b>West Bank</b>	<b>1998</b>	<b>50,500</b>	<b>11.2</b>	<b>100.0</b>	<b>63,000</b>	<b>22.1</b>	<b>100.0</b>
	<b>1999</b>	<b>43,900</b>	<b>9.5</b>	<b>100.0</b>	<b>59,400</b>	<b>19.7</b>	<b>100.0</b>
	<b>2000</b>	<b>58,500</b>	<b>12.1</b>	<b>100.0</b>	<b>56,800</b>	<b>21.3</b>	<b>100.0</b>
	<b>2001</b>	<b>106,800</b>	<b>22.1</b>	<b>100.0</b>	<b>62,200</b>	<b>31.0</b>	<b>100.0</b>

*Source: Mission calculations on the basis of percentage distributions reported in PCBS, Annual Labor Surveys, 1998-2001.*

I-15. In 2001, the World Bank released a study on poverty in the West Bank and Gaza that developed a “poverty map” – a geographical profile of poverty in the Palestinian territories. On the basis of Palestinian Expenditure and Consumption Surveys, the key determinants of household consumption were identified. Among the key findings were the following: (i) households with at least one working member are less likely to be poor – underscoring the importance of employment for poverty reduction; (ii) if a household

member is employed in Israel, the household is better off than if he or she works in the Palestinian territories; (iii) in the West Bank, households with members employed in the private sector are better off than those with members working in the public sector; and (iv) the higher the educational level, the higher the household consumption (and less likely for the household to fall into poverty.) The poverty rate for the West Bank (including East Jerusalem) in 1998 was estimated at 15.4 percent, down from 17.1 percent in 1997 and 17.4 percent in 1996.<sup>65</sup> (The poverty line used was that developed by the National Commission for Poverty Alleviation's *Palestine Poverty Report 1998* – NIS 1460 per month for a benchmark household of two adults and four children, equivalent to US\$767 annually per person or US\$2.1 per day.<sup>66</sup>)

I-16. In order to identify the geographical distribution of poverty over a large number of locations a large data set is required. The 1997 Population Census, while comprehensive, does not include the household consumption information that would be necessary to directly identify the poor. However, by utilizing the 1997 Expenditure and Consumption Survey to identify the correlates of poverty, poverty rates can be calculated for any census-area; the 2001 World Bank study presented poverty estimates for seven West Bank regions, further subdivided into 39 areas.<sup>67</sup> Seven of these areas include communities along the Green Line that are directly impacted by Phase One of the Wall's construction. (See Table I-10, following page.)

I-17. The World Bank study showed there was considerable variability in poverty rates among West Bank areas (and among localities within areas, as well). This is true of the seven areas impacted by phase one construction of the Wall. The poorest two are in the upper north-west corner of the West Bank, while the most urban areas, Tulkarm and Qalqiliya evidence the lowest. (The World Bank analysis confirmed that living in a village, and to a larger extent, in a refugee camp, increases the probability of being poor.)<sup>68</sup>

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<sup>65</sup> World Bank, "Poverty in the West Bank and Gaza", 2001.

<sup>66</sup> The poverty lines established by the NCPA vary by household size and adult-child composition. For a full description of the methodology employed, see National Commission for Poverty Alleviation, *Palestine Poverty Report 1998*.

<sup>67</sup> The analysis was conducted by applying a two-step procedure. First, through regression analysis, the determinants of poverty are identified, under the restriction that the set of explanatory values are those that included in both the Household Surveys and the Census. Then, the parameter estimates obtained from the regression analysis are combined with the average values of the explanatory variables for each locality obtained from the Census to predict the poverty rate in each area. Because these are predicted values and not actual observations, the level of accuracy is lower. Although point estimates are presented in paragraphs I-X and tables I-X, these should be viewed as indicative of the poverty rates for that geographical area.

<sup>68</sup> The analysis also confirmed the relationship between educational levels and employment status of the head of household: a higher educational level reduces the probability of being poor as does working, particularly in Israel. Other information from the Census that were useful predictors of poverty was ownership of durable goods – telephone, television, refrigerator, stove – and housing quality (e.g., heating system). While these variables cannot be interpreted as economic determinants of poverty, they are indications of the level of income of the household. When statistically correlated with poverty, they become useful in identifying the poor.

**Table I-11. Poverty Estimates, end-1997  
Areas Impacted by Phase One of Wall Construction**

Areas	Estimated Poverty			Population	
	Number	Rate	Share of West Bank	Number	Share of West Bank
Al Yamun	10,136	27.6	3.4	36,725	2.2
Ya'bad	23,907	40.4	8.0	59,176	3.6
Attil	7,105	17.4	2.4	40,833	2.5
Tulkarm	10,805	14.2	3.6	76,092	4.6
Azzun	6,355	23.1	2.1	27,511	1.7
Qalqiliya	6,096	13.8	2.0	44,174	2.7
Biddya	5,168	15.6	1.7	33,128	2.0
<b>Total</b>	<b>69,572</b>	<b>21.9</b>	<b>23.4</b>	<b>317,638</b>	<b>19.2</b>
<b>West Bank</b>	<b>297,722</b>	<b>18.0</b>	<b>100.0</b>	<b>1,654,507</b>	<b>100.0</b>

*Note: West Bank excludes Israeli-annexed Jerusalem (J-1). Areas are listed from north to south along the Green Line. Population estimates are end-1997, reflecting ex-post adjustments by PCBS to the 1997 Census. Point estimates of the number of poor and poverty rates are shown in the table; at 90 percent confidence level, interval estimates for poverty rates would be plus/minus approximately five percentage points.*

*Source: World Bank, Poverty in the West Bank and Gaza, 2001.*

### **From Relative Prosperity to Crisis in the Border Communities**

I-18. While locality-specific employment data are not available beyond 1997 (and governorate-level data beyond 2001), indirect and anecdotal information suggests that Palestinian villages and towns on or near the Green Line, generally fared better economically than locales in the same governorates situated further from that border. Several factors gave the border communities distinct advantages and greater income-earning opportunities. First, proximity to the border and, prior to the *Intifada*, relatively easy access to the Israeli labor market.<sup>69</sup> Second, the relatively porous border allowed manufacturers, farmers and merchants from border areas access to the wealthier Israeli consumer market. Third, large numbers of Israelis – both Arab and Jewish – regularly frequented the border towns of Jenin, Tulkarm, and Qalqiliya to purchase lower cost goods and services there, boosting commercial and service incomes. Fourth, the population of these governorates possess, relative to others in the West Bank, greater stocks of agricultural assets such as land and livestock<sup>70</sup> coupled with relatively abundant water resources.

<sup>69</sup> Field visits by the Bank mission to the Qalqiliya municipality and several nearby villages confirm this relationship. Indirect evidence of significant labor flows – both formal and informal – from Palestinian border towns to Israel is provided by the annual reports of the labor force surveys cited above. Male employment in construction (an activity that accounted for 55 percent of Palestinian employment in Israel prior to the *Intifada*) in the Tulkarm and Qalqiliya governorates, as a share of total employment, declined drastically in 2001, after border control measures were strengthened by the Israeli authorities. See PCBS, Labor Force Survey Annual Reports, for the years 1999, 2000, and 2001.

<sup>70</sup> More than half of all households in these governorates possessed land, livestock or both – the highest proportion in the West Bank and Gaza. See PCBS, Area Statistics in the Palestinian Territory, December 1998.

I-19. However, the natural and acquired economic advantages of this region have been steadily eroded since late 2000. Progressively stricter mobility restrictions for people and vehicles have rendered the Israeli labor and commodity markets considerably less accessible since the *Intifada* began some 30 months ago. Residents interviewed in the border region say confrontation and movement impediments have also drastically reduced the numbers of Israeli shoppers in local markets. The direct and indirect evidence suggests that the loss of this access has now considerably impacted these communities.<sup>71</sup>

I-20. Contributing to the economic downturn has been the destruction of both private property and public infrastructure – some built with donor assistance – in the context of military confrontation and occupation. In a forthcoming report, the World Bank estimates that until August 2002 such damage totalled more than US\$725 million, with US\$110 million of damage in the three northern governorates.<sup>72</sup> About 58 percent of this damage has been inflicted on infrastructure, 23 percent on private property, and about 21 percent on agricultural land and assets. The destruction of such income-producing wealth has further limited economic opportunities for Palestinians. Repeated and extended curfews placed on towns and villages in the north have also constrained economic activity.<sup>73</sup>

### **The Wall: Its Course and Impact**

I-21. To the extent that the Wall's route deviates from the Green Line, it has the potential to separate Palestinian communities from one another and communities from their agricultural lands and assets. In general terms, the anticipated economic impacts on communities in the immediate vicinity of the barrier would be one or more of the following:

- Alienation of, or inaccessibility to, part or all of land, water resources, and business assets during the period that the physical barrier is being constructed (wealth losses; income-generating losses; market access losses);
- Isolation of communities along with their assets (land, water resources, livestock, commercial capital) between the barrier and the Green Line, coupled with increasing transactions costs (income-generating losses, market access losses); and

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<sup>71</sup> The Palestinian Agricultural Relief Committees report that unemployment in the border towns and villages was 80 percent in December, more than 30 percentage points above the West Bank average. See PARC, "Agricultural Needs Assessment Study for Villages Affected by the Wall in the Districts of Jenin, Tulkarm and Qalqiliya," December 2002.

<sup>72</sup> World Bank, "Two Years of Intifada, Closures and Palestinian Economic Crisis: An Update of the Economic Assessment", March 2003 (forthcoming).

<sup>73</sup> See UNSCO, "The Impact of Closure and Other Mobility Restrictions on Palestinian Productive Activities", October 2002; also, OCHA-OPT "Humanitarian Update," various issues, 2002.

- Separation of communities situated on the eastern side of the barrier from part or all of their agricultural land and water resources situated on the western side of barrier (income-generating losses).

I-22. Moreover, the actual barrier construction process has itself had a major economic impact. Its immediate effects include: (i) destruction of agricultural land and assets; (ii) inaccessibility to agricultural land and assets including water resources; (iii) added limitations on mobility of people and goods and, therefore, higher transactions costs;<sup>74</sup> and (iv) uncertainty about the future and, therefore, a dampening of investment in economic activities including agriculture. The relative intensity of the impact on subsets of communities varies by location and economic activity.

### **Levelling of Land and Destruction of Agricultural Assets**

I-23. As of December 2002, documentation of physical destruction of agricultural lands and assets had been conducted in 53 communities in Jenin, Tulkarm, and Qalqiliya governorates with an estimated combined 2002 population of 141,800.<sup>75</sup> Direct damage to these communities from barrier preparation and construction until then included the destruction of some 84,000 dunums (8.4 sq km) of olive and other fruit trees, 615 dunums of irrigated agricultural (including greenhouses), 37.3 km of water networks, 15 km of agricultural roads, and the loss of other agricultural assets.

I-24. According to PARC, eleven of these 53 border communities possess a total 238,350 dunums of land (238.3 sq km) which is being isolated between the Green Line and the Wall. These communities cultivate about 57 percent of this land, mostly with olive trees and field crops.<sup>76</sup>

### **Inaccessibility to Agricultural Land and Markets**

I-25. In addition to these eleven communities, on the basis of research and field work conducted by this mission phase one construction activities appears to be isolating an additional four communities in Jenin, Tulkarm, and Qalqiliya within the area formed by the Green Line and the Wall. This includes the towns' built-up portions and most of their land (see Table I-12, following page). For the most part, the population of these fifteen communities (approximately 12,000) have not been separated from their agricultural lands, but have been isolated along with it. However, PARC estimates that 450 of these persons derive their livelihood from land located east of the barrier, and an additional

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<sup>74</sup> The transportation component of the consumer price index (CPI) for the West Bank, excluding Jerusalem, has increased 43.5 percent between September 2000 and January 2003. Source: PCBS.

<sup>75</sup> Palestinian Agricultural Relief Committees, "Agricultural Needs Assessment Study for Villages Affected by the Wall in the Districts of Jenin, Tulkarm and Qalqiliya," December 2002. Mid-2002 population estimates for these communities from PCBS, Small Area Population 1997-2010, December 1999.

<sup>76</sup> *Ibid.*, "Agricultural Needs Assessment Study," December 2002.

20,000 persons own or derive income from land located west of the Wall reside in communities located on the eastern side.<sup>77</sup> To date, no formal provision has been made by Israeli authorities for regular mobility for those economically engaged on the other side of the barrier. Field reports suggest that some agricultural lands near the barrier have been declared closed military zones, while others are inaccessible due to intimidation by armed guards protecting contractors working on Wall construction sites.<sup>78</sup>

**Table I-12: Communities Located between the Barrier and Green Line  
Phase One of Construction**

	Locality	Governorate	Census Code	Population mid-2003
1	Umm ar Rihan	Jenin	010085	353
2	Khirbet 'Abdallah al Yunis	Jenin	010105	133
3	Dhaher al Malih	Jenin	010115	205
4	Barta'ash Sharqiya	Jenin	010120	3,404
5	Khirbet ash Sheikh Sa'eed	Jenin	010130	206
6	Khirbet al Muntar al Gharbiya	Jenin	010175	n.a.
7	Nazlat 'Isa	Tulkarm	100330	2,366
8	Baqa ash Sharqiya	Tulkarm	100350	3,869
9	Nazlat Abu Nar	Tulkarm	100360	185
10	Khirbet Jubara	Tulkarm	100780	309
11	'Arab ar Ramadin ash Shamali	Qalqilya	201005	n.a.
12	'Arab ar Ramadin al Janubi	Qalqilya	201105	181
13	Wadi ar Rasha	Qalqilya	201120	n.a.
14	Ras at Tira	Qalqilya	201130	369
15	Ad Dab'a	Qalqilya	201170	251
<b>Total</b>				<b>11,831</b>

*Note:* PCBS population projections are not published for localities with less than 100 inhabitants. The World Bank, in preparing its report "Poverty in the West Bank and Gaza", estimated the end-1997 population of Khirbet al Muntar al Gharbiya at 26; 'Arab ar Ramadin ash Shamali, 53; Wadi ar Rasha, 79.  
*Source:* Population estimates from PCBS, *Small Area Population, 1997-2010*.

I-26. According to the actual and anticipated course of the Wall, there are an estimated 138,000 persons in 16 additional localities whose built-up area will be surrounded on three sides by the Wall and associated "depth barriers". (Table 1-13, following page.) Some, as yet unknown, portion of the cultivated land of these and other localities will also fall into such pockets. (See Map 2 for the virtual encirclement of Qalqilya and Habla.)

I-27. For these communities the likely economic impact has been (or will be) some destruction of agricultural land and productive assets as a result of the Wall's construction and limited (if not loss) of accessibility to other assets. Mobility of people

<sup>77</sup> *Ibid.*

<sup>78</sup> UNRWA Operations Support Officer Programme – West Bank, "Effects of the Security Wall on Villages in the Qalqilya and Tulkarm Regions," January 2003.

and goods will suffer, raising both transactions costs and uncertainty regarding the feasibility of prospective investments – particularly when the future profitability depends critically on mobility.

I-28. Uncertainty regarding future access to agricultural lands poses particular dilemmas on producers. These include questions of whether to plant at all, the choice of crops to plant, the amount of investment to make in agricultural activities, and how to market the output in the face of movement restrictions.

**Table I-13: Communities Surrounded on Three Sides by the Barrier  
Phase One of Construction**

	Locality	Governorate	Census Code	Population mid-2003
1	‘Akkaba	Tulkarm	100250	247
2	Zeita	Tulkarm	100425	2,971
3	‘Illar	Tulkarm	100475	6,503
4	Iktaba	Tulkarm	100595	1,868
5	Nur Shams Camp	Tulkarm	100620	7,460
6	Tulkarm Camp	Tulkarm	100635	12,765
7	Dhinnaba	Tulkarm	100640	7,974
8	Tulkarm	Tulkarm	100645	42,991
9	Khirbet at Tayyah	Tulkarm	100675	329
10	Kafa	Tulkarm	100710	329
11	Far'un	Tulkarm	100735	3,016
12	Qalqiliya	Qalqilya	201040	41,616
13	An Nabi Elyas	Qalqilya	201055	1,130
14	Habla	Qalqilya	201125	5,725
15	Ras ‘Atiya	Qalqilya	201155	1,488
16	‘Azzun ‘Atma	Qalqilya	201280	1,555
<b>Total</b>				<b>137,967</b>

*Source: Population estimates from PCBS, Small Area Population, 1997-2010.*

I-29. In addition to the 31 communities identified in tables I-12 and I-13, other communities will be economically impacted by the Wall – losing land, irrigation networks, or other infrastructure in its construction, or having a main (or only) access road cut by the Wall's path. Table I-14 (following page) identifies 38 such communities, with a combined estimated mid-2003 population of 73,000. Notably, the locations listed lie within 1.5 km of the Wall – other villages located further to the east may also be affected negatively, deprived of access to urban markets and services in areas closer to the Wall, but are not included in the table.

**Table I-14: Other Communities Impacted by the Barrier  
Phase One of Construction**

	Locality	Governorate	Census Code	Population mid-2003
1	Zububa	Jenin	010005	2,007
2	Rummana	Jenin	010010	3,186
3	At Tayba	Jenin	010020	2,254
4	'Anin	Jenin	010045	3,514
5	Al 'Araqa	Jenin	010125	2,007
6	Tura al Gharbiya	Jenin	010145	1,048
7	Tura ash Sharqiya	Jenin	010150	171
8	Nazlat ash Sheikh Zeid	Jenin	010165	689
9	Khirbet Mas'ud	Jenin	010200	n.a.
10	Umm Dar	Jenin	010225	551
11	Al Khuljan	Jenin	010230	460
12	Dhaher al 'Abed	Jenin	010240	351
13	Zabda	Jenin	010245	785
14	Qaffin	Tulkarm	100290	8,263
15	An Nazla al Wusta	Tulkarm	100355	393
16	An Nazla al Gharbiya	Tulkarm	100380	837
17	'Attil	Tulkarm	100480	9,831
18	Deir al Ghusun	Tulkarm	100530	8,942
19	Al Jarushiya	Tulkarm	100545	857
20	'Izbat al Khilal	Tulkarm	100685	n.a.
21	'Izbat Shufa	Tulkarm	100725	932
22	Ar Ras	Tulkarm	100815	479
23	Kafr Sur	Tulkarm	100845	1,185
24	Kafr Zibad	Tulkarm	100895	1,235
25	Kafr Jammal	Tulkarm	100900	2,415
26	Falamya	Qalqilya	200905	658
27	Jayyus	Qalqilya	200985	3,078
28	'Izbat at Tabib	Qalqilya	201075	196
29	'Isla	Qalqilya	201115	825
30	Kafr Thulth	Qalqilya	201175	4,062
31	'Izbat Jal'ud	Qalqilya	201190	132
32	Al Mudawwar	Qalqilya	201205	206
33	'Izbat Salman	Qalqilya	201210	599
34	'Izbat al Ashqar	Qalqilya	201225	389
35	Beit Amin	Qalqilya	201255	1,068
36	Sanniriya	Qalqilya	201260	2,781
37	Wadi Qana	Salfit	251150	1,857
38	Deir Istiya	Salfit	251250	4,759
<b>Total</b>				<b>73,002</b>

*Note: PCBS population projections are not published for localities with less than 100 inhabitants. The World Bank, in preparing its report "Poverty in the West Bank and Gaza", estimated the end-1997 population of Khirbet Mas'ud at 47 and 'Izbat al Khilal at 71.*

*Source: Population estimates from PCBS, Small Area Population, 1997-2010.*

## **Annex II**

### **Social Impact of Israel's Separation Barrier on Affected West Bank Communities**

#### **Introduction**

II-1. This annex provides an initial appraisal of the social implications of the Wall, focusing on local access to health and education. A core issue concerning the Wall is the isolation of affected communities resulting from reductions of access and mobility for residents in the impacted areas. In aggregate, the first phase of the Wall raises the following potential concerns:

- The creation of pockets of very isolated and vulnerable population clusters with a highly inadequate social infrastructure, compounded by a thin local distribution of NGO and UNRWA service providers as compared to other areas of the West Bank.
- Aggravated stress on local public service providers, due to further duplication and dispersal of facilities, staff and resources in order to accommodate mobility restrictions.
- Additional erosion of educational enrollments and attainment among the affected population and, in particular, in rural communities, adding to the ranks of a “lost generation” of Palestinian children.
- Increased vulnerability of the chronically ill and individuals requiring emergency and specialist care. Similarly, increased vulnerability of women and children.

II-2. The villages located between the Wall and the Green Line are the communities most directly affected by the Wall. Their location once made them relatively well-off in economic and social terms. They prospered thanks to fertile land, Israeli access to their markets, and their access to the Israeli labor market.

II-3. But these villages have suffered a dramatic reversal of fortunes during the current *Intifada*, with economic and social indicators declining. An April 2002 Bir Zeit University study of 34 villages in the Tulkarm governorate showed that many of the 34

villages rank among the most marginalized communities in the West Bank. Among these are a number of communities that now find themselves on the western side of the Wall.<sup>79</sup>

II-4. A key observation of the mission is that the continued delivery of essential social services in these communities depends critically on the ability of providers and targeted beneficiaries to circumvent Israeli controls and checkpoints, e.g., by using agricultural back roads and open fields. According to officials at the Ministries of Health and Education in Qalqiliya and Tulkarm interviewed by the mission, this is the case for health staff traveling to carry out regular vaccinations, and teachers and doctors commuting to village schools and clinics.

II-5. Unless access to these communities is guaranteed, the creation of the Wall will likely add to their isolation – at a time of growing need for health services in particular due to worsening economic conditions, concomitant reductions in household spending and nutritional intakes, as well as sanitary problems stemming from difficulties in safe waste disposal.

II-6. Israeli officials have given assurances that access to affected communities will be granted. Yet it remains unclear how extensive or regular it will be. To date, there are no signs of passage facilities in areas of Wall construction. This – coupled with widespread Palestinian experiences of Israeli checkpoints and general skepticism regarding Israeli intentions – has contributed to considerable anxiety among affected residents over their future.

### **Potential Impact of the Wall on Education**

II-7. The PA Ministry of Education and UNRWA are the main providers of primary and secondary education in the affected regions. A significant percentage of local inhabitants are refugees from areas across the Green Line, many of whom are registered with UNRWA. No official tallies of the current size of this group were available to the mission, but village leaders and Ministry officials estimated that they comprise 25-to-30 percent of the population. (According to the 1997 Census, 28.8 percent of the population in Jenin governorate held refugee status; 31.5 percent in Tulkarm; and 39.9 percent in Qalqiliya.)<sup>80</sup>

II-8. The education system in the governorates has been sorely tested during the *Intifada* – facilities have been damaged; students, teachers, and administrative staff suffer from movement restrictions under closures and curfews, which have likewise made the movement of text books and building supplies difficult. Because of the economic hardship, minimal annual fees have largely been waived this year, leading to loss of

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<sup>79</sup> Rita Giacaman, Husam Abu Harb, and Nidal Abu Harb, “Environmental and Public Health Crisis Emerging in the Northern West Bank Villages”, Institute of Community and Public Health, Bir Zeit University, April 29, 2002.

<sup>80</sup> PCBS, Population, Housing, and Establishment Census, 1997.

***Case Study: Umm ar Rihan***

Umm ar Rihan, a village of about 330 inhabitants perched high on the northwestern hills of Jenin governorate, is one of fifteen Palestinian communities located between the Green Line and the first phase of the Wall. Israeli checkpoints erected on its eastern and southern access roads a few months after the *Intifada* began had already sharply limited its access to the outside world, separating it from nearby Tura al Gharbiya and Ya'bad, on which it depends for access to all health services and secondary schooling. The village does not have a clinic, and operates only one overcrowded primary school. The Wall threatens to render this situation permanent, as it seals the roads and enfold with Umm ar Rihan the Israeli settlements of Hinnanit, Shaqed, and Rehan. Local fears about the future were heightened by notifications of forthcoming housing demolitions in the village, though it is located more than one kilometer from the path of the wall.

Construction on the Wall started approximately two months ago, and the concrete foundations have now been poured. Passage is still permitted through a gap left in the path of construction, but not on terms that permit the normal functioning of a comprehensive health care system. Palestinians from the rest of the West Bank are not allowed to cross the checkpoint up the road in order to enter the village, with exceptions made in only two cases. The first applies to five teachers from Ya'bad who have obtained a special permit through the Israeli Civil Administration. According to a village representative, the process of arranging a permit for one of the teachers took more than one year. Umm ar Rihan itself also sends teachers to Ya'bad.

The other exception are ambulances whose movement has been coordinated beforehand with the District Coordinating Office in Jenin. Medical personnel are otherwise turned back by the IDF. This includes medical staff from regional health centers. Whereas regular child vaccinations were carried out in the village before the *Intifada*, families with young children now have to travel with them every month to Ya'bad in order to maintain the required schedule. Occasionally, they are visited by Medecins Sans Frontiers.

The villagers express concern about their future after the Wall is completed. Shortly after construction commenced, the Israeli Civil Administration issued demolition orders for seven local houses, on the grounds that they were built without permits. The village turned out en masse in the streets when the bulldozers arrived, and managed to block the demolitions. They have now collected money amongst themselves in order to have their case plead in an Israeli Military Court.

In the meantime, the Civil Administration continues to forbid any new local construction. Two months ago the village began adding a second floor to the local school, which is located next to the main road. The school is heavily overcrowded; grades 3 and 4, as well as 5 and 6, have to take their classes in the same room. After some time, the army arrived, halted work and detained the school director, Mohammed Ali, for one day. Work has since stopped.

The village is in need of additional infrastructure investment. Since 1986, the mayor has asked the Civil Administration to connect it to the electricity grid. These requests have been unsuccessful, even though a series of power pylons runs along its main road, just ten meters from the school.

Source: *Mission interviews and observations.*

revenue. The Ministry of Education is only partially decentralized, with materials, administrative staff and supervisors coming from regional centers. In the Tulkarm district, with the largest number of communities enclosed by the wall, Ministry of Education officials estimate that a month has been lost this school year alone due to curfews or movement restrictions imposed because of razing or construction associated the wall, and that approximately 650 out of 1964 teachers currently encounter difficulty in reaching their classes.<sup>81</sup>

**Table II-1: Overview of Ministry of Education Operations in Affected Governorates**

<b>Governorate</b>	<b>Salfit</b>	<b>Qalqiliya</b>	<b>Tulkarm</b>	<b>Jenin</b>
Schools	53	69	111	108
Students	17,120	26,308	42,686	40,276
Teachers	896	1254	1964	1880
Curfew Days, 1/9/02-29/1/02	9	32	38	39
Disrupted Students	6,119	15,212	21,565	23,287
Disrupted Teachers and Staff	295	612	925	983

*Source: UNICEF.*

II-9. Although interviewees say performance indicators have fallen,<sup>82</sup> the system has also shown some adaptive flexibility. Coordinating with UNRWA and local communities, the Ministry of Education has tried to ensure that schools and instructors are present even in small villages, by reassigning some teachers to school districts closer to their homes. This means that few communities totally lack teaching facilities. There have also been ventures into distance learning and remedial education, in cooperation with international agencies such as UNICEF.

II-10. Nevertheless, residents of many directly affected communities complain of overcrowded classrooms and sub-standard facilities. In some instances, such as the villages of ‘Azzun ‘Atma and Ras at Tira, construction of the Wall threatens – or has already damaged – physical facilities. In Ras at Tira, dynamiting used to level the ground for the Wall resulted in broken windows and cracked walls in a 450-student coeducational school built with Swiss government funding that was channeled through the World Bank. The Wall’s path passes just 10 meters from the school and will separate Ras at Tira from the hamlet village of Ad Dab’a, now located in the area between the Wall and the Green Line. The school served students from both Ras at Tira and Ad Dab’a, partly by administering a second, smaller facility in the hamlet.

II-11. Across the Tulkarm, Qalqiliya and Jenin governorates, some 7400 students will be directly affected by the Wall when it is finally completed.<sup>83</sup> In the Tulkarm

<sup>81</sup> The number 650, given to the mission by a Ministry of Education official, should be considered only as a rough estimate. The same official offered the number 1,650 as an estimate of the total number of teachers in the governorate, whereas central Ministry of Education statistics indicate there are 1,964 teachers.

<sup>82</sup> Ministry of Education officials in Qalqiliya claimed that *Tawjihi* scores had been falling over the past two years, but could not produce statistics on this. Further data is forthcoming.

<sup>83</sup> Information based on data provided per fax and telephone interviews with Ministry of Education officials in Qalqiliya, Tulkarm, and Jenin.

governorate, some 150 teachers of the 650 already facing difficulty in reaching their schools will have additional, severe trouble according to Ministry officials.<sup>84</sup> This burden will be born by smaller, remote schools disproportionately. The Ministry of Education in Qalqiliya has similar concerns, particularly with regards to the provision of access points through the structure. In addition, the Wall will likely have an indirect effect on the education sector, insofar as depressed incomes render it increasingly difficult for many students to afford the basic costs associated with schooling.

II-12. Map 4 shows the access problems created by the Wall's alignment on education within the three Palestinian pockets surrounding Qalqiliya. Particularly impacted are the villages surrounding the Alfe Menashe settlement. Currently, the two schools in Ras at Tira – Ad Dab'a provide elementary education up to the seventh grade for these villagers; older students then transfer to the school in Ras 'Atiya, which provides education from the eighth to tenth grades, and from there to the school in Habla for continuation of their studies through grade twelve. This arrangement is now uncertain as the Wall will separate the communities of Ras at Tira and Ad Dab'a from Ras 'Atiya and Habla. As for the northernmost pocket, where the village of 'Arab ar Ramadin ash Shamali is located, there are no schools to the west of the Wall's alignment. Access through the Wall to other schools, either in the southwest (Qalqiliya) or the east (Jayyus), will therefore be necessary. 'Azzun 'Atma, southeast of Qalqiliya and surrounded by the Wall on three sides<sup>85</sup>, will continue to be served by its two schools, an elementary school and a middle/high school. The neighboring village of Beit 'Amin, however, may soon experience difficulties in sending its students to the middle/high school in 'Azzun 'Atma due to the Wall's trajectory.<sup>86</sup>

### **Potential Impact of the Wall on Health and Sanitation**

II-13. Construction of the Wall is likely to exacerbate health and sanitation problems in Qalqiliya, Tulkarm, and Jenin governorates. Health care in those areas is largely managed by the Ministry of Health, UNRWA, and a few NGOs. Extensive preventative care and inoculations are provided primarily by the Ministry of Health, which also undertakes most sanitary inspections.

II-14. The stresses of the *Intifada* on this system are clear. As with the educational system, extensive movement restrictions and lack of facilitation by the IDF have impeded service delivery. Regular preventive and primary services are provided mainly by circumventing Israeli restrictions. Emergency response is severely constrained. Procuring medications and attracting and retaining qualified staff is difficult. Inoculation

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<sup>84</sup> Interview with local Ministry of Education officials.

<sup>85</sup> Map 4, like the other maps, was prepared on the basis of information at the time of the mission's field visits in mid-February, at which time it appeared that 'Azzun 'Atma would be located west of the Wall as indicated in the maps. In late April it was learned that requisition orders had been issued for land surrounding the village so that the Wall would encircle 'Azzun 'Atma (similar to the encirclement of Qalqiliya, creating an enclave).

<sup>86</sup> See also B'Tselem, "Behind the Barrier: Human Rights Violations as a Result of Israel's Separation Barrier", Position Paper, April 2003, p. 21.

schedules have been pushed back, though with great effort regular vaccinations continue.<sup>87</sup> Access problems also create sanitation concerns, with garbage collection and disposal often difficult.

II-15. Consequently, residents of affected areas complain of extensive health and sanitary problems. For example, in the Qalqiliya region, Ad Dab'a, Ras at Tira, Wadi ar Rasha and 'Azzun 'Atma list quality of drinking water and lack of health services as their primary and tertiary social concerns, according to a survey conducted by PARC (see Table II-2).<sup>88</sup>

II-16. With some exceptions, the four governorates typically rank medium to high in CARE's various tallies of registered health problems such as diarrheal disease. Notably, while this past November saw general improvements in emergency medical access, the northern West Bank was the exception. According to the report, 39 of 46 northern West Bank households which required antenatal care were unable to access services due to non-functioning clinics.<sup>89</sup> According to CARE, "the most common factor contributing to suspension of services is lack of skilled staff required to perform those services. Consistently 75-80 percent of facilities reporting some suspension of services...have indicated that the primary reason for the disruption was "skilled staff unable to reach facility because of closure or curfew."<sup>90</sup>

II-17. Smaller communities like Dhaher al Malih in Jenin governorate have been particularly impacted by access constraints affecting waste management. Ever since construction of the Wall began, many communities located along its path have been unable to dispose of their garbage when the disposal site was located outside the municipal limits.

II-18. The Wall will amplify these problems, particularly where it cuts networks of clinics and major health care providers, *e.g.*, in northwestern Jenin governorate. Rapid and effective emergency care would then become increasingly inaccessible unless provided by Israeli hospitals. Access to medical services may be particularly dire in the northwest Tulkarm-Jenin pocket created by the Wall, and the pockets north and south of Qalqiliya. Map 4 clearly shows the lack of any health facility in these Qalqiliya areas west of the Wall.<sup>91</sup> All health clinics are located east of the Wall, to which access may become difficult due to the enveloping nature of the Wall's trajectory around the villages of Habla, Ras 'Atiya, and 'Azzun 'Atma. The provision of access points will, therefore, be crucial.

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<sup>87</sup> Interview with Ministry of Health officials in Qalqiliya.

<sup>88</sup> PARC, "Needs Assessment Study for Villages Affected by the Wall", unpublished.

<sup>89</sup> CARE International/ANERA, "Health Sector Bi-weekly Report", Number 7, December 13, 2002.

<sup>90</sup> *Ibid.*

<sup>91</sup> See footnote 85 concerning the alignment of the Wall around the village of 'Azzun 'Atma.

***Case Study: An Nabi Elyas***

An Nabi Elyas is a large village with some 1200 inhabitants, located southeast of Qalqiliya on the road leading to Nablus and the settlements of Itamar and Qadumim. Though it will find itself east of the Wall, the village will be hemmed in on all sides by the Wall's circuitous path and adjoining "depth barriers." (See map, page 10.) To the north and south, the path of the Wall will impinge on village lands in order to enclose the settlements of Zufin and Alfe Menashe. The west will be blocked by checkpoints and depth barriers guarding the gates to Qalqiliya and Israel, and the eastern reaches of the village will be blocked by another depth barrier.

Construction of the Wall has already begun along the southern and northern routes, and the village is in the process of losing direct access to some 4000 dunums of land – about 75% of its total endowment – in addition to an agricultural water well. The villagers fear that the land is being *de facto* expropriated. They are also concerned that they will lose access to health and educational facilities in Qalqiliya and nearby 'Azzun village. An Nabi Elyas has no clinic and only one co-educational primary school, serving 350 students. About 60 students attend secondary school in 'Azzun. A bus takes them some days, but when there are curfews, the students walk the 5 kilometer distance to 'Azzun. Village boys have largely stopped attending university and a number have dropped out of school because they have to help secure additional income for the family. Of the 13 students still attending university in Qalqiliya and Nablus, 8 are women.

Health concerns in the village may be exacerbated by the fact that the tankers that come to empty its cesspools – it has no sewage system – have found it increasingly difficult to access the village recently. In addition, the villagers complain that they are too expensive, at 30 NIS per load. The Ministry of Health in Qalqiliya does still have some access to the village despite its staff being denied passage at the checkpoints. Using agricultural roads and back tracks, nurses come every month for ten days to administer vaccinations. It is not clear what will happen when the wall is completed and such circumventing tactics become more difficult.

Ironically, some 15 merchants and their families migrated to An Nabi Elyas from nearby Qalqiliya within the past year, in order not to be encumbered by the checkpoint blocking Qalqiliya's main access road. That checkpoint has now been complimented by the Wall surrounding Qalqiliya, encircling that city the same way that An Nabi Elyas is contained.

*Source: Mission interviews and observations.*

II-19. In the arc between Nazlat 'Isa in western Tulkarm governorate and Dhaher Al Malih in the Jenin area, the only health facilities are three Ministry of Health Level-2 clinics, which provide preventive services such as immunization and prenatal care and basic first aid, as well as curative services and GP medical care. Within the pocket created by the Wall south of Qalqiliya, the only available health facility is a Ministry of Health Level-2 clinic located in 'Azun 'Atma, the entrance to which, however, is blocked by the settlement of Share Tiqwa (see Map 4).<sup>92</sup> Eight villages, with a total population of 1780 – five villages in the Jenin area (Dhaher al Malih, Umm ar Rihan, Khirbet 'Abdallah al Yunis, and Khirbet al Muntar al Gharbiya) and three in Qalqiliya (Khirbet Jubara, Ras at Tira, and Ad Dab'a) – lack any health facilities according to available information.

<sup>92</sup> Information based on Health InForum "Hospitals and PHC Centers in the West Bank," January 2003. Available at [www.healthinforum.org](http://www.healthinforum.org).

**Table II-2: PARC Survey of Social Infrastructure Problems in 70 Communities**

<b>District</b>	<b>Location</b>	<b>Population (PARC estimate)</b>	<b>Infrastructure Problems</b>
Qalqiliya	Kafr Thulth	5,000	Garbage disposal Insufficient number of school class rooms
Qalqiliya	'Izbat at Tabib	250	No school Unavailability of kindergartens, health centers and others
Qalqiliya	'Izbat Salman	650	No water network Unavailability of health services
Qalqiliya	Beit Amin	1,000	Health services
Qalqiliya	'Izbat Al-Mudawwar	200	Health services
Qalqiliya	An Nabi Elyas	1,100	No health clinic
Qalqiliya	'Isla	750	Health services
Qalqiliya	Falama	600	Health services
Qalqiliya	Habla	5,300	Health services Garbage disposal
Qalqiliya	Sanniriya	3,000	Health services
Qalqiliya	Ad Dab'a	250	Health services
Qalqiliya	Ras at Tira	350	Health services
Qalqiliya	Wadi ar Rasha	200	Health services
Qalqiliya	'Azzun 'Atma	1,400	A cultural center for women
Tulkarm	Kafr Sur	1,200	Garbage disposal Insufficient number of class rooms
Tulkarm	Kafr Jammal	2,300	Health center services are insufficient
Tulkarm	Ar Ras	500	Health services are of poor quality
Tulkarm	Qaffin	7,500	Schools are crowded Health services
Tulkarm	Deir al Ghusun	8,200	Garbage disposal Schools are crowded
Tulkarm	An Nazla al Gharbiya	900	Schools, especially after the separation from Baqa Al-Sharkia Garbage disposal
Tulkarm	Zeita	3,000	Garbage disposal Sewer system project still in need of completion
Tulkarm	An Nazla al Wusta	310	Schools
Tulkarm	Al Jarushiya	1,400	Health services
Tulkarm	An Nazla ash Sharqiya	2,000	Schools are crowded Garbage disposal Electricity
Tulkarm	'Attil	9,000	School location is unsafe on the main road Lack of activities for youth; no active youth center
Tulkarm	'Illar	6,000	Garbage disposal School class rooms
Tulkarm	Khirbet Jubara	350	No school
Tulkarm	Nazlat Abu Nar	250	Marketing of agricultural products Lack of public services in general
Jenin	Al 'Araqa	2,000	Health services
Jenin	At Tayba	2,000	Public services in general
Jenin	Rummana	3,000	No health services

District	Location	Population (PARC estimate)	Infrastructure Problems
Jenin	Zububa	2,000	Schools are crowded
Jenin	Ti'innik	1,500	Public services in general
Jenin	'Anin	3,300	Insufficient number of school classrooms
Jenin	Nazlat ash Sheikh Zaid	700	Schools are crowded No kindergarten
Jenin	Tura al Gharbiya	1,000	Public services in general
Jenin	Al-Khalajan	500	No school
Jenin	Tura Al-Sharqia	200	Schools are crowded Health services
Jenin	Thaher Al-Abed	350	No school No health clinic
Jenin	Um Dar	500	Electricity Health services
Jenin	Bartaá Al-Sharkia	3,600	Schools are in need of serious maintenance Garbage disposal
Jenin	Thaher Al-Maleh	190	In need of school Public services in general

*Source: PARC, "Needs Assessment Study for Villages Affected by the Wall", unpublished. Information presented above is sub-sample of 52 of 70 localities surveyed.*

II-20. Over the years there has been considerable donor-financed investment in schooling and health facilities across the affected regions. However, even with the help of local ministry offices, the mission has not been able to compile a comprehensive listing of donor-funded projects due to the time constraints in preparing this report.

### **Potential Implications of the Wall on Internal Migration**

II-21. The prospect that the Wall's impact on living conditions will induce migration flows is of particular concern to many local inhabitants. A limited amount of work has been done on Palestinian displacement during the *Intifada*<sup>93</sup>, but not on displacement as a result of the Wall.

II-22. Further information is needed to assess the probability and potential magnitude of migration and its correlation with basic needs in threatened villages. Methodologies of migration emphasize the importance of looking at both "push" and "pull" factors, including the availability of viable economic/social alternatives. For many impacted villages, relocation may be seen as highly costly and risky, particularly if no alternative economic or social opportunities are to be found in other, similarly impacted cities and villages.

<sup>93</sup> There is some evidence of internal migration from the affected areas in the context of the *Intifada*. For example, some 6,000-8,000 people are thought by the Mayor of Qalqilya to have left the city since September 2000. Most appear to have returned to nearby home villages from which they relocated during the Oslo period (in order to take advantage of business opportunities in Qalqiliya). Others have returned to more distant familial homes in urban centers such as Hebron.

II-23. In the absence of “pull” factors, strong “push” factors may be determining, including high levels of social and economic marginalization ,property demolitions and protracted access restrictions(for example, the *mukhtar* of the village of Ad Dab’a in Qalqiliya reported to the mission that representatives of the Israeli Civil Administration have told him that a 300-meter “no-go” zone will be enforced around the Wall complex; this zone would encompass most of the houses in this village of 250 inhabitants, and could potentially force its evacuation). By such criteria, high risk communities appear to include ‘Azzun ‘Atma, Ras at Tira, and Ad Dab’a in Qalqiliya, and Khirbet ‘Abdallah al Yunis, Dhaher al Malih, and Umm ar Rihan in Jenin, with an estimated total population of approximately 2,700 people. But as yet it is unclear the extent to which – if at all – the Wall will lead to population displacement.

## **Annex III**

### **Impact of Israel's Separation Barrier on Water Management in Affected West Bank Communities**

#### **Introduction**

III-1. Israel is building the Wall on land that sits over some of the best well-fields lying inside the West Bank. The land in this area of the central and northern West Bank is fertile, providing for intense farming made possible by access to water for irrigation. The Wall's construction does not impact on the overall water allocation between Israelis and Palestinians, as that has been agreed by treaty. But it is already seriously affecting local access to water and could have longer-term implications on water use.

III-2. The construction of the Wall is having a severe impact on water access, use, and allocation for communities located close to the Wall's path, particularly those villages located between the Wall and the Green Line. Thus far, it is only affecting privately and communally owned and managed wells and networks, the water from which is used primarily for irrigation (wells and networks managed by the Palestinian Water Authority and local authorities have yet to be affected.) Access problems already observed are likely to worsen as the Wall is completed, and would entail a considerable reduction in the use of water for irrigation by West Bank Palestinians.

III-3. This diminished access to water does not represent a humanitarian crisis: villagers' health or lives will not be in urgent danger. But while they will still be able to access drinking water (although water from these wells is generally not chlorinated, it cannot be called "safe"), accessing such supply could involve increased cost in both money and time. To the extent that these alternative sources are available only by tanker, they would potentially be subject to supply disruption. Although outside the scope of this annex, there is also an economic impact: irrigated agriculture provides considerable employment and income in the areas affected by current construction. In addition, these farmers risk losing their capital investments, because the currently affected wells, reservoirs, and networks are primarily the product of private financing.

III-4. The construction of the Wall does not affect the water allocation between Israelis and Palestinians as set down in the Interim Agreement of September 28, 1995 (full explanation below.) In the event that access problems are not solved allowing for continued extraction from affected wells, the Palestinian Authority could ask the Joint Water Committee to extract more water from its (PA-managed) wells in order to benefit from the full allocation entitled under the 1995 agreement. This would represent a net

sectoral transfer from irrigation to domestic use within the West Bank and a net transfer from private management to PA management.

III-5. Extensive field visits have provided enough data to produce a map of wells in the Qalqiliya area already impacted or potentially affected (Map 3, page 36).<sup>94</sup> These visits included: physical inspection of wells and corresponding networks to ascertain the nature and extent of damage<sup>95</sup>; visual inspection from a short distance when physical inspection was not possible due to access limitations<sup>96</sup>; and interviews with local officials, well owners and operators, irrigating farmers, and community residents.

III-6. However the full extent of the Wall's impact on water management in the West Bank cannot be ascertained until its actual path is clearly known. Despite this uncertainty, there are clear trends along the route where the wall is already under construction:

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<sup>94</sup> Field visits to inspect wells and irrigation networks were made to the following 14 towns and villages: 'Attil, Azzun, Baqa ash Sharqiya, Ad Dab'a, Deir al Ghusun, Falamiya, Habla, 'Izbat Salman, Jayyus, Kafr Sur, Nazlat 'Isa, Qalqiliya, Tulkarm, and Zeita. Time constraints prevented further site visits. The importance of field visits cannot be overstated. Local officials, farmers, and inhabitants do not readily distinguish between actions carried out by settlers, soldiers, or damage inflicted within the context of the occupation from damage resulting from the Wall's construction, directly or collaterally. Several cases of damage reported as being due to the wall were revealed, upon investigation, to have been caused by other military actions within the context of the occupation. In addition, local social actors often use different names for the wells than those listed in the Palestinian Water Authority. It is, therefore, crucial to visit the wells in order to note the exact well number, which allows for proper identification on lists maintained by the PWA. Unfortunately, existing documents and publications provide inaccurate lists of affected wells. Field visits revealed that some severely affected wells and/or networks did not appear on any listing, while some wells appearing on lists were, in reality, unaffected. The inaccuracy of such documents generally resulted from inappropriate methodologies such as relying on telephone investigations without cross-checking through field visits. Sound qualitative methods of social science research are necessary in order to ascertain the extent, source, and mechanisms involved in the damages. These methods include long semi-structured interviews and field visits that involve examining the wells with the operators and walking the fields, networks, and construction site of the wall. Such methods demand time and mobility in the field on the part of the researcher. Unfortunately, mobility is presently quite restricted for Palestinian researchers.

<sup>95</sup> The following 16 wells and their corresponding networks (longitude, latitude) were physically inspected: Well no. 14-17/043, 'Izbat Salman (149.78, 172.76); Well no. 14-17/044, 'Izbat Salman, (149.60, 172.92); Well no. 15-17/004, Azzun, (154.70, 177.0); Well no. 15-17/015, Izbat Salman, (150.28, 171.84); Well no. 15-18/001, Falamiya (151.42, 181.12); Well no. 15-18/003, Falamiya (152.07, 181.52); Well no. 15-18/004, Falamiya, (151.80, 180.55); Well no. 15-18/005, Falamiya, (151.62, 181.15); Well no. 15-18/023, Falamiya, (152.80, 181.60); Well no. 15-19/029, Deir al Ghusun, (156.04, 196.64); Well no. 15-19/031, Zeita (156.33, 199.04); Well no. 15-19/047, Deir al Ghusun, (157.50, 195.45); Well no. 15-20/001, Baqa ash Sharqiya (156.40, 201.50); Well no. 15-20/002, Baqa ash Sharqiya (156.45, 200.47); Well no. 15-20/002A, Baqa ash Sharqiya (156.45, 200.47); and Well no. 15-20/003, Nazlat 'Isa (156.00, 202.08). See Appendix, page 62, for details concerning these wells.

<sup>96</sup> The following 7 wells were visually inspected; physical inspection was not possible due to difficult access: Well no. 14-17/008, Habla, (148.44, 175.34); Well no. 14-17/008A, Habla, (148.26, 175.45); Well no. 15-17/009, Jayyus, (147.50, 175.50); Well no. 15-17/011, Jayyus, (151.30, 179.10); Well no. 15-17/012, Jayyus, (151.50, 179.66); Well no. 15-18/002, Jayyus, (151.17, 180.16); and Well no. 15-18/025, Kafr Sur, (155.24, 182.56). See Appendix.

- The impact of the wall on the water situation does not reflect a humanitarian crisis (affected communities continue to have access to water sufficient for household use). Nevertheless it does reflect an unravelling of institutional and economic development that could have severe negative consequences on the affected communities.
- There is no uniform policy regarding accommodation for water users. A great variety of situations resulting from the Wall's construction were observed, which greatly conditioned the level of hardship imposed on water management.
- The attitude of the individual contractor is critical for maintaining the integrity of local irrigation networks in the face of the Wall's construction. Replacement of pipes broken during the construction is a key factor. For example, in some cases, contractors have helped or allowed the replacement of irrigation pipes cut by the wall's construction. But this practice is rare.
- Wells classified as "domestic use" by the Palestinian Water Authority have not, as of yet, been affected. Thus far, all affected wells are classified as agricultural and are either privately or communally managed, *i.e.*, independently from the Palestinian Authority. In some cases these agricultural wells were also used for drinking water that was distributed via privately managed networks or via water tankers.

### **Overview of Water and Water Management in the West Bank**

III-7. For a better understanding of the major issues addressed in this chapter, there follows a brief overview of water access and water management in the West Bank.

III-8. The West Bank contains three main aquifers: the western, the eastern, and the north-eastern. The western and north-eastern aquifers extend beyond the Green Line and are shared with Israel. While the recharge zones of these aquifers lie mostly in the West Bank, the water that re-emerges naturally from the soil as surface water flows primarily along the western edge of the West Bank and inside Israel.

III-9. The soil of the West Bank is rocky and difficult to drill; well field quality varies greatly from one location to another. The area along the north-western edge of the West Bank – where the Wall is being constructed – contains some of the western aquifer's best well fields. While water extracted from wells located in this region is provided by the same aquifer that would feed a well located several kilometres to the east, accessing the water is much easier and cheaper in this area of the West Bank than further east. Likewise, the series of Israeli wells that exist further west along the north-western edge of the West Bank are tapping the same aquifer.

III-10. Until the British Mandate was established over Palestine, water in what is now the West Bank had always been managed at the local level. Spring or well users determined the rules governing water use, access and allocation. The Mandate authorities were reluctant to invest in hydraulic infrastructure. They realized that water law literally varied from one village to another and faced the absence of any real definition of water rights or land tenure deeds. However, between 1929 and 1937, they tried to formulate a water law that would apply uniformly over the mandate territory and allow for “efficient” (according to an engineer’s understanding of that term) use of water in irrigation. Their effort largely failed.<sup>97</sup>

III-11. In 1959, the Government of Israel consolidated separate laws on drilling, metering, and drainage and flood control into the Israeli Water Law. Water management was removed from the private and communal spheres. Within 90 days of the law’s promulgation, control of a fragmented system where every well and spring had its own management practice was centralized. All water users, whether municipalities, industries, or farmers, had to apply for a production licence valid for one year from the Water Commissioner, which stipulated the conditions deemed necessary and appropriate to conserve water stocks and improve the efficiency of water management and use.<sup>98</sup>

III-12. Meanwhile, with the West Bank under Jordanian authority, local water management practices continued in effect. Until the 1950s and 1960s, most water used in the West Bank came from springs and rain collection because drilling in the rocky soil was too costly. But with the availability of better drilling technology, farmers began digging wells along the north-western edge of the West Bank, pooling their savings and creating “well companies” in order to gather the necessary funds. Water was sold on a time basis, a practice generally continued to this day. (If and when a reservoir was built, water was usually then sold on a volume basis.)

### **Water Management Practices Under Israeli Occupation**

III-13. Soon after it occupied the West Bank, the Israeli military set down new regulations for water management. On August 15, 1967, Military Order No. 92 granted complete authority over all water-related issues in the Occupied Territories (excluding Israeli-annexed East Jerusalem and Golan where the Israeli water law was applied) to a military officer named by the Area Commander.<sup>99</sup> Military Order No. 158 (issued November 19, 1967) required the obtainment of a permit prior to constructing any new water installation and allowed the confiscation of any water resource that had no

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<sup>97</sup> See Roza I. M. El Eini, “The Implementation of British Agricultural Policy in Palestine in the 30s”, *Middle Eastern Studies*, vol. 32, 4, October 1996 for an analysis of British Mandate water policies.

<sup>98</sup> Julie Trottier, “Hydropolitics in the West Bank and Gaza Strip”, PASSIA, 2000.

<sup>99</sup> “Israeli Military Orders in the Occupied Palestinian West Bank, 1967-1992”, compiled by Jamil Rabah and Natasha Fairweather, Jerusalem Media and Communication Center, Jerusalem, second edition, 1995.

permit.<sup>100</sup> Finally, Military Order No. 291, issued December 19, 1968, invalidated existing arrangements for water-related dispute resolution.

III-14. In theory, these military orders gave Israel total control of water use and access in the West Bank. However, in practice Israel did not extend its power as far as these military orders allowed. New well drilling by the Palestinians was severely limited. For example, only 23 permits were granted by the Civil Administration between 1967 and 1990, 20 of which concerned wells exclusively for domestic use.<sup>101</sup> Quotas were imposed on existing agricultural wells that generally matched the quantity used during the first year that it was metered, anywhere between 1968 and 1970 for most wells. But Israel did allow customary water management institutions to continue and did not interfere in decisions affecting how their water would be used, accessed, or allocated.

### **The “Oslo Process” and Water Management**

III-15. The Agreement on the Gaza Strip and the Jericho Area, signed in Cairo on May 4, 1994, between Israel and the Palestinians started the process of shared rule over water resources in the Occupied Territories. It declared that water and sewage systems and resources in PA areas “shall be operated, managed and developed (including drilling) by the Palestinian Authority, in a manner that shall prevent any harm to the water resources”.<sup>102</sup> Excluded were the hydraulic systems of the settlements and the area of military installations.<sup>103</sup>

III-16. Fourteen months later, on September 28, 1995, the parties agreed in Washington to proceed with allocating the renewable water resources estimated to exist within each of the three aquifers. Altogether, the Interim Agreement allocated 28.9 percent of the total water resources (including water to be extracted from the eastern aquifer through later development) to the Palestinians and 71.1 percent to Israel.<sup>104</sup>

III-17. The Palestinians have not fully drawn their allocation. Indeed, it now appears that the quantity authorized the Palestinians, which includes 78 million cubic meters from the Eastern aquifer yet to be developed, was overly optimistic. New drilling projects were carried out to that effect, but it is not yet clear that this quantity of fresh water could be produced without harming the overall renewable resource base. In addition, it is not yet

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<sup>100</sup> *Ibid.*

<sup>101</sup> Hisham Awartani, *Artesian Wells in Palestine: Present Status and Future Aspirations*, Palestinian Hydrology Group, Jerusalem, 1992.

<sup>102</sup> Agreement on the Gaza Strip and the Jericho Area, May 4, 1994, Annex II (“Protocol Concerning Civil Affairs”), Article II (“Transfer of Powers and Responsibilities of the Civil Administration), Section B, paragraph 31 (“Water and Sewage”), subparagraph a.

<sup>103</sup> *Ibid.*, subparagraph c.

<sup>104</sup> Percentages calculated from quantities specified in Interim Agreement of September 28, 1995, Schedule 10 (“Data Concerning Aquifers”) to Annex III (“Protocol Concerning Civil Affairs”), Appendix 1 (“Powers and Responsibilities for Civil Affairs”). Schedule 10 (“Data Concerning Aquifers”) is pursuant to Annex III, Appendix 1, Article 40 (“Water and Sewage”), paragraph 20 and to Annex III, Appendix 1, Schedule 8 (“Joint Water Committee”), paragraph 1.

clear that fresh water can even be obtained from the well fields designated by the treaty for further development – the water could prove to have too high a salt content.

**Table III-1: Allocation of Renewable Water Resources**

<b>Aquifer</b>	<b>Palestinian Allocation (million cubic meters per year)</b>	<b>Israeli Allocation (million cubic meters per year)</b>
Western	22	340
North-Eastern	42	103
Eastern	54 (plus 78 to be developed)	40

*Source: Interim Agreement, signed September 28, 1995. See footnote 12.*

III-18. The 1995 Interim Agreement recognized Palestinian water rights, but without defining them. Instead it specified that these rights would be settled in the context of permanent status negotiations.<sup>105</sup> The treaty also set up a permanent Joint Water Committee, made up of an equal number of Palestinians and Israelis who reach their decisions by consensus.<sup>106</sup> The Joint Water Committee deals with all water- and sewage-related issues in the West Bank. It issues the required well-exploitation permits and any new well drilling and water development require the Committee's agreement.<sup>107</sup>

III-19. In 2002, the Palestinian Authority promulgated a Water Law that was seven years in the making. The law recognized the Palestinian Water Authority as the water regulator and was drafted incorporating internationally recognized principles of state water management. However, it was not developed through negotiation with the local customary institutions that actually manage 70-80 percent of the West Bank water. Full implementation of this law will likely prove difficult. As is often the case in both developing and in industrialised countries, the idealized vision stated in the law's text differs dramatically from the reality of water management institutions and practices.

III-20. In the meantime, the Ministry of Local Government manages many West Bank drinking water networks through the municipalities, while local communal or private institutions manage all agricultural water – and many drinking water – networks.

III-21. It is these localized water management institutions and networks that are now threatened by the wall's construction. Thus far, no Palestinian Water Authority well or network has been affected.

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<sup>105</sup> Interim Agreement of September 28, 1995, Annex III, Appendix 1, Article 40 ("Water and Sewage"), paragraph 1.

<sup>106</sup> Interim Agreement of September 28, 1995, Annex III, Appendix 1, Article 40 ("Water and Sewage"), paragraph 11-14.

<sup>107</sup> Interim Agreement of September 28, 1995, Annex III, Appendix 1, Schedule 8 ("Joint Water Committee"), paragraphs 1a and 1b.

### **Impact of the Wall**

III-22. A number of factors determine the impact of the Wall on water access, use, allocation, and pollution. First, the nature of use: whether a well is used for drinking water and/or agricultural purposes. Second, management/ownership structure: whether a well is managed by the Palestinian Water Authority, a municipality, a private owner, or a communal owner. And third, location, which includes numerous possible combinations:

- Whether a well is located west of the wall and the network it feeds lies totally, primarily, or partially east of the wall;<sup>108</sup>
- Whether a well is located west of the wall and the network it feeds lies entirely west of the wall;
- Whether a well is located east of the wall but within the “security zone”;
- Whether a well is located east of the wall at a safe distance but the network it feeds lies totally or partially west of the wall;
- Whether a well lies on the path of the wall; and,
- Whether a reservoir lies on the path of the wall.

III-23. Similar factors apply to springs and to cisterns<sup>109</sup> located on or west of the Wall. Note that springs are far more prevalent in the south-western area of the West Bank, and will be affected when or if construction occurs there. Nevertheless, impacts on water access, use, allocation, and pollution will be of a similar nature.

### **Implications for Water Access**

III-24. Field examinations identified several difficulties concerning water access. To date, the construction of the Wall has not caused the Palestinian Authority to lose access to any of the wells or networks that it manages. However, private and communal owners of wells have experienced many problems related to accessing water.

III-25. In some cases, as in the village of Jayyus<sup>110</sup>, farmers' houses lie east of the wall while their wells and accompanying networks lie entirely west of the wall. Thus far,

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<sup>108</sup> Although the general course of the Wall is primarily in a north-south direction, there are, of course, sections that traverse an east-west path. The terms “west of the Wall” and “east of the Wall” are used for convenience, referring to the area between the Green Line and the Wall (sometimes referred to in casual parlance as “the Israeli side of the Wall”) and the area between the Wall and the Jordan River (casually, “the West Bank side” or “Palestinian side”), respectively.

<sup>109</sup> Cisterns, generally catch-basins for rainfall and run-off water carved into the rock, are particularly important in olive cultivation. Because the customary Arabic words for cistern and well are the same, “*bir*”, cisterns are often inadvertently (and erroneously) included in lists of wells affected by the Wall.

<sup>110</sup> Wells 15-17/009, 15-17/011, 15-17/012, 15-18/002. See description in Appendix.

Israel has not addressed their concerns regarding access through the Wall in order to use and maintain these facilities.

III-26. In other cases, such as Falamyia<sup>111</sup>, villagers' houses and some of their wells lie east of the wall, but the networks fed by these wells lead to land lying west of the wall. Farmers can access these wells, but irrigation will not be possible without free passage through the Wall or if the integrity of the network is not respected by repairing and burying the pipes under the wall. Repair and replacement have not been universally available, and depend critically on the relationship between the local farmers and the contractor doing the physical works in the affected area (or, in the case of some pipes financed by an international donor, the amount of intervention by that donor with the Government of Israel. It should be noted that as a result of this intervention, the repair of damaged pipes and their burial beneath the wall was agreed to – but only to those pipes financed by the donor and not the locally financed network pipes coming from the very same wells.<sup>112</sup>)

III-27. In still other cases, such as the town of Baqa ash Sharqiya<sup>113</sup>, residents' houses and some of their wells lie west of the wall while the reservoir lies east of the wall. Access to the reservoir will depend, once again, on free access through the wall. In this case, the wells also sold much of their water for domestic use via tankers to other villages lying east of the wall, including Dhahar al 'Abed, Zabda, Ya'bad, An Nazla al Wusta, An Nazla al Gharbiya, An Nazla ash Sharqiya, 'Illar, Saida, Emdar, 'Akkaba, Al Khuljan, and Mashaher. The unhindered movement of these water tankers through the wall would be necessary to maintain access to water from this well for the other villages.

III-28. Of course, water access is most directly endangered when a well or a reservoir lies directly on the path of the wall or so close to it that it falls within the "security zone" along the wall. The depth of these zones remains unknown; distances ranging from 50 meters to 300 meters were given the mission by locals on the basis of their conversations with the IDF and/or contractors. Two reservoirs were flattened for this reason in 'Izbat Salman, while two wells<sup>114</sup> were observed to be in danger in Habla.

III-29. Since the beginning of the construction of the wall, even temporary access through the Wall's path has been problematic, dependent upon the attitude of the contractors and their security guards. In Deir al Ghusun, villagers lost all access to their fields lying west of the Wall's construction until late January 2003 when a new security guard allowed the farmers to pass through to work in their fields. In the case of 'Izbat Salman, the contractor blocked a dirt road that crossed the path of the wall with a mound of earth, preventing trucks or tractors from reaching the fields lying on the other side.

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<sup>111</sup> Wells 15-18/001, 15-18/003, 15-18/004, 15-18/005, 15-18/023. See description in Appendix.

<sup>112</sup> Wells 15-18/005 and 15-18/001 were involved in the French-funded project and are now located on the east of the wall with their pipes leading to land on the west of the wall. See box, page 60 and section on "Implications for Donors", page 61.

<sup>113</sup> Wells 15-20/002 and 15-20/002A are in this situation. See description in Appendix.

<sup>114</sup> Wells 14-17/008 and 14-17/008A. See description in Appendix.

During its field visit to 'Izbat Salman, the mission was discouraged by security guards from approaching the construction site.

III-30. Uncertainty regarding future access through the Wall after its completion remains a major source of anxiety for farmers. They are told there will be gates – the Israeli Civil Administration has stated that it is in negotiation with the IDF over their number and placement – but in most cases have been unable to identify evidence of any passages in the construction process (mission members did see evidence of gate construction at Jayyous, however). It should be noted that the notice of land requisition upheld by the Israeli High Court in the case of Mr. Ghassan Abd al-Razeq from Deir al Ghussun, mentions in its article 1-f that “it will be possible to reach” the land belonging to this farmer and lying on the other side of the wall.

### **Implications for Water Use:**

III-31. Water can be used for three general purposes: domestic consumption, agricultural use, and industrial use. The areas currently affected by the construction of the Wall have only two water uses: domestic and agricultural, with agriculture consuming approximately 85 percent of the water in this area. All of the affected wells appear on Palestinian Water Authority lists as being used exclusively for agricultural purposes. Field investigations reveal that in fact this is not the case, as many are also used for drinking.<sup>115</sup>

III-32. All affected wells to date are privately managed, as are the drinking water networks and reservoirs they feed. Current well owners are overwhelmingly inhabitants of the villages that the wells serve. They invested in drilling the well generally in the late-1950s or early-1960s, when new technology made such drilling feasible. These wells are managed according to rules that were developed locally, among both well owners and well users. Consequently, these rules are perceived as legitimate by the local population and any breach, such as water theft, is easily spotted and stopped.

III-33. Affected wells operate independently from the Palestinian Water Authority, except for the quota concerning well extraction. The PWA reads the meter every second month and imposes a fine if the well exceeds its extraction quota. However, the PWA has not had the means to enforce collection during most of the *Intifada*, meaning well owners could, in practice, disregard potential fines and exceed their quotas.

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<sup>115</sup> The description of wells in the Appendix (pp. 62-65) as “agricultural” versus “mixed use” (agricultural and domestic) should not be misinterpreted. As villages are generally served by more than one well, they will generally choose one well for both domestic as well as agricultural use because that well’s water has the best taste. However, should that well become polluted or dysfunctional, the villagers quickly switch to using another well for domestic purposes, while continuing to use the former well in agriculture. The classification of wells reported in the annex reflects their usage during the first two weeks of February 2003. A different classification might have resulted one year ago; similarly, classification of individual wells is likely to change with the construction of the Wall.

III-34. While the Wall is severely hindering the use of water for agriculture, the impact on water use for domestic consumption is more moderate for two reasons. First, all Palestinian Authority-managed wells (either directly by the Palestinian Water Authority or indirectly by municipalities through the Ministry of Local Government) are used solely for domestic consumption; thus far no PA-managed wells or networks are impacted.<sup>116</sup> Second, should villagers lose access to a mixed use privately-managed well, they would turn to alternative sources (*e.g.*, a well that heretofore had been strictly agricultural). Nevertheless, the cost of drinking water would likely increase because, as networks are disrupted, households that relied previously on running water must turn to water tankers. Tanker water generally sells at a price three-to-five times higher than that of running water. (The price of one cubic meter bought from a municipality-managed network ranges from NIS 3 to 4 throughout the West Bank. A cubic meter of water purchased from a privately managed network in the area affected by the Wall generally ranges from NIS 1 to 2. The price of a cubic meter obtained from a water tanker varies: prices in the range of NIS 12 to 15 are often observed, but can climb as high as NIS 22 per cubic meter.)

### **Implications for Water Allocation**

III-35. If the access problems described above persist, there will be less extraction from the affected wells and the overall Palestinian consumption of water from the western aquifer will decrease.

III-36. The 1995 Interim Agreement between Israel and the Palestinians specified the amount of water each party would be allowed to extract from each of the three aquifers; this clause remains operative despite the construction of the wall. The Palestinian Authority could ask the Joint Water Committee (which has continued to meet during the *Intifada*) to extract more from the wells operated by the Palestinian Water Authority. This could make up for the loss in the area of the Wall and still be consistent with the 1995 agreement. Should this scenario unfold, there would be a net sectoral reallocation of water from agriculture to domestic use. There would not, however, be a net change between Israelis and Palestinians in the overall allocation of water from the western aquifer.

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<sup>116</sup> In a February 11, 2003, meeting between Lt. Col. Oded Herman, Head of Infrastructure Branch in the Office of the Coordinator of Government Activities in the Territories, and the UNSCO representative to the donors' Task Force on Project Implementation, Lt. Col. Herman stressed that no villages or farmers would be cut off from water wells and existing water infrastructure on which they rely for their water supply. In cases where villages on the eastern side are separated from their wells on the west, "special efforts" would be made to maintain pipelines from the wells to the villages. This, however, would only apply to "legally" built wells and infrastructure (which should include all PA-managed wells and networks. For non-legal water infrastructure, decisions would be made on a case-by-case basis.

*Case Study: The French project in Falameya*

Coopération Française au Développement funded an extensive Euro 1 million project in the village of Falameya between 1992 and 1997. The project involved three of the five wells serving the village, exploiting the unused portion of these three wells' quotas. Pipes coming out of the same well can clearly be identified as "French project pipes" or "local pipes", since the "French project pipes" carried water to project-built reservoirs to be further redistributed for irrigation. The "French project water" was then sold on the basis of volume, while the "local water" (again, from the same wells) was sold on the basis of time.

Each of the three wells has been affected differently by the Wall. One well, located west of the path of the wall, has not been functioning for three years. According to the village farmers, repair of this well is being delayed pending approval of the necessary permit. In the meantime, they have irrigated the land lying both to the east and west of the Wall that had been cared for by the dysfunctional well by using water from one of the other three wells involved in the same project but now located east of the wall.

The other two wells involved in the French project are located east of the Wall but irrigate land to the west of the wall. The pipes that carry the water to these fields are in danger of being cut by the wall construction. Such damage has already occurred for one of the French-project wells and one of the two village wells not part of the project.

Alerted by the community, the French government raised the issue to the highest level. The case of Falameya was discussed during the October 2002 Paris visit of then-Defense Minister Binyamin Ben Eliezer and again during the December 2002 visit of Foreign Minister Binyamin Netanyahu. Although they did not obtain any written agreement, the French received oral assurances from Israel that 27 gates between Qalqiliya and Tulkarm would allow for farmers to access their fields and wells, including a gate in Falameya. Assurances were also given that the Israeli contractor would replace the French-project pipes and bury them under the Wall; a French engineer was engaged in the technical specifications of replacement pipes. However, no similar assurance was made that the replacement and burial of local pipes would be facilitated. Evidence of a trench dug across the path of the wall to that effect was noted during the mission's field inspection; construction has not progressed sufficiently to determine where (or indeed, if) the gate would be located.

The Palestinian Agriculture Relief Committees (PARC) is encouraging farmers in Falameya and elsewhere to repair pipes broken by the construction of the Wall in order to preserve the integrity of the networks and to continue practicing irrigation. PARC is promising farmers that it will pay for the pipes and other parts necessary for repair so long as they finance the needed labour. Like most Palestinian NGOs, PARC relies extensively on donor funding.

*Source: Mission interviews and observations.*

### **Implications for Donors**

III-37. It has not been possible to obtain a comprehensive inventory of donor-financed water infrastructure in the areas affected by the Wall. Over the years donors have financed a number of water irrigation and reservoir projects whose beneficiaries will no longer have access to the wells, networks, or irrigated fields. Around Jayyus, for example, the Wall will isolate 9000 dunums (9 sq km) of land, including all of the village's 2500 dunums (2.5 sq km) of irrigated cropland. ANERA, funded by USAID, built the village's reservoir and irrigation network, which will now lie entirely west of the Wall, at a cost of \$115,000. The houses in the village will be east of the Wall. USAID, in its Jenin Village Program, constructed a pipeline and water networks to serve 11 villages, four of which are impacted by the Wall – 'Anin, Zububa, Rummana, and At Tayba. The project's per capita cost was approximately \$500; the population of these four villages is 10,000.

## **Appendix to Annex III**

### **Summary Notes of Well Inspections Conducted by Mission**

#### ***Well no. 15-19/029, Deir Al Ghusun (156.04, 196.64)***

**This well is located about 300 meters east of the Wall.** It well is used for agricultural purposes only. The company sells its irrigation water for 12 JD/hour. The well irrigates about 1000 dunums (1 sq km) of land. The well owners and farmers estimate that about 300 dunums of the irrigated land now lies west of the Wall. The farmers say they found notifications of confiscation/requisition posted on trees. The farmers spoke with the contractor who told them there would be gates in the Wall. However, they say that the first security guards prevented farmers from reaching their fields on the other side of the wall path. The farmers do not fear for the well, which they feel is safely east of the wall, but they are anxious about accessing their land west of the Wall. USAID has committed to pay US\$85,000 plus technical assistance to design and lay a pipeline to transform this well into a mixed-use well and bring domestic water to the village.

#### ***Well no. 15-19/047, Deir al Ghusun (157.50, 195.45)***

**This well is located east of the Wall** at a good distance. It is used for domestic consumption only. It is operated by the municipality and is located in the municipality building itself. The pump broke in 1992 and was repaired only one year later, in 1993. It broke again in 2002 (during curfew) and was repaired four months later. It broke down again two weeks after its repair. The mayor attributes the repeated breakdowns to the structure of the well, which is not straight, thereby placing undue pressure on the pump. The new pump is expected to cost US\$20,000. Neither this well nor its network appears to be endangered by the Wall because the cluster of inhabitations lies east of the wall. The use of its water will be replaced in the future, either partially or totally, by the water from well 15-19/029 when the USAID project is completed.

#### ***Well no. 15-20/003, Nazlat 'Isa (156.00, 202.08)***

**This well is located, like all of Nazlat 'Isa, west of the Wall.** This is the only well for the village and is connected to a reservoir that is used both for domestic and agricultural use. All of the irrigation and drinking network lies west of the Wall, therefore the integrity of the network has been preserved. It is managed as a private operation. The inhabitations here are located west of the Wall as well.

#### ***Well no. 15-20/001, Baqa ash Sharqiya (156.40, 201.50)***

**This well is located west of the Wall.** It is owned by a company of three persons and is used predominantly for agriculture. It sells a small portion of its water for domestic use essentially via water tankers. The pump was destroyed in early January after an Israeli bulldozer dug a four meter trench immediately next to the pump house. Rain gathered in this trench and overflowed into the well, breaking the pump in the process. The trench was dug because a dirt road leading to Baqa al Gharbiya (an Arab-Israeli village west of the Green Line) runs next to the well and the army wanted to close it. A trench was dug in the road, but fear that cars would merely go around the pump house to bypass that trench led to digging another trench on the side of the pump house. Whether this trench was dug as part of the general

closure imposed on the West Bank communities or whether it was dug specifically in order to ease the construction of the Wall is not clear. The owner evaluates the cost of repair at NIS 45,000. It appears that the network served by this well lies entirely west of the Wall.

***Well no. 15-20/002, Baqa ash Sharqiya (156.45, 200.47) and  
Well no. 15-20/002A, Baqa ash Sharqiya (156.45, 200.47)***

**These two wells are located within the same building west of the Wall** and have a combined quota of 535,000 cubic meters a year. They belong to a group of four owners who drilled their first well in 1962. They feed a reservoir located east of the Wall whose pipes were severely damaged by a military bulldozer a month ago according to the farmer. This damage appeared clearly during the visit to the reservoir. Although the damage to the reservoir seems to be due to military action in the context of the occupation that is independent from the construction of the wall, damage to the network was caused by the construction of the Wall as irrigated land and the reservoir lie east of its path. The well owner says the contractor is helpful and calls him whenever he breaks a pipe, inviting him to repair it. The well owner estimates the pipes alone will cost NIS 40,000. PARC promised to pay for the parts and the pipes while the owner will pay for labor. The well owner says the reservoir pipes will be even more expensive to replace. Forty percent of the water produced by these two wells is sold as drinking water to 15 villages (including Baqa ash Sharqiya), mostly distributed via water tankers. Fourteen of these villages now lie east of the Wall. They include Dhaher al 'Abed, Zabda, Ya'bad, An Nazla al Wusta, An Nazla al Gharbiya, An Nazla ash Sharqiya, 'Illar, Saida, Emdar, 'Akkaba, Al Khuljan and Mashaher.

***Well no. 15-18/001, Falamyia (151.42, 181.12)***

**This well is located east of the Wall** at a good distance but irrigates land located west of the Wall. It is used for agricultural purposes only. Its pipes leading to land lying west of the Wall have not yet been cut. As this well was part of the French project, its project-laid pipes, will be cut and replaced, buried under the Wall, at the expense of the Israelis. A trench cutting perpendicularly across the path of the Wall was observed during the field visit. This is where the new pipes will run. The specifications for this work were agreed by a French engineer from the cooperation office in the consulate and the Israeli contractor. At present, the well is functioning well and it appears the integrity of the network should be preserved. The pipes leading from the well to the fields west of the Wall that existed before the French project will not be replaced at Israeli expense. The remaining uncertainty for the farmers is that of access across the wall in order to reach their fields and irrigate.

***Well no. 15-18/003, Falamyia (152.07, 181.52)***

**This well is located east of the Wall** at a good distance but irrigates land located west of the Wall. It is used for agricultural purposes only. Its pipes leading to land lying west of the Wall were broken by the construction of the Wall. The well itself is functioning well, but the replacement is of the pipes is not guaranteed yet. They are not part of the French project, so the Israelis will not fund their replacement.

***Well no. 15-18/005, Falamyia (151.62, 181.15)***

**This well is located east of the Wall** at a good distance. It was involved in the French project. It has also been used to provide water previously supplied by well 15-18/004 that has been broken for the past three years. It is also used to provide drinking water to the village network. Its pipes leading to land west of the Wall have been broken by the construction taking place. Only the French project pipes are being replaced at the expense of the Israelis.

***Well no. 15-18/023, Falamyra (152.80, 181.60)***

**This well is located east of the Wall** at a good distance. It is between Falamyra and Kafr Jammal and irrigates land located in both villages. It was never part of the French project. Both this well and the land it irrigates appear to lie entirely east of the Wall.

***Well no. 15-18/004, Falamyra (151.80, 180.55)***

**This well is located about 30 meters west of the Wall.** It has been broken for three years. The farmers explain that they have gathered the funds to buy a new pump and to carry out the repairs, but they are waiting for a permit in order to do this. This well was part of the French project and should irrigate land located west of the Wall, now being irrigated by well no 15-18/005.

***Well no. 15-17/004, 'Azzun (154.70, 177.0)***

**This well is located about 100 meters east of the Wall.** It is managed by the 'Azzun municipality and provides drinking water to 'Azzun and Jayyus. The inhabitations of Jayyus are located east of the Wall although its agricultural wells are located several kilometres west of the Wall. The width of the security zone along the Wall will determine whether this well can be accessed.

***Well no. 15-17/015, 'Izbat Salman (150.28, 171.84)***

**This well is located east of the Wall** at a good distance. It was providing water to two reservoirs located exactly on the path of the Wall. These reservoirs were completely destroyed about one month before the field visit. They were supplying both drinking and irrigation water to the village of 700 inhabitants according to the mayor, Hussein Guzman. Both the well and the reservoirs were entirely privately managed. The irrigation water was sold at 1 NIS/cubic meter and the drinking water was sold at 1.5 NIS/cubic meter until one month ago, when prices rose to 2 NIS and 2.5 NIS respectively because of greater operating costs. Some of the land irrigated from the reservoirs lies west of the wall. The mayor estimates that about 40 percent of the people in the village are now without tap water since the destruction of the reservoirs. He spoke with the contractor about the reservoirs and about access to the fields beyond the Wall. A dirt road that crosses the path of the Wall has been blocked by a mound of earth which prevents the farmers from taking trucks to their fields to pick up their produce. The mayor met with the military officers asking that the farmers be allowed to access their fields, that a gate be built in the Wall, that the cut pipes crossing the Wall path be repaired, and the reservoirs not be destroyed. He was instructed to go to court. According to the Mayor, the authorities in Bet El said the reservoirs should not be destroyed, but they were. This well has a quota of 150,000 cubic meters a year.

***Well no. 14-17/043, 'Izbat Salman (149.78, 172.76)***

**This well is located east of the Wall** at a good distance. It was providing water to the two reservoirs that were destroyed and is in the same situation as well no 14-17/015. Its yearly quota is 135,000 cubic meters a year.

***Well no. 14-17/044, 'Izbat Salman (149.60, 172.92)***

**This well and the network it feeds are both located east of the Wall** at a good distance. It provides both irrigation and drinking water with a quota of 140,000 cubic meters a year. It was renovated by the PA in 2000 at a cost of US\$100,000. Neither this well nor its network are presently affected.

**The following wells were observed from a short distance but were not physically inspected because of difficulties in access:**

***Well no. 15-19/011, Zeita***

**This well is located east of the Wall** and is used for agriculture only. Its network is used to irrigate land that lies west of the Wall. The pipes were cut by the construction of the Wall. The owners had coordination with the municipality to discuss with the contractors and have so far repaired one pipe. PARC has offered to support the costs of the pipes and part.

***Well no. 14-17/008, Habla (148.44, 175.34) and  
Well no. 14-17/008A, Habla (148.26, 175.450)***

**Both wells lie very close to the path of the Wall** as it progresses towards Habla. They are both used primarily for agriculture, but also small amounts of their water are sold to water tankers for domestic purposes. These wells are directly endangered by the construction of the Wall. It is not yet clear whether the Wall will be built on the well sites or whether the wells will lie within the security zone of the Wall.

***Well no. 15-18/025, Kafr Sur (155.24, 182.56)***

**This well is located west of the Wall** and is owned and operated by Mekorot, the Israeli national water company. The village of Kafr Sur has a drinking water network fed from this well. The secretary to the mayor reported that the construction of the Wall caused an interruption of supply that lasted a few days. The Israeli contractor replaced the cut pipes at his own expense. Kafr Sur has a reservoir operated by the municipality. The villagers have had no conversation with the contractor. They cultivate without irrigation land that is now west of the Wall. Access to their fields is now difficult as they are no longer permitted to cross the Wall's path and walk through Sal'it settlement in order to reach the orchards. During the olive picking season, they had to gather at Kafr Jammal at 9:00 am and wait for a truck to bring them to their olive groves on the west of the Wall.

***Well no. 15-17/009, Jayyus (147.50, 175.50);  
Well no. 15-17/011, Jayyus (151.30, 179.10);  
Well no. 15-17/012, Jayyus (151.50, 179.66); and  
Well no. 15-18/002, Jayyus (151.17, 180.16)***

**These four wells and the land they irrigate are located far west of the Wall.** The residents of Jayyus, however, are located east of the Wall. This well was only used for agriculture.