



barrier impacts on the environment and rural livelihoods

general barrier facts

- 1949 Armistice Line (Green Line): 320 km (excluding "No-Man's Land")
- Total planned Barrier length: 708 km
- Constructed: 438 km (61.8 per cent)
- Under construction: 58 km (8.2 per cent)

If completed according to the planned route, approximately 85 per cent of the Barrier will run inside the West Bank and effectively render about 9.4 per cent of its territory, including East Jerusalem and No-Man's Land, off-limits to West Bank Palestinians. In conjunction with the gate and permit regime, the Barrier has already impeded access to East Jerusalem for the overwhelming majority of West Bank Palestinians.

Source: OCHA-oPt, December 2011

unrwa/bmu - arij joint environmental impact monitoring

In 2002, following the outbreak of the Second Intifada, Israel started constructing the West Bank Barrier, which restricts the mobility of Palestinians and cuts Palestinian farmers off from their land. The construction process and the Barrier's physical structure severely impact the Palestinian population and their surrounding environment.

Between June 2011 and June 2012, UNRWA's Barrier Monitoring Unit (BMU) and the Applied Research Institute Jerusalem (ARIJ) conducted joint research on the environmental impacts of the Barrier, the effects on Palestinian livelihoods and the already-vulnerable Palestine refugee population. This joint survey targeted over 170 directly-affected communities¹ and consisted of focus group discussions with village council and municipality representatives, and farmers owning land behind the Barrier. Access restrictions were assessed for their impact on land use within the closed military area located between the Barrier and the 1949 Armistice Line (Green Line), also referred to as the "Seam Zone".

barrier impacts on the environment & rural livelihoods

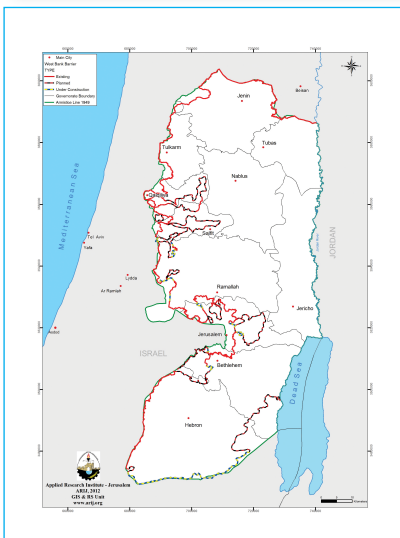
land degradation

Barrier construction frequently results in land degradation, fragmentation of ecosystems, erosion and compaction of soil, heaping up of earth walls, arbitrary disposal of waste, and accumulation of dust on agricultural lands and trees. These results impact the productivity of lands and often severely diminish the agricultural production and income of Palestinian farmers.

In Al Walaja village, Bethlehem², with a population of 2,041, three-quarters of which are refugees, dynamite and deep digging were used to embed the Barrier's concrete slabs. This fractured the soil and channelled rainwater in a way that permanently damaged the surrounding environment and residential houses.

impacts on agriculture and land use

The Barrier's associated gate and permit regime restricts Palestinian access to land, which has resulted in a decline in agricultural production and changes in farming practices in



Route of the West Bank Barrier. | Map: ARIJ, May 2012

¹ According to criteria applied by UNRWA's Barrier Monitoring Unit, the Palestinian Central Bureau of Statistics and various other organisations. The directly-impacted communities list includes communities whose lands have been isolated by the Barrier and communities located between the Barrier and the Green Line, excluding most within the Israeli-defined Jerusalem municipal area (May 2012).

² Source of population and refugee data: PCBS 2009.



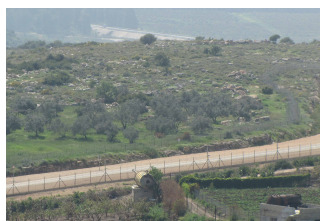
affected communities. To date, thousands of productive trees have been uprooted for the construction of the Barrier. In Qalqilya city alone, with refugees accounting for over 75 per cent of the total population of 41,739, about 12,000 olive, almond, and fruit trees were uprooted with detrimental impacts on farmers' incomes.

Two-thirds of the 68 agricultural gates that control Palestinian access to land across the Barrier are open for just one or two months per year during the annual olive harvest. Not permitted to regularly access and maintain their trees, impacted farmers report a 50 to 60 per cent decline in the yield of their annual harvest.

In many cases, farmers are not allowed to bring tractors, ploughs or fertiliser through the gates, and irrigation is limited and cumbersome. As a result, many farmers have resorted to replacing their citrus and other fruit trees with olive trees that require less maintenance but also generate less income. Farmers who previously cultivated crops have been compelled to leave their lands barren, losing a valuable source of reliable income. Loss of access to land due to the Barrier has further resulted in the overexploitation of remaining community lands.

The planned Barrier route will also cut through the lands of Bethlehem's Battir village, with refugees accounting for 77 per cent of the total population of 3,967. The village is a candidate for UNESCO's World Heritage site list due to its unique traditional terrace farming and irrigation system, now under threat of destruction from planned Barrier construction.

For the vast majority of communities, land for grazing within the "Seam Zone" has become inaccessible for shepherds and their animals. With limited pastures remaining, and unable to bear the high costs of commercial fodder, these communities report a loss of up to 60 per cent of their livestock. This places a heavy burden on households where meat and dairy products were previously used for domestic consumption and generated vital sources of income.



access to water resources

The construction of the Barrier has damaged, destroyed or rendered inaccessible vital sources of water such as wells, cisterns and springs. Once damaged or destroyed, these water sources can rarely be repaired or replaced due to planning restrictions. In Tulkarm's Deir Al Ghusun village, with a total population of 8,242, of which 13 per cent are refugees, seven cisterns were destroyed during Barrier construction. Furthermore, an additional 30 cisterns and one agricultural well were isolated in the "Seam Zone", leaving farmers with limited access to irrigation.



flooding

The Barrier obstructs the flow of surface water in many areas. Water trapped by the Barrier often causes flooding and the degradation of adjacent agricultural lands. For instance, in Beit Hanina Al Balad, Jerusalem governorate, with refugees accounting for a quarter of the total population of 1,071, flooding reached up to several meters high in 2012.

Drainage pipes built under the Barrier often become blocked by debris. However, Palestinians are not permitted to approach the Barrier to clear the blockages which has led to severe flooding in some areas. For example, Qalqilya city witnessed heavy flooding in 2005 and 2009 due to blocked drainage channels under the Barrier.



waste management

The Barrier significantly impacts the management of sewage and solid waste as disposal sites are inaccessible due to their proximity to or location behind the Barrier. As such, affected communities must either transport their solid waste to distant sites at their own cost, or burn the garbage within residential areas, which releases toxic emissions and leachate into the soil. Raw sewage is also disposed near or on agricultural land, resulting in the contamination of soil and groundwater. With over 40 per cent of the total population of 2,003 being refugees, Mas-ha village in Salfit previously disposed of its sewage and solid waste in areas that are now close to the Barrier or within the "Seam Zone". The community is therefore forced to rent land from a nearby village to dispose of its solid waste, with sewage now being discharged close to the village.

BMU
Barrier
Monitoring
Unit

UNRWA established the Barrier Monitoring Unit (BMU) in 2010, due to the particular vulnerability of the Palestine refugee population affected by the Barrier and its associated gate and permit regime. The primary objective of the BMU is to research and better document the effects of the Barrier on Palestinian communities. www.unrwa.org/bmu



The Applied Research Institute Jerusalem (ARIJ) represents 20 years of combined organisational experience in the Palestinian Territory in the fields of economic, social, management of natural resources, water management, sustainable agriculture and political dynamics of development in the area. www.arij.org



united nations relief and works agency
for palestine refugees in the near east

www.unrwa.org

UNRWA is a United Nations agency established by the General Assembly in 1949 and is mandated to provide assistance and protection to a population of some 5 million registered Palestine refugees. Its mission is to help Palestine refugees in Jordan, Lebanon, Syria, West Bank and the Gaza Strip to achieve their full potential in human development, pending a just solution to their plight. UNRWA's services encompass education, health care, relief and social services, camp infrastructure and improvement, microfinance and emergency assistance. UNRWA is funded almost entirely by voluntary contributions.