The construction of the West Bank Barrier and its physical structure negatively impacts the management of waste disposal in Palestinian communities located along its route. Over 20 per cent of the surveyed communities reported that the Barrier either affected their solid waste or their sewage disposal system. Limited access to sanitary waste disposal services exposes the affected Palestinian population to health risks and places a greater financial burden on them.

Furthermore, building and administrative restrictions imposed by the Israeli authorities on the development and implementation of waste management infrastructure projects in Area C (over 60 per cent of the West Bank), impedes the establishment of new solid and sewage waste facilities to help to alleviate waste disposal issues.

**Impacts on solid waste management**

In Barrier-affected areas, solid waste disposal has become a serious problem for many communities along its route.

With waste disposal sites behind or close to the Barrier now being rendered inaccessible, many communities are unable to dispose of their solid waste as they used to. Affected communities must either transport their waste to distant sites, at their own cost, or burn the garbage within their residential areas, releasing toxic emissions into the air and leachate into soil and groundwater. Due to increased transportation costs, villages such as Qatanna, Jerusalem, with a population of 6,458 (81 per cent of whom are Palestine refugees) have little choice but to burn their garbage within the community.

Kharbatha Bani Harith is a Barrier-affected community in Ramallah, with a population of 2,846 (15 per cent of whom are Palestine refugees). Due to the inaccessibility of former dumping sites, the village has incurred additional costs from buying or renting alternate land for waste disposal.

The Barrier isolates over 55,000 Palestinians holding Jerusalem ID cards and living within the Israeli-defined Jerusalem municipal area from the rest of the city of Jerusalem, including those in Shu’fat refugee camp and Kafr ‘Aqab. Despite living within the municipal boundary, they receive inadequate municipality services such as solid waste collection.

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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 Results are based on data from 166 Barrier affected communities. 'Seam Zone' communities and Bedouin communities in the Jerusalem area were excluded as they are treated as separate categories.

3 Source of population and refugee data: PCBS 2009
Regime, impact sewage waste disposal management in Barrier-infrastructure and improvement, microfinance and emergency assistance. UNRWA is funded almost entirely by voluntary contributions.

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.

In the West Bank, only 30 per cent of the population has access to public sewage networks (Source: ARIJ Database 2010), with rural areas largely relying on cesspits or septic tanks for wastewater disposal, requiring periodic emptying by vacuum tankers. Most wastewater collected by vacuum tankers is discharged directly into open areas without treatment.

Numerous Barrier-affected communities reported that prior to Barrier construction, sewage was discharged far away from the community in areas now located close to or behind the Barrier, which are now inaccessible for waste disposal. Ya‘bad is a village in Jenin, with Palestine refugees accounting for 22 per cent of the total population of 13,640. Due to Barrier construction, the community discharges sewage close to the built-up areas of the village and onto surrounding village lands, polluting trees and crops and posing a health risk to residents.

The Barrier’s construction also affects sewage and water drainage networks. Drainage channels built under the Barrier can become blocked by debris. However, Palestinians are not permitted to approach the Barrier to clear blockages, leading to sewage waste overflow onto adjacent lands, contaminating soils and further increasing health risks. In some areas, sewage networks are located behind the Barrier, out of reach of Palestinian village councils and municipalities.

Case study - Kafr ‘Aqab

Since the Barrier’s completion, Kafr ‘Aqab (estimated population 35,000; percentage of Palestine refugees unknown), despite being located within the city’s Israeli unilaterally-declared municipal boundary, is separated from Jerusalem.

Services such as garbage collection from the Jerusalem municipality, for which Jerusalem ID-holding residents must pay taxes, became inadequate — leading to uncollected waste spread on the streets, overflowing dumpsters, and informal dumping and burning of waste in the neighbourhood.

A Kafr ‘Aqab village council representative notes, “the Jerusalem municipal authorities still use an old census figure of 10,000 residents when they allocate services, whilst today I would estimate the population number to be 35,000.” He continues, “Jerusalem municipality currently pays a contractor to collect garbage using one garbage truck, which comes twice a day, four times weekly. However this is insufficient to collect all of the garbage in the area.”

Izat, a longtime resident of Kafr ‘Aqab, explains that “because rubbish is not collected regularly, people burn waste daily. The smoke from these fires affects both children and the elderly, making them ill. The garbage situation is by far the largest problem facing the community.”

Case study - Ar Ram and Dahiyat al Bareed

Ar Ram and Dahiyat al Bareed, with a population of 20,359 (22 per cent of whom are Palestine refugees), is a Palestinian area located on the outskirts of the Jerusalem municipality. In 2007, the Barrier’s construction severed their connection to Jerusalem, but also cut them off from sections of their sewage network.

A municipal representative explains: "Parts of Ar Ram and Dahiyat al Bareed are connected to an up-to-date network of large pipes, which link into a network of older and smaller pipes installed in the early 1980s by the Jerusalem municipality. These pipes then link to the main pipeline behind the Barrier, inaccessible to Ar Ram and Dahiyat al Bareed municipal workers.

"Sometimes there are blockages in the pipes across the Barrier that lead to problems with wastewater flowing onto the streets and lands of the community. All Ar Ram and Dahiyat al Bareed municipality can do is notify the Jerusalem municipality of any problems with the sewage network across the Barrier. However, this does not always lead to these issues being resolved.”

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.