Abstract: The Palestinian territories (PT) suffer from one of the worst water shortages of all the countries in the Middle East, and have one of the most underdeveloped water sectors. All major water resources used by Palestinians are shared with Israel, and utilization of resources, maintenance of infrastructure and development are constrained by the military occupation. Currently, Palestinian water rights in the West Bank have been recognized by Israel, but not quantified, resulting in a lack of sovereignty over resources and difficulty in developing adequate supplies and infrastructure. In Gaza, overpopulation has led to demand outstripping supply. Overabstraction of the aquifer is leading to severe degradation of the resource, and water quality is extremely poor. If no remedial action is taken, the situation can be expected to deteriorate further, with dire humanitarian and environmental consequences. Permanent damage may be done to the sustainable potential of the water resources of the region, to the detriment of both the Palestinian and the Israeli populations. Thus the need for cooperative water management is high, whereas political tension, which frequently explodes into violence, is hampering attempts to implement water management schemes.

Keywords: Palestinian territories; water resources; water rights; sustainable potential; overabstraction; cooperative water management; development
1. **Background**

The fates of Israel and the Palestinian territories (PT) are inextricably linked with regards to sustainable water management, as they share the same major natural water resources. These are the Jordan River and the Mountain Aquifer in the West Bank, and the Coastal Aquifer in Gaza. Whilst both parties recognize a deepening water crisis in the region due to unsustainable utilization of resources, Palestine suffers severely from water shortage due to inequitable allocation of resources. Water supply in Palestine must be increased, not only to allow economic development and meet projected population growth, but also to meet the basic needs of the existing population. Due to the fact that all of the natural resources in the region are already utilized up to, and in some cases over, their full sustainable potential, the only options for increasing water supply are through negotiation with Israel, development of unconventional resources (i.e. desalination of brackish water and seawater), or import of water from a third party. Increases in abstraction from natural resources by Palestinians must be met by equal or greater decreases in abstraction by Israelis if resources are not to be overdrawn, causing potentially permanent damage to water quality and sustainable yield.

Since 1967, when the PT came under military occupation, the majority of control over water resources in the area has been with Israel. Shortly after the beginning of the occupation, a series of military orders declared all water resources to be Israeli State property, granted full control over them to the military authority, established a permit system for the drilling of wells and fixed pumping quotas on existing wells (Israeli Military Orders No. 2, 92, 158, and 291). All Palestinian pumping stations on the Jordan River were destroyed during the 1967 war and since that time, Palestinians have been denied any access to this resource. Hence today, all water utilized by Palestinians in the West Bank is drawn from the Mountain Aquifer, which is subdivided into three drainage basins (Western, Eastern, and Northern); whilst in Gaza all water comes from the Coastal Aquifer underlying the Gaza Strip, which is sometimes called the Gaza Aquifer (see Figure 1).

Due to the tight system of control over water resources that was in place from the 1960s to the early 1990s, Palestinians were prevented from developing water resources in the West Bank. Only 23 permits were issued for digging new wells between 1967 and 1990, and 20 of these were for domestic use only. In fact, the number of working wells decreased during this period from 413 to around 300 due to the prohibition on rehabilitating wells without a permit; and also due to the digging of deeper wells by the Israeli water company, Mekorot, which caused many shallow Palestinian wells to dry up (Nasser, 2003).