## Chapter 22

## Water Resources and Conflict: Examples from the Middle East

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The Middle East has often been viewed as the best example of a region where disputes over water resources can lead to violent conflict. Indeed, many authors note that water was a major cause of the 1967 war between Israel and its Arab neighbours. Despite the rhetoric, there is little evidence that water has caused armed conflict in the region. This chapter briefly reviews the literature on water resources and conflict, focuses on the role urbanization may play in exacerbating future conditions of water scarcity, and then discusses water resource conflicts in the context of the relationship between Israel and the Palestinians. The key to resolving disputes over water lies in redressing the inequities with respect to water allocations and water rights. Despite the recent peace agreement which included provisions for water management there is little evidence that these inequities will be redressed. Disputes over water will continue in the near future, but water wars remain unlikely.

## 1. Water Scarcity and Conflict

At the United Nations Habitat II Conference in Istanbul in early June 1996, Wally N'Dow, the secretary general of the conference, told the participants that 'the scarcity of water is replacing oil as a flashpoint for conflict between nations in an increasingly urbanized world'. He went on to say that 'water stands today as one of the most critical dangers, one of the most critical breakdowns of peace between nations. It has replaced the threat of war over oil'<sup>1</sup>. These words echo similar statements made over the past decade, particularly in regards to the Middle East. However, these words have little basis in fact, and they ignore much of the work that has been directed towards better understanding the relationship between resource scarcity and conflict. The role of resources as contributors to conflict is historically, spatially and socially constructed; the simplistic statement by N'Dow ignores the complexity of issues surrounding water-quality and quantity, the spatial construction of water resource problems, and geopolitical realities. A far better statement was adopted by the International Conference on Water and the Environ-

<sup>&</sup>lt;sup>1</sup> As cited from one of the daily news broadcasts on the Internet.

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ment: 'Scarcity and misuse of freshwater pose serious and growing threats to sustainable development and protection of the environment.' (ICWE, 1992) Even with this more tempered statement, it is difficult to ignore the reasons why freshwater has become a key issue in discussions on the relationship between environment and security. They include the following:

- water is the basis for all life on this planet;
- water is essential for human survival and for the production of food;
- water is crucial for economic development, and in some countries is one of the highest valued inputs to the national economy:
- the freshwater resources of the globe are finite and vulnerable;
- water 'moves', and therefore its use may affect more than one nation;
- globally, much freshwater is far removed from sources of demand.

Water availability is severely limited in many regions of the world, and this situation will be exacerbated as population grows. By the middle of the 21st century, 44–65% of the world's population are expected to experience conditions of water stress or water scarcity (UN, 1994).

Given this dire situation, are there indications that water scarcity has caused conflict in the past, and is there a potential for disputes over water to produce conflicts in the future? If so, where might these conflicts occur? Are the rapid rates of urbanization noted by the Habitat II Conference a cause for concern?

This chapter addresses these questions by focusing on the Middle East where conflicts over water have been a crucial aspect of development. In particular, it deals with the relationship between Israel and the Palestinians in the West Bank and Gaza Strip.

As numerous authors have noted, many types of environmental changes may have the capacity to produce conflict, and constraints on resources are certainly a crucial factor (Choucri, 1991). Rapid industrialization and population growth have resulted in an increased demand for both renewable and non-renewable natural resources, and competition for resources has historically been a major cause of conflict (see e.g. Ullman, (1983). The availability of water in a number of regions (including the Middle East); depletion of fish stocks off the east coast of Canada; and deforestation in Brazil, Thailand and elsewhere have been (or are potential) sources of conflict. Atmospheric changes - both global warming and ozone depletion - may also have the potential to cause significant societal disruption (particularly when they may affect the availability of strategic resources). And land degradation, or land use change in general, may directly affect society's ability to provide food resources for a growing population or may indirectly affect other changes, such as global warming. Even without significant population growth, water remains a crucial issue in many regions of the world, one that may cause insecurity - and possibly conflict.