Chapter 13
Natural Environments, Ecosystems, Conflict, and Wellbeing:
Access to Water

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ABSTRACT

This chapter examines the correlation between environmental issues and wellbeing. A broad literature review illustrates that changing climate, increasing populations, and degrading natural environments have negative impacts on health and wellbeing. The focus of this chapter is on conflicts arising from the limited supply of natural resources and competing needs, interests, and demands. This can create high levels of tension and division within communities that erodes community spirit, support, and connectedness as people compete for limited resources. The conflict arising from such disputes has negative impacts on social cohesion and the high levels of stress experienced, without adequate supports, can trigger mental ill health. The example of basin level water conflict in Turkey is used to illustrate this.

INTRODUCTION

In recent years, scholars commenced looking at the impact of environmental issues on wellbeing. However, definitions of "the environment" and "wellbeing" still remain limited thereby hindering the capacity to develop evidence-based interventions to influence policy makers. In this chapter the term "environment" is paired with "ecosystems" as the concept of "natural environment and ecosystems" is deemed the most appropriate way of identifying environmental issues that corelate with wellbeing. It is broadly acknowledged that the natural environment is degrading in many regions of the world, and this dates back, at least, to the industrial revolution. In the context of changing climate, increasing population and

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limited natural resources, sustainability has been at the core and center of political debates and scientific studies. However, the impacts of this emerging phenomenon are often ignored. Water-induced conflicts are pertinent examples for obtaining insights into how the wellbeing of people is detrimentally affected by such conflicts. According to a European Environment Agency, (2014) report, climate change cannot be considered as a single environmental issue as it also creates health issues. They provide an example of the pollen movement resulting from the spread of Common Ragweed (*Ambrosia artemisiifolia*), a flowering native plant of the Americas. Currently, the plant is seen in Europe as climate change has allowed the plant to extend its range northwards. Ragweed also harms ecosystems and reduces crop yields. This invasive plant has pronounced health effects. The pollen is one of the most aggressive causes of allergic reactions; one in five Europeans suffers from allergies, one in seven experiences allergic rhinitis and one in eleven lives with asthma. This example shows that health and wellbeing is clearly connected with environmental issues, as does the case study on access to water provided in this chapter. The chapter identifies key issues related to the degradation of the environment. A focus is on conflict that develops when resources are scarce or limited and there are subsequent health and wellbeing impacts upon communities. The resource focused upon is water and the underlying factors causing basin water conflicts in developing nations. The chapter highlights a gap in knowledge on the correlation between health and wellbeing and degrading natural environments and eco-systems. The aim is to bring this environmental correlation to the attention of policy makers in setting the future agenda when looking at possible solutions in mitigating deteriorating health and wellbeing.

BACKGROUND

Water is a precious commodity that we cannot afford to see depleted. Developing and developed nations are experiencing a high demand for water for different uses depending on the needs of the particular country (Hinrichsen & Tacio, 2011). Water has many uses ranging from agricultural purposes, manufacturing, fresh water for drinking and cooking, water for construction, water for washing clothes and many other uses (Wolf, Kramer, Carius & Dabelko, 2005). It is important to note that the earth is a watery place where approximately 71% of the earth's surface is covered with water, with 96.5% of this in the oceans. Water can also be found in rivers and lakes, in the air as water vapour, in the soil as moisture, in glaciers and icecaps in addition to being found within human beings and animals. The vast majority of water in the surface of the earth, which is held in oceans, is saline, while fresh drinking water is sourced from rivers and lakes in addition to water that falls as rain.

All the sources of water in the world that produce fresh water account for only 2.5% of global water reserves, which makes fresh water unevenly distributed across the globe (Central Intelligence Agency, 2015). Approximately 1 billion people are not able to access clean, safe drinking water, while only 10 countries share 60% of the entire global renewable and natural water resources (FAO, 2011). It is estimated that the total volume of water on the Universe is 333 million cubic miles (Loucks & Beek, 2005).

According to the United Nations, to support and feed the future global population the world economy will have to experience considerable growth with water a critical factor (FAO, 2011). The United Nations has proposed the need for sustainable management of water to reduce the risks associated with water shortage (FAO, 2011). The global water consumption is experiencing high demand pressures, which have been brought about by the increase in population and adoption of behaviours that have seen high consumption of water. In addition to this, climate changes have largely contributed to the decrease