

# TENSIONS RISE

Contributed by Erika Yarrow  
Saturday, 06 September 2008

Velma Grover\* looks at the dynamics that are making scholars believe that water wars may soon be with us.

Historically, there have always been conflicts over natural resources. From the era of colonisation right up to now, the aim has been to gain both territories and ownership of natural resources. Conflict over land, water and timber has been widespread for centuries. Whether it is a local dispute between farmers and ranchers, or an international clash over shared resources, people everywhere compete for the resources they need to ensure or enhance their quality of life. It is mooted that in the future, water scarcity will lead to unrest and violent conflicts.

Scarcity of resources caused by population increase is not a new phenomenon. Discussion about the relationship between population growth, scarcity of resources and food goes back to the time of Confucius in the East and Plato in the West. More recently, eighteenth-century British clergyman and economist Thomas Malthus discussed the relationship between human needs and scarcity.

As a political economist, Malthus was concerned about the decline of living standards in England at the beginning of the nineteenth-century. He attributed this decline to the inability of resources to keep up with the rising population. To combat this, Malthus suggested regulation of family size to control population growth.

Problems caused by pollution have given a new twist to the concept of environmental scarcity. At the same time, increased demand caused by population growth, rising per capita consumption and/or unequal distribution of wealth and power, gives some groups disproportionately large and others disproportionately small, portions of increasingly-depleted renewable resources. This increased demand has an inverse effect upon the total supply, as increased demands result in the degradation of the environment and the limitation of environmental resources.

Imbalances between different countries and regions are deeply rooted in institutions and class and ethnic relations, many of which have been inherited from the colonial period. Rich in natural resources, but lacking in technological and entrepreneurial capabilities, poor nations are often forced by wealthier nations to use their most productive environmental resources to generate hard currency to pay off external debts, rather than to support the poorest segments of their populations.

In the past, analysts and policymakers have usually addressed independently the three sources of scarcity (decrease in quality and quantity of natural resources, population growth and unequal distribution of resources). New research, however, shows that supply, demand, and structural scarcities interact and reinforce each other in extraordinarily pernicious ways.

Environmental scarcity is an important indicator that political and economic development has gone wrong. Studies by Homer-Dixon suggest that environmental scarcity can be a strong force behind changes in politics and economics governing the use of resources. In some regions of the world, environmental degradation has crossed the threshold of irreversibility, leading to continued degradation of resources and resulting, in turn, in a potential cause of conflict in those regions.

The problem of water scarcity can be traced back to two major legacies of the twentieth-century: both the population explosion and the technological revolution have taken a toll on our water supply. Freshwater sources are being used up and contaminated, mainly because modern technologies have allowed us to harness much of the world's water for energy, industry and irrigation—often at a terrible social and environmental price. At the same time, many traditional water conservation practices have been discarded along the way. When water flows across borders, as in the case of a shared river or watershed, it flows across countries with different political agendas and different socio-economic and cultural backgrounds. These differences can lead to conflicts as water is distributed unevenly across countries and continents.

Traditionally, all countries have sovereign rights over the land and resources within their borders. Trans-boundary resources, however, raise questions about sovereign rights over flowing water. As water becomes scarce, national conflicts are expected to rise. Industry, agriculture and citizens are constantly in competition for water, which is desperately needed for further development of these sectors. National tensions over the distribution of water can escalate into discord. As water scarcity increases and becomes a political issue, water tension will increase beyond national levels.

As political friction grows, there will be unprecedented international pressure on water-rich regions, leading to political, economic, social and environmental stress. Populations in water-scarce regions will demand that water-rich regions share water, while older treaties for water sharing, which do not take climate change and changes in water precipitation into account, will be under stress. The resultant conflicts could end in violence. Historically, there has not been any great

economic sense in going to war over water. But with the increasing trend towards the commoditization of water and more severe water stress, this dynamic could soon change.

\*Velma Grover is Adjunct Professor, Faculty of Environmental Science, University of York, Canada.