

Water wars, maybe, but who is the enemy?

Dr. Daniel Connell, Crawford School of Public Policy, Australian National University

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Ballistic missiles

In the early 2000s there was frequent talk of water wars. One much quoted statement was made by the then Vice President of the World Bank Dr Ismail Serageldin who said that 'Many of the wars of the 20th century were about oil but wars of the 21st century will be about water unless we change the way in which we manage it.' The situations that people have in mind when they speak of water wars includes the Nile River Basin where in the past the Egyptian government threatened to blow up dams if they were built upstream, the multi-national catchment of the Aral Sea, the Indus River shared by India and Pakistan and rivers shared by China with its neighbours to the north, south-west and south. The statement by Dr Serageldin was presumably made to emphasize the seriousness of water problems. However many people disagreed and pointed to the historical record which showed few examples of actual warfare despite the large number of international basins subject to conflicts. But did this indicate that water problems are not really that serious? In this commentary I argue that the real reason that water conflicts are unlikely to result in warfare is not because the threats are not real or serious but that they manifest themselves

in ways that cannot be resolved through traditional military responses.

Some of the critics of the water wars thesis even argued that water conflicts have actually encouraged cooperation between states. From this perspective the Indus River, shared by two countries with nuclear weapons that have fought three major wars with each other, provides dramatic evidence that a problem can lead to cooperation of sorts despite their differences. One factor preventing water wars despite serious differences lies in the nature of water and river management systems. There are many ways in which countries can harm their neighbours by damaging their water management infrastructure but there are few scenarios where doing so would benefit the aggressor in any practical sense given the exposed nature of their own water assets in most cases. A serious water war would probably be one of mutual destruction. That does not mean that water conflicts are not a major challenge to world peace. The nature of the threats that can come from water problems has been well studied in recent years. Sources of 'water insecurity' were discussed in earlier contributions to this series. It was argued that the potential sources of threat were almost as numerous as the links between water and the human species and that there are many ways in which people can experience harm through the disruption of those connections and relationships.

Water as a stress multiplier

Looking at water problems from this perspective a number of commentators have defined water as a stress multiplier. This is a complex concept. When commentators use the term 'stress multiplier' they are trying to say more than that water is merely another item on a long list of issues causing conflicts between governments. In many cases people are not particularly aware of the role of water in causing the stress that is creating a crisis for them and their society. Or, even if they can identify water as a factor they are also conscious of many other factors. Poor water management could increase malaria rates resulting in a more debilitated population, higher infant and mother mortality, and morbidity and reduced capacity to grow food or work. Another example would be a society in crisis because of very high rate of unemployment, a factor which has caused riots, rebellions and contributed to revolutions. Floods could have destroyed places of employment and essential infrastructure such as water delivery systems. The water shortage because of the flood could then have caused power failures resulting from not enough water for hydropower or to cool coal or nuclear power plants (France recently had to reduce the output of its nuclear plants because of a water shortage).

People and communities dealing with such issues have a reduced capacity to deal with other types of crisis. If there are existing tensions within and between communities water issues

can make them worse. Drought, for example, can exacerbate the tensions that often exist between farming and herding communities. In the case of a drought in a poor country based on agriculture the declining productivity of herds and crops can reduce incomes. That in turn lowers government revenue as exports drop and taxes returns go down. People increasingly migrate looking for work. This increases tensions in the communities they come to and in the communities they leave as the people left behind are left to fend for themselves. Reduced revenue lowers the capacity of governments to help people in distress and they lose legitimacy as people judge their responses to be inadequate. If the stresses become too great governments can collapse. This creates so-called weak or failed states and opportunities for crime and terrorist organisations.

Water and the Arab Spring

A recent article in the New York Times titled '[Egypt, short of money, sees crisis on fuel and food](#)' (30/3/13) provides a good example of water shortage as a stress multiplier. Egypt with its long dependence on the River Nile is involved in an ongoing dispute with the nine other nations upstream about their demands to extract more water for irrigation. If irrigation development in those nations goes ahead it would reduce the proportion of flow left to Egypt despite its rights claimed under international agreements. However not only is Egypt faced with water reductions. According to the New York Times it is also running out of hard currency to buy wheat which it currently imports to make up for the inadequate amount that it produces through irrigation. Wheat is a staple food in Egypt and the country imports about 75% of the total volume consumed much of it through government subsidized bread. Importing wheat is effectively the same as importing water. (According to the UNESCO-IHE- water footprint website, to produce one kilogram of wheat requires about 1350 litres of water.)

The interconnection of water with fuel and energy is another part of the crisis. Much of the imported fuel is diesel which is used to power irrigation pumps and wheat harvesters (Nearly all wheat grown in Egypt is irrigated due to the dry climate). Egypt has applied to the International Monetary Fund for a large loan but before it can be granted the government will be required to abolish its subsidies on wheat and fuel. The situation is already extremely volatile and sudden increases in prices for those key commodities could produce a strong political reaction (High food prices are widely considered to be a significant factors causing the so-called Arab Spring which began in late 2010). This is a major challenge for the Egyptian government and water is at the centre of the crisis. If the government could see a clear opponent it could hypothetically wage a 'water war' but, in practice, looking at this complex situation who is the enemy?

The confusion makes it difficult for governments to work out what to do but, complicating the situation further, individuals and communities are also likely to act in ways that could have serious international consequences. These issues are beginning to receive serious attention from governments concerned about long term national security threats. A recent publication by a Harvard University group funded by the United States Central Intelligence Agency titled '[Climate Extremes: Recent Trends with implications for National Security](#)' is just one of many recent publications dealing with these issues. As the Climate Extremes discussion paper makes clear, most of the negative effects of climate change will be experienced through their impact on the human society - water relationship. The results could be large scale refugee movements and governments unable to respond to desperate populations. As with the example of Egypt quoted above it will be very difficult to conceptualise these threats in ways that can be dealt with by traditional military responses. So with major threats, but without a clear enemy, how will governments in countries such as the United States, Europe, north Asia and Australia respond?

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