Thirsty Regions Engineer Magma In The Shape Of Terrorism

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Abstract

Violence and conflict caused by water shortages may threaten states' political and social stability, according to the Parliamentary Assembly's Environment Committee. At its 25 February 2011 meeting, the committee noted the close links between water and security which have made water "a military and political tool and a new weapon for terrorists". The committee also discussed how climate change has made worse the problem of malnutrition in the world's driest regions. It called on European governments to recognize access to water as a fundamental human right and to apply and if necessary revise the rules of international water law. The systems for the joint management of trans-frontier Rivers and aquifers should be reviewed, the committee declared. Transparency and the flow of information between all stakeholders should also be improved. Scientists and military experts feel that as the world warms, water - either too little or too much of it - is going to be the major problem for the United States. They opined that it will be a domestic problem, with states clashing over controls of rivers, and a national security problem as water shortages and floods worsen conflicts and terrorism elsewhere in the world.

Introduction

A lack of water is a key factor in encouraging terrorism, the Third World Water Forum in Kyoto has heard. Living without an adequate level of access to water created a "non-human environment" which led to frustration, and from there terrorism. A non-human environment is the worst experience people can live with, with no clean water, no sanitation. It was in Arab countries that this problem was at its most acute. The Middle East has only 1% of the world's fresh water shared between 5% of the world's population. This puts a tremendous strain on water resources in the region. In the West Bank, for example, water has to be brought in to many villages on trucks, making it so precious it is used for little but drinking and some limited irrigation. And there were warnings in Kyoto that the situation would only get worse. Although per capita water consumption rates are the lowest in the world, many countries have already developed all their possible water resources. Inadequate water resources had had the knock-on effect of lowering still further the amount of food that could be produced through farming, thereby increasing poverty - another key factor behind the feelings of frustration that can lead to terrorism. If changes were made, improvements would be seen very rapidly. Better water provision has a very high effect on improving the non-human environment. The Arab world must do more with little water. By 2025, it is predicted that the countries of the Arabian Peninsula will be using more than double the amount of water naturally available to them. The forum was told that it was essential that changes began immediately.

The chance that water may soon be used as a weapon in key strategic areas (areas including the Middle East, South Asia and North Africa) is starting to seem more than just a possibility, according to a recent U.S. intelligence assessment. Fresh – water shortages, droughts and floods will increase the likelihood of water being used in tussles between states or even terrorist groups. According to the assessment, although "water – related state conflict" is unlikely in the next 10 years, continued shortages after that may begin to affect U.S. national security interests. The assessment, drawn from a classified National Intelligence Estimate distributed to policy makers, describes strategically important water basins tied to rivers in several regions: the Nile, the Tigris – Euphrates in Turkey, Syria and Iraq: the Jordan and the Indus. Senior U.S. intelligence official briefed reporters describing the possibility of states denying water to one another: "As water problems become more acute, the likelihood…is that states will use them as leverage". The official also touched on the subject of its use by terrorists: "Because terrorists are looking for high – visibility structures to attack, water infrastructure could become a target".

The assessment is coinciding with the scheduled announcement by Secretary of State Hillary Clinton of a new public – private program to use U.S. knowledge and leverage to help find "solutions to global water accessibility challenges, especially in the developing world", according to a State Department release. According to the official, the assessment anticipates more droughts, more extreme weather events and floods, along with concerns that states would not make the necessary infrastructure investments to deal with the shifting climate.

"The situation poses an opportunity for the United States to exert leadership but we also saw the risk that if the United States wasn't engaged in exercising that leadership, other states would step up to exert it and the United States might find itself losing influence".

Water Conflict

The water shortage is also a global problem, because, like Somalia across the Gulf of Aden, where desertification has been linked with that county's ongoing conflict, fights and desperation over water in Yemen would be exactly the kind of destabilizing factor that insurgents will need to continue to strengthen their base in remote areas far from the halls of power. As the water crisis has gotten worse, observers have noted that the government has concentrated its efforts to manage water resources in urban centers where it has (and wants to keep) political support, and many of the outlying areas not receiving help have been overlooked before. The failure to establish local water corporations in several governorates that historically have not received much support or social services from the central government has raised fear that a resurgent al Qaeda may seek refuge there. What could possibly be done includes stopping government subsidies and public purchases of qat, and constructing a better legal system to deal with the nation's increasingly scarce resource. If such measures are not taken in the near term, more dramatic steps will be required in the future, such as stopping rural populations from moving to overcrowded cities, and, more drastically, relocating population centers from the center of the country to the coasts. In other words, the government will be forced to create a lot more unhappy citizens. And that would make insurgents that find recruits in disgruntled communities very happy indeed.

Yemen could be the first nation to completely run out of water in a few years, a prospect that does not bode well for its young population of 24 million that is expected to double in 20 years, or anyone worried about the rising influence (and ability to get bombs on planes) of an al Qaeda branch in one of the Middle East's poorest nations. In Sana'a, which could be the world's first capital city to go dry, the population is growing at a rate of 7% per year as people flee from the parched outer reaches of the country. Part of the problem is qat, an addictive plant like chewed by about 75% of men in Yemen that takes a whole lot of water to grow. In places where vineyards used to be, farmers now are growing the more lucrative qat, which uses five times the amount of water as grapes but can be harvested and sold relatively quickly after it's planted. Farmers' ambition to better their lot is more than understandable in a nation where five million people — over a fifth of the population — go hungry each day. And though Yemen's qat farmers are estimated to now be using some 40% of the nation's domestic water supply, they are hardly the only actors in this looming crisis. Yemen's water table is falling about 6.6 feet per year, yet the central government has been ineffective at managing the piecemeal drilling of water wells (the government itself estimates an astonishing 99% of water extraction in Yemen is unlicensed) or regulating water management in more far-flung parts of the country. Instead, as Sana'a gets more and more water migrants, authorities have discussed relocating the capital to the coast where they might be better able to take advantage of desalination as other Middle Eastern countries have.

U.S. scientists mentioned that at home, especially in the Southwest, regions will need to find new sources of drinking water, the Great Lakes will shrink, fish and other species will be left high and dry, and coastal areas will on occasion be inundated because of sea-level rises and soaped-up storms. The scientists released a 67-page chapter on North American climate effects, which is part of an international report on climate change impact. Meanwhile, global-warming water problems will make poor, unstable parts of the world - the Middle East, Africa and South Asia - even more prone to wars, terrorism and the need for international intervention, a panel of retired military leaders reported in a separate report. "Water at large is the central (global warming) problem for the U.S.," Princeton University geosciences professor Michael Oppenheimer said after a press conference featuring eight American scientists who were lead authors of the Intergovernmental Panel on Climate Change's climate-effects report.

Roger Pulwarty, one of the federal government's top drought scientists, stated that states such as Arizona and Colorado, which already fight over the Colorado River basin water, will step up legal skirmishes. They may look to the Great Lakes, but water availability there will shrink. Reduced snow melt supplying water for the Sacramento Valley in California means that by 2020 there won't be enough water "to meet the needs of the community," Pulwarty viewed. Those will step-up the competition for water. On the East Coast, rising sea levels will make storm surge "the No. 1 vulnerability for the metropolitan East Coast," said study lead author

Cynthia Rosenzweig of NASA. "It's a very real threat and needs to be considered for all coastal development." Rising sea level can harm Florida's biodiversity and be dangerous during hurricanes, the scientists added. A few hours later, retired Gen. Charles F. "Chuck" Wald focused on the same global warming problem. "One of the biggest likely areas of conflict is going to be over water," said Wald, former deputy commander of U.S. European Command. He pointed to the Middle East and Africa. The military report's co-author, former Army Chief of Staff Gen. Gordon R. Sullivan, also pointed to sea-level rise floods as potentially destabilizing South Asia countries of Pakistan, India, Bangladesh, Indonesia and Vietnam.

Lack of water and food in places already the most volatile will make those regions even more unstable with global warming and "foster the conditions for internal conflicts, extremism and movement toward increased authoritarianism and radical ideologies," stated the 63-page military report, issued by the CNA Corp., an Alexandria, Va.-based national security think tank. Kristi Ebi, a Virginia epidemiologist on the scientific panel, added reduced water supplies globally will hinder human health. "We're seeing mass migration of people because of things like water resource constraint, and that's certainly a factor in conflict". Peter Glieck, president of the Pacific Institute, an Oakland, Calif., think tank, said the national security and domestic infighting over water comes as little surprise. "Water is connected to everything we care about - energy, human health, food production and politics," said Glieck, who was not part of either panel. "And that fact alone means we better pay more attention to the security connections. Climate will affect all of those things. Water resources are especially vulnerable to climate change."

As water fights erupt between nations and regions and especially between cities and agricultural areas, Stanford scientist Terry Root said there will be one sure loser low on the priority list for water: other species. "The fish will lose out and the birds and everything," she said. Pollution will also worsen with global warming, the scientists added. As places like the Great Lakes draw down on water, the pollution inside will get more concentrated and trapped toxins will come more to the surface, opined Stanford scientist Stephen Schneider. And even the air, especially in the Northeast, will become more deadly. More heat means more smog cooked and about a 4 to 5 percent increase in smog-related deaths, Ebi said. That's thousands of people, she said. The scientists and military leaders held out hope that dramatic cuts in fossil fuel emissions could prevent much of the harm they are predicting. But they said the U.S. government - and the rest of the world - has to act now.

Committee Report

On 17 March 2011, a Committee on the Environment, Agriculture and Local and Regional Affairs placed a report titled Water – a source of conflict. The report focused on various aspects. Water is part of humankind's common heritage and a vital resource for human survival. However, it is also a limited, fragile resource, and one in six of the world's inhabitants still do not have access to water. There are increasingly close links between water and security, to the point where water is becoming a military and political tool and a new weapon for terrorists, leading to acts of violence and conflicts which may threaten a state's political and social stability. Governments must recognize that access to water is a fundamental human right and the rules of international water law should be revised. States should also set up programs of assistance and co-operation with countries which suffer from water shortages. Unfortunately, population growth, the contrasting but increasing needs of the developing countries and the industrialized countries, as well as climatic vagaries, exacerbate the crucial nature of water, making it a political issue which often gives rise to conflict situations. The Assembly has to conclude that water has become a military and political tool and a new weapon for terrorists.

Water – a new battleground

The last water war was fought 4 500 years ago in Mesopotamia. In modern times, internal conflicts continue to develop as water supplies reach their usable limits. According to some experts, more than fifty countries on five continents will soon be involved in conflicts over water unless decisions are taken promptly about sharing arrangements for international rivers. Very often two causes lie behind these conflicts. The first is a rapid or major change in the physical environment of a river basin (through the construction of a dam or the diversion of a river) or its political context (through the breaking up of nations) and the second, poor management by existing institutions, particularly where there is no treaty establishing each nation's responsibilities and rights. Yet if the right measures are taken, a dam can contribute to development, notably by regulating the water supply, limiting flooding, improving navigation and, in particular, producing electricity. According to the World

Commission on Dams, there are currently some 45 000 dams in the world. In ten years, hydroelectric power generation, which does not emit any greenhouse gases or produce any toxic waste, has increased by some 20%. There are, however, three impediments to the growth of this energy source: dams are accused of disturbing ecological balances upstream and downstream, causing large-scale population movements and preventing the breeding of certain fish species. At international level, treating water as a renewable energy source does not fail to raise certain problems.

According to United Nations figures, there are 263 international water basins (rivers, lakes or groundwater) shared by two countries or more. These basins account for 60% of world water reserves and 40% of the world population live nearby. Where there are water shortages, upstream installations on an international watercourse can have an impact on water quality or availability for neighboring states, which may ultimately be a source of tension and conflict. According to some experts, the danger lies less in water shortages themselves than in the temptation for countries to try to control international watercourses. Turkey, for example, is financing the South-Eastern Anatolia Project (or GAP), which involves the construction of 22 dams and 19 hydroelectric plants on the Tigris and the Euphrates, which supplied about 22% of Turkish electricity in 2010. The construction of these dams enables Turkey to control the flow of water downstream towards Syria and Iraq, increasing these countries' dependence on Turkish water sources. Relations between Turkey on the one hand and Syria and Iraq on the other have deteriorated considerably since the launch of the project. In the ecological sphere, scientists have detected a pronounced desalination of the land downstream, which will cause major changes to the region's ecosystem.

Water shortage undoubtedly leads to acts of violence and conflicts which may threaten a state's political and social stability. The civil conflicts of today go beyond borders and are behind tomorrow's international wars. Wrangling between states over water gives rise to regional tensions, impedes economic development and runs the risk of causing more major conflicts. It should be recalled that the International Court of Justice has an important role to play, although it cannot impose decisions on parties which have not sought its arbitration. It is suitably equipped to work towards the settlement of global disputes, according to well-defined criteria of interpretation (Article 38 of its Statute). It has to be stressed that experts on international security have often ignored or underestimated the real and complex link between water and security. At the end of the 1980s, the Pacific Institute set up a scheme to record and collates events relating to water and conflicts. Recent events in the Middle East, the Balkans, East Timor and other parts of the world have added new data, as can be seen below. In this way, water has become a military and political tool, but unfortunately also a weapon for terrorists.

Where as international security and international and regional policies are always changing, there is one constant, namely that water is essential to life, and the measures introduced to meet water needs and demand depend most of the time on political decision-making. Internal water stress also has an influence on international political alliances, which merely exacerbate the burden of humanitarian crises. Countries normally adapt to water stress by importing the bulk of their food, enabling them to allocate a larger share of their drinking water to cities and industry. According to the experts, over the next fifteen years, more and more people will be living in countries experiencing water stress, and more and more countries will be forced to swell the ranks of food importers, resulting in an increase in wheat prices and, in poor countries, major famine and an increased need for humanitarian aid. Although full privatization, in other words complete divestiture (including the transfer of assets) is the exception rather than the norm, privatization of the water supply can also result in increased costs and a reduction in subsidies. In Bolivia, for example, following the privatization of the water supply system in Cochahamba, water costs reached unprecedented heights, with water bills for certain residents amounting to a quarter or more of their income, causing community violence.

The water industry is now the third largest in the world after oil and electricity, but it's vital role and its scarcity will soon make it the main potential source of profit. In the United Nations General Assembly, Venezuela has condemned the privatization of water as a factor of conflict. Development of the private sector allegedly carries a risk of community confrontations. Commercialization of an asset such as water in fact presents the danger that economic interests may continue to take precedence over environmental issues. The intensity of the debate between advocates and critics of private sector involvement has perhaps obscured the success of

this form of management. Reports by the World Bank (the Gassner report) and the OECD have highlighted productivity gains and improvements to household water supply and sanitation connections. Nevertheless, if certain states decide to rely on multinational corporations to manage their water resources, it is up to governments to award private enterprise limited leases (fixed-term, for example), in addition to a stringent regulatory framework and mechanisms of complaint and accountability. The independent expert's report to the Human Rights Council (29 June 2010) thus points out that "states have a duty to regulate and monitor providers that they involve in service delivery … When the State does not directly provide services, its role nevertheless remains obligatory and critical".

Participation by the private sector must be regulated. The 2008 report to the Human Rights Council includes a description of a strategic framework founded on three principles: the duty of states to protect people from human rights abuses by third parties, the responsibility of companies to respect human rights, and the need for access to effective remedies and grievance mechanisms to address alleged human rights violations. In the United States, the former Republican administration refused to ban the harmful chemical, atrazine, now prohibited in Europe, which is found among other substances in tap water. Nestlé and other bottled water producers are engaged in frantic competition to corner this increasingly lucrative market even if it means ravaging springs and rivers.

A few prominent examples

1. The Middle East

In the age of rockets and long-range missiles, Israel's desire to continue to occupy the Syrian territory of the Golan Heights to the east of Lake Tiberias, which it has held since the Six-Day War of 1967, does not and never did have much to do with any military strategy of protection or dissuasion. The real goal is quite simply to secure control over a huge reservoir of water covering some 1150 km2, which, according to United Nations figures, provides about 500 million m3 per year, much of which is said to be piped into the Negev Desert. About 70% of the water which flows into the lake is pumped out and routed to Israel. The occupation of the Golan Heights also has the effect of keeping the Syrian border away from the lake shores and hence the water. This reserve is vital for the region and, directly or indirectly, the Israelis, the Palestinians and the Jordanians all tap into it. Thus, it often happens that behind such confrontations, there are significant yet largely overlooked small-scale conflicts for the control of a resource on which agricultural development and thus all life in the region depends.

The Oslo Accords of 1995 failed to resolve the question of water distribution in times of peace, despite the fact that, along with the Lebanon, four countries – Israel, Jordan, Syria and the Palestinian Territories – depend on the Jordan River basin. The sharing of the waters of the Jordan and its tributaries provides a background, a pretext and an explanation for many confrontations, particularly as regards settlement in the occupied territories, whereas Article 12 of the Oslo Accords stipulated that questions of water, like those of noise, sanitation and the protection of flora, fauna and migratory species, should be settled outside the sphere of political debate and conflict. Clearly, this kind of conflict would not occur if the region had plenty of water and the rains were not so irregular. Fears linked with water resources are such that the Israelis regularly accuse the Palestinians of poisoning or plugging springs. Conversely, the Palestinian Authority sometimes claims that Israel occupied southern Lebanon for so many years because it wished to construct an underground diversion of the coastal River Litani, which rises in the Lebanese Bekaa plain but abruptly changes direction towards the west and the sea a few kilometers short of Israel's northern border. It also accuses Israel of covertly pumping water here, there and everywhere. These are outright water wars, which are hard fought and vital for the local communities.

The International Committee of the Red Cross (ICRC) has drawn public attention to the critical situation as regards access to water for the inhabitants of the Gaza Strip, where a large part of the population does not have direct access to drinking water and has to rely on water bought from private suppliers. According to the United Nations Office for the Co-ordination of Humanitarian Affairs (OCHA), as a result of the Israeli military assault organized under the code name Operation Cast Lead, 150 000 inhabitants of Gaza are still affected by insufficient water supply, 50 000 have no water at all while the others receive water only once every five or six

days. Gaza municipality has been forced to pump tones of sewage directly into the sea to avoid contaminating groundwater and drinking water.

2. The Caucasus

The largest river of the Caucasus is the Aras. It flows along the borders of Turkey, Armenia, Azerbaijan and Iran into the Kura River. It is thus a source of drinking water for a large number of states, but it is polluted by millions of tones of sewage and industrial waste. Furthermore, it is predicted that within 10 years there will be severe water shortages in this region. These tensions over water are further aggravated by the poor relations arising from other conflicts in the region.

3. China

In 2000, thousands of Chinese farmers defied the police over a government plan to recover the run-off from a local reservoir to supply cities and industry and for other purposes. For a long time the farmers had been using the water from the Yellow River and a drought had made water supply an even more critical issue than usual. Disputes have arisen in the provinces around the downstream section of the river basin, where there is practically no more water. The lower course of the Yellow River has experienced periods of total drought, which have been getting longer and longer for some years. The Salween River flows from southern China through Myanmar (Burma) into Thailand. Each of these nations is planning dam construction and development projects along the river, none of which are compatible. Furthermore, China has shown little interest in water sharing. It was one of only three countries to vote against a 1997 United Nations Convention establishing guidelines and principles on the use of international rivers.

Conclusion

It is not just a lack of water resources that will cause conflict in this century; water is increasingly being used as an instrument in terrorist attacks. Acts of terrorism involve water resources, or water systems, being used either as targets or tools of violence or coercion by non-state actors. Back in 1984 a religious cult contaminated a water supply tank in Oregon, US with Salmonella, causing an outbreak of over 750 cases in the community. While only last year, Al-Qaida told the media that it does not, "rule out the poisoning of drinking water in American and Western cities". So it seems that even in countries such as the US and Britain, where water supplies are fairly abundant and stable, there is considerable potential for conflict over water resources. During this century, opposing sides in Israel and Palestine have repeatedly attacked water storage tanks, pipelines and deliveries, cutting off supplies to towns and refugee camps. Undoubtedly such conflict can only worsen in the next few decades, as economic development, environmental degradation and climate change put greater strains on available water resources.

References:

1. Reference to the committee: Doc. 12176, Reference 3670 of 26 April 2010.
2. Draft resolution adopted unanimously by the committee on 25 February 2011.
3. In August 2010, the United Nations launched its Decade for Deserts and the Fight against Desertification (2010-2020).
4. Gleick, P. (2003). Water conflict chronology. www.worldwater.org/conflict.htm (Accessed: 3/5/04).
5. Gleick, Peter. (1993). "Water and conflict." International Security Vol. 18, No. 1, pp. 79-112 (Summer 1993).
6. http://www.geodata.soton.ac.uk/hypermail/envsci2004/group2/topic4/0007.html
7. http://www.inquisitr.com/210927/water-new-weapon-in-war/
8. http://www.military.com/NewsContent/0,13319,132519,00.html
9. http://news.bbc.co.uk/2/hi/science/nature/2859937.stm
10 http://assembly.coe.int/Main.asp?link=/Documents/WorkingDocs/Doc11/EDOC12538.htm

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