

A thirst for peace

Yemen is the poorest country in the Arab world, and its capital Sana'a (above) might have to move because it is expected to run dry within six years. Photograph: Brent Stirton/Getty

A proposed alliance modelled on the European Union could help Middle Eastern and North African countries to share scarce resources – such as water – and bring long-term stability to the region, writes **JOHN REYNOLDS**

AS AN UNCERTAIN future hangs over Arab Spring countries, such as Syria and Egypt, and drought and famine threaten 12 million people in the Horn of Africa, only a brave optimist would say he has a plan to steer countries in this region away from poverty, repression, corruption, injustice and mass unemployment towards co-operation, water security and a solar-powered future.

But Prince El Hassan bin Talal of Jordan says a Community for Water and Energy (CWE) could achieve just that.

Such a community would see water-stressed countries in the Middle East and North Africa – and eventually southern Europe and other African countries – agree to share and conserve the water resources that exist while developing solar energy and sustainable agriculture where possible.

The hope is that a deal would spur the establishment of a union for economic development in the same way that the European Coal and Steel Community – established in 1951 by France, Germany, Italy, Belgium, Luxembourg and the Netherlands – merged into the European Economic Community, which in turn morphed into the European Union.

Such is the dream of the Harrow- and Oxford-educated Prince El Hassan, who is a brother of the late King Hussein and uncle to the current King Abdullah of Jordan.

“At the moment, it’s a few minutes to midnight. The clock is ticking while our resources are drying up. It is very likely that the next wars will be water wars. Today we’re not just talking about fighting over the River Jordan. We’re talking about all the shared water resources from the Nile to the Euphrates, from Ethiopia as far as southern Turkey,” Prince El Hassan says, speaking by video call from his office in Amman.

“Already this region is very parched, with unseasonably high temperatures at the moment. We’re afraid of the sun burning our vegetable crops in Jordan’s Rift Valley.

“In the Bible, this is the kind of ‘end-of-days’ predicament we read about. Five years from now, our water and energy shortages will be worse.

“We need to present a scenario to the rest of the world explaining the downside of continuing as we are, looking at the water and potential energy shortages we will face.”

Over the past two decades, conflict has cost this region more than €8.45 trillion in missed economic growth and development, according to the Blue Peace report by researchers at the Strategic Foresight Group, a think-tank based in India.

The bleak alternative to a “Blue Peace” may be many more trillions of euro and perhaps tens of thousands of lives being lost – potentially through not just future wars over water, but also through inaction as climate change wreaks devastating drought on more of these countries’ land and populations.

Yemen, the poorest country in the Arab world, is the region’s most water insecure country. While the international poverty line is 1,000 cubic metres of water per person per year, it gets just 200.

Of the country’s 21 main aquifers, 19 are no longer being replenished, according to its environmental protection agency. Its government may have to move the capital Sana’a and its two million people, because it is expected to have run dry within six years.

Lack of water also causes food insecurity. Subsistence farmers can’t feed their families, meaning Yemen imports between 80 per cent and 90 per cent of its food. Unless subsidised, food prices are vulnerable to global market fluctuations and rising food prices lead to political unrest and instability.

The Gulf countries and much of North Africa rely heavily on desalination plants for their water needs: there are more than 1,500 situated beside the Gulf and the Mediterranean.

They are energy-intensive and expensive and, although costs are falling, they also have an environmental price. Salt and impurities extracted from the water mostly end up back in the sea or in aquifers, affecting fish, coral and other marine life. Salt levels in the Arabian Gulf are eight times higher in some places than they should be.

Turkey, Lebanon, Israel, Palestine and Jordan, where the Dead Sea is diminishing and becoming saltier, are also struggling with less and less water in their rivers and aquifers. Algeria, Tunisia, Morocco, the UAE, Iraq and Iran are all in water deficit, meaning they use far more water than they receive in rain or snowfall.

In Iraq, the great rivers of the Tigris and the Euphrates are becoming saltier because there is less freshwater flowing into them, partly due to the climate, but also because of dams built

upstream in neighbouring countries. Vast swathes of the greyish-brown land outside the southern city of Basra is turning white as the ground becomes saltier, making it unsuitable for growing vegetables or other food crops.

The proposed Community for Water and Energy would begin with countries being grouped together based on their common interests in river basins or aquifers. Initially, it's possible that only a few countries would participate, perhaps based on their common interest in individual rivers, with the aim of all countries in the region eventually realising that its benefits and importance in aiding political stability cannot be ignored.

In the first three years, goals for restoring and sustaining water resources, using agreed ways of measuring the relevant indicators, would then be set. RD using emerging or established technologies would also be promoted, and common early-warning and disaster-management systems would also be negotiated.

Where countries will not negotiate with each other, the Blue Peace report proposes that it may be necessary for overseas-based experts from one country to negotiate with experts in another. Once agreed, plans could be presented for intended implementation when a political opportunity arises.

Within five years, the aim would be that a management team recognised as competent by the countries and the international community would be put in place to look after a river basin, using all the data, the means and the technologies available. This has happened successfully in the past with the Danube, which flows through 17 countries, and is under way in Vietnam's Mekong Delta, El Hassan says.

Co-operation on water resources may also lead to shared interest in solar power developments, according to the aims of the CWE, perhaps initially with solar-powered desalination plants being built in suitable locations.

"The German-led Desertec initiative is an innovative idea that needs to be explored further," says El Hassan, who was one of its founding members.

"More than 90 per cent of the world's population could be served by clean power from deserts thanks to high-voltage DC cables. My fear though is that we could see something like a solar conveyor belt from the Gulf or the North of Africa to Europe. It would benefit the users of the electricity and the solar industry but may ignore the marginalised communities from where the power is being transmitted.

"There simply has to be an emphasis at the local level on these communities. We should also ask if we developed a solar desalination and a solar power installation in Gaza, for example, would this begin to change the nature of the problems in such places? People need a clearly defined vision of their future in a participatory society with a participatory economy."

The Arab Spring means ideas such as a CWE may offer some hope to the angry, the unemployed and the disaffected. But the idea has not yet been widely publicised in the region and, while moves towards regional co-operation at a very basic level might lay the foundations for it, other issues need to be tackled, he adds.

“There’s a basic breakdown between people and their leaders. Leaders don’t seem to realise that they simply have to move forward with reform-related issues, one of which is corruption, an issue high on the list of popular demands,” he says.

“The Arab Spring has meant that every country in the region is facing its own protracted revolution in slow motion. But it might be an important opportunity to capture people’s imaginations.”

The Blue Peace report emphasises the lack of statesmanship in a region that has been blighted by corrupt and autocratic rulers and bad governance.

When I raise the issue with Prince El Hassan, he refers to his own role model, Singapore’s former first minister, Lee Kwan Yew. Lee took power in 1959 and was widely praised for his role, not only in transforming the city state from a relatively underdeveloped economy into one whose success is admired today, but also in finding people who he thought were worthy successors because they shared his objectives.

“Yew had a clearly defined goal. He also empowered his people with business and property rights, with everything that constitutes the legal empowerment of the poor while making the law work for everyone.

“In that sense we need to similarly overhaul our region. At the moment, the Arab Spring is a frustrating period where the hopes of all the slogans are being thwarted by a lack of resources at even a basic level.”

The West also has a role in acknowledging that an issue like water security can only be addressed on a regional level, rather than on the traditional basis that may be seen as “divide and conquer”, he says.

“I don’t see how this region can progress without some kind of overarching initiatives, which include monitoring, transparency and autonomy, so that they can develop without ideologies or corruption getting in the way.

“People talking to us need to realise that many of our problems need to be addressed on a regional level. But we also need to begin to recognise the importance of presenting ourselves as a region to the rest of the world. In reality, we’re not presenting a joint case.”

This is despite the countries of the region having the same problems.

Countries such as Egypt need 1.8 million job opportunities annually. Youth unemployment rates are typically more than 20 per cent and there are more than 180 million people in the region under the age of 30.

Alongside a CWE, there have also been calls for the creation of a regional cohesion fund, perhaps including a bank for reconstruction and development, which focuses on those with low incomes and the declining middle-class populations. The idea is supported by Paul Volcker, the economist, former Federal Reserve chairman and former chairman of the Economic Recovery Advisory Board under President Obama.

A cohesion fund would be used to boost the establishment of small businesses, agriculture, tourism, manufacturing, artisan and crafts businesses and training and education initiatives.

While the EU and the US – mired as they are in their own economic quicksand – may not be able to afford to contribute to a fund or a bank at the moment, the region's own wealthy countries come in for criticism for not investing in the region.

“We have extraordinary wealth tied up in banks and sovereign wealth funds (SWFs), but nothing is trickling back into the region. People see Masdar [the eco-city development] in Abu Dhabi and similar initiatives in Saudi Arabia and Qatar as offshoots of Gulf wealth because that's where they are. Their benefits need to be brought to and promoted to the wider region,” El Hassan says.

Typically the SWFs are ultra-conservative in their investment outlooks. A spokesman for the global investment arm of Norway's €400 billion pension fund told The Irish Times that its investment mandate does not currently permit infrastructure investments.

Singapore's \$193 billion Temasek Holdings also does not have any investments in utilities or infrastructure. Others did not comment, but many are best known for their blue-chip or trophy property investments.

In the case of the Mekong Delta water management project, a total of \$360 million in funding has come from the World Bank, while the US recently gave Jordan a \$250 million grant towards water management.

Under a best-practice agreement signed in 2008, SWFs pledged not to make investments that were seen to be geopolitically motivated. However, a meeting of the International Forum of SWFs that took place in Sydney last year heard that some funds have supported stimulus packages in their home nations during the economic crisis. This suggests that in exceptional circumstances, at least some can use their financial power in ways that do not necessarily meet their usual commercial objectives, perhaps with the view that such activity may help to underpin future opportunities to make investments that do so.

“If these funds can buy football teams, then they can be used in the Mediterranean region and other countries to help build peace. There is a huge opportunity here to bring European funds and Arab funds together. But it has to be done on the basis of an equal partnership,” Dr Arab Hoballah, an economist with the United Nations Environment Programme’s (UNEP) technology, industry and economics division argues.

“But geopolitics is a real constraint. In this region, we do politics and war before we do development and peace. We find the money for war, but when it comes to building peace, we don’t have the money.

“Would a country like France want this type of investment in the Middle East or North Africa, rather than loan it to a country that will buy the arms it manufactures?”

Under the auspices of a UNEP Mediterranean Action Plan for 21 European, North African and Middle Eastern countries around the Mediterranean to co-operate in the areas of water, solar energy, tourism and coastal management, research has been ongoing for the past eight years with little further progress, he claims.

In 2002, the UK and Italy backed Medrep, a programme to develop solar energy projects in 10 countries around the Mediterranean, but it too has struggled to get beyond the research and pilot project phases. It had a budget of just €4 million and its steering committees met twice a year.

“These types of projects need a serious political and strategic framework. We need to appoint people who will do the work and not just talk. At the moment, we’re appointing the likes of ambassadors. They don’t do the work and just talk about politics. These plans can work if the people are serious and responsible. The people need real technical and financial means behind them. These initiatives need a critical mass to build up before they can really start to make progress,” Hoballah says.

Taking into account the timeframes that are likely to be involved, a recent comment about the Arab Spring by Britain’s foreign secretary William Hague is one that resonates the most: “It’s not a computer game that comes to an end when you get bored. It’s not a TV programme that finishes at 10pm. This is something you follow through in the real world. We are going to be working at this for the rest of our lives.”

The same could be said of any community effort in the region. But the groundwork now could not only provide financial and political stability, but prevent water from being added to the list of conflict instigators in the region.

GREENING THE QATARI DESERT

IT COULD BE some time before a Community for Water and Energy begins to bear real fruit. But

making progress at a faster pace is the Sahara Forest Project: a combined solar energy, sustainable water and agriculture initiative led by Michael Pawlyn, the founder of Britain's Eden Project and backed by the governments of Jordan, Norway and the Bellona Foundation, a Norwegian NGO.

Essentially the Sahara Forest Project combines a number of existing technologies into an integrated system, using sunlight, deserts, carbon dioxide and seawater to produce food, water and energy.

Earlier this year an agreement was signed to build a demonstration centre on 20 hectares in Aqaba on the Jordanian coast next year, and the Sahara Forest Project team has signed a second agreement to develop a new trial project in Qatar.

The Qatar project has secured new backing from a company based there called Qafco, the world's largest producer of ammonia and urea-based fertiliser, and Yara International, a Norwegian fertiliser company.

While already initiated in Aqaba, a comprehensive feasibility study is now under way in Qatar. Both companies will provide financial, technical, and research and development support to the Sahara Forest Project, with a view to finding ways of creating environmentally friendly fertiliser that can be used in desert areas.

By 2050, the founders of the project say that their greenhouses, built on 198,000 hectares (28 square miles – or about one and a quarter the size of Manhattan) could employ up to two million people.

Different areas will support projects of different sizes, but solar power installations would take up another 73 sq km, with green vegetation outside the greenhouses taking up a total area of 15 sq km – that is equivalent to an area 16 times the size of Co Dublin.

The output of the projects would include fruit and vegetables or biodiesel from microalgae, depending on the suitability at each location.

Salt, freshwater and vapour from freshwater would also be produced.

Solar-generated power would be exported to the grid to supply surrounding communities.

The statistics that prove the need for innovative projects such as this are stark, according to the Sahara Forest Project team:

- Desertification and land loss across the globe represent lost income of \$42 billion per year
- The barren lands lost every year could have provided 20m tonnes of grain

- Water use for crop irrigation must double by 2050 if it is to meet the Millennium Development Goals on hunger, according to UNEP figures
- As the global population approaches 9 billion by 2050, the demand for water and land-intensive meat and cereal is predicted to increase by at least 50 per cent
- By 2050, up to 4 billion people could be living in water-scarce areas