

Coming STORM

Water may well be 'The Coming Storm' according to Dr Sir Liam Fox. He talks to Fergus Byrne about the perils of ignoring a looming catastrophe.



What have civil war in Syria; microplastic snow in the Antarctic and rampant migration got in common? They are all aspects of an impending global water crisis, according to Dr Sir Liam Fox.

In his new book, *The Coming Storm—Why Water Will Write the 21st Century*, he cites how disastrous water management in Syria contributed to the country plunging into civil war. He also says that nowhere on the planet is plastic free, and that microplastics have now been positively identified in Antarctic snow. Thirdly, he says that, although global migration is due to many factors, water scarcity and the mismatch between rapidly growing urban populations and their access to water - and thereby food supply—is a major contributor to migration, and that is likely to increase on a massive scale if we don't address these issues at source.

The former Defense Secretary and one time Secretary of State for International Trade was an MP for over thirty years. Speaking from his home in Somerset, he admitted that prior to the recent election he had contemplated not standing so he could concentrate on a subject that has been concerning him for many years—the threat of impending global crisis that dwindling access to clean, fresh water presents.

The Coming Storm—Why Water Will Write the 21st Century is a deeply disturbing account of how one of our most valuable natural resources has far more potential for 'conflict' and 'catastrophe' than any of the energy resources that traditionally cause confrontation and upheaval.

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Perhaps some of the statistics that he highlights might help put this into context.

Only 3% of the world's water is freshwater, and with most of that locked up in glaciers, ice and the atmosphere, only 0.3 – 0.5% is actually available for our use. Combine that with a rising population; for example, since 1962 India's population has grown from 450 million to 1.4 billion and China's from 660 million to 1.4 billion. Nigeria's population has grown from 45 million in 1962 to a staggering 229 million. Overall, the world's population has risen by over 5 billion people since 1962, and by the time you read this it will have risen even more.

What's most concerning is the fact that the water we consume, whether it is used in agriculture, industry or for day-to-day human consumption, is not being replenished at anything like the rate that is needed to keep up with global population growth.

Liam Fox points out that, with the total amount of water on the planet neither increasing nor decreasing, as the population rises, we will see an increased demand for food and water. To add to an already pressurised situation, it is thought that by 2054, demand will roughly double from where it is today.

The issues presented in Liam Fox's book are manifold. One striking point is the possibility of conflict due to access to river sources. For example, China's control of Tibet means it has the ability to control the greatest store of freshwater outside the polar regions. China now controls the source of all Tibet's major rivers. Like a shocking geography lesson Liam names the rivers: 'The Brahmaputra, Mekong, Yellow and Yangtze, China controls the headwaters of all of them—all of them—and the potential for geopolitical conflict is enormous as a consequence, and that's what we're not factoring into our wider thinking.' In the book he says, "those who believe that the Chinese obsession with Tibet is about identity, culture or the Dalai Lama should think again—this is largely about control of a single commodity: freshwater."

Beyond China and Syria, Liam also discusses a range of potential flash points around the world from the Nile

to Iran, as well as the 'maritime chokepoints' used for transportation of goods around the world.

Pollution and its effect on world health is another massive problem that we are already familiar with even here in the UK—'Surfers against Sewage' claim that 75% of UK rivers pose a serious threat to human health. Liam talks about how a visit to a sewer in Calcutta was one of the early inspirations for his research on the book. It highlighted some of the problems faced by pollution but also gave him an insight into how easy it would be to improve life in some communities. 'When I was a junior minister at the Foreign Office' he says, 'I opened a project there.' He recalls it as being a 'relatively simple project' to install drains and pavement to cover up what was 'effectively raw sewage' running through the streets. 'And you'd have thought we'd given everyone a million pounds who lived there, because they had a big party, and we were treated like heroes. Yet we were only giving that one community what we had taken for granted for hundreds of years.' He recalls it as 'a real object lesson to me in how some of the things we take for granted are hugely lacking in their distribution in other parts of the world.'

He presents another shocking statistic describing how a cruise on the Danube is lovely until you reach Serbia 'and it becomes an open sewer'. He suggests that '60,000 Olympic swimming pools of untreated human sewage go into the Danube after Belgrade every single year, all the way out to the Black Sea, where it comes out. I mean, that is a crime against nature.' Another motivating factor is of course our oceans. 'The environmental debate' he says, 'seems to be blinding us to the fact that we're treating our rivers and seas as giant rubbish dumps, and all that plastic that's falling to the bottom of the oceans and will lie on the ocean floor. It so disgusts me.' He says one of the things that 'actually made me get around to writing the book' was his 'utter disgust at the fact that by 2050 the weight of plastic in the oceans will outweigh the fish in the oceans.'

As one of the early inspirations to highlight the role water might play in a global future, his Calcutta experience also set him on an understanding of the



Sir Liam Fox (Alamy)

complexities of dealing with water as a single issue. 'I wanted to bring together a whole range of different things' he says, 'because we tend to think of security in one box, environment in another box, climate in another box and economics in another box.' Having done his time as a doctor and having worked in the Foreign Office as well as security, defence and trade, he says he could see 'how all the bits would fit together' but 'we are particularly poor in most Western countries at joining the dots, and so you get a very big issue like water, which has some feature in all of them, but never gets high enough up the agenda in any of them to become regarded as a major issue.'

One of the challenges in writing the book he says was to show why the natural history of water, the geopolitics, climate, medicine and sanitation are all actually part of the same thing.

He discusses the concept of 'virtual water', explaining that our behaviour and consumption are not just affecting our own communities. When we buy cotton clothing, for example, are we aware that it takes 10,000 – 20,000 litres of water to produce 1kg of cotton? Or are we aware that it takes 140 litres of water to produce coffee for one cup? Or that it takes 15,000 litres to produce 1 kg of beef, whereas it takes 300 litres to produce 1kg of vegetables? He points out that 62% of the UK's total water footprint is accounted for by the use of water in other countries. So, our consumption can have a direct affect on access to water in other countries.

One solution to this problem, he suggests, is a global agreement that countries with less access to clean water do not grow crops or process products that require excessive water. 'For me that makes a great deal of sense. Otherwise, the growing global population could actually have a much more adverse impact on water use than they would have.'

He hopes that by writing the book he might 'open up these arguments to people' so that they might go away and think about them, and maybe read a bit more about them and 'maybe the political classes might want to apply a bit of pressure.'

He comes back to migration saying that it is a 'global phenomenon' that is currently 'nothing to what will happen if you get wide scale displacement of people because of water shortage, geopolitical conflict or change in disease patterns as a consequence.'

Liam recounts the story of the possibility of Pakistan using a tactical nuclear weapon. 'It was something that bothered me a great deal when I was Defence Secretary, because we knew that one of the criteria for Pakistan using a tactical nuclear weapon would be the damming or the diversion of the Indus river. Because it's effectively their only source of fresh water.' There was some dispute about whether that should appear in his book, but he says: 'My view was, it's actually better that other people know what these triggers are, because it avoids doing something with an unpredictable consequence.' He believes 'all these things have become more critical



'It takes 140 litres of water to produce coffee for one cup'

since that, and we could have quite a lot of consequences. So, we need to think about how we handle it, what cross border cooperation looks like, what international law looks like in doing that, and how we start to be able to deal with water supply, including desalination, which we know how to do, and which has got much cheaper. But also, how we stop populations growing so quickly in areas where there is shortage.'

Like so many environmental, geopolitical and social questions in the world today, the bulk of the statistics that Liam Fox highlights in his book are indeed shocking, but the key questions are of course what can we do about them? Like the other global issue of food production, Liam's first answer is 'we must stop wasting it where we do have it.' Using 'smart thinking' around ecological advantage and trade we can alter the virtual global water balance. He takes Spain as an example saying, 'Spain is one of the most water challenged countries in the world, it's in the top 20, and yet it spends all this time sprinkling water on golf courses for tourists.' But that's only one example 'the list is endless' he says.

We also need to use global treaties to reduce the dumping of plastics. 'Four countries' he says, 'put more plastic into the oceans than the rest of the world

combined. China, Vietnam, Indonesia and Thailand.' He believes they and other countries that are polluting the planet should clean up their acts if they are to be part of trade or other alliances. 'They all want things in terms of global agreements, so make it a condition.' He points out that we have the ability to change our behaviour. 'We've got the technology. We know how to recycle. We know how to do things. It's just that we're not doing it, and a number of very, very bad global players are worsening the condition for everybody else on the planet to the point where we've got microplastics and snow, and the first microplastic snow in Antarctica. Well done us! Well done the human race! You've now managed to pollute the last pristine place on the planet.'

However, on the positive side he chooses a fascinating example of a country where the use of water is well controlled. Israel is the best 'in terms of its ability to conserve water' he says. 'They have 'well over 80% reuse of water.' They are well ahead of the second-place country which is at 20%. 'So, there's clearly a lot can be done. Again, Israel is the world's top at desalination. It now produces more fresh water than it actually requires and is pumping fresh water into the Sea of Galilee at the present time.' Liam points out how that could be hugely helpful



Sea of Galilee (Alamy)

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downstream. ‘Because the people of Gaza get water that’s downstream from Lake Galilee, the Sea of Galilee. And were they to be able to get access to either less salty water that could be more easily desalinated, or desalinated water itself, you can see the benefit.’

If there is a way to simplify the message from Liam’s book it is this: ‘We need to understand how dependent we are on water. Then we need to understand how relatively scarce fresh water is in the world, then we need to understand the effect that competition for that water may have.’

Liam believes we have a moral duty to ensure that everyone in the world has access to clean water. ‘I think we need to also accept that the right to clean water is the ultimate human right. You know, if necessary, you can survive without democracy. You can’t survive without clean water. You can’t get liberation for women and girls, for example, you can’t get gender equality if they are being forced to travel long distances every day and get no schooling and no economic activity for water. These things are all related. We need to understand, number one, that they are related, number two, we need to understand that there are solutions, and number three, we need to force those who are refusing to implement the solutions to do so.

We are not passengers in our own destiny. We actually are in control of it.’

Without the pressures of being a Member of Parliament, Liam Fox now has the time and experience to promote his concerns about water and the potential for huge resource issues. But although his wife jokes with him that it has become an ‘all consuming passion’, he has strong reasons to push for understanding and change: ‘We just don’t have a big enough awareness of the problem’ he says ‘and if we don’t have an awareness of the problem, it will never rise far enough up the global agenda until it becomes virtually an unsolvable crisis.’



Liam Fox will be in conversation with John Dean at Bridport Literary Festival on Friday, November 8th at the Electric Palace, Bridport at 6pm. For tickets, contact TIC Bridport on 01308 424901. The Coming Storm – Why Water Will Write the 21st Century is published by Biteback Publishing ISBN: 9781785908590.