# Rivers Of Power

**Ross** Welcome to Renegade Inc. Dr. Laurence C. Smith is one of the world's leading climate scientists and author of Rivers of Power and The New North. We caught up with him to discuss the common theme in his books - how looking at the past is the only way to anticipate the future. So as climate breakdown begins to bite, how will it reshape our societies, our economics and our politics?

**Ross** Laurence Smith, welcome to Renegade Inc.

**Laurence Smith** Very glad to be here. Thanks for having me.

**Ross** Your most recent book, Rivers of Power, in it, unequivocally, you state that to be able to anticipate the future, you have to have full knowledge of the past. History, of course, doesn't repeat, but it does rhyme. How do you project into the future by looking at the past?

**Laurence Smith** Well, in the case of rivers, it's remarkable how much these natural geographical features, which we pretty much take for granted, how often and how consistently they have been intertwined themselves in human existence from prehistory to today. And, you're right, history never repeats. It does rhyme, though, and if we take a historical view with these features, we see that rivers have always been essential to humankind - always, and they still are for some very basic fundamental reasons.

**Ross** Tell us what those reasons are.

**Laurence Smith** If you look at the different ways that rivers have been used over time, we see that the details change, but the underlying reasons stay the same. For example, they have provided us with natural capital in various forms. In ancient Egypt that natural capital assumed a form of a consistent flood water that miraculously would emerge from the desert each summer, flood the land and allow crops to be planted and a taxpaying civilisation to be sustained for over 3,000 years. Today, that natural capital still serves Egypt, but in the form of reliable hydropower from the Aswan Dam, most recently in the form of very high priced real estate along the banks of the River Nile. A similar transformation, as you well know, is underway in London right now with some extreme, exciting riverfront developments taking place in old former industrial properties that used to be natural capital in another form.

**Video clip** My name's Kate McBride. I'm a fifth generation farmer from a property in Western New South Wales. I live on a half million acres sheep property and we have about 15, 20 thousand sheep and we get a heap of wild goats off it every single year as well. So I have a very hectic lifestyle. I'm also a uni student and I'm a Healthy River Ambassador. So for the last five or six years, I've been trying to highlight the issues that we're experiencing at Western New South Wales, but also really trying to fight to better the policy that surrounds water issues in Australia. So the Murray-Darling Basin is a huge landmass part of Australia. Over two million people live, work and rely on the water that comes from the Murray-Darling Basin. And we have massive amounts of critically important, internationally recognised wetlands all over the place. So it's actually quite a delicate, balanced, ecosystem and we have been taking too much from it for too long. But it's a beautiful part of Australia

and I'm very lucky to be living in it. So I was born and brought up on the Darling River. My family's property is right on it. And so I grew up having a great respect for the river, but also understanding how important it was for our family station. And I remember I did all my schooling down in town and I remember going back in about 2015 after I'd just finished school and all of a sudden the Darling River that I'd grown up to know that was there, that was a reliable source of water, all of a sudden it was bone dry. And that's when I realised that something was really wrong here and something needed to change. And so for about eight and a half months, we had absolutely no river. And that was really tough. Like I think we were all just trying to work out what had gone wrong. Why was this happening for the first time ever? And then we got water back and we thought this will be all right. We recognised that there was still a lot of issues. And then for a second time, only about two years after the first time, our river was bone dry again, and that's when we saw these videos emerge. And one of them I took it went viral of these mass fish deaths. And we saw huge amounts of blue green algae that was killing the livestock. It was killing our native animals. We saw kangaroos dying all over the place. What's caused this? Why we've got no water is over-extraction. So we're just taking too much water from a really delicate ecosystem. It's going to particular crops - in particular, the irrigation uses. And we're not letting that water flow down into the ecosystems and past these communities that really rely on it. And the other issue is mismanagement. In Australia, we're really not managing our water properly enough. And I said before how delicate our water systems are here, how we don't have very much water. I'm in South Australia today, and we're the driest inhabited state on the driest inhabited continent. Like, we need to be really careful about what we're doing with water, but we're not being smart enough for it right now. We're seeing complete ecosystems collapse. We're seeing mass fish kills. We're seeing a huge amount of other animals dying. And it's absolutely heartbreaking. And it's not just animals or communities or the fact that farmers don't have water flowing down their rivers. I mean, the traditional owners of Australia, the Aboriginal people, and particularly the traditional owners where I'm from, the Barkindjii people, they have such a deep connection to this river. And that's what we're really trying to highlight as well. One of the local townships near me has a life expectancy of 37 for males and 42 for females. And we know - we've got report after report - showing that when there's water in the river, crime rate decreases and life expectancy increases. I mean, this isn't just about animals dying or farmers losing their livelihood. This is people losing their lives. And unfortunately, the Australian government is not doing enough. They are not looking after their country people and we are being left out to die.

**Ross** Isn't it amazing the civilisations are based around the natural world, but if you were to speak to a lot of economists, for instance, they don't see that. They don't see the natural capital that you talk about in this river. They actually just think, well, you know, we can put it in a model. Civilisations basing themselves around the natural world, as opposed to hubristic economists saying, actually, we're above all this, how do you make the connection again, and say to people, actually, we are reliant on nature, this is our home - our home isn't a bunch of assumptions and rational models in a textbook?

**Laurence Smith** That is an excellent point. I'm really glad you made it. In fact, I talk about exactly that glaring absence of the natural world from the purview of economists and also political scientists. Both of these academic fields sort of view the human enterprise as somehow divorced from the natural world. And this is not to say that environmental determinism is the right approach either. I mean, we are not slaves to the physical world, but

nor are we completely removed from it. And I agree with you, this is what's lacking in economic and political science assessments. For example, there was an important book came out a few years ago called that The Size and Shape of Nations. And it's a massive tome. It's this thick. A reading of that book will find all kinds of references to democracy versus totalitarian governments, to the importance of ethnicity and language - many, many human dimensions, which are, of course, very, very important. Nowhere in them will you find any mention, not a single word, of the importance of mountain ranges, coastlines or rivers. Yet when a student and I did a global mapping of political boundaries, meaning the size and shape of nations, we found an enormous amount of overlap with physical, as well as human, constructs. So it's a blend of both. Yes, we are human. We are distinctly human. We're not slaves to the natural world. We're not bears or something, but nor are we completely separated from it.

**Ross** When we talk and think about the nation state, is the nation state in the face of climate breakdown becoming an obsolete idea? If you think from a river context, if a river transcends two nation states, they have to collaborate and get on because ultimately that is a life force that river. Is the nation state in the face of climate change, a obsolete idea?

**Laurence Smith** I'm not a political scientist, so this is venturing a little far afield for me. But I will say my personal opinion on that has changed today versus, say, four to five years ago. Four to five years ago. we seemed to be headed very much towards a planet of increased cooperation, globalisation, interconnectedness. But as the the elections showed, as Brexit has shown, as the elections in my own country have shown, the nation state is still a very strong idea and nationalism is still a important force in the views of everyday people. So I do not think it is an obsolete idea. Yet you raise a good point about the power and importance of rivers enforcing cooperation between nations. And this is a remarkable good news story that we see around the planet where neighbouring nation states that are sworn enemies - think Pakistan and India. Think Israel and a host of its neighbours. Even these sworn enemies have found ways to set aside their differences to forge cooperative legal agreements to share their transboundary rivers. India and Pakistan have gone to war at least four times since the signing of the Indus Water Treaty in the early 1960s, and yet they have never violated the terms of that treaty. Basically, rivers are too important to risk losing access to in a war.

**Ross** When we then think in those terms about the New North, which is the book prior to this one, you cite the Arctic as a theatre, if you like, of collaboration.

**Laurence Smith** I have been to the Arctic many times and I must say it is one of the most misunderstood regions on the planet. It's certainly iconic. We all recognise that. But what is perhaps less understood is that this is not a open frontier. It is not a unpopulated place. It is not a ungoverned place. The Arctic and the sub-Arctic, which is a much vaster area of land and sea below the Arctic Circle, is peaceably governed by eight nations with a great deal in common - peaceful, friendly borders, for the most part, some sweeping common populations and languages amongst indigenous groups, many facing similar problems and challenges ranging from resource extraction by southern capitals to protecting indigenous languages and traditions. What's interesting about this place is the fervour in which the world has taken an interest in it, in many ways driven by climate change and the extreme amplification of climate change that we're seeing in the region. But if you travel there, as I have, you will see that climate change is just one of several trends, concerns, facing the regions, ones that are

quite prevalent all over the rest of the world as well, having to do with resource extraction, the power of local communities, the role of multinational corporations and so forth.

**Ross** When we think about the New North, then, through the Arctic context, if you like, what does that New North look like? What does the world in 2050 look like from here?

**Laurence Smith** Well, what the Arctic and sub-Arctic, what the New North will look like in the future depends very much on some big choices we are in the process of making now. One of the very biggest will be, will we continue to burn fossil fuels as our energy base or not? The Arctic and sub-Arctic contain very large reserves of oil and natural gas, and at the moment they are largely non-recoverable, economically speaking. And should we as a global society get serious about weaning off of fossil fuels, they will remain non-recoverable and non-economic. Should we decide to proceed as we have, then they will become economic. And that single choice, perhaps more than any other, will govern what the New North will look like by the year 2050. The second big decision that will govern what the New North will look like by 2050, is whether the world resumes its path towards greater global integration - that was the case up until about five, six years ago - or whether that trend, which has been lurching along since the end of the Second World War, will in fact reverse and we will become more multipolar, more fractious or fragmented as some of the political science of recent years might suggest. That is another big fork in the road that will shape not only what the New North will look like in the year 2050, but the rest of the world as well.

**Ross** Laurence, you talk about the two big moments, if you like, about whether we continue burning fossil fuel and also whether we collaborate, whether globalisation will use it for good. And thinking about the Arctic, the options there are the Americans and the Russians can have a proper tear up or actually they can sit down like adults around a table and say, how best are we going to manage this. In the sort of balance of probability side of things, what do you foresee happening between economic superpowers coming together and working out whether they can collaborate or not?

**Laurence Smith** Until very recently, we were honouring the time-long tradition of cooperation in the Arctic and the previous US administration rather shattered that with a deeply impactful speech by then Secretary of State Mike Pompeo, who ripped up that playbook with an important speech in Greenland. And what was being upended is a rather unique political polity that was invented in the Arctic and is now being studied as a model for other parts of the world. And that remarkably collaborative polity is called the Arctic Council. It's not a government and it's not a government agency, but it is an international policy group that has bylaws and memberships of all of the Arctic countries. And while this organisation is not allowed to touch upon matters of security, or else it never would have been granted a charter, but it is able to tackle many other problems unique to the region and the problems that face the whole world really regarding pollution and economic development and so forth

**Ross** With so much at stake, is it the case that the Arctic could be a blueprint for how nations begin to collaborate and get on with each other in the face of climate breakdown, which, let's face it, instead of fighting wars against each other, they should understand what the real enemy is, which is degradation of the planet and global warming, and get behind one another

to fight that battle as opposed to the wars of old, which is stuffed with waste, ignorance and economic devastation?

**Laurence Smith** I think everyone here today would agree that that's what we should be doing and we would hope that that's what we will do in the future. One of the reasons the Arctic has been so successful with some of these models that we're talking about is because the stakes there are pretty darn low. We would never see a international polity like the Arctic Council formed over the Straits of Hormuz, for example. But that's not to say that just because they're invented in a place where the conditions allow their invention, that's not to say they don't have any influence and can't become models for elsewhere in the world. The two great incubator projects that have come out of the Arctic are the Arctic Council and Return of Home Rule and Land Plan Claims to Indigenous People, many of whom their land claims were not extinguished by old colonial treaties or are now being revisited. And this is really quite momentum in the Arctic more than most other places in the world. And those agreements are now being examined by other groups, for example, indigenous tribes in Amazonia, as models to pursue. So I think we have a lot to learn from the Arctic, and not from the Arctic itself as much as the cooperative frameworks that have emerged from the nations that govern there.

**Video clip (Frode Pleym)** We're in the middle of a climate crisis. The reason that Greenpeace is taking a strong stance against any more extraction of fossil fuels, in particular in the Arctic, is that the world's scientists, the best scientists in the world, are clear on that. The fossil fuels, including oil, need to remain in the ground. And the first place where you could continue that push for extracting even more oil is up in the sense of the oil. A lot of people abroad, both people, politicians, philosophers, are pointing to the Norwegian paradox being that when it comes to electric cars, Norway's in the forefront, globally. We are phasing-out the usage of fossil fuels in Norway. But when it comes to our major emissions, the emissions from Norway that are impacting the world climate, we are basically the oil elephant in the room. The emissions from Norwegian oil production abroad from the usage of that oil is ten times as high as all the other Norwegian emissions combined. Yet we are doing nothing about it because in the short run we're earning a lot of money and they find it immoral, deeply irresponsible and not in line with our Paris commitments. We are living in urgent times when it comes to the need for rapid action. Scientists have said that the world, and that obviously includes Norway, already have found more fossil fuels than we can afford to burn if to avoid the most catastrophic consequences of climate change. Yet, we are still looking for more, and Norway is one of those countries. The implication is that as we continue to ignore the scientists and look for even more oil in the Arctic, the sea ice is melting even more quickly, allowing for more exploratory drilling, allowing for the northern route from Norway over to Asia. Like all of those things that is caused by the increased oil drilling is allowing for even more oil drilling. And we need to get out of that vicious circle and we need to get out of it quickly. At the moment it's like in the short term profitable for the oil companies to continue drilling for oil. It's profitable for fishermen to empty the oceans for fish. That will not change unless we see political actions. So we need the politicians to act in the best interests of the companies in the long term and the people and nature to change that business dynamic that is so flawed at the moment because it is not enough profitable to actually protect the planet we all depend upon.

**Ross** People who can least afford climate breakdown are the ones often footing the bill. When you look through the prism of the New North and the thinking that has come out of that book, which areas in the world do you see suffering the most from climate breakdown? And what will be the logical conclusion of climate migrants if those lands have become uninhabitable?

**Laurence Smith** I'm glad you asked that question, because to be very clear, any small handful of gains that might be enjoyed by a little club of rich countries in the north will be more than overwhelmingly countered by the much vaster suffering populations to the south. Around the equator, we are seeing the arrival of novel climates. These are climates warmer than anything that has been seen before in the history of modern humankind. We are seeing species extinctions at a rate that is extraordinary, one of one of the great geological extinction periods of the earth's history. These negative repercussions are being experienced all around the planet and for sure, we have a tough road ahead from a planetary point of view. And the phenomenon of the New North is but one small part in that overall story where we really need to get to work and make some changes.

**Ross** I often say this on this programme, we hear that analysis and often feel helpless because we think, oh, what can little old me do about this? What are the practical steps - obviously it starts with awareness - what are the other practical steps that man, woman on the street can take when we're starting to think about climate breakdown?

**Laurence Smith** I think it's important for everyone to understand that there's good news and bad news. The good news is we know what the solutions are. This is not mysterious anymore. We have the technological abilities to deal with this problem. We have the adequate scientific knowledge of the scope of the problem and some of the potential risks from nonlinearities, which could make the problem even worse than we already know it's going to be. But you're right, there's very little that any one individual person can do except to vote because it's now a political problem. It is a 100 percent problem of political will. We have the solutions in hand and we know the science. And switching over to efficient appliances and light bulbs is nice, and it helps a few percent and we should all do it, but its main value, to be very honest, is more indoctrinating a way of thinking and prioritising efficiencies and new energy forms, as opposed to actually making much of a difference in the grand scheme of things. We need to vote in governments that are willing to tell us what we don't want to hear, and that's the challenge. I think what I've learnt from the Trump presidency, and now the Biden presidency, is how influential one person really can be if it's the right person in a position of power. And I mean, you mentioned all the climate policies that were broken by the previous administration are now being signed up for, again, in rapid course in matters of days. I have witnessed similar impacts by single individuals who are CEOs of major companies. And often the pressures on those CEOs are coming from within, coming from their own employees. And this goes even for the big fossil fuel companies like BP, you name it, ExxonMobil, all of them are influenced from within. And leadership and agencies and companies at every level can make a real difference. But sadly, at the individual level, I think focusing on one's personal life, it's great, but it's not enough.

**Ross** Lauren Smith, congratulations on Rivers of Power and also congratulations on The New North, which we love.

**Laurence Smith** Oh, thanks.

**Ross** Thank you very much for your time.

**Laurence Smith** My pleasure. Any time. I really enjoyed it. Great questions. And I appreciate the opportunity to speak with you.