

## The Fire & The Flood: Managing the threats of a global pandemic and changing climate

**Host:** Karina Funk, CFA

**Guest:** Doug Baker

00:00:03 **Ken Stuzin:** This is Ken Stuzin. I'm a partner at Brown Advisory. Welcome to our NOW 2020 podcast. NOW stands for Navigating Our World. We are simply trying to understand the world better, to navigate some of the most pressing questions that are shaping our lives, our culture and our investment challenges.

How will we navigate the future of capitalism, climate change, our geopolitical relationships? And perhaps, most importantly, how will the coronavirus pandemic affect these questions and so many others? We are committed to sharing the views of CEOs and other leaders who are thinking about these questions so that we can all learn from their perspectives.

As we look to the future, whether we agree or disagree with each other on the issues at hand, the one thing we know for certain is that none of us can figure this out on our own. At Brown Advisory, we are focused on raising the future, and we hope these NOW conversations will help us do just that.

00:01:13 **Karina Funk:** Right now, it's hard to get beyond the global pandemic and its fallout. The imperative to find a solution is intense. In those conversations we used to have with investors, millennials, voters, business leaders, scientists and policymakers about climate change, they feel like a long time ago.

Yet whether top of mind or not, climate risk is also intense, as evidenced by the correlation between urban air pollution and more severe cases of COVID-19. Or the fact that habitat destruction makes both wildlife and humans more susceptible to infectious disease.

There are other links between climate and COVID-19, starting with society's immense inertia against investing and preparing for events that are essentially binary, massive and unpredictable. We can debate whether this pandemic was predictable, but it certainly feels like, as a society, we weren't prepared for how hard this would hit us.

However, when it comes to climate change, we actually already know a lot, and there's a lot that we can predict as well. We also know that climate action can be as much about avoiding climate change risks as it is about seizing the opportunity to create jobs, innovate, improve lives and save lives.

My name is Karina Funk. I'm a partner at Brown Advisory. As a long-term investor and chair of sustainable investing, I'm constantly looking for companies that are well-prepared for the future, whatever that may bring. That future includes a whole lot of volatility and unpredictability, and it definitely includes climate change.

It's a great honor to be joined by Doug Baker, chairman and CEO of Ecolab. Doug, thank you so much for speaking with me today. I always enjoy our conversations. You have led Ecolab as chairman and CEO for about 15 years now.

Your company is the world leader in providing water, hygiene and efficiency technologies for a wide variety of industries. And as a very large global company, you're a part of our everyday lives, but I don't think many listeners know that. Ecolab operates in over 170 countries around the world, sales of almost \$15 billion and a lab that the company has delivered very strong shareholder returns over the decades.

Now if we had recorded this podcast six months ago, our conversation would have been very different. Indeed, we did have that conversation last fall about climate change and leadership. And now there's

even more to talk about than those two hefty subjects. But if we step back pre-pandemic, can you help us understand Ecolab's origins in 1923 as Economics Laboratory to the diversified global company you are today?

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**Doug Baker:** Well, it's great to be here too, Karina -- thank you for the invitation. Ecolab is, you know, a classic story. It's single entrepreneur, started the business with a single product. He was a traveling salesman, not making enough money, and was looking to augment income.

So he designed a product called Absorbit, and its function was supposed to help hotels clean their rugs in place -- i.e., what they had to do was take them out of the room, send them to the cleaners. The room would be out of function for multiple days [before bringing] it back. And he thought he could help the hotels by cleaning them in place.

Great idea. Sort of the roots of what we'll talk about later, where in that first product, at least the heart of the idea -- the only problem was the product, of course, didn't work. So then he ends up finding a commercial dish machine solution. So, dish machines were taking over the kitchens then because of the labor and all the rest, and he came up with that, and that worked.

So the roots of the company are: single proprietor, builds the business, goes through the Depression, goes through World War II, right? Through all the other things that have happened. And the company built -- so it started as a hygiene company. It progressed into a food safety company, as he expanded his -- if you say it -- portfolio around hotel kitchens and restaurant kitchens, as this food safety, if you will, story expanded. We built that out, invented things like cleaning-in-place technology for food production facilities and the like.

And then the last thing, and the last big pillar, was water. And if you're in the food and beverage, food safety business, it becomes quite apparent how important water is in terms of securing their supply -- i.e., usually foodstuffs and also producing food. And that water is becoming a bigger and bigger element of that whole chain and a more critical element.

So we ended up starting a greenfield operation in water. Did that for seven, eight years, and then had the opportunity to buy a much larger business in 2011, which we did. And really, the whole genesis of that was, we had all these great ideas and great things that we were executing on a really small basis but didn't have the footprint and didn't have the technological know-how around the globe.

And so, buying Nalco really enabled us and gave us a platform to accelerate the expansion of those ideas and, honestly, a huge infusion of talent, IP, culture -- I mean, all the things. It was a really positive, I'd say, thing for the company.

So today, our promises are hygienic spaces, clean water, safe food and healthy environments. And we do it really through applying our food safety know-how, our anti-microbial know-how, our water technology know-how and the like.

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**Karina Funk:** So, Doug, let's pause for a second and crystalize Ecolab's impact at millions of customer locations around the world and impact on us -- me, my family, our listeners, most likely. Can you give us a few examples of how Ecolab is literally part of our everyday lives today?

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**Doug Baker:** We're a business-to-business company, so our brand isn't well-known outside of the business community. But yeah, we're huge in food and beverage, food safety. We are providing the technology to make food safe for over about 20% of the food produced in the world. We are doing huge brewery business, bottling business, dairy -- we do over 40% of the fresh milk.

It would be hard to go through a day consuming something that we don't touch one way or another with our technology. We then do the water technology for 20% of the world's electricity. And so, when you generate electricity, in almost all applications, [you] use a lot of water. It needs to be used effectively and then [put] back into the environment cleanly. So that's the work that we do there.

We do a big business in data centers. You guys using any data at home right now? If you are, we have probably a hand in it because of the big cooling tower needs around keeping large data centers cool.

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**Karina Funk:** Which, by the way, was from your Nalco technology, right?

- 00:08:33 **Doug Baker:** Exactly. And we're leveraging the Nalco technology to do that. And data center growth is enormous, as you might imagine. And what we're helping them do is manage the data with less water and more efficiently, which also then starts cutting down on the amount of energy they need as well. So it's all virtuous, right, in those things.
- There [are] countless ways -- and we're in health care, we're in life sciences, we're in pharmaceutical. Right? We're in a number of areas where we're doing cleanroom technology, we're helping pharmaceutical companies produce absolutely in a hygienic environment, which you would expect. But that takes technology, know-how and partnership.
- 00:09:16 **Karina Funk:** Doug, in your 30-plus years at the company and the last 15 as chairman and CEO, has there been an evolution from that early focus on economics to a focus on sustainability or ecology, I guess, as your name would imply? And has your definition of ecology and sustainability changed?
- 00:09:40 **Doug Baker:** Well, absolutely. I think it's interesting -- not long ago, we were writing something. It was really for our CSR report. And as we were writing it, I go, you know what would be really interesting? Let's go back and look at all of these reports. I'd really like to look at the first one and the progression over the last 15 years of what's occurred and how we talk about environmental sustainability, how we talk about governance. How we talk about even the work that we're doing within the communities and within our community to create opportunity, etc. And it was really, I would say, very surprising how fast and how far we had moved in 15 years.
- And part of this is just being aware. But early in the, let's say, '04 period, when I took over as CEO, we were talking very much about inside baseball. How we are going to reduce our own carbon footprint -- it could be through lightbulbs. How we're going to reduce the amount of water we use, solid waste, etc. But it was all focused on internal consumption. And what we really learned was a couple of things. One, our real impact is outside our four walls.
- And I'll give you an example. We just did a large deal, which we publicized -- we rarely do, but we did because we had our partner's permission, with ADM. And what we're going to do there is really help ADM continue to manage and operate but use a lot less water.
- And in fact, what's going to happen is they'll use 2.2 billion gallons of less water per year than they would have before the technology goes in. This will save them because of a reduction in carbon that comes from reducing water. You don't heat it, you don't move it, you don't treat it.
- They'll save \$29 million. So there's a huge economic benefit but also a huge environmental benefit. And what we also understand is that 2.2 billion gallons, that equals what we consume in a year. So with one customer, we do 100% offset. But what we've now measured in total is we've saved over 200 billion gallons, 100 times what we used last year via our technology with our customers.
- So there's been a big change. So it used to be focus on the economic. So if we had sold ADM 15 years ago, we can save you \$30 million. And oh, by the way, you'll use less water if you care. And what's happened today is it really is a lead with, here's the ecological benefit and the environmental benefit, and you can do this while also realizing economic benefits.
- And we have learned when you couple those two, you get a lot of throughput, and you make a big, big impact. And when you don't have both of those together, you get happy meetings but no great outcome.
- 00:12:45 **Karina Funk:** Doug, given what you've just mentioned about water technology and its links with energy, you're broadening the climate change discussion for, I think, a lot of us, where climate action is typically seen as decarbonizing power generation and transportation. But it's not just that. What's the connection among water, carbon and climate change?
- 00:13:07 **Doug Baker:** Well, they're incredibly intertwined. And I heard a quote that I thought was great, which was if climate change is a shark, water [is] its teeth, and it's the first thing we're going to feel. Meaning there's a lot of conversation around rising sea levels and its implications on coastal cities and communities, which is exactly the right conversation.
- But the conversation that doesn't get enough airtime, I believe, is that if you look at fresh water, fresh-water

supply and fresh-water demand are at absolute imbalance already, and it's going to get worse. It's projected by 2030 to be a 40-50% imbalance -- i.e., more demand than supply.

So what's happening? Population continues to grow. Middle class has been growing. As people enter the middle class, they shift diets, so they move to protein. If you feed people with protein, it takes more calories, if you will, because you have to feed the animals before the people eat the animals.

As a consequence, this diet shift in agriculture is already the largest water user by itself -- [it] propels and increases water demand. Then, as people enter the middle class, they want air conditioning, more power. Power and energy is the second use of water in society.

These aren't frivolous places to use water, but unfortunately, there's not enough water to do what we're doing today for more people who have higher expectations. And if we don't get after this, this will be a crisis of unbelievable proportion. I would suggest it will make COVID-19 look small. And the reason for that is trying to survive without water is impossible.

Our expectations around what life is like is completely driven by waterborne processes. Every agriculture process, every manufacturing process, textiles, furniture, automotive, data centers and the like are all driven, in one way or another, by water availability. So once you yank that away, you've got a real collapse of life as we know it today.

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**Karina Funk:** Ecolab is needed in so many places because so many processes and a lot of these situations that you just mentioned were created when water seemed plentiful and cheap. So Doug, I know you have a lot to say about how water is, indeed, not plentiful and not cheap. Please educate us.

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**Doug Baker:** I think that's a great way to frame it. And so it's not crazy that manufacturing processes were built the way they were. Many of them were built decades and decades ago. We had [a] smaller population and, honestly, less awareness about water and impacts and the like. But what's happened over time is our ability or our willingness to change our processes to reduce water use, we've been really slow. And part of that is because it is underpriced dramatically.

Now, we are not going to figure out how to price water appropriately anytime soon. If you look at any community -- I'll just take Minneapolis/St. Paul, where we're headquartered. You probably have 28 jurisdictions pricing water. How are you going to get them to all self-govern in the same way? And this is one city in the world. It's nearly impossible.

So what really has to happen -- and we believe is what we've tried to create -- is a way for companies to understand the mismatch between water availability and water demand on the watersheds that they rely on. And this really is a local issue.

There are going to be communities awash in water in the future. They will have plenty. And there are going to be many that are in dire straits. So this is like oil. If oil becomes short in supply, it's short everywhere in the world, and price happens to work in that environment. It's not going to work in water.

So we've created a theoretical pricing mechanism -- i.e., a way that people can look at actual price and theoretical price, and the larger the mismatch, the bigger the risk. This is our water risk monetizer tool, which is free and available.

And large industrial giants now are using this to understand where their great risks are and what they should prioritize first -- how they get after this challenge and, if you will, improve their ability to manage in the future.

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**Karina Funk:** You've said to investors recently that this pandemic will have the biggest impact on health and our economy since World War II. Tell me about the impact to your customers right now.

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**Doug Baker:** Well, you know, I was an English major, and there's a Charles Dickens book, A Tale of Two Cities. And it's a bit descriptive of what's going on with our customer base. You know, it's the best of times and the worst of times, and it depends on where you are on this whole thing that's going through.

COVID-19 seems to be a disease that has unbelievably asymmetrical outcomes. So human health -- some people die of this; some people are asymptomatic and don't even know they have it. And I would say what

we're seeing in our customer base is customers like restaurants, hotels, cruise lines, theme parks -- this is by far the worst event they've ever been through economically by a factor of like two and three times.

And then you have customers like food retailers or grocers, health care in some instances. In some instances, they have problems. Life sciences, etc., where they've never had demand like this. I mean, the food retail demand is up 30-40% as people shift where they buy food from restaurants back to food retail.

And so, we've got to manage, one, unbelievable demand in some segments and absolute depression in others. So this has been a fascinating study of how you manage, if you will, I don't know, bad debt in one case, and how do you seven and eight times production in other instances?

00:18:56 And so we are managing through this. I will say if you're aware and open, you learn so much through stressful situations about your company, about your team and, I would say, most importantly, about yourself.

00:19:11 **Karina Funk:** Carrying on with your history analogy to World War II, you've also said it's rarely fun to live through history, but we want to look back and be proud of how we did. What are you most proud of in Ecolab's history in the making today?

00:19:28 **Doug Baker:** Well, it's a story that hasn't been fully written. I would say I'm incredibly proud of how the team has responded. And what they've done is really responded by helping customers, and the way we help society is through our customers.

And so their focus has been, I think, incredibly positive. And there's plenty to worry about personally, and every one of us has got some stress as a consequence of COVID-19. But their energy and action and, I would say, the way I think that they're living through this historic moment is really by helping others -- i.e., a larger purpose.

I can't tell you what a source [of] pride that is in watching it. It's motivating for all of us, and it's motivating for me. So at the end of this, I think what we want to determine -- we're going to make mistakes. We already have made mistakes. I don't know exactly what they are, but we'll figure it out.

But what we want to do is keep the purpose in mind, keep driving and living through the work we do for others, and use that, I think, to enable us to get through this in a very positive way. So I try to keep people focused on: COVID-19 will go away. We're going to manage today to position ourselves for tomorrow. We'll make some hard choices today, but the reason we're doing it is for tomorrow.

And it's like any of these -- I think you've got to keep your eye on both goals -- how do I manage in the crisis, but the way I manage in the crisis will absolutely dictate my future. So don't lose sight of that while you're getting through this. And I think the team has done an unbelievable job doing just that.

00:21:06 **Karina Funk:** It's great to not lose sight of the fact that we'll get on the other side of this current worldwide emergency. But it strikes me, Doug, that the current COVID-19 crisis is perhaps the first time that many in our society recognize the stark reality that we're all in this together. It's incredible that no matter where you are on this planet, we are all focused on essentially the same thing, whether it's the health crisis or the economic crisis that has arisen from it.

But climate change is an earlier manifestation of similar challenges. And Ecolab has already been working for decades on a related issue, which is water, with its interconnectedness to climate change and human health.

Now, there are many estimates out there about how this pandemic will cost society tens of trillions of dollars. Climate change might make COVID-19 look small. According to the UN, the required comprehensive, multilateral responses to fight climate change may amount to at least 10% of global GDP. You touch on so many areas of the economy among your markets -- can you give us a sense of how this pandemic will impact our willingness to embrace sustainability?

00:22:18 **Doug Baker:** Well, the optimistic view, I agree, I think in a number of ways you've seen, and I'd say most instances, honestly, society pulling together. People trying to do the right thing. The exceptions to that rule get a lot of attention and probably have an outsized voice, but it's not really what I observe day in, day out throughout our community and what I hear is going on in other communities through conversations that I have.

With that said, you know, I sort of excuse us to a bit around pandemics. Things that come every 100 years in unpredictable ways are never going to be things humans are great at preparing for. But climate change isn't that at all.

So while I'm somewhat apologetic for society as a whole on the pandemic, I'm not apologetic at all on climate change because it's just like this steady march. I mean, I have a house that's on a little river in Minnesota.

And let's say there's a big snow in the winter, and the melt is going to cause the creek to rise or the river to rise and flood my house. It's going to happen over a series of weeks. And then my house catches fire. OK, I'm going to stop sandbagging to put the house fire out.

But once the house fire is out, what am I going to do, just watch the flood waters come and take it anyway? Which is a bit what we're doing here. It's predictable -- we watch climate change march [steadfast] and forward. Hopefully this math exercise you were getting with the pandemic helps all of us accept the uncomfortable truth about climate change.

If it does, the pandemic will be a perverse blessing. And if we really can use this lesson that math does matter, that science is real, that humans have to get in front of this thing. Because the difference about the pandemic -- the pandemic is temporary; climate change, if you let it take effect, is not temporary; it's fairly permanent change.

And so it's get much bigger impacts, much bigger risk for human health and for animal health and climate health and planet health. I mean, we've got to wake up to this stuff and get after it in a much more serious fashion. Maybe the pandemic is exactly the experience we need to get on it. Let's be hopeful.

00:24:46 **Karina Funk:** Most of us understand the science, I think, pointing toward global warming and that businesses need to adapt. I'm going to play a hypothetical person here, where science and numbers don't persuade me. And I think that's OK because you're neither a scientist nor an economist, I think, Doug. Right?

00:25:05 **Doug Baker:** Guilty of neither.

00:25:08 **Karina Funk:** So I'm CEO of Industrial Processing Plant, and water stress is not at my doorstep. In my reality, it is plentiful and cheap. And neither science nor someone else's economic hypotheticals can get me to invest toward solving our looming sustainability challenges. So how do you sell sustainability, Doug? What do you want to say to other leaders, CEOs, who aren't moving fast enough? You must see that, either in your customer base or around the world, which would be your targets.

00:25:40 **Doug Baker:** Well, we do see that. I mean, I would also say we see industries and large players who have awoken to the fact that water risk in particular and climate change broadly is a large risk, and [they] are taking steps to improve their resilience and ideally push risk off further out on their horizon.

And so what we have worked to do -- because I agree with the premise of this, which is there is not enough energy here currently. We have not changed. If you hold the flywheel, it's moving the direction we don't want it to move in, and we've got to, like, shift this energy to be virtuous, not vicious.

And that's going to take a collective effort. One company can't do it, one country can't do it. And so we've created a water coalition which is really what I call the gathering of the willing. We're doing it under the UN CEO water mandate, which has existed but hasn't gotten enough attention.

And what we're trying to do is help repurpose, revitalize and bring new energy to a very important initiative. And we've gotten a lot of large players onboard, players like Levi's, ABI, Microsoft, big food companies, Cargill's in, we're in.

And I've got a long list of companies that are joining or have joined or are going to join a little bit postponed, if you will, for a few months as a consequence of COVID-19. But everybody here is absolutely committed to get after this.

And the reason we feel this is important, since the large players will take ownership of local watersheds that they rely on, they can get communities and the other businesses together to understand the risks that they're facing in actuality. Not their perceived risk.

But the water they're using is not surface water; it's typically groundwater. They don't have the foggiest idea

of how much [is] left in their reservoir. They will overestimate it almost every time. And get these coalitions and these local watershed groups together to start driving change watershed by watershed, focusing on those that are in the most severe risk category, which we have great visibility around.

So we know where the problem is. I think we even know how to challenge and do this. All the technology exists. It's just a matter of making this a priority simultaneously for multiple companies at once. And so that's what we're working to do. So everybody has got to step up and do their part. So that's our part. We're trying to step up here, make this thing happen and make a difference beyond what we can do individually as a company.

00:28:19 **Karina Funk:** How much of your strength and good positioning today is based on your business model and the products and services you provide, you think? Versus how much is based on you and your team conscientiously being forward thinking, putting strategies in place to be resilient against second- and third-derivative, unforeseen risks?

00:28:37 **Doug Baker:** Look, what we try -- we try very hard to think through possible outcomes. Now of course, we didn't predict the pandemic. You know, come February, our jaws were as wide open as everybody else's. Oh, really? Here we go.

So I don't want to give too much credence. You know, I often say, and I guess I've observed, the difference between good companies and bad companies is not that the good companies don't have problems and bad companies do -- both have problems. I think the difference is good companies deal with theirs.

So they continually are refining or rethinking and going, is this working? And if it's not working, then get over it, even if it was your idea, move on and move forward. And so that's got to be part of the culture.

I think that view and propensity is absolutely critical in managing through crises. We're going to learn a lot. I think I know a few things now about what the world is going to look like post-crisis, but it's one-tenth of what I would like to know. And so we're going to learn a lot of things as we go through this.

So a lot of this is getting you and the team just sort of wide-eyed and open to realizing how the world is changing and what the implications are going to be for us. So agility is going to be really important. Now, we know digital is going to be important, we believe, so we're full-on in digital investments -- check.

We're full-on on hygiene and antimicrobial investments -- check. We're trying to keep our team together or we're feeding health care, we're feeding life sciences, we're feeding some of the other winners. Those are obvious things, and we are doing those when they're known.

But now there's a whole bunch of other stuff that we've got to learn and understand as we move forward. And you've got to be open to it, ready for it. And understanding that's how info and intelligence [are] revealed. I think it's over time to those willing to accept it.

00:30:36 **Karina Funk:** Well, Doug, thank you for helping us understand a whole lot about what it means to be a leader, in good times and in bad. And, actually, how Ecolab really is a part of our everyday lives, whether it's the way we put food on the table or a part of how we access health care.

I wish you, your colleagues around the world and their families much courage, relief and recovery, which is exactly what you're also working hard to provide to your customers around the world. Many thanks to you and the Ecolab organization.

00:31:07 **Doug Baker:** Well, thank you, Karina. I really enjoyed this -- enjoy spending time with you -- and keep your family safe and yourself too.

00:31:19 **Karina Funk:** Hello again. This is Ken Stuzin. Thank you for joining us as we continue this effort to seek out insights that help us understand this rapidly evolving world. If you enjoyed listening, we encourage you to subscribe to the podcast. We will be back with another episode next week when we will explore Gen Z and how this generation may shape our collective futures. Until then, be well and stay safe.