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Sustainability unwrapped a conversation podcast about responsibility, ethics, inequalities,

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climate change and other challenges of our times where science needs practise to think about who was and how to make our society more sustainable.

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One podcast at a time. Hello and welcome everybody to this sustainability unwrapped podcast episode.

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Today, our topic is sustainable water governance, a very broad topic which has many, many perspectives to it.

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And a recently and especially in many media outlets, there has been a very strong and kind of sensational narratives about the global water crisis.

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It talks a lot about the kind of scarcity of water at global scale,

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water stress and other types of physical material phenomena related to to a lack of water.

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In today's episode, we we want to provide a little bit different perspectives to this mainstream narrative,

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and we want to look at it from a bit more critical perspectives in a sense that we want

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to question the narrative that there is very little water on this on this planet.

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It is statistically measured that it's around less than one percent of this planet's the

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water resources that are actually in in the form that can be used for for drinking purposes,

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agricultural or industrial uses. The rest of the water is is in selling forms or it's stored in glaciers or in other forms.

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But our starting point is that this so-called water crisis is more about uneven distribution

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of water and the lack of access which is provided for people to have water available.

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In other words, we are more focussed on the kind of water governance mechanisms that are used for distributing water.

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And today, with me, I'm happy to have two two fascinating guests.

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We have Jessica Bubbs,

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who is an associate professor in geography and international development at the University of East Anglia in the United Kingdom.

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And her research has examined the relationship between economic change and environmental governance and processes of development,

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with a special focus on water sector in Latin America.

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As the second guest we have here, Mira Taccone,

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who is a postdoctoral research fellow at the University Institute for Advanced Study and her research on the

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political ecology and environmental and government governance and infrastructure politics around the Mekong region.

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But we will hear more about both of their research during our our discussion.

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And my name is Linda the This Fire and I'm a postdoctoral researcher at the School of Economics at the Centre for Corporate Responsibility,

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and my research has focussed on the small scale technologies, innovations and drinking water governance in India.

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So I mentioned this narratives of water challenges and water crisis.

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We often hear that climate change is mobilised as a cause for water scarcity.

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How is climate change connected with your research, Jessica?

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Thank you, Linda. In relation to climate change,

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the dominant narrative is that climate change is responsible for the mean changes and in particular scarcity of water around the globe.

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And while there's, of course, some truth in this,

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what tends to get neglected in this narrative is the role that human uses play in making resources scarce, especially for some social groups.

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So some of my work has looked at the expansion of major industries in some Latin American countries,

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such as the mining sector in Peru and the agriculture industry in Chile, and how they have caused much more extraction of water.

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And that has caused scarcity, which is completely independent of climate change.

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I think Jessica was put in this very, very, very nicely that it's I've also had a very similar observation or view that that often.

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Of course, it's true that that climate change effects, they materialised mostly through water.

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So they're either too much water as in floods or too little water and as in droughts.

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But but but often these floods and droughts are not only kind of climate climate events, but there are many.

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Decisions have been done in either prior or they are ongoing decisions related to how water is being controlled and and on government.

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And and often there are many of these ways of controlling water are often taking very infrastructural form.

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So in many cases, these floods or droughts are not only like climate events,

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but they are also kind of infrastructural events because they are mediated through through decisions on how, how we how we govern and control water.

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And and I've I've also noticed some somewhat that sometimes the climate frames can be also

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problematic in the sense that often climate this kind of climate scientists approach

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as a kind of external shock and when when that attention is not paid so much to how

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people are are made vulnerable differentially or how vulnerability is differentiated.

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So then also this kind of climate responses often overlook.

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These are these different patterns of vulnerability and how how, for example,

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certain water infrastructures as well may, may make maybe some grid secure.

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But but others are more insecure. So, so there is, you know, in a way this this the way climate, this is made

governable.

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In a way it's it's often very infrastructural,

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and it has created space for for large scale water infrastructure in terms of large dams and in terms of large scale irrigation structures.

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And not all of them, of course, are are problematic.

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But some of them may in a way interplay with climate change in problematic ways, creating also new vulnerability.

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This kind of linkage between climate and water is, of course,

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hydropower and the ways how we expect that we can you know where to replace our fossil fuel energy with renewable energy.

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And currently, 80 percent of renewable energy is produced by hydropower,

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and there are estimates that that the hydropower capacity is going to be doubling or increased even by 70 percent in in in the next couple of decades.

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And of course, this has huge implications in in riverine environments and already reversing the world.

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It's almost like 50 percent of the river volume is affected by, by by dams.

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But this this figure will be increased even up to 90 percent.

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So it's it's a huge, huge change in in in how we relate with with rivers and and and there are three kind of hotspot areas,

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especially Amazon and Congo and Mekong, which are also this river in environments with one of the largest inland fisheries in the world, for example.

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And and one of the key problem with that with the dams is that that they they affect this

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or they are very detrimental precisely to fisheries and and also to the biodiversity.

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So we have here of a conflict almost between climate objectives and biodiversity objectives with hydropower.

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And I saw was mentioning so Mekong Region is one of the regions where hydropower is now built very intensively,

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and that's the region where I have been doing my work. And I mean, in the 90s, Mekong was still one of the least built major rivers in the world.

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Mekong is the eighth largest river in the world, but now they are around two hundred two large dams at different stages of development.

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Some of them plant built already, and some of them still plant.

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But this is this is really causing major changes in the entire hydro ecology sun and and also in the livelihoods.

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There are millions of people dependent on fish who are engaged in fish in fishing and some of them full time.

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Some of our time are decent fisheries. And so, as I was saying, so Mekong is one of the richest inland fisheries in the world.

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It's also one of the richest rice agriculture areas and and this this damming of of Mekong through mainstream and tributary dams.

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So it it has really huge livelihood, livelihoods and food security.

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Implications in the region. So, so this is one one example.

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And and the way is how the dams are are being justified then are very much through climate change arguments.

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But we can go then later, maybe into more detail. I guess I think if I understood what, Jessica, what you have worked on earlier, I mean,

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there is a very interesting case in this that how how droughts and floods that they are partly,

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of course, they can be augmented and they will be amended through climate change.

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But then often there are other other things that actually are also contributing to floods and droughts.

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So I think the examples from the Andean Andean region and reverse there are are quite

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they illustrate quite nicely how how water scarcity actually is often produced.

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Also, it's not only a matter of climate change, but many other things as well.

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Yes,

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I think I think the and in case is quite important because the economies in South America are very dependent on export markets and to a large extent,

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on natural commodities. So things like metals, agricultural produce, timber, et cetera.

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And all of those industries require large amounts of water.

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But because it's also the Andean region where you so you have the Andes, mountains and glaciers,

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the narrative of climate changes is very strong because of the impact on glacier melt.

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So that tends to dominate the the analysis of, you know, why there's water scarcity.

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And in Chile, for example, I've worked for many years. There's a phenomenon since around 2010 that's referred to as the mega drought,

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where water scarcity has affected the whole country or most of the country with serious effects for industries,

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but also for local populations accessing drinking water.

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And of course, what's really dominant in this narrative is climate change and its effects on the Andes.

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But that totally ignores the role of some of these major industries that are producing

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Chile's and other country's key export commodities in worsening that situation.

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And to the extent that I would say that those industries are possibly more responsible for the

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production of scarcity than the than climate change is kind of a weather as a climatic phenomenon.

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And then the other side of it. So I've talked there a little bit about the causes of water scarcity in South American countries.

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But then the other side of it is that the same narrative very much dominates the responses to perceived water scarcity.

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So if I just give one example from northern Chile, of which much is covered by the Atacama Desert, which is one of the most arid places on Earth,

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one of the key responses to climate change is the construction of a series of desalination plants along the coast,

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where the idea is to take water from the sea and to purify that into water that can be used for industry but also drinking water,

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and which has the advantage of being independent of precipitation and using abundant water from the sea.

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But these desalination plants, while they solve the problem of water scarcity in the short term, by producing,

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by generating more water, using seawater, on the one hand, they have their own environmental impact.

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So heavy energy use and putting saline solution back into the sea from the plants.

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But they also don't. So they don't address the causes of scarcity, and they don't solve those causes over the long term.

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They just solve the problem in the short term and potentially actually create more demand for the water.

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The desalination plants are producing so that in the future,

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the country becomes entirely reliant on that extra water from desalination plant and potentially makes the case for even more desalination plants.

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So how do we when we're talking about sustainable water governance and the water crisis and water scarcity,

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it's important to really reflect on the causes, the dynamics behind that scarcity,

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but also how that not those kinds of narratives can figure solutions down particular routes and in particular, technological solutions.

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Yeah. So you were talking about the ways of producing more water through these desalination plants.

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Do you think the answer would be then to. Save water instead of produce more water.

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Water conservation is a very dominant response to water management and the whole idea of sustainable water management and governance,

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but it also has its limitations primarily because while some actors or while some stakeholders or sectors can save water,

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sometimes that only serves to save water that can be used for other sectors.

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So a good example is modern irrigation technology, so drip feed or micro spray systems,

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they're very much favoured because they're perceived to use less water and use the water very efficiently

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and direct the water directly to to the plants in ways that more traditional irrigation methods don't do.

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And so in a way, this saves water, but often it liberates that same water to be used by other irrigators or to just expand the agricultural area.

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So in the long run, it doesn't necessarily save water, it just uses water more efficiently.

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So whether that's a contribution to more sustainable water governance is quite debateable, I would say.

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Yeah. So I was actually reflecting on some of my work from the state of Gujarat,

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India and the city of Ahmedabad, where small-scale desalination water filters.

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Yeah, they are not plants, and these filters are used at the household level, catering for the needs of mainly middle and higher income groups.

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And this filters make it possible, then to access good quality drinking water.

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And they are because, yeah, they're supposed to desalinate the tap water, which is then typically a mix of saline groundwater and.

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Surface water originating from the Narmada river.

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So, yeah, the the desalination of seawater and studying groundwater, especially in coastal areas,

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is indeed becoming rather popularised technological solution to to water governance issues globally.

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And yeah, in the case of the state of Gujarat in India,

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although some of the groundwater is is actually naturally selling due to its location by the coast.

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It's the extraction of ground water for main industrial and agricultural use this.

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For example, salt production and then various forms of agriculture and textile industry

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also that is worsening actually the sea water intrusion into the groundwater.

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And this makes the desalination more and more. Attractive solution, which then again, comes with its own problems, as Jessica mentioned earlier.

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And also as another issue related to this, so when the groundwater is becoming saline, there's more surface

water.

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Especially for the urban areas required from rivers and other sources.

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And in the case of Ahmedabad and Gujarat, and it's the case of the Narmada river, a very controversial case actually because.

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The. Yeah, because the issue of not having drinking water has also then contributed and legitimised the construction

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of dams along the river and currently in the water is being channelled to four different states in India.

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So as as Jessica nicely put it, the water filters at the household level they are, they don't really address the.

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They're not long term solutions to the costliest of poor quality of drinking water,

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but rather there are several infrastructure and political decisions which are in this case, also shaping the.

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Scarcity of drinking water and the narratives around it.

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I mean, we have mostly here different by different aspects of of water, water governance that we are really discussing, of course.

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Then we have like yours, the drinking drinking water governance and then the more kind of agricultural use.

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And then then well, in my case, it's more on the river.

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I mean, how you govern River River in water is seen through through dams and well,

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I have some work also on the kind of more other water control infrastructure.

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But but I think that there is that kind of resonance that we were discussing

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on on on how that on how the climate frames can be somewhat problematic or

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diverting attention on on on key key key issues that are making people want or able to to to to climate or more general environmental vulnerability.

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But I was just previously what I was saying.

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So I was maybe not giving enough, maybe back background in the sense that that large dams,

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they were actually very contested in the in the 80s and 90s and Narmada area.

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So of course, non-married dam was one of the one of the key struggles that that that that also mobilised a lot of people.

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And it was internationally very well known.

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And there were a lot of processes that that culminated in the establishment of this World Commission on dams.

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And it's very influential report, which kind of synthesised the the old or the understanding of the negative effects of large dams.

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And it was saying giving like a lot of a lot of this, this this knowledge had been kind of like counter expertise to that date.

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But then it became more mainstream, understanding that that whole huge implications dams had in terms of displacement and the resettlement schemes,

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but but also in in other terms and later later.

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I mean, there, the commission report stated that there has been that at that time,

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there had been 40 to 80 million people displaced and later research confirmed that there had

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there had been five 500 million people affected in downstream areas of dams negatively and so on.

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But I mean, in the early 2000, it almost looked at the era of dams was coming to an end.

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I mean, World Bank was lost because of the there were not a murder case and there were others that World Bank had to step down.

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And and it looked at, OK, now the era of dams,

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dams is gone and the future for world rivers looked a bit brighter and for the river and people as well.

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But then, more recently than dams have made a huge comeback and throw a comeback and and it has to do partly with the climate frame.

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So of course,

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there is also the factor of of China being very intensively wild with its over overseas overseas development and investment work where hydro,

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our hydropower dams figure it centrally. But but then in terms of off road bank, for example, the way it has come back to two dams,

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it is true that it claims that there is a flagship project precisely in the Mekong region in Laos.

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It's called the Mountain to Project,

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and the World Bank has claimed that it has learnt from the past mistakes and it now knows how to make dams sustainably.

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And it's precisely these sustainable dams that provide a solution to climate change,

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just like precisely because it's renewable energy and and and and so on.

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And then I was mentioning that there there are these these claims also in terms of adaptations

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that dams could be used in multi-purpose ways to also also mitigate floods and so on.

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But what has also happened with this comeback of of large dams that they mainly have come in, especially in the Mekong region?

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Now, if I'm talking about focussing on that, so.

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So the main, as I was saying earlier. So then the way how we govern water is key in how how climate effects materialise.

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So also the way how we govern dams is also quite keen.

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How can they be used in in this kind of multi-purpose waste?

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And the ways how these dams are built is through this concessionary agreements where the corporate concessionaires,

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they have very high level of autonomy in how they operate the dam for for several decades from.

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00:25:05,930 --> 00:25:11,520

Twenty five years to even up to 45 years, these concessionary periods are really long.

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00:25:11,520 --> 00:25:20,570

And during that period, the corporate concessionaire has really the authority to decide over how the dam is operated.

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00:25:20,570 --> 00:25:26,540

And of course, their rationale is to to produce profits from selling hydroelectricity.

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00:25:26,540 --> 00:25:32,210

And and so, so actually, these dams are very unique purpose dams.

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00:25:32,210 --> 00:25:36,140

So it's highly contradictory that you have these these at the same time,

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00:25:36,140 --> 00:25:50,090

this this climate justifications that these dams could be used in ways to to, to and to to adapt to climate change, for example, and so on.

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00:25:50,090 --> 00:25:59,330

Because because often the way that that you operate the dams in terms of maximising the electricity sales is not the same as the way that you would.

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00:25:59,330 --> 00:26:07,450

You would operate them when you when you maximise flood flood protection, for example.

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00:26:07,450 --> 00:26:14,810

And then the cumulative impacts of all these dams are such as I was saying that

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00:26:14,810 --> 00:26:23,960

there are huge the detrimental effects on the fisheries and on all this livelihood

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00:26:23,960 --> 00:26:30,860

things and actually how they alter the river flows and how they affect the river

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00:26:30,860 --> 00:26:37,670

like a hydro ecology is that they actually temper the seasonal differences.

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00:26:37,670 --> 00:26:48,710

So they so it in certain estimates, it can look that that that dams are actually doing away the flood season, the rainy season and the floods.

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00:26:48,710 --> 00:26:57,710

But what they actually are doing is that they kind of they are taking away the benefits from the floods that that that, for example,

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00:26:57,710 --> 00:27:06,860

the flood pulse ecology is very much behind it, very rich inland fisheries and the flooded forests, ecology and everything.

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00:27:06,860 --> 00:27:19,850

So the way so if you temper this, the normal rainy season flows or is so so that's actually detrimental in terms of the flood related benefits.

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00:27:19,850 --> 00:27:30,890

But at the same time, the dams are not really able to to to mitigate the the or control the exceptionally strong floods.

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00:27:30,890 --> 00:27:32,240

And in these cases,

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00:27:32,240 --> 00:27:42,770

often that the dam operators they need to resort into emergency releases and those actually often exacerbate the devastating floods.

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00:27:42,770 --> 00:27:47,570

So there is that. So this sort of does seem to take away the flood benefits,

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00:27:47,570 --> 00:28:00,920

but not not not controlled the the the harms from floods and and actually they even in some cases exacerbate the the the the floods.

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00:28:00,920 --> 00:28:05,200

And and at the same time, also the low, low,

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00:28:05,200 --> 00:28:14,690

low carbon justification is problematic because especially in tropics and in the Mekong region, the dams that do require large reservoirs.

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00:28:14,690 --> 00:28:25,040

So they are actually quite significant methane emitters and some of the some of the largest reservoirs it has been estimated that they,

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00:28:25,040 --> 00:28:29,460

they they can even equal to fossil fuel or coal power plants.

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00:28:29,460 --> 00:28:39,980

So. So even even the even the low carbon argument, this is sometimes problematic, not with all of the dams, but with some of the dams.

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00:28:39,980 --> 00:28:50,580

But even more problematic are these claims that that that dams could help in in reducing flood vulnerabilities and climate vulnerabilities,

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00:28:50,580 --> 00:28:54,620

while while in fact they they often open ended.

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00:28:54,620 --> 00:28:59,150

And the other thing is, it's actually hard to say how two dams,

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00:28:59,150 --> 00:29:07,800

how they lock sediments and the sediments are key to the coastal areas and the Mekong Delta in Vietnam, for example.

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00:29:07,800 --> 00:29:12,890

So now that the sea level is rising and then you have less sediment, so actually, then again,

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00:29:12,890 --> 00:29:20,450

you have this kind of problem of dams actually be exacerbating the climate vulnerability.

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00:29:20,450 --> 00:29:26,000

And of course, the more dams are justified in climate terms.

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00:29:26,000 --> 00:29:35,360

It also often takes attention ways or marginalises the other socio environmental concerns related to dams.

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00:29:35,360 --> 00:29:43,460

So this is a it's a very complex picture, but there are many ways in which you can you can really question and what and why.

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00:29:43,460 --> 00:29:49,910

It's also important to open up this, this this climate related claims and justifications.

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00:29:49,910 --> 00:30:00,830

I think that's really interesting. I think what's your example really shows is how so-called sustainable development is so uneven.

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So in the kind of sustainability narrative, there's this idea that the environment.

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00:30:06,110 --> 00:30:14,360

The economy and social needs can be balanced quite neatly that there is kind of this situation where we can balance all of these,

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00:30:14,360 --> 00:30:24,440

and I think what you've shown is the trade-offs that occur within these relationships so that some aspects, for example,

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00:30:24,440 --> 00:30:34,940

carbon, even though I know you critique that can be kind of rendered sustainable, but in a way that has other effects that impact other sectors,

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00:30:34,940 --> 00:30:42,170

such as the lack of benefits that floods traditionally bring in large river basins like the Mekong.

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00:30:42,170 --> 00:30:49,700

So I think what's really important in the whole debate around sustainable water governance is to focus

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on unevenness and the unevenness of the effects of interventions that are designed to be sustainable.

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00:30:58,700 --> 00:31:04,700

However, that's framed and the effects of these interventions on different social groups

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00:31:04,700 --> 00:31:11,540

and the unevenness and the inequalities that that come into those relationships.

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00:31:11,540 --> 00:31:16,940

And from my work in Chile, looking again at the desalination plants,

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00:31:16,940 --> 00:31:27,440

one of the effects of those desalination plants is that arguably or I would argue that they sustain unsustainable development because they provide

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00:31:27,440 --> 00:31:39,020

the water that's necessary to sustain a heavy water using export agriculture sector that arguably was never sustainable in the first place.

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00:31:39,020 --> 00:31:50,180

So rather than examine water use in a country and how that's allocated between different industries and different social groups,

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00:31:50,180 --> 00:31:56,090

and look at how that could be reformed,

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00:31:56,090 --> 00:32:03,560

many kind of readings of sustainability tend to go straight for the technical solutions that have that have these

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00:32:03,560 --> 00:32:14,750

wider effects of sustaining unsustainable situations or leaving groups who don't have access to water resources.

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00:32:14,750 --> 00:32:24,020

Poorer groups, especially in the global south, leaving them in the same situation as they were as they have been before.

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00:32:24,020 --> 00:32:28,070

I think that speaks to your work also, Linda. Yeah,

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00:32:28,070 --> 00:32:37,220

I I really liked your phrasing of kind of sustaining unsustainable situations and practises and

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00:32:37,220 --> 00:32:46,190

reproducing inequalities in in the case of Gujarat and the and the city of Ahmedabad in particular,

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00:32:46,190 --> 00:32:56,340

the lack of addressing this poor quality municipal drinking water has has normalised the idea.

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00:32:56,340 --> 00:33:02,580

That households should be or they are being responsible for finding solutions

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00:33:02,580 --> 00:33:10,020

such as this desalinate water filters from the sphere of the private market.

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00:33:10,020 --> 00:33:18,650

And although in some cases, this might be feasible in the case of Ahmedabad.

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00:33:18,650 --> 00:33:33,060

This type of inequality, structural inequalities. Make it such that it's not everybody who can afford these types of water filters.

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00:33:33,060 --> 00:33:42,650

They are rather expensive. And then again, since some higher income groups do have their water filters in place,

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00:33:42,650 --> 00:33:53,200

they are as such satisfied with their solutions to drinking water this this then weakens.

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00:33:53,200 --> 00:34:01,940

The the collective and public pressure towards the government to address the issues of municipal water.

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00:34:01,940 --> 00:34:08,690

And because they're the different groups are don't have any more of the same same interests.

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00:34:08,690 --> 00:34:22,790

I guess we also came to this governing aspect here, but that that why it's perhaps not enough to talk only about water management when you when

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00:34:22,790 --> 00:34:29,030

you think that it's easily just a technical question of of of allocating water and and so on.

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00:34:29,030 --> 00:34:34,340

But it's it's very much a governing question that has to do with power relations as well.

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00:34:34,340 --> 00:34:41,300

And this is also why why, for example, this in the case of of of large dams, for example.

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00:34:41,300 --> 00:34:49,250

So I'd say it's a very illustrative example of very unequally distributed benefits and harms where mostly the

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00:34:49,250 --> 00:35:00,380

groups benefiting from the dams are are are definitely not the ones suffering the most from from the dams.

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00:35:00,380 --> 00:35:09,620

And of course, this picture again can differ in different contexts, but especially in in areas where there is already high inequalities.

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00:35:09,620 --> 00:35:16,100

So so this kind of project, such as a large dam, so equally, easily,

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00:35:16,100 --> 00:35:26,270

easily and often exacerbate this and strengthen this in inequalities and this these type of projects,

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00:35:26,270 --> 00:35:37,430

they they are kind of shaped through power relations, but they also have have major power effects, like in terms of of large scale dams.

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They really centralised the decisions as Jessica Jessica.

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00:35:42,260 --> 00:35:51,980

But this is God has made a lot of work in this with this concept of hydro, social relations and so on, and I've also been inspired through that.

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00:35:51,980 --> 00:35:53,750

But dams are an example.

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00:35:53,750 --> 00:36:04,370

How, how, how decisions that affect how do social relations really get centralised and and they are they and often the ones who are,

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00:36:04,370 --> 00:36:12,260

most said, affected by dams, they have the least opportunities to to affect how the dam is built and operated.

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00:36:12,260 --> 00:36:22,660

And and at the same time, it has kind of like a dispossession effect almost on them because then they can't anymore.

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00:36:22,660 --> 00:36:31,710

They like I mean, it's it's also in the case of of these these dams, for example, in Laos.

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00:36:31,710 --> 00:36:36,800

So as they are, they are operated to to maximise electricity sales.

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00:36:36,800 --> 00:36:44,210

So what actually defines how the down side operated are far away residents in urban centres, for example, in Bangkok and and so on.

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00:36:44,210 --> 00:36:55,760

And it has been even even studied that it's it's very much that dams in a way they they they they produce electricity to peak electricity demand.

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00:36:55,760 --> 00:37:02,810

So, so, so often those peaks are in when air conditioning is used the most, for example.

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00:37:02,810 --> 00:37:10,460

So. So it's so it's a certain hours and certain seasons like the tri season and so on.

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00:37:10,460 --> 00:37:16,160

When, when, when the when did the the hydroelectricity so sold the most?

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00:37:16,160 --> 00:37:25,160

And so it's these peaks in demand in urban, far away urban centres that actually then conditions how people can live with

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00:37:25,160 --> 00:37:30,770

with with their riverine environments and what kind of Jessica's into cycles,

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00:37:30,770 --> 00:37:36,800

where it's what kind of hydro social relations they can, they can develop.

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00:37:36,800 --> 00:37:40,980

And so so it's it's again a kind of yes,

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00:37:40,980 --> 00:37:50,960

illustrates the kind of unequal power relations that often are at stake with with with major water works and infrastructure.

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00:37:50,960 --> 00:37:59,390

Yes, I certainly I certainly think that's the focus of our discussions on sustainable water.

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00:37:59,390 --> 00:38:05,690

Governance should be on the water itself and what happens with the water and how we

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00:38:05,690 --> 00:38:12,650

can kind of make that sustainable through policy shifts or technological means.

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00:38:12,650 --> 00:38:20,150

But focussing more neatly on how that water is allocated,

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00:38:20,150 --> 00:38:30,380

how that water is used and what kind of institutions and decision making structures exist to mean that in so many cases,

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00:38:30,380 --> 00:38:40,130

water is diverted to the highest economic uses. So, as Miriam was saying, the political economy that determines how much water is used,

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00:38:40,130 --> 00:38:47,270

where and in what ways and with what effects on people who are often the most marginalised social groups.

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00:38:47,270 --> 00:38:54,500

So shifting the focus away from the water itself and onto those decision making relations around

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00:38:54,500 --> 00:39:01,330

water that should be at the heart of governance and focussing our discussions around sustainability.

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00:39:01,330 --> 00:39:07,840

On the nature of those decisions, I think that's really key.

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00:39:07,840 --> 00:39:16,060

And also, when we when we talk about river environment, so it's also important to precisely this focus only on water on water quantities

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00:39:16,060 --> 00:39:21,940
is very problematic because open river and I mean the fluvial in relationally,

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00:39:21,940 --> 00:39:25,510
these are so much more than just flows of water.

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00:39:25,510 --> 00:39:31,000
So I've sometimes made the kind of comparison in my mind that it's almost like if you are talking about forests,

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00:39:31,000 --> 00:39:34,240
but you start talking about only about stocks of olive trees.

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00:39:34,240 --> 00:39:43,810
So it's the same that if you talk about reverse and you only talk about about water quantities, so you lose sight from all these different,

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00:39:43,810 --> 00:39:57,640
well, sediments, the fisheries and all the livelihoods built, built around, around or around like this flood ecology and fisheries and so on.

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00:39:57,640 --> 00:40:12,070
So, so often also, the certain approaches to to river management are sometimes too determined by certain ways of producing knowledge,

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00:40:12,070 --> 00:40:19,030
for example, that you have you use hydrological models. And so on an international river basis, these are really key because you, of course,

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00:40:19,030 --> 00:40:24,730
you need to see if water is allocated equally between the states or and so on.

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00:40:24,730 --> 00:40:34,180
But but then at the same time, if you do this, this this way of approaching reverses is also problematic because then then for example,

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00:40:34,180 --> 00:40:41,030
fisheries is often something that that is then totally lost from the picture, for example.

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00:40:41,030 --> 00:40:51,370
And so and so so the the the very narrow of water focus is also problematic in this way in river river environments.

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00:40:51,370 --> 00:41:00,310

But it's also true that it's it's also a problematic in in not paying attention to these different power relations,

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00:41:00,310 --> 00:41:05,770

which determine how we use water and how we control water and on what we do with water.

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00:41:05,770 --> 00:41:10,510

So in in in both ways, it's it's important.

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00:41:10,510 --> 00:41:20,740

But then sometimes what what the decisions on water works and water infrastructure can, can, can trigger other other sorts of extractive isms.

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00:41:20,740 --> 00:41:28,030

And I guess in your context, in in in Latin America, I was supposed to I was thinking to ask about the role, but you were talking more about it.

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00:41:28,030 --> 00:41:35,920

But I think there is, at least in Amazon. I know that there are several large dams that are only built to feed large mines.

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00:41:35,920 --> 00:41:44,380

Yes. So there is like a nexus of mining and hydropower, which is then a kind of a complex of extractive ism.

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00:41:44,380 --> 00:41:53,800

And then there is an issue in the Mekong region. Then often these dams are built in remote upland areas and they open paths because

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00:41:53,800 --> 00:42:00,760

they come with new roads and everything so they can kind of trigger a logging there,

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00:42:00,760 --> 00:42:05,860

like a lot of a lot of like intensified logging because of hydropower development.

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00:42:05,860 --> 00:42:12,570

And then there can be also new land speculation that gets triggered with all the new roads and what what,

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00:42:12,570 --> 00:42:15,700

what comes with the weather, with the hydropower.

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00:42:15,700 --> 00:42:24,550

And then there is the the issue of of resettlement that that's actually something that that that that is a key power effect in

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00:42:24,550 --> 00:42:32,170

the sense that that often the state authorities have quite quite a significant role in how these settlements are carried out.

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00:42:32,170 --> 00:42:40,900

And in Laos, they actually have been used almost in to complement the state plans to consolidate these

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00:42:40,900 --> 00:42:47,860

are plant minority groups and also intensify the control over over these minority groups.

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00:42:47,860 --> 00:42:55,120

So in some ways, there is also that kind of power effect that is not directly related to water policy,

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00:42:55,120 --> 00:43:05,470

but is related to to to this water large water infrastructure projects that come with other elements like like resettlement schemes, for example.

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00:43:05,470 --> 00:43:13,090

I think the role of the political economy in determining water use water allocation is something that's often really missed by

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00:43:13,090 --> 00:43:21,250

the sustainability debates that kind of take a much more environmental approach as if water's completely disconnected from,

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00:43:21,250 --> 00:43:25,270

you know, from economic life. I think that's really important really,

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00:43:25,270 --> 00:43:35,710

really interesting discussions and and perspectives related to to our topic of sustainable water governance today.

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00:43:35,710 --> 00:43:46,780

Could you perhaps formulate some kind of key takeaways? Are some core messages around this topic now for the audience?

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00:43:46,780 --> 00:43:59,290

I think my key takeaway would be the idea that sustainable water governance and attempts to foster sustainable water governance are often uneven,

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00:43:59,290 --> 00:44:06,390

whereby you can have decisions or conditions that are sustainable in some respects or for some group.

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00:44:06,390 --> 00:44:17,670

But not necessarily for others. So I think approaching the idea that there can be some sort of sustainable

situation for all and in a harmonious way,

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00:44:17,670 --> 00:44:22,990

I think we need to engage really critically with that idea.

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00:44:22,990 --> 00:44:33,910

So perhaps the principal of the Agenda 2030 of leaving no one behind is perhaps not fully realised in these discussions.

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00:44:33,910 --> 00:44:42,220

Yes, I think I think it's I think these sorts of perspectives are based on the idea that, you know,

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00:44:42,220 --> 00:44:51,190

there is a sustainable scenario that can hit environmental, social and economic goals all at the same time and in complete harmony.

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00:44:51,190 --> 00:44:53,830

And I think in practise, I think as the cases,

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00:44:53,830 --> 00:45:04,180

the examples that we've used today really show there can be some ways in which interventions can be sustainable or sustainable for some groups,

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00:45:04,180 --> 00:45:09,820

but often at the expense of other groups.

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00:45:09,820 --> 00:45:17,410

Thank you, Jessica. How about mirror? Any kind of summarising points are key takeaways.

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00:45:17,410 --> 00:45:20,830

Jessica summarised. It's where it very, very nicely.

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00:45:20,830 --> 00:45:28,510

And I guess I would just also have said something similar along the lines that that,

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00:45:28,510 --> 00:45:35,830

of course, climate change is, is, is it's really as we start with this.

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00:45:35,830 --> 00:45:46,670

So it really does materialise often through water. But it's precisely then water governance and how we decide how we use and control water.

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00:45:46,670 --> 00:45:51,010

What was what if, what is really important and it's getting more and more important.

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00:45:51,010 --> 00:45:55,930

So it's really requires more attention as well.

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00:45:55,930 --> 00:46:01,720

And perhaps if something not only about water, but then on on on on climate.

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00:46:01,720 --> 00:46:11,350

So I would just say because of my focus on hydropower. So I would just say perhaps that it's that I hope that that we could examine

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00:46:11,350 --> 00:46:19,240

critically this this expectation that that we just solve the climate crisis

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00:46:19,240 --> 00:46:30,580

by by replacing fossil energy with renewable energy because there are a lot of issues with renewable energy as well that you need to pay attention to.

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00:46:30,580 --> 00:46:38,500

And these implications that hydropower for, for example, have to biodiversity to riverine environments, to riverine people and livelihoods and so on.

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00:46:38,500 --> 00:46:41,740

So it's something that really deserves more discussion as well.

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00:46:41,740 --> 00:46:50,650

Thank you both Jessica and Mira for you already really, really insightful discussions today.

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00:46:50,650 --> 00:46:58,150

And I want to thank you all listeners for for joining today to listen on the very kind of hot,

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00:46:58,150 --> 00:47:10,720

very contested discourses on sustainable water governance and and hydropower relations in terms of energy production.

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00:47:10,720 --> 00:47:35,680

So thank you all and wishing you all a nice day.