

Webinar

Strategies for Coastal Resilience Webinar

Date: February 06, 2024

00:00:30 --> 00:00:34: Hi, good morning or good evening, depending on where you're

00:00:34 --> 00:00:35: calling in from.

00:00:35 --> 00:00:38: We're going to get started here soon.

00:00:38 --> 00:00:58: We're just waiting for people to log in as we're

00:00:59 --> 00:01:08: waiting for a minute.

00:01:08 --> 00:01:09: I'm just going to launch a poll.

00:01:09 --> 00:01:12: We would love to know where you all are calling

00:01:12 --> 00:01:12: in from.

00:01:18 --> 00:01:21: Just let us know where you're calling in from and

00:01:21 --> 00:01:22: what your industry is.

00:02:21 --> 00:02:22: Hello everyone, welcome.

00:02:23 --> 00:02:25: We're just waiting for folks to log in.

00:02:25 --> 00:02:27: In the meantime, feel free to fill out the poll

00:02:27 --> 00:02:29: and just let us know where you're calling in from

00:02:29 --> 00:02:31: and what your industry is.

00:03:06 --> 00:03:10: All right, I think we're going to go ahead and

00:03:10 --> 00:03:11: get started.

00:03:11 --> 00:03:13: Thank you for responding.

00:03:13 --> 00:03:17: I'm going to go ahead and end the poll.

00:03:25 --> 00:03:29: Well, this is utilize webinar.

00:03:29 --> 00:03:32: It's a global webinar on strategies for coastal resilience.

00:03:32 --> 00:03:33: I'm Marian Epic.

00:03:33 --> 00:03:36: I'm the senior director of resilience for the Urban Land

00:03:36 --> 00:03:36: Institute.

00:03:37 --> 00:03:40: And we're so excited to have you here today to

00:03:40 --> 00:03:41: join us.

00:03:41 --> 00:03:45: Just a quick number of announcements before we dive in.

00:03:45 --> 00:03:48: We're going to ask you to remain muted throughout the

00:03:48 --> 00:03:49: duration of the webinar.

00:03:49 --> 00:03:52: And at the end of the webinar, we're going to

00:03:52 --> 00:03:55: switch over to a Zoom meeting and have networking hosted

00:03:55 --> 00:03:57: by ULI, Southeast Florida and Caribbean.

00:03:57 --> 00:04:00: So we're so excited to partner with them on this

00:04:00 --> 00:04:00: webinar.

00:04:01 --> 00:04:04: We ask that you're welcome to use the Q&A function

00:04:04 --> 00:04:07: through Zoom to submit your questions for the panelists and

00:04:07 --> 00:04:09: then we'll have Q&A at the end.

00:04:09 --> 00:04:13: After all three presentations, we are recording this webinar

00:04:13 --> 00:04:16: and

00:04:16 --> 00:04:18: we'll share it with all registrants and we'll add it

00:04:18 --> 00:04:22: to utilize Knowledge Finder platform afterwards.

00:04:22 --> 00:04:26: And then just a quick note that the publisher, Island

00:04:26 --> 00:04:29: Press has generously offered a 30% discount on the book

00:04:29 --> 00:04:32: by one of our speakers, Stefan Al, on adapting cities

00:04:32 --> 00:04:36: to sea level rise, green and Gray strategies.

00:04:36 --> 00:04:39: So when you registered, you received an e-mail with details

00:04:39 --> 00:04:40: and there's a code in there for the book if

00:04:40 --> 00:04:43: you would like to use that.

00:04:43 --> 00:04:45: Our agenda is jam packed.

00:04:45 --> 00:04:48: Today we have an opening speaker, Stefan Al, author of

00:04:48 --> 00:04:51: Adapting Cities to Sea Level Rise.

00:04:51 --> 00:04:54: He'll give an overview and then dive in some to

00:04:54 --> 00:05:00: dive into some design strategies, followed by Edgar

00:05:00 --> 00:05:05: Westerhoff, Vice

00:05:05 --> 00:05:06: President of North America, Adapt Adaptation Solutions for

00:05:06 --> 00:05:11: Arcadis.

00:05:11 --> 00:05:17: And then finally a presentation on finance for by Isabel

00:05:17 --> 00:05:18: Decaris, Director of Investment Banking for CIBC First

00:05:18 --> 00:05:21: Caribbean International

00:05:21 --> 00:05:25: Bank.

00:05:25 --> 00:05:27: So we have quite a few different geographies covered.

00:05:27 --> 00:05:28: Two of our speakers are from the Netherlands, but they

00:05:28 --> 00:05:31: live in the US now and Isabel lives in the

00:05:31 --> 00:05:34: Caribbean.

00:05:34 --> 00:05:37: And then finally we'll have Q&A.

00:05:37 --> 00:05:38: And then after Q&A we'll switch over to networking and

00:05:38 --> 00:05:39: I'll share zoom details with you to switch over to

00:05:39 --> 00:05:41: that.

00:05:41 --> 00:05:42: So we're going to go ahead and get started.

00:05:42 --> 00:05:43: Our first speaker is Stefan.

00:05:43 --> 00:05:44: Yeah.

00:05:44 --> 00:05:47: Thank you, Marianne, and great to meet all of you.

00:05:47 --> 00:05:48: I see some familiar names.

00:05:49 --> 00:05:51: So thank you for attending this webinar.

00:05:53 --> 00:05:56: Yeah, I'm very excited to present you a couple slides

00:05:56 --> 00:05:59: on design driven adaptation strategies.

00:05:59 --> 00:06:00: So it's a little bit about me.

00:06:00 --> 00:06:04: I'm an architect and urban designer currently based in in

00:06:04 --> 00:06:06: New York where I practice with my firm and also

00:06:07 --> 00:06:10: a professor at Hunter College at the City of New

00:06:10 --> 00:06:10: York.

00:06:12 --> 00:06:16: So how how did I come up with this topic?

00:06:16 --> 00:06:20: Well, it kind of came to me that we all

00:06:20 --> 00:06:24: know that climate change is is happening and one of

00:06:24 --> 00:06:28: the impacts of that is sea level rise.

00:06:29 --> 00:06:31: We don't know yet quite how much this is going

00:06:31 --> 00:06:33: to be by the end of the century.

00:06:33 --> 00:06:36: It may be a couple feet, it may be more

00:06:36 --> 00:06:37: than five feet.

00:06:38 --> 00:06:43: However, the impacts are already quite noticeable in coastal areas.

00:06:45 --> 00:06:48: And you know of course we chose coastal cities for

00:06:48 --> 00:06:51: most of history for very good reasons.

00:06:52 --> 00:06:55: But the problem is that you know a very large

00:06:55 --> 00:06:58: portion of the population lives in low lying areas that

00:06:58 --> 00:07:01: will be at increased risk from sea level rise.

00:07:02 --> 00:07:05: And I was able to witness this first hand just

00:07:06 --> 00:07:09: a couple weeks before I moved to New York City

00:07:09 --> 00:07:13: when Superstorm Sandy hits and really caused major devastation not

00:07:13 --> 00:07:16: just in in New York City but also along the

00:07:17 --> 00:07:18: the Jersey coast.

00:07:19 --> 00:07:25: And this, this really triggered my interest because I saw

00:07:25 --> 00:07:29: a lot of approaches that were not I would say

00:07:29 --> 00:07:33: beneficial from a from a design perspective.

00:07:34 --> 00:07:37: And if if if you look at this slide, this

00:07:37 --> 00:07:40: was studied by the World Bank that made it clear

00:07:40 --> 00:07:44: that by 2050 there would be more than a trillion

00:07:44 --> 00:07:48: dollars at risk in major cities in terms of real

00:07:48 --> 00:07:51: estate assets as a result of of sea level rise.

00:07:52 --> 00:07:56: So this was a very typical response that happened in

00:07:56 --> 00:07:59: New Orleans by the Army Corps of engineer and although

00:07:59 --> 00:08:03: effective in stubbing flooding it does cut off communities from

00:08:03 --> 00:08:04: the neighbourhood.

00:08:04 --> 00:08:07: If you go to China across the globe, a lot

00:08:07 --> 00:08:11: of the coastline has been fortified with this new quote,

00:08:11 --> 00:08:15: UN quote, Gray wall, these concrete investments that are effective

00:08:15 --> 00:08:20: from an engineering perspective that maybe not contribute to kind

00:08:20 --> 00:08:24: of the overall quality of the shoreline and and biodiversity.

00:08:26 --> 00:08:29: If you look at the response in in in Jersey

00:08:29 --> 00:08:32: along the New Jersey shore, you know a lot of

00:08:32 --> 00:08:37: homes with financial assistance from several emerging funds are now

00:08:37 --> 00:08:41: you know doing this this approach which again is not

00:08:41 --> 00:08:45: something that seems like a very desirable solution if you

00:08:45 --> 00:08:47: look at it holistically.

00:08:48 --> 00:08:51: So that's triggered this interesting this topic.

00:08:51 --> 00:08:54: There's AI would say like a trend going on in

00:08:54 --> 00:08:58: in urban design and flood resilience that is looking at

00:08:58 --> 00:09:03: flood engineering approaches from more holistic standpoint and that is

00:09:03 --> 00:09:07: really taking a design LED approach and a lot of

00:09:07 --> 00:09:11: these solutions are happened to be from the Netherlands where

00:09:11 --> 00:09:12: I'm from.

00:09:13 --> 00:09:16: So I'll show you a couple of their approaches.

00:09:16 --> 00:09:19: But the philosophy there is really that it's you know

00:09:19 --> 00:09:23: these these are projects, these are projects that are are

00:09:23 --> 00:09:28: meant to be multidisciplinary, multi stakeholder, multi scenario and multi

00:09:28 --> 00:09:29: functional.

00:09:29 --> 00:09:32: And I'll get into that a little bit later as

00:09:32 --> 00:09:34: I go into the the projects.

00:09:35 --> 00:09:37: But if you if you think about the first one

00:09:37 --> 00:09:38: it, it really makes sense right.

00:09:38 --> 00:09:42: When we're trying to deal with flood solutions, of course

00:09:42 --> 00:09:45: we need to have engineering but this is not enough,

00:09:45 --> 00:09:46: right.

00:09:46 --> 00:09:51: We should also include urban planners, urban designers, architects, community,

00:09:51 --> 00:09:57: stakeholders, finance, real estate developers, obviously, and even stakeholders like

00:09:57 --> 00:10:01: insurance companies if we really want to come up with

00:10:01 --> 00:10:02: good solutions.

00:10:05 --> 00:10:08: So start with the first one, a very unusual building

00:10:08 --> 00:10:12: in the Netherlands that won the Best Building of the

00:10:12 --> 00:10:13: Year award.

00:10:13 --> 00:10:17: This was a parking garage, you know, unlike the typical

00:10:18 --> 00:10:21: awardees that like museums and so on.

00:10:21 --> 00:10:22: It's kind of an exception.

00:10:22 --> 00:10:26: But what's so, so beautiful about this project is that

00:10:26 --> 00:10:29: it incorporates a flat wall, it incorporates A dune and

00:10:29 --> 00:10:33: it also includes parking all in one single project.

00:10:34 --> 00:10:38: So by doing that is able to address multiple problems

00:10:38 --> 00:10:42: in one multi and a stakeholder project including the need

00:10:43 --> 00:10:46: for parking of this coastal community in cutback.

00:10:47 --> 00:10:49: So it's a very beautiful project that's on the if

00:10:49 --> 00:10:52: you look at the section on the right, you see

00:10:52 --> 00:10:55: on the left it has this parking garage, then it

00:10:55 --> 00:10:57: has this big flood wall and on the right you

00:10:57 --> 00:10:58: have the dune.

00:10:58 --> 00:11:01: So it's a combination of the green strategy, the dune

00:11:01 --> 00:11:04: with the Gray strategy, the the flood wall and then

00:11:04 --> 00:11:07: combine it over the over the dike and then combine

00:11:07 --> 00:11:09: it all with a with a parking garage.

00:11:11 --> 00:11:12: And the parking garage.

00:11:12 --> 00:11:15: The way it opens up to the the beach is

00:11:15 --> 00:11:20: very beautiful with these almost like you know cuts through

00:11:20 --> 00:11:25: the dune and these very monumental staircases that that

00:11:25 --> 00:11:28: allow

00:11:29 --> 00:11:31: for this, yeah, very sensibly designed project.

00:11:31 --> 00:11:34: If you look at the the top it has skylights

00:11:35 --> 00:11:37: that are detailed with Cortland steel.

00:11:38 --> 00:11:41: So this is a steel that rusted and fits in

00:11:41 --> 00:11:41: very beautifully with the the color of the dunes on

00:11:42 --> 00:11:44: top.

00:11:45 --> 00:11:49: So very, very successful project.

00:11:49 --> 00:11:53: So it it it's not just a flood strategy, it's

00:11:53 --> 00:11:54: also parking and it's also improving access to to the

00:11:54 --> 00:11:56: beach.

00:11:56 --> 00:12:00: So in a way the way it was done in

00:12:00 --> 00:12:04: cutback is that it also helps with cross financing the

00:12:05 --> 00:12:08: flood management protection because all the infrastructure

00:12:12 --> 00:12:14: can now benefit

00:12:15 --> 00:12:18: from the revenue that's generated through the parking

00:12:19 --> 00:12:21: garage.

00:12:22 --> 00:12:24: The other two projects I'm going to show are from

00:12:25 --> 00:12:27: Rotterdam is a really good example because what Rotterdam

00:12:18 --> 00:12:22: did,
 00:12:22 --> 00:12:25: because it's at risk from multiple water threats, not just
 00:12:25 --> 00:12:29: from the coast, also from the rivers and from increased
 00:12:29 --> 00:12:33: rainfall, is that they reorganized their city departments to be
 one more multidisciplinary department that includes city
 planning but also
 00:12:34 --> 00:12:36: water management and real estate.
 00:12:36 --> 00:12:41: And they created this this dike which is a multi
 00:12:41 --> 00:12:42: functional dike.
 00:12:42 --> 00:12:45: So if you look at the rights, I'm not sure
 00:12:45 --> 00:12:48: if I can point this out, but this was the
 00:12:48 --> 00:12:49: old dike.
 00:12:49 --> 00:12:52: It was no longer high enough, so they needed to
 00:12:52 --> 00:12:52: go higher.
 00:12:52 --> 00:12:55: But if you would just make it bigger like this,
 00:12:55 --> 00:12:59: it would really block the access to the city and
 00:12:59 --> 00:13:02: would provide, yeah would would be this huge barrier.
 00:13:02 --> 00:13:07: So instead of doing that, they created this, what we
 00:13:07 --> 00:13:12: call a staircase dike with multiple steps and that's allowed
 00:13:12 --> 00:13:14: to include types of programs.
 00:13:14 --> 00:13:17: In this case, there's a parking garage as well as
 00:13:17 --> 00:13:20: a retail space and a community park on the top.
 00:13:21 --> 00:13:23: So what is the benefit of that besides housing the
 00:13:23 --> 00:13:24: program?
 00:13:24 --> 00:13:28: Well, at the same time, you're creating public space and
 00:13:28 --> 00:13:31: you're also have a very kind of active and and
 00:13:31 --> 00:13:32: appealing St.
 00:13:32 --> 00:13:33: edge on the side.
 00:13:35 --> 00:13:39: OK, how do I remove these adaptations?
 00:13:39 --> 00:13:40: Let me just.
 00:13:41 --> 00:13:43: OK, OK, Right here.
 00:13:43 --> 00:13:44: Sorry.
 00:13:50 --> 00:13:54: So very impressive project that includes all these functions in
 00:13:54 --> 00:13:56: one single single project.
 00:13:56 --> 00:13:58: So, so yeah, you're looking here at a typical St.
 00:13:58 --> 00:14:02: front not too different from other pieces of Dutch cities.
 00:14:03 --> 00:14:06: It's maybe a little bit longer than you would typically
 00:14:06 --> 00:14:09: expect, but still it's it's much better than, you know,
 00:14:09 --> 00:14:11: staring at a large styke, for instance.
 00:14:12 --> 00:14:16: And it does also contain needs for for local people,
 00:14:16 --> 00:14:18: including grocery store.
 00:14:18 --> 00:14:24: And on the roof there's various recreational activities for For

00:14:24 --> 00:14:30: children, there's urban agriculture, there's even a small playground and

00:14:30 --> 00:14:35: and other types of facilities that are located next to

00:14:35 --> 00:14:40: the playground to allow for some sort of social supervision.

00:14:41 --> 00:14:44: So very thoughtful and a lot of that I should

00:14:44 --> 00:14:48: say was a result of intensive stakeholder meetings with the

00:14:48 --> 00:14:50: community over many, many years.

00:14:52 --> 00:14:56: So Rotterdam is really a very good example because it

00:14:56 --> 00:15:00: has many solutions and and many type of strategies that

00:15:00 --> 00:15:01: it uses across the city.

00:15:03 --> 00:15:05: So, so this is just one of them of course

00:15:05 --> 00:15:08: which is a multi purpose dike but there's you know

00:15:08 --> 00:15:11: many, many other strategies that the city have.

00:15:12 --> 00:15:15: But to to end on the nettles, I wanted to

00:15:15 --> 00:15:18: show you this other strategies called the Room for the

00:15:18 --> 00:15:22: River project, which is very different from the first two

00:15:22 --> 00:15:26: strategies which we call defense strategies like keeping the

00:15:26 --> 00:15:26: water

00:15:26 --> 00:15:26: out.

00:15:26 --> 00:15:28: This is about letting the water back in.

00:15:28 --> 00:15:33: It's kind of a historical, historical moment for Ananellas

00:15:33 --> 00:15:37: because

00:15:33 --> 00:15:37: for 800 years people have been reclaiming lands, taking

00:15:37 --> 00:15:40: lands

00:15:37 --> 00:15:40: from the ocean and now the opposite is is happening

00:15:40 --> 00:15:43: sort of considering that it will be very hard to

00:15:43 --> 00:15:45: keep the water outgoing forward.

00:15:46 --> 00:15:49: So along the river there's many sites where you know,

00:15:49 --> 00:15:53: former river beds have been restored to dykes have been

00:15:53 --> 00:15:58: relocated just simply to increase the floodplains of the river.

00:15:58 --> 00:16:02: So when there's times of heavy rainfall or times from

00:16:02 --> 00:16:05: a lot of river water coming, then this will be

00:16:05 --> 00:16:09: stored in those increased and a lot of them more

00:16:09 --> 00:16:11: more natural floodplains.

00:16:12 --> 00:16:15: So one very interesting situation is near and I Mesa,

00:16:15 --> 00:16:17: it's a major city in the southeast.

00:16:18 --> 00:16:22: What they did there is they created this secondary channel

00:16:22 --> 00:16:25: on the right and then they moved the dyke and

00:16:25 --> 00:16:29: by doing so reduce the risk of this overall area.

00:16:30 --> 00:16:33: And because now there's a reduced risk as a result

00:16:33 --> 00:16:36: of flooding, they decided that in in a way that

00:16:37 --> 00:16:40: makes the real estate or or the land more valuable.

00:16:41 --> 00:16:44: So then they they decided to create a another type

00:16:44 --> 00:16:47: of district which you can see in the second slide

00:16:47 --> 00:16:48: kind of on the top.

00:16:49 --> 00:16:54: So it's a very comprehensive strategy that includes you know

00:16:54 --> 00:16:59: digging another channel, moving the dyke, creating a new district

00:16:59 --> 00:17:04: and it even includes moving some of the existing historic

00:17:04 --> 00:17:08: buildings in this case this old historic farm higher or

00:17:08 --> 00:17:12: away from the from the to be flooded area.

00:17:13 --> 00:17:16: Now I must say that the Netherlands is a little

00:17:17 --> 00:17:20: bit of an exception because it has a nationwide flood

00:17:20 --> 00:17:24: management program like risk is allocated across the country and

00:17:24 --> 00:17:28: it's a little bit paradoxical that's that the most low

00:17:28 --> 00:17:32: lying areas in the Netherlands actually have the lowest amount

00:17:32 --> 00:17:32: of risk.

00:17:33 --> 00:17:33: And why is that?

00:17:33 --> 00:17:38: Because there's a calculation that's made that's that looks at

00:17:38 --> 00:17:42: you know what will be the impacts of a particular

00:17:42 --> 00:17:46: you know flooding events and and the the calculation is

00:17:46 --> 00:17:49: made is based on the number of people and and

00:17:49 --> 00:17:51: kind of the economic risk.

00:17:52 --> 00:17:54: So that's why the areas that have the most amount

00:17:54 --> 00:17:57: of cities and the most amount of people like Amsterdam,

00:17:57 --> 00:17:59: Rotterdam, those are the ones that highest protected.

00:18:00 --> 00:18:02: The town that I'm from, which is more from the

00:18:02 --> 00:18:04: center of the country, small town is, is not as

00:18:05 --> 00:18:05: protected.

00:18:05 --> 00:18:10: It doesn't have the same standard simply because it's, you

00:18:10 --> 00:18:16: know, there's there's fewer people and less economic, less economic

00:18:16 --> 00:18:17: value at risk.

00:18:18 --> 00:18:21: So this situation in in the Netherlands, the solutions have

00:18:21 --> 00:18:25: really been celebrated and they're seeing also, especially from New

00:18:26 --> 00:18:29: York as as a solution that could potentially be adopted

00:18:29 --> 00:18:31: for Manhattan and other parts.

00:18:31 --> 00:18:34: However, I must say that the Dutch cases are really

00:18:34 --> 00:18:39: quite exceptional because even before city governments were founded 800

00:18:39 --> 00:18:43: years ago, there were water management entities collecting taxes and

00:18:43 --> 00:18:46: and managing managing dykes and and and water.

00:18:46 --> 00:18:51: So that makes it somewhat exceptional solution.

00:18:51 --> 00:18:54: But there's also good examples in the US Edgar is
00:18:54 --> 00:18:56: going to talk about New York.
00:18:56 --> 00:19:01: But if you look at Florida for instance, there there's
00:19:01 --> 00:19:06: some architecture projects that are are built on elevated
platforms
00:19:06 --> 00:19:09: like this one, the Paris Art Museum.
00:19:10 --> 00:19:12: Now why is that an appropriate solution for Miami?
00:19:12 --> 00:19:15: Because it's built on limestone, so you can't really build
00:19:15 --> 00:19:16: dikes.
00:19:16 --> 00:19:19: So because the water would just sit seep from underneath.
00:19:20 --> 00:19:23: So in this case, there's a museum that was designed
00:19:23 --> 00:19:27: be by the Swiss architects and they they elevated on
00:19:27 --> 00:19:31: this platform and underneath that platform is a parking level.
00:19:31 --> 00:19:35: So this then can get flooded in case there's a
00:19:36 --> 00:19:37: major flooding event.
00:19:39 --> 00:19:42: So I wanted to show this as well as the
00:19:42 --> 00:19:45: city of Miami Beach is raising their roads and it
00:19:45 --> 00:19:47: kind of goes back to my first point.
00:19:48 --> 00:19:51: You know, obviously this is a good solution because
whenever
00:19:51 --> 00:19:54: there's flooding that means you can still drive home safely.
00:19:54 --> 00:19:56: But it does lead to a lot of issues.
00:19:56 --> 00:19:59: So for instance, in this case and on the left
00:19:59 --> 00:20:01: you see the the City of Miami Beach engineer.
00:20:02 --> 00:20:05: Who explained it to me is that what what happens
00:20:05 --> 00:20:09: is that when there's not a coordinated response, it can
00:20:09 --> 00:20:11: lead to some potential fallout.
00:20:11 --> 00:20:13: So in this case in the city of Miami Beach,
00:20:13 --> 00:20:17: because the road was raised after a flooding event, the
00:20:17 --> 00:20:21: insurance refused to pay out some of the restaurants
because
00:20:21 --> 00:20:23: they said, yeah, you used to be on the ground
00:20:23 --> 00:20:26: level and now you're at a basement level.
00:20:27 --> 00:20:30: So it just shows the need for kind of putting
00:20:30 --> 00:20:32: all the stakeholders together.
00:20:32 --> 00:20:35: And I think Utili is a great entity for that.
00:20:35 --> 00:20:40: And to think about these things holistically, from insurance
companies
00:20:40 --> 00:20:44: to real estate developers, from engineers to urban planners,
architects
00:20:44 --> 00:20:46: and urban designers, thank you.
00:20:50 --> 00:20:51: Wonderful.
00:20:51 --> 00:20:52: Thank you so much, Stefan.

00:20:53 --> 00:20:57: We're going to transition over to our next speaker one
00:20:57 --> 00:20:57: second.
00:21:01 --> 00:21:06: Our next speaker is Edgar Westerhoff, One second.
00:21:06 --> 00:21:06: Yeah, thank you.
00:21:08 --> 00:21:11: I hope you can hear me well for state setting,
00:21:11 --> 00:21:14: there's a little bit of overlap at the beginning between
00:21:14 --> 00:21:16: what Stephen is explaining.
00:21:16 --> 00:21:19: I hope to to bring my own Dutch water engineer
00:21:20 --> 00:21:23: perspective to to some of these these examples and trained
00:21:23 --> 00:21:27: in the Netherlands as a water engineer also a planner.
00:21:27 --> 00:21:29: I've been in New York City for almost 12 years
00:21:29 --> 00:21:29: now.
00:21:30 --> 00:21:33: So it's interesting to compare you know how the the
00:21:33 --> 00:21:37: strategies that have been in the works for so long
00:21:37 --> 00:21:40: coming out of the Netherlands now translate to to some
00:21:40 --> 00:21:44: of the projects, the studies that we are leading in
00:21:44 --> 00:21:47: in the US So focusing on engineered and nature based
00:21:47 --> 00:21:51: solutions at scale what does that actually look like?
00:21:51 --> 00:21:54: So I'll be talking about the systems approach to flood
00:21:54 --> 00:22:00: control and about integrated multifunctional, better watershed
scale solutions apply
00:22:00 --> 00:22:04: the Netherlands and how they translate to to the Netherlands
00:22:04 --> 00:22:07: store, sorry to the US focusing on Houston and and
00:22:07 --> 00:22:08: New York City.
00:22:09 --> 00:22:12: So to touch on, you know, on what we just
00:22:12 --> 00:22:16: saw and Stefan's presentation, I think you know what what
00:22:16 --> 00:22:21: these images, these examples projects have in common that
there's
00:22:21 --> 00:22:24: a very high level of risk reduction in each of
00:22:24 --> 00:22:28: these examples, not just a high level of risk reduction,
00:22:29 --> 00:22:32: also a very strong way of multifunctional use of of
00:22:32 --> 00:22:36: public space and how public space and private space are
00:22:36 --> 00:22:38: connected together.
00:22:38 --> 00:22:41: So the top left image you see an urban yeah
00:22:41 --> 00:22:46: water square floodplain if you will, just outside of the
00:22:46 --> 00:22:49: train station of Rotterdam.
00:22:49 --> 00:22:52: On the normal circumstances it's a beautiful place to be,
00:22:52 --> 00:22:56: but when it does extreme precipitation it will fill up
00:22:56 --> 00:22:59: but it will fill up such that it doesn't harm
00:22:59 --> 00:23:01: the borrowing communities.
00:23:01 --> 00:23:05: The same with the bottom left cutback example that they
00:23:05 --> 00:23:09: found already touched upon solving multiple problems.

00:23:09 --> 00:23:12: The parking issues that used to be the case here
00:23:12 --> 00:23:14: before this work was was implemented.
00:23:14 --> 00:23:18: Also the need to upgrade the the risk reduction strategy
00:23:18 --> 00:23:22: through this these berms, the natural Dune system and how
00:23:22 --> 00:23:27: beautifully incorporated giving protection to the community of
once in
00:23:27 --> 00:23:31: a 10,000 year to yeah the more adaptive strategies that
00:23:31 --> 00:23:34: you see in the bottom right where people actually live
00:23:34 --> 00:23:35: in a floodplain.
00:23:36 --> 00:23:39: So all of these examples and to focus a little
00:23:39 --> 00:23:42: bit or zoom in on the next one, the Duck
00:23:42 --> 00:23:46: Park example and mentioned before you know shopping mall
integrated,
00:23:46 --> 00:23:50: high levels of risk reduction but also turning a struggling
00:23:50 --> 00:23:54: community into a place that is has become very vibrant.
00:23:54 --> 00:23:56: This is a place where now people want to be.
00:23:56 --> 00:23:58: So for people on the line, if you have an
00:23:58 --> 00:24:02: opportunity to travel to the Netherlands, please do face it,
00:24:02 --> 00:24:04: not just Amsterdam but also go to the city of
00:24:04 --> 00:24:05: Rotterdam.
00:24:05 --> 00:24:09: It's very worthwhile to see these kind of flood protection
00:24:09 --> 00:24:13: strategies fantastically integrated in in public space.
00:24:16 --> 00:24:19: So that's not all of course the Netherlands, we host
00:24:19 --> 00:24:23: the biggest delta in in Europe, the Rhine deltas are
00:24:23 --> 00:24:26: a lot of water usually melting snow in spring is
00:24:26 --> 00:24:28: coming through the Netherlands.
00:24:28 --> 00:24:33: We've just experienced tremendous amount of water in the
country
00:24:33 --> 00:24:37: as well giving near flooding situations and that is something
00:24:37 --> 00:24:41: that is being addressed through an important strategy room
for
00:24:41 --> 00:24:42: the river.
00:24:42 --> 00:24:46: You see two on the left, you see that stress
00:24:46 --> 00:24:50: circumstance where where water is creeping it up in the
00:24:50 --> 00:24:54: floodplain and you see here the concept applied throughout
the
00:24:54 --> 00:24:59: Netherlands with about 40 places where where strategies
have been
00:24:59 --> 00:25:00: constructed.
00:25:01 --> 00:25:05: They started after the 95 floods so well over 25
00:25:05 --> 00:25:06: years ago.
00:25:07 --> 00:25:10: I think a good lesson take away from from these
00:25:10 --> 00:25:13: strategies that have been implemented is that it takes a

00:25:13 --> 00:25:14: long time.

00:25:14 --> 00:25:17: You know this this program has been well over 15

00:25:17 --> 00:25:21: years in the making in terms of planning also construction

00:25:21 --> 00:25:25: and it's now you know it shows it's working really

00:25:25 --> 00:25:25: well.

00:25:25 --> 00:25:29: But there's also a realization that you know going into

00:25:29 --> 00:25:32: the future addressing climate extremes that there's room for the

00:25:33 --> 00:25:36: river concept may need to be adjusted at certain places.

00:25:36 --> 00:25:40: So again, taking that time scale, keeping that time scale

00:25:40 --> 00:25:43: in mind, you know we need to plan way in

00:25:43 --> 00:25:47: advance in order to to incorporate these these strategies.

00:25:48 --> 00:25:48: Fascinating.

00:25:48 --> 00:25:52: Here you see the the images, the concepts on the

00:25:52 --> 00:25:55: left and you see how it functions on the real

00:25:55 --> 00:25:58: life circumstances to the right.

00:25:59 --> 00:26:02: This is really what you know what makes it so

00:26:02 --> 00:26:06: valuable to work with architects for the visioning and that

00:26:06 --> 00:26:09: has been a very important part of the work that

00:26:09 --> 00:26:12: we do in the US So talking about flood strategies

00:26:12 --> 00:26:16: implemented at skill, this is a great example just north

00:26:16 --> 00:26:18: of city of of Rotterdam.

00:26:18 --> 00:26:21: This is where we can store millions of gallons of

00:26:21 --> 00:26:25: water on the extreme circumstances and we will see these

00:26:25 --> 00:26:29: type of strategies incorporated throughout the country much

00:26:29 --> 00:26:32: more.

00:26:29 --> 00:26:32: And this is really an example of you know how

00:26:32 --> 00:26:36: scale, how size matters, how volume matters and also

00:26:36 --> 00:26:40: volume

00:26:36 --> 00:26:40: explained in the terms of costs that are associated with

00:26:40 --> 00:26:42: these type of strategies.

00:26:42 --> 00:26:45: So to me there's always, you know, makes me think

00:26:45 --> 00:26:48: about you know what we do in places in cities

00:26:48 --> 00:26:52: like New York incorporating bioswales or trying to to address

00:26:52 --> 00:26:56: the natural water cycle by having water infiltrate in the

00:26:56 --> 00:26:57: streetscape.

00:26:57 --> 00:26:57: That is great.

00:26:58 --> 00:27:02: But also keep in mind that large scale full storage

00:27:02 --> 00:27:05: of water is is still a necessity.

00:27:07 --> 00:27:08: It shouldn't stop there.

00:27:08 --> 00:27:13: Water boards in the Netherlands also, yeah, assess their

00:27:13 --> 00:27:18: risk,

00:27:13 --> 00:27:18: their climate risk by playing with circumstances, various risk

factors,

00:27:19 --> 00:27:23: by letting levees break and see what happens and then,

00:27:23 --> 00:27:26: you know, what should the result be in terms of

00:27:26 --> 00:27:29: evacuation, accessibility, evacuation time.

00:27:30 --> 00:27:34: So there's digital models to play with this and to

00:27:34 --> 00:27:38: assess how an extreme circumstance will unfold if something bad

00:27:38 --> 00:27:39: were to happen.

00:27:40 --> 00:27:43: And I think what is interesting here to mention too

00:27:43 --> 00:27:47: is that you know the, the the risk perception also

00:27:47 --> 00:27:51: relates to personal so-called survival threshold that the Dutch have

00:27:51 --> 00:27:52: incorporated.

00:27:53 --> 00:27:55: So it's not just you know the once in a

00:27:55 --> 00:27:59: 10,000 year that is oftentimes being discussed, but every person

00:28:00 --> 00:28:04: in the Netherlands has a so-called survival statistic that means

00:28:04 --> 00:28:06: a chance of living and dying.

00:28:06 --> 00:28:07: Its once in 100,000.

00:28:08 --> 00:28:11: So if you are below that statistic you are in

00:28:11 --> 00:28:14: a good place and otherwise, yeah the country need to

00:28:14 --> 00:28:17: up strategies or what reports need to step up And

00:28:17 --> 00:28:20: I think that's an important way to compare also which

00:28:20 --> 00:28:24: parts of the country are safe and which parts of

00:28:24 --> 00:28:27: the country are less safe and may need strategies.

00:28:29 --> 00:28:32: So bringing that to to the US, we've brought a

00:28:32 --> 00:28:36: comparable program to to the city of Houston.

00:28:36 --> 00:28:39: Harvey 2018 killed nearly 100 people.

00:28:40 --> 00:28:44: Economic damage was close to hundred 125 billion.

00:28:44 --> 00:28:48: And this is where we've practised room for the river

00:28:48 --> 00:28:49: at a very very different scale.

00:28:50 --> 00:28:52: But the principles are exactly the same.

00:28:52 --> 00:28:55: So how can you utilise, use your landscape, in this

00:28:55 --> 00:28:59: case the Prairie landscape to temporarily store water And there's,

00:28:59 --> 00:29:03: yeah, multiple benefits here, not just, you know, keeping the

00:29:03 --> 00:29:07: peak flows away from from the reservoirs, which you know

00:29:07 --> 00:29:10: by itself can cause a tremendous risk factor if they

00:29:10 --> 00:29:13: were to break under actually extreme circumstances.

00:29:13 --> 00:29:17: So how can you reduce pressure by utilizing your Prairie

00:29:17 --> 00:29:21: landscape And that was done by, you know, incorporating the

00:29:21 --> 00:29:27: spot risk management techniques through permanent

retention, temporary detention.

00:29:27 --> 00:29:31: So how can you utilize the landscape?

00:29:31 --> 00:29:35: By bringing in small berms, ways to store water and

00:29:35 --> 00:29:38: as such keep it away from from communities.

00:29:38 --> 00:29:41: Very comparable to the example that you that you saw

00:29:41 --> 00:29:43: in the city of Rotterdam with that that urban flop

00:29:43 --> 00:29:44: name.

00:29:45 --> 00:29:46: And this is the result.

00:29:46 --> 00:29:49: So here on the left you see the landscape without

00:29:49 --> 00:29:54: water management interventions and you'll see how you know how

00:29:54 --> 00:29:56: exposed the region is, the area is.

00:29:57 --> 00:30:01: And on the right to see how water management interventions

00:30:01 --> 00:30:05: will limit the pressure not just on watershed but also

00:30:05 --> 00:30:09: downstream will limit pressure to the urban centres of of

00:30:09 --> 00:30:10: Houston.

00:30:12 --> 00:30:15: So bring that to the last example city of New

00:30:15 --> 00:30:15: York.

00:30:16 --> 00:30:17: I've been here.

00:30:17 --> 00:30:19: I was here during Hurricane Sandy myself.

00:30:20 --> 00:30:23: Has been 10 years in the making here as well.

00:30:24 --> 00:30:24: Stay home.

00:30:24 --> 00:30:28: Show how you know how Manhattan was, was was fully

00:30:28 --> 00:30:32: inundated along the edges, many casualties further away from the

00:30:32 --> 00:30:33: city centre.

00:30:33 --> 00:30:35: I live in Manhattan myself.

00:30:35 --> 00:30:38: I biked through the city centre and saw how ill

00:30:38 --> 00:30:42: prepared you know this, this metropolitan place was and also

00:30:42 --> 00:30:46: experienced the response through rebuilt by design.

00:30:46 --> 00:30:50: Hank Golfing brought this competition to the sandy affected region.

00:30:50 --> 00:30:53: New Jersey, New York and the big hue was one

00:30:53 --> 00:30:58: of those strategies, 12 mile alignment following the waterfront edge.

00:30:58 --> 00:31:01: You see that that green line here along along the

00:31:02 --> 00:31:05: waterfront, it's currently being constructed.

00:31:05 --> 00:31:06: You see the needs.

00:31:06 --> 00:31:09: You see how it's trying to address not just the

00:31:09 --> 00:31:13: future tidal effects but also coastal storm surges.

00:31:14 --> 00:31:15: And this is what it looks.

00:31:16 --> 00:31:18: This is what we take, what it looks like.

00:31:18 --> 00:31:21: If we take a closer look at the numbers, you

00:31:21 --> 00:31:24: see the four feet dotted mark that is the the
 00:31:24 --> 00:31:27: lowest waterfront edge and that that ranges from 4 to
 00:31:27 --> 00:31:28: 8 feet.
 00:31:28 --> 00:31:31: And you see the current high tides on the left.
 00:31:31 --> 00:31:34: And you see how you know the high tides are
 00:31:34 --> 00:31:37: creeping up on on the waterfront edge to to reach
 00:31:37 --> 00:31:41: a level by 20402050 where every high tide will break,
 00:31:41 --> 00:31:43: will break the edge.
 00:31:43 --> 00:31:45: And I think that is going to be, yeah, an
 00:31:45 --> 00:31:49: important moment of realization, not just in New York, but
 00:31:49 --> 00:31:53: throughout the US coastal cities like Boston, Miami, who was
 00:31:53 --> 00:31:57: already experiencing these these sunny day floods when
 water is
 00:31:58 --> 00:32:00: creeping over the edge during high tides.
 00:32:00 --> 00:32:03: That is a moment of realization and that's already the
 00:32:03 --> 00:32:06: case in the Rockaways, in the Bronx, Coney Islands.
 00:32:06 --> 00:32:11: They are starting to to inundate and through extreme or
 00:32:11 --> 00:32:16: sorry through precipitation that is only being exaggerated for
 the
 00:32:16 --> 00:32:17: big hue.
 00:32:17 --> 00:32:20: East side, coastal resilience, the Lower East Side, this is
 00:32:20 --> 00:32:22: one of the lower spots in that alignment.
 00:32:22 --> 00:32:26: This is where construction is, is taking shape in two
 00:32:26 --> 00:32:27: phases.
 00:32:27 --> 00:32:30: This is the parts just South of 20 1st St.
 00:32:31 --> 00:32:34: You see the concepts here by 1 architecture and the
 00:32:34 --> 00:32:37: PRK Ingles group who are part of our team and
 00:32:37 --> 00:32:40: here you see how the floodgates are being installed.
 00:32:40 --> 00:32:45: This is the Northern quarter of that that alignment floodgate
 00:32:45 --> 00:32:50: 18, which indeed implies that there's another 17 floodgates
 just
 00:32:50 --> 00:32:53: in this segment, a very important moment here.
 00:32:53 --> 00:32:57: This will take 100,000 people, 110,000 people out of the
 00:32:57 --> 00:32:59: 100 year floodplain.
 00:33:00 --> 00:33:03: It will take another two years to be completed.
 00:33:03 --> 00:33:04: You'll see the flood wall.
 00:33:04 --> 00:33:07: You see how a park landscape is built up to
 00:33:08 --> 00:33:08: that wall.
 00:33:10 --> 00:33:14: It's a beautiful young landscape to to, to appreciate when
 00:33:14 --> 00:33:19: there's no flood or storm surge and it's definitely, yeah,
 00:33:19 --> 00:33:21: having the eyes of the world on it.
 00:33:22 --> 00:33:22: Here.
 00:33:22 --> 00:33:25: I had the honour to to host the Dutch King

00:33:25 --> 00:33:28: last year during the UN Water conference.

00:33:28 --> 00:33:30: He is a water expert himself.

00:33:31 --> 00:33:34: So the conversation here was very much about you know,

00:33:34 --> 00:33:37: public perception, how the community was involved in the planning

00:33:38 --> 00:33:40: process and was in a big part responsible for you

00:33:40 --> 00:33:42: know, for what we are currently seeing.

00:33:42 --> 00:33:45: And you know many of these lessons learned are currently

00:33:45 --> 00:33:48: being applied to the financial districts.

00:33:48 --> 00:33:52: So effectively the second phase of the big you, the

00:33:52 --> 00:33:55: first phase you can say is the Berry Park City

00:33:55 --> 00:33:56: alignment.

00:33:56 --> 00:33:59: What we are doing here is, I can say it's

00:33:59 --> 00:34:00: a hybrid solution.

00:34:00 --> 00:34:02: So we are also touching the East River.

00:34:04 --> 00:34:06: So we are building out into the water where we

00:34:06 --> 00:34:07: have to.

00:34:07 --> 00:34:10: There's not a lot of space to implement the strategies

00:34:10 --> 00:34:11: on land completely.

00:34:11 --> 00:34:15: So we are also touching the water for land reclamation,

00:34:15 --> 00:34:19: something that has happened many times over the years.

00:34:19 --> 00:34:22: So those are the strategies that we reapply here.

00:34:23 --> 00:34:27: Building of nature nature based solution features are

00:34:27 --> 00:34:27: incorporated here

00:34:27 --> 00:34:27: as well.

00:34:29 --> 00:34:33: It's not just the city who is you know working

00:34:33 --> 00:34:37: hard to on these these resilience studies also the US

00:34:37 --> 00:34:41: Army Corps of Engineers they they launched the head study

00:34:41 --> 00:34:42: a big year ago.

00:34:42 --> 00:34:46: The head study is taking a more regional longer term

00:34:46 --> 00:34:50: perspective on the safety the water safety of of the

00:34:50 --> 00:34:51: region.

00:34:52 --> 00:34:55: It's a very good attempt and and goal to you

00:34:55 --> 00:35:00: have to stitch the various strategies together, bring them

00:35:00 --> 00:35:02: together

00:35:00 --> 00:35:02: in a more holistic approach.

00:35:03 --> 00:35:07: You see the various strategies represented here on the map.

00:35:08 --> 00:35:11: I want to call out the Jamaica Bay Area so

00:35:11 --> 00:35:16: also storm surge barriers are being incorporated here.

00:35:16 --> 00:35:18: This is a very good way.

00:35:18 --> 00:35:22: You're not talking about that systems approach to

00:35:22 --> 00:35:26: incorporate levees

00:35:22 --> 00:35:26: to work with, building of native features, eco engineering

features

00:35:26 --> 00:35:29: that have been work by the New York district for

00:35:29 --> 00:35:32: a long time incorporated here in tandem with with storm

00:35:32 --> 00:35:33: surge barriers.

00:35:34 --> 00:35:37: There's oftentimes you know discussion about about barriers.

00:35:37 --> 00:35:40: It's never would take the place to start as it

00:35:40 --> 00:35:44: comes with reducing flood risk, but it's it's definitely a

00:35:44 --> 00:35:47: consideration planning and thinking long term.

00:35:48 --> 00:35:51: This is something from an economic perspective that can

00:35:51 --> 00:35:52: make

00:35:51 --> 00:35:52: a lot of sense.

00:35:55 --> 00:35:58: I think New York is also coming to an end

00:35:58 --> 00:35:58: here.

00:35:59 --> 00:36:02: The place where we are, yeah, allowing ourselves to have

00:36:02 --> 00:36:06: honest discussions on you know what the future of certain

00:36:06 --> 00:36:07: communities is.

00:36:07 --> 00:36:10: This is the Rockaways and you know as much as

00:36:10 --> 00:36:14: we plan for to adapt to defence through engineered solutions

00:36:14 --> 00:36:18: or eco engineered solutions, there should also be an honest

00:36:18 --> 00:36:22: conversation on where you know communities may not be

00:36:22 --> 00:36:22: able

00:36:22 --> 00:36:22: to adapt.

00:36:23 --> 00:36:28: Where we may have to facilitate coastal repurposing or

00:36:28 --> 00:36:29: managed

00:36:28 --> 00:36:29: retreats over time.

00:36:29 --> 00:36:32: And you know I think this is one of these

00:36:32 --> 00:36:34: locations where we may have to look in the mirror

00:36:35 --> 00:36:38: and design A process for these these communities as well.

00:36:39 --> 00:36:42: So to wrap up a couple of yeah, summarizing conclusions

00:36:42 --> 00:36:45: just to call out the first one and the last

00:36:45 --> 00:36:49: one, Urban Resilience is about preparing for the extreme and

00:36:49 --> 00:36:50: avoid loss of life.

00:36:50 --> 00:36:54: You know the the, the standards design practices will no

00:36:54 --> 00:36:57: longer, you know keep our communities safe.

00:36:57 --> 00:37:01: We are currently seeing the flooding in California, you know

00:37:01 --> 00:37:04: 10 inches of rain in urban environment like Los Angeles.

00:37:05 --> 00:37:07: How do you manage those kind of volumes?

00:37:08 --> 00:37:11: What is your strategy to to keep your your people

00:37:11 --> 00:37:11: alive?

00:37:12 --> 00:37:15: And the last one, you know, we need to find

00:37:15 --> 00:37:19: ways to expedite procedures plus all of the studies, the

00:37:19 --> 00:37:22: examples, the best practices that you've seen here take 10

00:37:23 --> 00:37:25: years, decade or more to incorporate.

00:37:25 --> 00:37:28: And we simply don't have that time knowing that sea
00:37:28 --> 00:37:32: levels will creep up in our communities in the next
00:37:32 --> 00:37:33: 10 to 15 years.
00:37:34 --> 00:37:36: There really is no time to to plan and to
00:37:36 --> 00:37:38: engineer our way out of this.
00:37:39 --> 00:37:41: We have to speed up and be faster and more
00:37:41 --> 00:37:42: agile.
00:37:42 --> 00:37:45: And with that, I would like to thank you.
00:37:48 --> 00:37:49: Thank you so much, Edgar.
00:37:50 --> 00:37:53: And we're going to transition now to our final speaker,
00:37:53 --> 00:37:53: Isabel.
00:37:54 --> 00:37:55: One second, Isabel.
00:37:58 --> 00:37:58: Go ahead.
00:38:00 --> 00:38:00: OK.
00:38:00 --> 00:38:01: Let me just see if I can.
00:38:02 --> 00:38:03: Perfect.
00:38:04 --> 00:38:06: Well, thanks very much for for having me.
00:38:06 --> 00:38:08: My name is Isabel De Carries.
00:38:08 --> 00:38:10: I work with CIBC Caribbean.
00:38:11 --> 00:38:13: We're a large commercial bank in the Caribbean.
00:38:13 --> 00:38:16: I'm based in Barbados but I lead our hospitality and
00:38:16 --> 00:38:19: real estate practice for their region in itself.
00:38:21 --> 00:38:24: So I I, you know I'm speaking predominantly from a
00:38:24 --> 00:38:26: from a Caribbean contacts.
00:38:26 --> 00:38:29: But to put it into perspective as my Prime Minister
00:38:29 --> 00:38:32: Mia Motley would say, we're really sort of on the
00:38:33 --> 00:38:36: the front lines of climate change just given one.
00:38:37 --> 00:38:42: There are susceptibility as as island states within the region
00:38:42 --> 00:38:46: to rising sea levels, but also as it relates to
00:38:46 --> 00:38:52: what is increasingly turbulent hurricane seasons And the
00:38:53 --> 00:38:57: Caribbean really
00:38:57 --> 00:39:02: has a ton of reliance on tourism with the expectation
00:39:02 --> 00:39:05: that our growth in tourism is actually going to double
00:39:05 --> 00:39:08: the the global sorry expectations.
00:39:08 --> 00:39:12: And a lot of what will influence our ability to
00:39:12 --> 00:39:14: achieve that will be down to investments in infrastructure and
00:39:15 --> 00:39:18: the impact of sustainability.
00:39:18 --> 00:39:23: So from a from a firm perspective and more and
00:39:23 --> 00:39:26: more commercial banks are looking at their ESG policies and
00:39:26 --> 00:39:30: I just will touch very briefly on some of the
00:39:30 --> 00:39:34: areas that are important to us and and try and
00:39:30 --> 00:39:34: link those to how we look at financing solutions.

00:39:35 --> 00:39:38: I'm sorry, I'm seeing a note that my camera is
00:39:38 --> 00:39:39: off, but my camera is on.
00:39:39 --> 00:39:41: I'll just turn it off and turn it back on
00:39:41 --> 00:39:42: again and see if that makes a difference.
00:39:43 --> 00:39:45: OK, great.
00:39:45 --> 00:39:47: Thanks for the the feedback.
00:39:48 --> 00:39:51: So, so one of the first areas that we're looking
00:39:51 --> 00:39:53: at is, is obviously biodiversity loss.
00:39:53 --> 00:39:57: So as I said tourism is a very heavily infrastructure
00:39:57 --> 00:40:01: dependent industry and we have seen a considerable
amount of
00:40:01 --> 00:40:03: growth in the last number of years.
00:40:04 --> 00:40:07: A a good example of this from my island Barbados,
00:40:07 --> 00:40:09: is 15 years ago in a in a section along
00:40:10 --> 00:40:13: the coastline you had houses and infrastructure on both
sides
00:40:13 --> 00:40:14: of the road.
00:40:15 --> 00:40:17: You know, today there's only houses on one side of
00:40:17 --> 00:40:18: the road.
00:40:18 --> 00:40:21: So it's really just a a very kind of easy
00:40:21 --> 00:40:24: example of the impact that the expansion into some of
00:40:24 --> 00:40:25: these projects can have.
00:40:26 --> 00:40:28: And so it's really important to us that we look
00:40:28 --> 00:40:31: at, we're starting to take an even more medium to
00:40:31 --> 00:40:33: longer term view on a number of the projects that
00:40:33 --> 00:40:36: we're financing and and the impact that they're going to
00:40:36 --> 00:40:37: have.
00:40:37 --> 00:40:40: Another area that's of of importance is going to be
00:40:40 --> 00:40:42: a resource scarcity.
00:40:42 --> 00:40:45: And we talked there, the two panelists spoke a little
00:40:45 --> 00:40:48: bit in terms of of worker management and solutions and
00:40:48 --> 00:40:52: that becomes ever more important again as we look at
00:40:52 --> 00:40:55: you know, newer, bigger projects and the impact of those
00:40:55 --> 00:40:58: and also just in terms of the impact then on
00:40:58 --> 00:41:01: resource scarcity when it comes to food.
00:41:01 --> 00:41:03: So the region in itself is a net importer and
00:41:03 --> 00:41:07: there's a lot of reliance which means that we're very
00:41:07 --> 00:41:10: success susceptible, sorry to commodity prices.
00:41:10 --> 00:41:13: And so a lot of when we're looking at financing
00:41:13 --> 00:41:17: of individual projects, we need to contextualize this and how
00:41:17 --> 00:41:22: the financing industry is looking generally at the broader
financing
00:41:22 --> 00:41:25: in support of some of these areas and then of

00:41:25 --> 00:41:28: course environmental regulations and compliance.

00:41:28 --> 00:41:31: So this is a key aspect for any project developer

00:41:31 --> 00:41:35: or borrower that they really understand the environmental policies in

00:41:35 --> 00:41:39: each of the islands that they are looking to invest

00:41:39 --> 00:41:39: in.

00:41:39 --> 00:41:43: There are different frameworks and they are constantly evolving.

00:41:43 --> 00:41:46: And it's a lot of collaboration, which I'll speak to

00:41:46 --> 00:41:49: you in a later slide between the private sector and

00:41:49 --> 00:41:53: the sovereigns and sharing information and ensuring that we do

00:41:53 --> 00:41:57: have stakeholder engagement as I think the previous speakers really

00:41:57 --> 00:41:57: spoke to.

00:41:59 --> 00:42:02: And then also a challenge for us and in our

00:42:02 --> 00:42:07: area is also enforceability of some of those environmental policies.

00:42:07 --> 00:42:09: So it's it is an area that from a risk

00:42:09 --> 00:42:13: standpoint is of important to us and then the community

00:42:13 --> 00:42:14: and social impact.

00:42:14 --> 00:42:17: So I think some of the examples that we just

00:42:17 --> 00:42:21: saw are great in terms of the integration of stakeholders.

00:42:21 --> 00:42:23: What we've seen is maybe on the, on the downside

00:42:24 --> 00:42:27: of that of where you can have local opposition actually

00:42:27 --> 00:42:28: halt or stall projects.

00:42:29 --> 00:42:32: That has a huge impact obviously to developer returns.

00:42:32 --> 00:42:35: So really ensuring you have stakeholder engagement early on can

00:42:35 --> 00:42:39: help from a return standpoint for the developer, which obviously

00:42:39 --> 00:42:43: has an impact on the, you know, cash flow availability

00:42:43 --> 00:42:44: ultimately to repair debts.

00:42:45 --> 00:42:49: And then also looking at the integration of infrastructure as

00:42:49 --> 00:42:52: it relates to projects and doing so as much as

00:42:53 --> 00:42:55: possible in a more holistic way.

00:42:55 --> 00:42:59: There are areas that we see where you look at

00:42:59 --> 00:43:04: expansion, say of birthing facility for cruise structures, but the

00:43:04 --> 00:43:10: significant then increase in volume from passengers hasn't necessarily translated

00:43:10 --> 00:43:16: to the external infrastructure around those areas, which puts pressure

00:43:16 --> 00:43:21: on communities, but also in terms of the commercial viability

00:43:21 --> 00:43:23: just given how the connectivity is.

00:43:23 --> 00:43:26: So again, it's very important.

00:43:27 --> 00:43:28: And then I spoke a little bit to the impact

00:43:28 --> 00:43:29: of climate change.

00:43:29 --> 00:43:33: Obviously, rising sea levels and some of the challenges just

00:43:33 --> 00:43:36: in terms of the hurricane seasons and more extreme events.

00:43:37 --> 00:43:41: And this really has three kind of critical pieces for

00:43:41 --> 00:43:42: us is 1.

00:43:42 --> 00:43:46: The more intensity it's looking at how resilient has existing

00:43:46 --> 00:43:50: infrastructure to withstand, what's the damage going to look like?

00:43:50 --> 00:43:54: And then more importantly, at least what we're seeing is

00:43:54 --> 00:43:57: the impact to insurance, not only from a cost standpoint,

00:43:57 --> 00:44:00: but actually the availability at all of sub limits for

00:44:01 --> 00:44:02: both windstorm and flooding.

00:44:03 --> 00:44:05: And that in itself will have a huge impact in

00:44:06 --> 00:44:10: terms of financing because lenders will always want to ensure

00:44:10 --> 00:44:13: that or an extreme event to take place that the

00:44:13 --> 00:44:15: banks and we are commercial banks.

00:44:15 --> 00:44:20: So ultimately we're we're lending depositors funds that we're going

00:44:20 --> 00:44:23: to be repaid in that in those scenarios.

00:44:23 --> 00:44:26: And we're seeing more and more examples of where there

00:44:26 --> 00:44:30: is not actually the availability of that type of cover

00:44:30 --> 00:44:33: to cover what would be a more traditional level of

00:44:33 --> 00:44:35: financing for these projects.

00:44:35 --> 00:44:38: And so that in itself can have a hindrance in

00:44:38 --> 00:44:43: terms of the ability of projects getting financed and ultimately

00:44:43 --> 00:44:47: then completed and and and then finally we're looking more

00:44:47 --> 00:44:51: and more at the long term environmental risks.

00:44:51 --> 00:44:53: So you know I mean I gave the example of

00:44:53 --> 00:44:55: homes being on both sides of the of of the

00:44:55 --> 00:44:55: road.

00:44:55 --> 00:44:58: But if we think about you know large and and

00:44:58 --> 00:45:02: again this is maybe more specific to our area, but

00:45:02 --> 00:45:05: the growing number of all inclusive resorts and you know

00:45:05 --> 00:45:09: the country that I'm from you typically or originally would

00:45:09 --> 00:45:12: have had a hotel for 50 guests or 50 rooms,

00:45:12 --> 00:45:13: 80 rooms.

00:45:13 --> 00:45:17: We're now looking at financings for projects in excess of

00:45:17 --> 00:45:18: 1000 rooms.

00:45:18 --> 00:45:22: And so the infrastructure that that takes and particularly tourists

00:45:22 --> 00:45:24: like to come to, you know, warm sunny beaches, what
00:45:24 --> 00:45:27: impact does that level of infrastructure look like and the
00:45:28 --> 00:45:30: impact that it's going to have on the surrounding areas,
00:45:30 --> 00:45:33: particularly, you know, biodiversity as we spoke about.
00:45:33 --> 00:45:36: So it's really important and we're taking a look at
00:45:36 --> 00:45:39: balancing what are going to be the short term gains
00:45:39 --> 00:45:43: with the really the long term environmental impact and
sustainability.

00:45:49 --> 00:45:50: OK.

00:45:50 --> 00:45:54: So, oh, apologies, I've gone too quickly.

00:46:01 --> 00:46:02: OK, Sorry.

00:46:02 --> 00:46:04: I got a new computer yesterday and I'm having an
00:46:04 --> 00:46:06: immense amount of challenges.

00:46:06 --> 00:46:08: So appreciate your patience.

00:46:09 --> 00:46:09: OK.

00:46:09 --> 00:46:11: So what does that look like now in terms of
00:46:11 --> 00:46:12: finding solutions?

00:46:12 --> 00:46:16: So really, we're looking at an enhanced risk assessment
framework.

00:46:16 --> 00:46:19: So it's really important that we make sure that we
00:46:19 --> 00:46:22: have the right amount of expertise helping us guide to
00:46:22 --> 00:46:25: understand the risks of these projects.

00:46:25 --> 00:46:28: And the more we can minimize the risk, the the
00:46:28 --> 00:46:31: greater we'll be able to provide in terms of flexibility
00:46:31 --> 00:46:32: on financing solutions.

00:46:33 --> 00:46:35: You know, if you think of an airport as an
00:46:35 --> 00:46:39: example under a 30 year concession and you're providing
financing

00:46:39 --> 00:46:41: of let's say 15 to 20 years, you want to
00:46:41 --> 00:46:44: know that there's going to be viability of that project.

00:46:45 --> 00:46:47: And so we look at 1:00 whether there is the
00:46:47 --> 00:46:50: need for an environmental impact assessment.

00:46:51 --> 00:46:54: We're also placing reliance on independent engineers to give
us

00:46:54 --> 00:46:57: a third party assessment to ensure that the type of
00:46:57 --> 00:47:00: project is you know fit for purpose and it's going
00:47:00 --> 00:47:02: to have the type of longevity.

00:47:02 --> 00:47:05: And then finally, we're also look not finally.

00:47:05 --> 00:47:08: So we're also looking at the insurance reports to ensure
00:47:08 --> 00:47:11: that there's coverage enough and the more we can get
00:47:11 --> 00:47:15: comfortable from a risk standpoint, from a project
perspective, again,

00:47:15 --> 00:47:18: the more flexible we can be, the longer we can

00:47:18 --> 00:47:21: go out on the tenors and frankly the less expensive

00:47:21 --> 00:47:22: it's going to be.

00:47:22 --> 00:47:25: And the final piece as it relates to the the

00:47:25 --> 00:47:28: kind of reliance on on expertise that's really around the

00:47:28 --> 00:47:29: appraisal or the value.

00:47:30 --> 00:47:33: Ultimately what we're looking for is for cash flows to

00:47:33 --> 00:47:36: be sufficient to repay the debt and hopefully make sure

00:47:36 --> 00:47:38: that the equity gets a decent return.

00:47:38 --> 00:47:40: And so from that perspective, a lot of it's going

00:47:40 --> 00:47:42: to be driven by as I said, appraisals and those

00:47:42 --> 00:47:43: cash flows.

00:47:43 --> 00:47:46: Well, it's if those cash flows are at risk in

00:47:46 --> 00:47:50: five years time because of external structures that relate to

00:47:50 --> 00:47:54: climate, then that makes it harder for banks and financiers

00:47:54 --> 00:47:58: in general to provide the length that often is required

00:47:58 --> 00:48:00: to to meet the developers return metrics.

00:48:02 --> 00:48:05: And then looking as I mentioned earlier on the regulatory

00:48:05 --> 00:48:07: compliance and really the collaboration.

00:48:07 --> 00:48:10: So we're as an institution, we're looking not only at

00:48:10 --> 00:48:15: the regulatory frameworks that exist, but we're also looking at

00:48:15 --> 00:48:18: our own frameworks to ensure that we are meeting some

00:48:18 --> 00:48:22: of those challenges that I mentioned earlier and that also

00:48:22 --> 00:48:25: our sponsors are committed to a lot of these kind

00:48:25 --> 00:48:29: of green initiatives that will support the sustainability of their

00:48:29 --> 00:48:32: operations on a more holistic basis.

00:48:33 --> 00:48:36: And so that really kind of leads into sustainable practices.

00:48:36 --> 00:48:41: Then looking at green technologies, reducing their carbon footprint and

00:48:41 --> 00:48:44: how generally they're set up to be as clean as

00:48:44 --> 00:48:45: possible.

00:48:45 --> 00:48:48: And also when it comes to the architecture and the

00:48:48 --> 00:48:52: the project design, you know with lead and other certifications

00:48:52 --> 00:48:55: that it's really set up with sustainability in mind and

00:48:56 --> 00:48:59: that really helps in terms of capacity building and knowledge

00:49:00 --> 00:49:03: sharing where you can bring stakeholders together.

00:49:03 --> 00:49:07: We have a client in the Cayman Islands who's developing

00:49:07 --> 00:49:10: as a lead certified extension of their commercial program that's

00:49:10 --> 00:49:14: being done within the context of the Georgetown rehabilitation project.

00:49:15 --> 00:49:18: So it's very much integrated and supported by what the

00:49:18 --> 00:49:20: government is also doing and that also helps I think

00:49:21 --> 00:49:24: from a more sustainable, sustainable, sorry and long term planning

00:49:24 --> 00:49:25: perspective.

00:49:26 --> 00:49:29: And then you know capacity building and knowledge sharing.

00:49:29 --> 00:49:32: So we provide a lot of support generally to to

00:49:32 --> 00:49:35: the university and we also have a a forum re

00:49:35 --> 00:49:41: annually, sorry the Caribbean Infrastructure Forum which really brings together

00:49:41 --> 00:49:45: thought leaders from around the the region to share knowledge,

00:49:45 --> 00:49:49: to share information and to hopefully try and leverage each

00:49:49 --> 00:49:53: other's expertises in different areas for the benefit of the

00:49:53 --> 00:49:54: broader Caribbean.

00:49:58 --> 00:50:06: And no too quick, OK.

00:50:06 --> 00:50:08: So when it comes then down to our commitment to

00:50:08 --> 00:50:09: sustainable finance.

00:50:09 --> 00:50:13: So again looking at this on a more holistic basis,

00:50:13 --> 00:50:18: we have a very strong commitment to renewable energy investments.

00:50:18 --> 00:50:22: We've arranged more than \$600 million across the Caribbean in

00:50:22 --> 00:50:26: renewable energy, solar, wind, battery storage and that's really just

00:50:26 --> 00:50:28: helping to support an overall community.

00:50:29 --> 00:50:33: I mentioned blue financing, we we more most recently won

00:50:33 --> 00:50:37: an award for 140, 6,000,000 blue loan that we did

00:50:37 --> 00:50:38: for Barbados.

00:50:38 --> 00:50:42: And we're also looking at other blue-green and many other

00:50:42 --> 00:50:46: colors that would repair in terms of providing support to

00:50:46 --> 00:50:51: governments to unlock savings in their debt schemes to finance

00:50:51 --> 00:50:54: the type of sustainable projects.

00:50:54 --> 00:50:57: So for those of you that may not be familiar,

00:50:57 --> 00:51:03: it's essentially redo, it's replacing higher costing debt, existing debt

00:51:03 --> 00:51:08: with lower funding and using those savings towards conservation projects

00:51:08 --> 00:51:12: in in the example of Barbados it was for marine

00:51:12 --> 00:51:17: conservation and then also looking more generally at sustainability linked

00:51:17 --> 00:51:18: financing.

00:51:18 --> 00:51:21: So I mentioned earlier in terms of how reducing the

00:51:21 --> 00:51:25: risk can result in more flexible financing structures, but also

00:51:25 --> 00:51:29: then that is extended to, you know LEED certifications and

00:51:29 --> 00:51:33: also the facilitation on the retail side of more sustainability, sustainability linked financings.

00:51:33 --> 00:51:35: And then just a bit of an extension of that.

00:51:37 --> 00:51:40: And again maybe more specific to our region, a lot of the Caribbean sovereigns have relatively high debt to GD PS.

00:51:40 --> 00:51:44: And so the impact of that really is helping to support looking at PPP frameworks to again reduce their external sovereign debt amounts and allow for the expansion of infrastructure projects.

00:51:44 --> 00:51:49: So it is an area that we're very committed to in helping to support the overall region and in creating a more sustainable sort of future.

00:51:49 --> 00:51:52: And that's it.

00:51:52 --> 00:51:57: So thank you very much.

00:51:57 --> 00:52:01: Thank you so much, Isabel, and a huge thank you to all of our speakers.

00:52:01 --> 00:52:02: We'll now go into the Q&A portion.

00:52:02 --> 00:52:05: And please for all the audience members enter your questions into the Q&A function in Zoom and I'll stop sharing.

00:52:05 --> 00:52:09: Yeah.

00:52:09 --> 00:52:12: So let me just take a look there.

00:52:13 --> 00:52:14: Adam Greenfader asked if all of these projects take 10 to 15 years, what can we do to speed up the resiliency works?

00:52:15 --> 00:52:16: And any of the panelists are welcome to respond.

00:52:17 --> 00:52:19: Maybe Edgar, do you want to start on that?

00:52:20 --> 00:52:21: Sorry, I don't see the questions here.

00:52:21 --> 00:52:25: I'm just reading them out loud.

00:52:26 --> 00:52:30: So if all of the projects take around 10 to 15 years, what can we do to speed up these resilience projects?

00:52:30 --> 00:52:34: Yeah, I mean that is, I mean there's I think a political load in in that in that question.

00:52:35 --> 00:52:36: I think when we know what the risk is, if we have a good understanding of where the solutions are headed, then procedures should follow.

00:52:36 --> 00:52:38: I mean a procedure, a process, a permit, you know is is never a goal and objective by itself.

00:52:40 --> 00:52:43: So I think we simply need need to cut through

00:53:41 --> 00:53:46: certain ribbons and and be faster, more agile and how
00:53:46 --> 00:53:49: we get to to implementation faster.
00:53:49 --> 00:53:52: And there's different ways to to do that.
00:53:52 --> 00:53:55: I mean if if the the investment is too large
00:53:55 --> 00:53:59: or if the strategy is too big, too complex.
00:53:59 --> 00:54:01: I mean the big you by itself is a good
00:54:01 --> 00:54:01: example.
00:54:02 --> 00:54:03: You know trim it down.
00:54:03 --> 00:54:06: Is there an opportunity to make a project or intervention
00:54:06 --> 00:54:07: smaller?
00:54:07 --> 00:54:09: Is there a way to start off with a pilot
00:54:09 --> 00:54:13: project to kind of test the landscape, test the collaboration
00:54:13 --> 00:54:17: with multiple stakeholders including that the finance piece to
to
00:54:17 --> 00:54:17: that.
00:54:18 --> 00:54:21: So there's a lot of opportunity I think to to
00:54:21 --> 00:54:25: learn and to apply those lessons learned to, you know,
00:54:25 --> 00:54:29: the bigger investments that are needed to to adapt in
00:54:29 --> 00:54:30: our, our urban centres.
00:54:30 --> 00:54:34: But I mean foremost it needs a mindset of, you
00:54:34 --> 00:54:38: know, how can we be faster, be more agile and
00:54:38 --> 00:54:41: not, you know, well allow put our cards on the
00:54:41 --> 00:54:44: table, we're all on the same site.
00:54:44 --> 00:54:47: I think New York isn't is a very fascinating place
00:54:47 --> 00:54:51: where the city is is collaborating with the encore of
00:54:51 --> 00:54:51: engineers.
00:54:52 --> 00:54:55: You know, what do these processes look like knowing that
00:54:55 --> 00:54:57: federal funding takes time to be allocated.
00:54:57 --> 00:55:00: So let's start that process as soon as possible and
00:55:00 --> 00:55:01: try to find each other.
00:55:03 --> 00:55:04: Great answer.
00:55:04 --> 00:55:07: And then just to add to that, there's adaptive solutions,
00:55:07 --> 00:55:10: so you can start with a smaller size project and
00:55:10 --> 00:55:12: then add on to that project over time.
00:55:14 --> 00:55:15: Edgar, is that how?
00:55:15 --> 00:55:18: Or maybe Isabel, is that easy to finance when you're
00:55:18 --> 00:55:22: doing it in an adaptive way over time, incrementally?
00:55:24 --> 00:55:25: I think it it really does depends.
00:55:25 --> 00:55:28: So what often happens is the level, the base amount
00:55:28 --> 00:55:32: of infrastructure, it tends to be quite expensive and it's
00:55:32 --> 00:55:35: not yet going to yield cash flows that are going
00:55:35 --> 00:55:38: to be look which you're going to be your source

00:55:38 --> 00:55:39: of repayment.

00:55:39 --> 00:55:41: So it reach needs to reach a point that it's

00:55:41 --> 00:55:44: going to start generating returns in order to be able

00:55:44 --> 00:55:45: to repay the debt.

00:55:45 --> 00:55:47: So it's not to say that it's impossible, but it

00:55:48 --> 00:55:50: does need to be looked looked at in a more

00:55:50 --> 00:55:51: structured way.

00:55:52 --> 00:55:52: Great.

00:55:53 --> 00:55:55: OK, another question from the audience.

00:55:55 --> 00:55:59: Does the panel have suggestions for working with local code

00:55:59 --> 00:56:01: adaptation for innovative design?

00:56:01 --> 00:56:05: For example, dunes and sea turtle nesting are heavily

00:56:05 --> 00:56:08: protected

00:56:08 --> 00:56:11: along the Florida East Coast, so any project remotely similar

00:56:11 --> 00:56:15: in concept to the Dune project shown in the first

00:56:15 --> 00:56:17: presentation would be an incredible challenge with the

00:56:17 --> 00:56:19: existing code.

00:56:19 --> 00:56:21: Not to mention Florida's coastal geology.

00:56:21 --> 00:56:21: So maybe Stefan?

00:56:21 --> 00:56:22: Yeah.

00:56:22 --> 00:56:25: No, that's that's a good question.

00:56:25 --> 00:56:28: And yeah, even in the Netherlands, sometimes these things

00:56:28 --> 00:56:29: can

00:56:29 --> 00:56:30: really hold up projects for a long time when they

00:56:30 --> 00:56:32: discover a particular species.

00:56:32 --> 00:56:33: So.

00:56:33 --> 00:56:36: So yeah, I think it goes back to what Edgar

00:56:36 --> 00:56:36: was saying.

00:56:36 --> 00:56:38: If there's a political will there, there will be a

00:56:38 --> 00:56:42: way.

00:56:42 --> 00:56:46: So you know, there's also a saying that it actually

00:56:46 --> 00:56:50: takes 2 disasters to really change people's mind that the

00:56:50 --> 00:56:52: the after the first one, people still don't realize that

00:56:52 --> 00:56:56: this this could happen again.

00:56:56 --> 00:57:00: And then when it happens the second time, that's when

00:57:00 --> 00:57:02: the political situation changes and then suddenly all these

00:57:02 --> 00:57:04: reforms

00:57:04 --> 00:57:06: are are seen as necessary.

00:57:06 --> 00:57:09: Good point.

00:57:09 --> 00:57:12: And then a similar question.

00:57:12 --> 00:57:15: One of the images discouraged raising individual homes out

00:57:15 --> 00:57:18: of

00:57:18 --> 00:57:21: the floodplain as a mitigation measure.

00:57:12 --> 00:57:14: Why is this a bad idea for protecting homes in
00:57:14 --> 00:57:16: existing neighborhoods?
00:57:16 --> 00:57:17: Probably stuff in again.
00:57:17 --> 00:57:18: Yeah.
00:57:18 --> 00:57:20: So those examples are from the Jersey Shore and actually
00:57:21 --> 00:57:23: the state of New Jersey is walking back from these
00:57:23 --> 00:57:25: type of policies because it's still kind of a very
00:57:26 --> 00:57:29: threatening situation even for the homeowner by raising
themselves up.
00:57:30 --> 00:57:33: You know the it's it's could still lead to very
00:57:33 --> 00:57:34: dangerous situations.
00:57:35 --> 00:57:40: And on top of that, it does not really contribute
00:57:40 --> 00:57:46: to, you know, high quality living experience unless it's really
00:57:46 --> 00:57:48: done properly.
00:57:48 --> 00:57:52: But most of those cases are not done in a
00:57:52 --> 00:57:54: in a proper way.
00:57:54 --> 00:57:57: So so that leads to these issues.
00:57:58 --> 00:58:02: Maybe to build on that, Mariana, it's, you know, elevation
00:58:02 --> 00:58:05: of course is is your friend in mitigating thought risk.
00:58:06 --> 00:58:09: But you also also have to realize that the road
00:58:09 --> 00:58:14: infrastructure and the utility infrastructure, everything still sits
with the
00:58:14 --> 00:58:16: the house raising at that same elevation.
00:58:16 --> 00:58:19: And you know, it's not just the sea level rise,
00:58:19 --> 00:58:23: it's also the the precipitation, the backflow issues that may
00:58:23 --> 00:58:27: cause flooding in streets that will, yeah, will result in
00:58:27 --> 00:58:31: in limited livability in these kind of communities where you
00:58:31 --> 00:58:33: see these, these raised houses.
00:58:33 --> 00:58:36: So yes, it can buy you time, it can buy
00:58:36 --> 00:58:37: you maybe a few decades.
00:58:38 --> 00:58:43: But after that, beyond that, bigger strategies are needed.
00:58:43 --> 00:58:47: And and part of that approach, you know, would probably
00:58:47 --> 00:58:50: likely would be close to retreat or retreat up to
00:58:50 --> 00:58:55: higher ground, which means repurposing, taking certain
developments out of
00:58:55 --> 00:58:57: the floodplain, out of harm's way.
00:58:59 --> 00:58:59: Good point.
00:58:59 --> 00:59:00: Thank you.
00:59:00 --> 00:59:01: I have two questions for Isabel.
00:59:02 --> 00:59:05: Does the 1st is, does your bank follow us a
00:59:05 --> 00:59:09: specific sustainability framework for your project evaluation
or have you
00:59:09 --> 00:59:10: developed your own?

00:59:11 --> 00:59:14: How do you include real estate, physical climate change risks into your evaluations?

00:59:14 --> 00:59:15:

00:59:15 --> 00:59:19: What frameworks would you say are presently useful to provide

00:59:19 --> 00:59:23: financial incentives for climate, coastal physical resilience?

00:59:23 --> 00:59:24: And then the second, I know that's a lot of

00:59:24 --> 00:59:25: questions going on.

00:59:25 --> 00:59:29: And the second question is, I'm from Krakow living in

00:59:29 --> 00:59:29: New York.

00:59:29 --> 00:59:33: Wondering if your bank also engages in the kind of

00:59:33 --> 00:59:35: sustainable financing structures?

00:59:36 --> 00:59:38: I'll take the second one first because it's super easy.

00:59:39 --> 00:59:43: Yes, we did the the wind farm for new carousel.

00:59:43 --> 00:59:47: We're actually currently divesting of our operations there, but it

00:59:47 --> 00:59:49: won't stop us from looking at us more from terms

00:59:49 --> 00:59:50: of our retail presence.

00:59:51 --> 00:59:54: But we're absolutely still looking at at other projects in

00:59:54 --> 00:59:57: the renewable sector and other infrastructure projects.

00:59:58 --> 01:00:01: With respect to the first question, so CIBC has a

01:00:01 --> 01:00:05: very strong internal and sustainability framework which we've been leveraging,

01:00:05 --> 01:00:06: but we.

01:00:06 --> 01:00:08: We also need to adapt it to the realities of

01:00:08 --> 01:00:11: living in the Caribbean, which I'm sure we would all

01:00:11 --> 01:00:15: appreciate is slightly dissimilar to a North American context.

01:00:15 --> 01:00:18: So that's what we're currently developing and I think it

01:00:18 --> 01:00:22: will continue to evolve as you know, more information becomes

01:00:22 --> 01:00:25: available when it comes to the real estate, physical climate

01:00:25 --> 01:00:25: change.

01:00:25 --> 01:00:29: And I'm hoping I'm interpreting, interpreting this question correctly.

01:00:30 --> 01:00:32: So that's really where we're going to be looking a

01:00:32 --> 01:00:36: lot at the, you know, the architecture, the design, the

01:00:36 --> 01:00:39: contractor, whether it's LEED certified or otherwise.

01:00:39 --> 01:00:42: And that will help us in terms of our overall

01:00:42 --> 01:00:45: assessment in terms of financial incentives.

01:00:45 --> 01:00:48: There are other multilateral banks that have a more established

01:00:49 --> 01:00:52: framework where you meet certain sustainability goals and that has

01:00:52 --> 01:00:54: an impact on your financing.

01:00:54 --> 01:00:56: And then there are also other other banks that we

01:00:56 --> 01:00:58: know of where it's more punitive.

01:00:58 --> 01:01:00: You don't hit those goals and your interest rates go

01:01:00 --> 01:01:00: up.

01:01:00 --> 01:01:03: We haven't yet reached a stage where it is as

01:01:03 --> 01:01:04: prescriptive as that.

01:01:05 --> 01:01:07: But I will say that the more we can reduce

01:01:07 --> 01:01:10: the risk, so the more we can maybe take a

01:01:10 --> 01:01:14: step back, the more we can understand the project, its

01:01:14 --> 01:01:18: impact to the environment and its overall sustainability, which

01:01:18 --> 01:01:19: should

01:01:18 --> 01:01:19: drive cash flows.

01:01:20 --> 01:01:23: The more we can then understand and mitigate those risks,

01:01:23 --> 01:01:26: the more we'll be able to price in that mitigation

01:01:26 --> 01:01:28: and reduce the overall cost of funding.

01:01:29 --> 01:01:30: Wonderful.

01:01:30 --> 01:01:32: Thank you all so much for your answers.

01:01:32 --> 01:01:35: We are hitting the end of our time on this

01:01:35 --> 01:01:38: webinar, but we still have time for everyone to join

01:01:38 --> 01:01:42: us for networking and we can continue these questions and

01:01:42 --> 01:01:43: answers.

01:01:43 --> 01:01:45: So I'm just going to do a quick little wrap

01:01:45 --> 01:01:46: up here.

01:01:47 --> 01:01:49: We have also I just wanted to do a quick

01:01:49 --> 01:01:51: plug for an event we have coming up.

01:01:51 --> 01:01:56: It is the, it's the Southeastern Coastal Development Forum.

01:01:56 --> 01:02:00: This will be in person May 13th through 14th in

01:02:00 --> 01:02:01: Savannah, GA.

01:02:01 --> 01:02:04: So I'm just going to put the link to register

01:02:04 --> 01:02:05: in the chat box.

01:02:06 --> 01:02:08: Actually, I don't know if everyone can see this.

01:02:09 --> 01:02:09: Nope.

01:02:09 --> 01:02:10: I'll put it to everyone.

01:02:11 --> 01:02:12: There you go.

01:02:12 --> 01:02:15: And then, yes, please take a look at that link

01:02:15 --> 01:02:19: to learn more and to register And then to join

01:02:19 --> 01:02:20: us over at networking.

01:02:20 --> 01:02:24: I'm going to put the Zoom details.

01:02:25 --> 01:02:27: We have to switch because we're in a webinar currently

01:02:27 --> 01:02:29: and you can't do breakout rooms.

01:02:29 --> 01:02:31: But if you use these Zoom details, I just put

01:02:31 --> 01:02:32: in the chat.

01:02:32 --> 01:02:34: You can join us over in the Zoom meeting where

01:02:34 --> 01:02:36: we'll do networking and breakout rooms.
01:02:36 --> 01:02:38: We'll have discussion questions.
01:02:38 --> 01:02:40: The speakers will hopefully join us as well.
01:02:41 --> 01:02:45: And then finally, we'd love for you to please fill
01:02:45 --> 01:02:49: out this survey which helps us improve our programming
over
01:02:49 --> 01:02:50: time.
01:02:50 --> 01:02:52: So I mean also put a third link in the
01:02:52 --> 01:02:53: chat box to everyone.
01:02:54 --> 01:02:56: If you could just take a moment to fill out
01:02:56 --> 01:02:58: the survey and let us know how we did with
01:02:58 --> 01:03:01: this webinar and what you are hoping for for future
01:03:01 --> 01:03:02: webinars that would really help us.
01:03:03 --> 01:03:05: So thank you so much for joining us for this
01:03:05 --> 01:03:06: webinar.
01:03:06 --> 01:03:09: We look forward to seeing all of you in the
01:03:09 --> 01:03:13: Zoom meeting where we're going to do some networking and
01:03:13 --> 01:03:16: that Zoom is hosted by ULI, Southeast Florida and the
01:03:16 --> 01:03:17: Caribbean.
01:03:17 --> 01:03:20: So we really thank them for their partnership on this.
01:03:21 --> 01:03:22: OK, great.
01:03:22 --> 01:03:31: We'll see you over there and all the speakers.
01:03:31 --> 01:03:33: If you can also try this link, I think we
01:03:34 --> 01:03:35: can stop recording here.

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