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My name is Jian Vun. I am a senior disastrous management specialist based in our Sydney office in the World Bank.

And I support our Pacific Island countries disastrous management and urban program. We're delighted to have all of you today in the room. There's quite a lot of delegates from different countries I can see.

And we're really excited to get this session started, which is called The Island Advantage, Strategies for Resilient Urbanization in Small Island Developing States. So this session is sort of a presentation style.

We'll hear from some different specialists in the room, as well as our esteemed colleagues from JICA, as well as from the government of Maldives and the government of the Republic of the Marshall Islands.

This session is really about Atoll countries. And for those of you that don't know what Atoll means, an Atoll is a ring -shaped island, including a coral rim that encircles a lagoon. And they have very unique characteristics and vulnerabilities compared to other types of islands.

So we're really excited to have, as I mentioned, two colleagues that are actually from the Atoll countries, from the Maldives and the Republic of the Marshall Islands join us. With fragile ecological profiles and low elevations, and of course sea level rise, that's expected to increase in the future, as well as extreme weather events that are likely to increase in frequency and intensity.

Small island developing states face very unique challenges and vulnerabilities, and their cities require specialized planning. Across Pacific island countries in particular, urban populations are expected to double between 2012 and 2035.

Urbanization is an important driving force of development gains. However, policy discourse within the region has yet to really fully recognize the importance of fully addressing resilient, inclusive, and livable urban development on these small island countries.

Rapid unplanned development in hazard -prone areas, fueled by internal migration and natural population growth, disproportionately affects poor and disadvantaged populations. So given the compounding issues of climate change, extreme weather events, and socioeconomic challenges, a multidimensional approach to urbanization in small island states is absolutely critical.

So at all countries, especially including the Republic of the Marshall Islands, the Republic of the Maldives, the Republic of Kiribati and Tuvalu, are particularly vulnerable, as I mentioned, because these low -lying countries face significant climate and disaster threats, and pressures on scarce land require specialized planning and significant action.

The vulnerability of these islands' people, infrastructure, and livelihoods is a critical challenge, as these countries report higher rates of rapid urbanization and internal migration to their capital cities compared to other small island states.

So this session will highlight some key findings from our co -host, Jaika, and also their proposed operation in Kiribati, as well as some of the World Bank's ongoing studies, including through city scans and our upcoming report in the Pacific Islands that will be entitled The Island Advantage Strategies for Resilient Urbanization in the Pacific.

The session is co -led by World Bank and Jaika, so we thank very much, Jaika, for supporting us and working together to design the session and the questions. So without further ado, I'm going to ask each of our panelists to join the table at the front, one by one.

So firstly, Ms. Ri Su from the World Bank, a specialist from the Global Facility for Disaster Reduction and Recovery.

Thank you. Thank you.

Secondly, I would like to invite Mr. Naomichi Muruoka from Jaika, thank you so much. Deputy Director General of Infrastructure Management in the Department of Jaika. Third is Ms. Jessica Schmidt from the World Bank, an urban specialist with us working in the Pacific.

Fourthly, Mr. James Miyazoi, who's from the Republic of the Marshall Islands and is the Manager for the Project Management Unit in the Ministry of Public Works, Infrastructure and Utilities. And fifth is Mr.

Ahmed Ayman Sharif from the Republic of the Maldives, who is a civil and coastal engineer for the Government of the Maldives in the Ministry of Construction and Infrastructure. So thank you very much everyone for your kind attention.

First, I will invite Ms. Risu to kick us off with some city scans. Thank you so much.

Hi everyone, so my name is Ray, and I'm from the City Resilience Program at the World Bank, so I'm going to briefly walk you through some of the city scan findings that, based on the analysis that we have conducted for some of the Pacific Island cities.

And so first of all, what is the city scan? It is a rapid and low -cost assessment that covers a range of hazards and climate factors and how urbanization trends interact with these hazard information that we are looking at.

And it uses the best available global data sets as well as open source tools to help us gain some high -level findings so that it can serve as a conversation starter for the task teams as well as the country governments to start thinking about how to address the resilience challenges that cities are facing today.

So to date, the CRP has conducted 163 city scans in all different regions of the world, including six in the Pacific Island states as listed here. So today I'm going to draw examples from some of our findings from these six analyses, and just to give an illustration of what the city scan covers and some of the key challenges that the cities here are maybe confronting.

So one important aspect of the city scan is urbanization and population, which sets the context for urbanization trends that we're analyzing. So we see in the example of Colonia, there is a clear urban core that's densely populated, as you can see on the map on the right.

And we also analyzed demographic data, so we see that, as you can see in the chart on the left -hand side, where population is broken down by age groups, where younger is on the left side and older is on the right side.

So we see that the city has a very young population, which is an important factor considering the continued urban expansion and how the population change may be driving that. So connected to demographics, we also, of course, think about urban economy.

So we use nighttime light data, which is one of the data sources that we use to get some understanding of how economic growth is occurring and changing over time. So the map helps us not just understand whether a city is growing or maybe not growing economically, but also spatially where the economic growth may be occurring.

So we see that in the city of Port Moresby, there are some neighborhoods such as in the area surrounding the urban core that's growing much faster than the immediate urban center. And along with urban economy, we also think about urbanization impacts on the environment, which is going to have complicated interactions with the economic and population changes.

And just to have an example, one of the impacts could be on the surrounding forests and the interaction between economy and ecology is a very salient factor in the Pacific island

states. And so we see in the example of Honiara, the urbanization is already resulting in a lot of deforestation, as indicated in red color on the map.

So it's a strong indicator of urban sprawl, but it's also a factor for urban planners to start thinking about urban development policies and trajectories and how that might affect a city's future growth.

and very connected to the environmental changes. We want to also think about not just how the city is impacting the environment, but also the reverse, which is how the environment and natural conditions, natural hazards could be affecting the people and the built -up areas in the city.

So one of the most important hazards that we examine is the flooding. So we look at different types of flooding, and as you can see on this map, when we look at river and rainwater flooding affecting built -up areas, we see that some of the built -up areas in the city is already overlapping in flood zones, and also a lot of cities are continuing to expand into flood zones, which I'm sure a lot of people in this room are already well aware.

And specifically, for a lot of coastal cities that we're looking at, sea level rise is one of the most prominent concerns. So, and it's not something that we're thinking about 30 years or 50 years into the future, but it's something that's already occurring and affecting the populations today, like we see in Colonia.

As our analysis indicates, the sea level rise flood zones is already approaching or overlapping slightly with the populated areas of the city. And so that's going to be, again, another important aspect to think about when a city is thinking about where to expand and how to shape this kind of urban growth.

Another example of hazards is urban heat. Again, a very common hazard happening all across the world, including in the Pacific Island cities. So we see that the urban heat island effect where the built -up areas of a city is much hotter in the summer than the surrounding areas.

That's already very pronounced in the city of Colonia. And of course, the land cover type has an important impact on the surface temperature as well. So thinking about all of the urbanization trends, as well as the hazards that we have looked at so far, I want to, in the rest of the session, want to encourage the audience to think about some of the questions, because like I said in the beginning,

CityScan is a conversation starter, it's not the end. And so we can think about what are the findings that surprise you and what other information might you need to think about how to actually concretely address the resilience challenges and how could the CityScan inform investment planning in the realm of urban resilience and climate adaptation.

Thank you.

Thank you very much, Reece. So if anyone's interested in learning a bit more, I'm Ree and Ross from the City Resilience Program here, and you can come look for them after the session. The second panelist, as I mentioned, Jessica Schmidt is an urban specialist in our Global Practice for Urban Disaster Risk Management, Resilience and Land.

Jessica has a background in urban planning and design and is supporting resilient urbanization engagements in the Pacific Islands with us. Jessica, please, thank you.

Thank you, Gian, and thank you all so much for being here. It's great to see so much interest in this topic. I'll be discussing today some current and ongoing initiatives that the World Bank is running as looking specifically at small island developing states.

In the interest of time, given that this is an extremely short presentation, I'm going to focus on the Pacific today and specifically the Atoll countries of the Marshall Islands, Tuvalu, and Kiribati.

But this is really to give you a sense of scale. The Pacific Ocean is about a third of the Earth's surface, and Pacific island countries are composed of about 30 ,000 islands. The Atoll countries, in particular, face extremely unique challenges related to geography,

dispersed populations, and some of the more natural benefits of urbanization, such as agglomeration effects or economies of scale, are a little bit harder to realize here.

So the World Bank is currently undertaking an analytical piece of work that's really looking to understand what urban means in the Pacific context. We've partnered with RUI and the city resilience program.

We've undertaken a literature review and data inventory to understand what's possible. But we really see this as a forward-looking, comprehensive diagnostic that's going to start to answer some of these questions in foreign policy dialogue, as well as recommend prioritized investments.

But what's really critical to understand is that the Pacific already is urban. In 1950 of the World Bank client countries, only one was above 30% urban. Today, there are five countries that are over 50% urban, and all three of the Atoll countries are within that group.

And then by 2050, those five countries, including the Atoll countries, are going to be about 70% urban. For example, in RMI, the capital city of Majuro is already home to over 50% of the population already.

So here you can start to see some of our initial analysis, where we're starting to understand where and how people live. This is just a very short representative sample, looking at percentages of population who live in Atoll countries, who live in urban centers, and who live within one kilometer of the coast.

I won't get too much into this. But what you can see in that last column is that of those five people, they almost certainly live less than two meters above sea level. So governments in the Pacific Islands are really facing some extreme challenges, and they're looking for very innovative, multi-sectoral solutions that are going to have to address climate adaptation, risk reduction, as well as urban development issues,

like increased density, development in limited land areas, and then more qualitative things as well, such as livability. So this is the overview of our upcoming regional diagnostic. We intend to focus on these five focus areas.

And then we're also going to drill down and look at what those focus areas mean at the city level. We're going to have two city level case studies of Sala La Longa, Samoa, and Honiara Solomon Islands.

These were selected because they really represent sort of an archetype of an established capital city, as well as an emerging town. In addition to the island advantage regional work, we're putting together a second technical report that's looking at the capital cities of the actual countries to understand what the trends of urbanization are there, what the demographics are, where we are seeing opportunities to work directly at the neighborhood level and come up with some sort of community or household level initiatives for risk reduction and climate adaptation.

So I will stop there. Both reports are going to be published by the end of the year. We plan to have several dissemination events both online and in the Pacific. So we very much hope to continue this conversation and see you at some of those events.

Thank you so much. Thanks so much.

Thank you very much, Jessica, so yes, please do come find Jessica and I if you'd like to learn more about the report later. Now our next speaker, Mr. Noamichi Muruoka, is the Deputy Director General of Infrastructure Management Department for JICA, the Japanese International Corporation Agency, and specialises in the recovery and reconstruction works from conflicts and natural disasters, including Juba in southern Sudan,

Typhoon Yolanda in the Philippines, Gorka earthquake, and also Ukraine. He also holds a Masters of Urban Planning from the University of Michigan and is a professional engineer in Japan. Thank you, Mr.

Muruoka.

Hi, my name is Naomi Chimaoka. It's very nice to be here with you today. I'm from Japan International Cooperation Agency. And I'd like to share with you Jaika's approach to sustainable urbanization in some small island developing state, taking the case of Kiribati.

So Jaika is now preparing for a new project in Kiribati. We have found out the following issues make addressing urbanizations in SIDS unique and different from other countries. First, population increase due to migration and natural growth concentrates in limited island.

Second, erosion. Inappropriate land use and illegal sand extraction is a threat to the sustainability of the land. Third, inundation due to high tide and low altitude. Fourth, altitude, sorry, altitude.

Fourth, directly to enforce a difficulty to enforce laws and regulations for land use and building code and permission. Next, about Kiribati. Kiribati consists of 33 islands. And 32 out of 33 are low atolls in Pacific Ocean.

Main industry is fisheries. But the main source of income as a country is fishing fees from other countries. There are many overseas workers outside of Kiribati who contributes to Kiribati's economy by their limitances.

Population increase due to migration is concentrated to the main island, South Tarawa. As you can see from this slide, the population in 1947 was 30 ,000. But now it's 120 ,000, of which 53% is in South Tarawa.

This is mainly because of the availability of public services, such as education and health care. Next is erosion. The picture on the left shows the shoreline of 2005 and of 2023. You can see that the development has been progressed.

Nearby the shoreline and the shoreline has been eroded. As you can expect, the closer the development comes to the shoreline, the higher the inundation risks increase. The picture on the right is the sand put into the back.

Sand is precious construction materials, in SIDS especially. And the sand extraction contributes to increasing the risk of inundation and losing land. Kiribati rarely gets direct heat from hurricane, as it is located just below the equator.

However, high tide makes inundation as an effect of hurricane that passes nearby. Next is laws and regulations. Construction is not allowed in 20 meters from high water marks by law. However, the law is not applied to temporal construction.

And as you can imagine, there are a lot of buildings constructed as temporal structure. And therefore, the control of construction by the law is limited. Sand extraction is not allowed except for certain location.

And the sand trading channel is also controlled by the law. However, supply of sand is limited, but the demand is high. And therefore, there are a lot of illegal sand extractions. Surface water contains salt in general.

And therefore, it is difficult to make concrete for building some infrastructure with appropriate pride strength due to salinity. So this is a problem that I explained so far. First, the land use and building permission are not appropriately considered, considering the risk of natural disasters.

Second, the population increase becomes pressure to the land use and therefore the enforcement of the land use law and the building code, building permission is not much effective. Sand extraction is endless due to the limited availability of the materials, supply and high demand.

These contributes to the continuous erosion of the land and the threat to the land is amplified due to continuous population increase and natural disasters and climate change. So JICA's approach is as follows.

We focus on the land use. Land use plan needs to be formulated based on the scientific evidences, including the threat, a trend of erosion, inundation, historical record and development. The more importantly, the enforcement of the land use plan needs to be effective.

To do so, we think it will take time and these gradual steps, the enforcement of land use plan and zoning will be applied to the new buildings permission, not the existing buildings, considering the realistic approach.

So this is a summary of JICA's approach to urbanization in Kiribati. Special planning and the coastal management needs to be integrated as integrated planning. Consistent planning system from policy plan and project.

Evidence -based scientific approach based on hazard and risks. Community participatory inclusive and risk informed approach and improvement with local potential and existing capacity. In Kiribati, when protection sea wall collapse, the recovery work of a protection wall is requested and implemented by the community with material provided by the government.

But this is limited therapy, not holistic approach. By taking JICA's approach, we can better prioritize where to intervene in a holistic manner. This slide illustrates the integration of special planning and the coastal management at policy plan and the project level.

When we say coastal management, key measures is classifying the, classifying coast into three categories. Protection and conservation and the utilizations. So this is a case of recovery and reconstruction.

JICA has done together with the government of the Philippines after Taichung Yolanda invaded Philippines in 2013. We have formulated a spatial map, special plan, land use plan of a power city and the Takurban city, as you can see on the light.

In land use plan, we proposed to have the elevated load to prevent from the inundation from the high tide so that we can use the land behind the elevated load without fears of losing property again by similar natural disaster in future.

In vertical zoning on your left, we set the necessary floor height considering the actual high tide level by Yolanda, but not the ground level at the present. This is our experience from Philippine, not from SIDS, but such experience can be referenced with a fine customization for addressing challenges in Kiribati.

So challenges, surely it is difficult to obtain consensus from people to follow the coastal zoning and hazard risk informed zoning. This is mainly due to the fact that climate change risk is approaching slow, not imminent as hurricane or other natural disasters.

It is difficult to persuade people, especially elder people, elderly people, the necessity to make actions to continue, contribute their own property to the before mentioned purposes. The pictures are the scene of a stakeholder's meeting for elevated load plan in the case of Taichung Yolanda, and we think we need to have such consensus building by, you know, these kind of actions.

So what we should do, there are no miracle solutions. We think enhancing awareness of the people needs to be centrally considered. For this, we think two interventions among others are important. First, we approach to younger generations.

For example, we strengthen school classes for kids that discusses the risks of, you know, losing land due to sand erosion and climate change. Kids will then talk about it to their family members at their home.

We expect that such interactions will promote obtaining understandings of elder people, generations who care about the next generations on the necessity of such long -term measures as coastal zoning and other risk -informed zoning.

Second, we think community activities such as shoreline patrol by community members to check the illegal sand extraction. We think such short -term actions might be effective

for awareness -raising of all generations and strengthening the surveillance in communities.

The picture on the right is the scene of drill along the timeline action plan on the left after Taichung Yolanda. Such short -term measures to prevent losses from your Taichung in future has enhanced people's awareness of the necessity of disaster risk reduction actions both short and long -term.

So, summary of my presentations, I don't go into detail, but you can see for those five points. Thank you very much.

Thank you so much for your interesting presentation on Kiribati. We'll now move quickly to the Republic of the Marshall Islands where Mr James Miyazoi, as I mentioned, is the project management unit manager in the Ministry of Public Works, Infrastructure and Utilities.

He oversees and manages all of the infrastructure projects for his government, including with multilateral partners. So James' presentation will showcase how RMI is utilizing a risk -informed approach, including analysis of hazards, exposure and vulnerability.

Please, James, thank you so much.

Yeah, thank you, Gian, and good morning to everybody. My name is James Miyazui. I'm from the Republic of the Marshall Islands. And I'll be presenting on the case study of Marshall Islands. And after hearing the case study on Kiribati, we see that there's a lot of similarities between our two countries.

So I'll definitely be touching based on the similarities between us. But to give a brief background context on the Marshall Islands, we are located in the Pacific Ocean in the subregion of Micronesia.

We have about 29 atolls around 1,200 small low-lying islets. And the two main ones are major and quadrillion, the two main urban atolls, while the others are sort of considered the more rural outer islands.

And some of the geophysical issues that we have, similar to Kiribati, one is that we have an isolated location, being surrounded by a vast body of ocean. Closest trading centers are Guam and Hawaii, which are about 2,000 miles away.

And so being very isolated and having a underdeveloped economy really makes us isolated from the global market. And especially with increasing transportation costs, it also increases our cost of living and makes us more vulnerable to the external influences and shocks from the global market.

Another one is the dispersed atolls, with all the atolls very dispersed around in the Marshall Islands. It makes it hard to transport goods and services to these outer islands. And then there is this unequal development between the rural and the urban atolls.

Another one is that we are a low-lying and narrow islands, averaging about one to two meters, as Gian mentioned. Our width, as you can see in the photos, it's very narrow, long and narrow islands, about 0.2 to 0.8 kilometers wide, which makes us very vulnerable to impacts of climate change and all those risks.

And lastly, we have the limited resources and land, which makes urbanization become a prominent and modern issue in the Marshall Islands. So it is without doubt that the Marshall Islands is in the forefront of climate change.

We experienced a lot of climate hazards, for example, king tides, storm surges, typhoons, flooding, inundation droughts, and tropical storms. Usually every year we would experience king tides and flooding, especially during La Nina seasons.

And a lot of coastal homes and assets are destroyed from these floodings. We also have slow onset climate risk. For example, sea level rise, I believe since the 90s, the sea level rise in the Marshall Islands has increased by seven millimeters per year.

Also erosion. Within the past 50 years, the shorelines of the Marshall Islands have recessed about 15 meters, basically eating up the islands. And lastly, saltwater intrusion, which a lot of these coastal homes rely on the water aquifer and water lenses, as well as the agricultural in these coastal areas.

So with water intrusion affecting these water lenses and agriculture, this becomes a food and water security issue for these coastal homes. I think Jessica briefly introduced this, but one of the reasons why we're increasing our exposure and vulnerability to climate change is because we're having a vast rapid rate of people migrating from the rural islands to the urban atolls.

And having very limited land available for the citizens, it becomes a much densely populated atolls, especially in the urban areas. And in the graph on the right, based on the MR Census, since the 1980s to 2020, the percentage of the population residing in these urban atolls has increased from 60% to 80%, so a lot of people are more residing in these urban atolls and making it more vulnerable and susceptible to climate change.

And also having these rapid migration to the urban areas can cause other socioeconomic issues, for example, increasing our poverty levels or unemployment rates, and also other issues such as resource depletion, pollution.

These are some of the photos where we had to dredge our core roots because we had to use that aggregate to develop more buildings for the citizens, so a lot of these issues are coming up from our uncontrolled rapid urbanization.

So for the citizens who have a better understanding of the issues that we are experiencing, a coastal vulnerability assessment was conducted in 2018, and this helped us assess the coastal hazards and impact risk that we are experiencing while also looking at the different building assets in different areas of major, the capital, and conducting flood risk map, flood risk, flood risk map, sorry, and scenario levels so that the government can have a better idea of which areas are more vulnerable,

which areas do we need to protect, and which areas are probably least prioritized to be protected. Also a LIDAR study was conducted to further enhance these data in terms of the ocean dynamics, for example, wave heights, sea level rise, erosion, ocean levels.

And lastly, the ETO study was formulated to present to the government on what the future long -term options would be for adaptation, for example, how much would it cost to protect certain areas, would we have to elevate our islands, or would we have to do land reclamation, would we have to relocate to other countries, which is the last option that we don't want, but these are some of the things that,

some of the data that really help our government to make these key decisions and have strategic plans, which I'll go on the next slide. So the Marshall Islands is definitely a key advocate in terms of reducing the international greenhouse gas emission levels and making sure that we are staying within the safe zones.

So these are some of these strategic plans and frameworks that have been in place and been implemented, but I won't go into detail on these as, I'll just focus on the last three, which are the future policy reforms that we're now focusing on.

When is the Planning and Zoning Act to make sure that development continues while we're being conscious and safe of the risk? Major Master Plan, which is the bigger picture on the future development of the Majuro, and the Shoreline Management, which is with all these developments along the coastal areas, we're still aware of the exposures and risk and to be resilient towards climate change.

We're fortunate that we have just adopted our new building code just in 2022 approved by the cabinet and it is very fortunate because in the past we would have to rely on building codes from other countries which is not meeting the needs of the people of the Marshall Islands.

So our new building code is more catered to our environment and our context and definitely it will help with in terms of climate resilience. For example, do we have to elevate buildings? What type of materials are needed?

How strong should these materials be to withstand the impacts of climate change and so forth. So definitely the building code is one way that can set the path on how our future buildings can be more resilient.

And in terms of coastal resilience, because of our high level of vulnerability, it seems like the popular option is to do gray structures as you can see in the photos which are very gray. Some of these examples include sea walls, rip wraps, revetments, rock armors and so forth.

So these are some examples of coastal resilience that we're doing. And then lastly is our community consultation which is to make sure we're having all stakeholders involved starting from a bottom to top approach and it is very vital to have everybody in this design phases.

And one common idea that everybody agrees on in the Marshall Islands is that we are not relocating to anywhere else. We're staying where we are. If we have to relocate somewhere then we'll cross that bridge when it comes.

But as of now we'll still continue to do our best to be resilient and to stay and preserve our countries and make it a better future for our citizens. So that is all. Thank you.

Thank you so much, Mr. James, especially for sharing photos of the Republic of the Marshall Islands, which all of us in this room will be able to get to one day. Our final speaker from the government of the Maldives, Mr.

Ahmed Ayman Sharif, is a civil and coastal engineer, and his areas of expertise include sustainable development and planning of resilient cities and infrastructure. So Mr. Sharif, would you like to come up for your presentation to demonstrate the course of the past few decades of consolidation and decentralization policies of the Maldives?

Thank you so much.

Hello, everyone. Well, I would like to start my presentation on setting the context for the Maldives. Well, you can see the main urban centers here. And the green areas are actually not the islands themselves.

Those are the administrative atolls for where the islands sit. And I will show you on a close -up how it actually is situated. So the Maldives is actually made up of 1 ,200 coral islands. And we have 26 natural atolls.

And the average elevation of these islands is about 1 .5 meters above mean sea level. And the average size of these islands are about one or two square kilometers. And the largest natural island that we have in the Maldives is in length about eight kilometers.

And the inhabited islands that we have number to about 188. And one -third of the population is concentrated in the capital. As you can see in the graphical representation, the number of people in each region.

And you can see the small dots. Those are not actually the actual islands. Those are the reef flats where the islands sit. So I will show you some satellite imagery that you can take a look at how the actual islands are.

So you can see that geographically we are very dispersed. Our population is barely just crossed 500 ,000 recently. And that has a big effect on sustainably developing our country. And then it also emphasizes the need for innovation.

For example, I would like to show you the statistics on the use of the internet by population, the percentage. We have a very high use of mobile technology even for the region, about 86%. And I would like to look, show you in context a 4 ,000 square kilometer area, the North Malay at all, where the capital region is.

On the south side, on the southern rim is where the most number of people are concentrated in the country. About 200 ,000 people live there. So these are some projections for the population, for the country, for the future.

And you can see the darker colors show population growth in those specific urban centers in the central region, in the northern region, and in the southern region. And looking at the decentralization and population consolidation policies that have taken place over the years, you can see sequentially earlier on it was about population consolidation.

And then it was about developing urban centers and then focusing on regional development. And then much more recently, we had a drive to push for decentralization, decentralized governance, decentralization of infrastructure, provision of services and transportation, access to public transport and aviation across the islands.

And so you can see education, transport, communication, and healthcare. These are the factors which actually pull people towards a certain area. So we've had to put investments into connecting these islands digitally, physically, with services, and just to counteract the geographic dispersion that we have on hand.

So in summary, what we're trying to do is balance decentralization and centralization. We can't really go to the end of the spectrum on either of those. We have to find the right balance for the country.

So well, this is the central area of the Maldives. This is the capital, Greater Mala region. You can see some of the recent developments taking place. This is starting from 2016. And you can see the city being reclaimed and developed on the right top -hand corner.

And it's about two square kilometers of reclaimed land. And below that, the first phase of the development, another two kilometers of land, all to support the centralization, the migration that is coming to the capital region and the housing crisis that is arising in the capital region.

And you can see the international airport where most of the tourism is happening, where they're coming in and where they're being distributed across the islands as well. And you can see the industrial islands nearby.

And then a further new island is being developed as another urban center to cater to the increasing migration to the capital region and the growth of the population in the region. So we can see that education, health care, employment, it's driving people to the Greater Mala region, as shown in the latest census data as well.

So then let's move on to the next. So recently, in the decentralization policies, we've had the designation of certain areas as cities. This gives them the advantage of public investment, more investment in the private sector as well, and also investment in education and tertiary health care, as well as more employment opportunities, as well as more investment in economic activities, tourism, and more concessions for development.

So this is the northernmost area of the country, the northernmost urban center in the country, where we have a population of about 10,000 people. This is Kurudufushi Island. As you can see, this island has also been reclaimed and expanded, just to cater for the development needs.

And also, you can see that an airport has also been constructed, and a harbor has been upgraded. Also, the people from the nearby islands are migrating to that island for education, health care, employment, likewise.

And you can see the distribution of the population across the Maldives. You can see the majority of the islands have less than 1,000 people living, and only a few islands have more than 10,000 people living there.

And that also impacts the way we have to roll out services, but they still need the basic infrastructure, water, sanitation, electricity, and connectivity to the other islands so that they can access the services.

And also, they need to have economic activities nearby, like tourism development. So that is what we are depicting on the bottom of the slide shelf on the left, that is the north of the country. On the right, it is the south of the country.

And the big circles indicate where the tourism developments are concentrated. So you can see the tourism developments have also been rolled out mainly in the central region. But more recently, as we have been working to expand the public transportation network, sea-based, air-based, we are seeing more number of beds distributed across the country.

But I would say we are reaching there at a pace that there's much to be desired for the development of the country. So then in summary, I would just like to show the implications of climate change and the kind of resilience that we need to have, the kind of adaptations we need to develop.

These are very recent videos, probably last year and this year. This is flooding happening in the capital city of Malay, wave-driven flooding. And you can see that we have needs to upgrade the infrastructure developed across the country.

But also, we need to be more adaptive. We cannot invest in one go for something that's going to happen 50 years later. We need to find ways to roll it out in a way so that the infrastructure can have the flexibility to be upgraded over time as the need arises.

Otherwise, the burden on the public finance, on the finance institutions, is going to be too much. So in summary, I would like to highlight that the decentralization and the urban development and the resilience go hand in hand for the country.

And everything needs to be prioritized in a way that we can cater to the dispersed population across the country. Thank you.

Thank you so much, Mr. Sharif. So we're very sorry. We won't have time for questions and answers because the next session is about to start in this room in five minutes. But we will invite our esteemed panelists to maybe congregate in the corridors in case you wish to go up to them and ask them some questions.

But I think we've learned a lot today about the unique context of at -all countries. I hope you got to just get a glimpse of what it's like to work in the countries of Kiribati and RMI and the Maldives.

And I think the key message that I heard was they're not going anywhere. So despite some of the challenges and sea level rise and unique vulnerabilities, Pacific Islanders and especially the at -all countries in the Maldives, RMI and Kiribati are there to stay.