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**THE WORLD BANK**



**GDC**  
GLOBAL DEVELOPMENT CENTRE

# Interview with World Bank Expert on Climate Change Actions

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## *Representative, World Bank*

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## **Transcript of Interview**

**Dr. Bhaskar Balakrishnan:** Tell us bit about your present assignment what does this climate change disaster risk management in south Asia. What are you specifically working on at present in this field?

**Mr. Abhas K. Jha:** I am the Manager for the South Asian team of the World Bank that looks after Climate Change and Disaster Risk Management, so in that capacity there are few things that we do. I manage a portfolio of about 4 billion dollars of lending on disaster risk management and climate change. That involves a variety of projects so it will include things like post disaster reconstruction, but increasingly now we are also going for sort of preventive investments in disaster risk management like early warnings systems, hydro-med services, urban drainage, things like that. Then there's also a strong climate adaptation angle so far example Pakistan, we have a project called the Sindh resilience project where we are investing in things like tree plantation, mangrove restoration, that sort of help prepare countries for disasters before they happen. There is another very big part of my programme which is that my team assists all the world bank teams in South Asia so not just in my unit e.g., somebody working on power or energy or urban development, so my team helps them in boosting the climate core benefits of their projects, so what that means is that the percentage of the financing that's dedicated towards either climate mitigation or climate adaptation.

**Dr. Bhaskar Balakrishnan:** The entire group is called urban resilience and land global practice in the World Bank. That is basically focused on urban resilience?

**Mr. Abhas K. Jha:** No, so I am part of that group also, so we have a matrix system in the bank where I am reporting to a global practice but I am embedded in a region. It's called the urban resilience and land practice, but it's not just about urban so our development is part of it. So the urban development also things like climate change and disaster risk management and the land management is also new part of this and under that we do things like the digital catastrophes sort of upgrading land administration systems.

**Dr. Bhaskar Balakrishnan:** So that goes into the agriculture and land use part of it.

**Mr. Abhas K. Jha:** That's right.

**Dr. Bhaskar Balakrishnan:** What do you think are the most serious challenges for south Asia and Asean? Because I see you have been in most of the Southeast Asian countries as well. As far as this kind of climate change related disasters, what are the most serious challenges?

**Mr. Abhas K. Jha:** Even if you look at a few years ago the consensus view was that climate change is something that will happen in the future. Yes, we should be worried about it, but it's not an emergency. I think that view has changed in the last few years certainly. If you take this one indicator which is like urban flooding and you look across Asia. There is hardly any major city in Asia and I am counting the whole of Asia that includes China, India, Indonesia, and Vietnam. There is hardly any major city that has not had a major urban flooding event and that to my mind kind of indicates the severity of the problem. So we are seeing more and more extreme weather events. It's not just flooding, so for example urban heat waves. This is something that was not on our radar screen until very recently. But just this year, there was a city in Pakistan called Jacobabad which hit 50 degree centigrade, which is beyond the capacity of the human body to resist surviving. These are the kind of issues that are now becoming front and center. I think the view within many developing countries was that this is not a problem that we have caused, we did not put the carbon into the atmosphere, it is really the developed countries that have done that so it is up to them to help us solve it. I think that view is no longer a salient view because whatever the western countries do or not, and I am not talking about the equity or the justice part of it, that's a separate argument. What I am saying is that we are being hit hard regardless of who created the problem. So that to me seems to be the most urgent issue right now, which is that. Take the case of infrastructure, so any infrastructure that is built today whether it is a metro rail line or housing on anything you would say, it has a lifetime of say 40-50 years. So that means that any infrastructure being put in place today has to be designed for a world that is may be two degrees warmer or even higher. So for the whole of human civilization that has never happened. Never lived in a world, which is two degrees warmer. Last time it was two degrees warmer there were dinosaurs on the planet. So that is a very sobering prospect, if you think about it that we are entering a completely new phase, completely uncharted territory so that to me seems to be the most urgent issue. How do we address this?

**Dr. Bhaskar Balakrishnan:** I think you have hit something which is close to our hearts here in India because as you know our Prime Minister has launched a Coalition for Disaster Resilient Infrastructure (CDRI) and World Bank is a partner and working with that. As far as cooperation

at that level is concerned, there is no doubt at least India is strongly committed to that. What I wanted to ask you was that are there any lessons from the Indian experience which would be relevant to other Asian countries – South Asia, South East Asia and also some of the island countries, Pacific Island Countries.

**Mr. Abhas K. Jha:** There are certain areas where India is an absolute world leader. Let me give you few examples of that. In fact I am surprised that the Indian press does not report more of this. So let me give you a few good examples. The whole issue of coastal resilience and early warning systems against cyclones, you probably remember in 2001 when Odisha had the super cyclone, hundreds of thousands of people were affected and it was just an absolutely devastating event. Now when we had ‘Amphan’ last year, I don’t remember the exact numbers but it was a few hundred may be. Now of course, each death is a tragedy but if you look at the scale from where we came to where we are today. The whole system of early warning systems and evacuating people out of harm’s way, the cyclone shelters that have been put in place on the coast, on the east coast especially. That is an absolute marvel and India has to be commended and lauded for this kind of approach. Actually, Bangladesh is another country that has done similarly well. When you said about other countries learning from India’s experience I think this one is absolutely at the top of the list. All countries in ASEAN for example would look to India to learn on how we did it that’s one aspect. The other I would say is the whole solar power experience in India where you know our target is 450 giga watts by 2030, I think we comfortably exceed that.

So the whole way in which solar power has been scaled up in India is absolutely remarkable. Some of the cost per unit is now less than three rupees per unit. So it’s absolutely the lowest in the world anywhere, so that again is another stunning success story which other countries would want to take up. When you mentioned the Pacific Islands so solar power is something very important and very relevant for the Pacific Islands and how India did this would be of great interest to them. I think these two examples would be front and centre.

**Dr. Bhaskar Balakrishnan:** Good, I think that’s very interesting. At RIS we have launched an initiative called the Global Development Centre which is funded by DFID. The idea of this Centre is precisely to take the development experience from India and from other successful countries in the Global South and spread it more widely, so that the countries of the Global South can benefit from each other’s experience. That is why I asked you about some of our experience being relevant. So do you think this kind of a Global Development Centre has a good potential in the future?

**Mr. Abhas K. Jha:** I absolutely think that in fact when I worked on China one of the things that we sort of put in place and then China did it started scaling it up on their own, is this whole structured South-South Cooperation. So let me give you an example from China. Their Shanghai Med Centre (Meteorological Centre in Shanghai) is absolutely world class. So the World Bank partnered with the Shanghai Med Centre to do one week, two week courses for hydro met specialists from other parts of Asia where they would go and stay there and then learn from the specialists in China. I think the Indian Meteorological Department (IMD) for example is again very highly capable body and we could run similar programs like that in India. That’s just one example. There’s so many others that where other countries could benefit from India’s experience. I mentioned solar but another one is for example, land slide prevention. You will recall that we had tremendous success in the reforestation of Garhwal of Uttarakhand and landslides have gone down tremendously. Although it still happens but you know how much it’s

much less. That's another good example of where countries would be interested in learning from India. The whole issue of Community Based DRM, how do you sort of put in disaster risk management capacity at the community level, is another where India is a world leader. So there are so many areas where this kind of a Global Development Centre would be very useful.

**Dr. Bhaskar Balakrishnan:** Yeah, one of the problems which we are facing is the dependence of Indian agriculture on the monsoon and the rainfall. And as a result of climate change, the rainfall pattern has also become highly variable and we have extremes of precipitation, so this is a challenge we are facing and there are at multiple levels better use and better water management and this also includes the water which comes in the urban areas, a lot of it simply runs off and you know we have a requirement of water in the urban areas. So water management both in the urban areas and agricultural management are extremely important for us. Could you tell us if the World Bank is involved in some of these areas?

**Mr. Abhas K. Jha:** Oh absolutely! This is again I would say one of the most pressing areas, especially the urban water management is one of the critical important sectors as it has implications not just for drinking water but on things like urban flooding. So let me just give you an example from China. China, I would say eight or nine years ago, they launched an initiative called sponge cities and it was actually launched at a very high level by the premier league, and what sponge cities essentially means is to capture the water as it falls and not let it run off. One of the problems in urban areas is the lack of permeable space, because we are putting in concrete and so the water runs off and then it goes into the drains and the drains are overwhelmed if you have very high rainfall. So what they are trying to do is to create more of a permeable space. For example, green roofs, putting greenery on top of roofs, permeable pavements, so the pavement instead of being concrete is made of something that can absorb water. Then rejuvenating the water bodies, you remember in Chennai in 2015, they had this terrible flooding and one of the reasons is that Chennai had 300 traditional water bodies, lakes which have been cemented over. So in China, they are trying to systematically make this sort of a part of their programme. It has been tremendously successful and the other thing is that it's also very labour intensive. So you can generate good jobs for the poor in cities. So, I think, India would be very well positioned to launch this kind of programme for the cities. That's one. Second, let me share another story from China. I was once in a lunch with the Mayor of Chongchig, so Chongchig is the largest city in China and it's probably one of the largest cities in the world. And the World Bank has invested, probably, 10 billion dollars over the years in different projects for Chongchig. So, the Mayor turned to me and said, you know what is the most valuable thing the Bank has done for us. I said, no, tell me. She said, you helped us prepare our drainage master plan and that drainage master plan, I went back and checked, you know, it is a few hundred thousand dollars grant, it is a very small thing that we did. But in the Mayor's eyes, that was the most important thing that the Bank had done for it because it saved them hundreds of millions of dollars of expenses in things like waste water treatment plans and it gave them a sort of a relate to how to deal with urban flooding. So that is another thing I feel in India we will be well served with that. You know, if you have a population of say more than a million, every city should have a drainage master plan. I mean, my hometown is Patna, every year you know we have this flooding problem and it is not something very hard to solve but it just requires investments and you know a little bit of political will.

**Dr. Bhaskar Balakrishnan:** Yes, absolutely right. I think that is very closely connected to our plans to clean up the rivers like the Ganges, which is really receiving a lot of untreated sewerage. I think this fits in very well with our initiative on that.



**Mr. Abhas K. Jha:** I remember, when I was in college, Rajiv Gandhi had launched Ganga Action Plan in 1984 -85.

**Dr. Bhaskar Balakrishnan:** I think you know; we still have a long way to go before we can make the Ganga water suitable for drinking, but that is something we will have to work on. The other important area is the health sector, although I know it is not strictly speaking in your domain, but in the health sector we have certain capabilities and off course certain deficits, in our health sector, especially our primary health sector. So that seems also an interesting area for benefiting from the experiences of Global South countries, mutual benefit. Does the World Bank get involved in the health sector to a large extent?

**Mr. Abhas K. Jha:** Oh yes! The health sector in India is a very, very large part of our lending and unfortunately, I am not at all an expert on that area. But just as a sort of a lay person looking out from the outside, you know this Co-WIN app that has been done for vaccination; a billion people have been vaccinated using that. This is something countries will be very, very interested in learning how India did it and just sort of the broader digital ID that you know Aadhaar, you know what they call the Aadhaar stack where they built the UPI (Unified Payment Interface) on top of Aadhaar. It is again a very, very remarkable system where they have managed to give digital IDs to people for less than a dollar which I think is unprecedented. No country has come even close to rolling out such a massive program at such a low cost.

**Dr. Bhaskar Balakrishnan:** Yeah, that is I think the whole question of digital inclusion and digital tools for development which is completely cross-cutting across several themes. So that's very interesting now. We have got a certain number of areas where which would be very fruitful mutually beneficial for countries of the Global South to work together. And what do you think out this is an interview, but what would you think of a kind of workshop with the World Bank and the Global Development Centre on how to move forward on this kind of activity?

**Mr. Abhas K. Jha:** You know, I think that's a very good area where potentially we could work together whereby, we identify a few areas, maybe we start with three or four or five maximum and then we try and identify the correct experts in India and then on the World Bank side we could line up clients from different countries. I work in east Asia for a long time and now I am in South Asia, at least we could cover the whole of Asia, and now because of this you know Webex and Teams, people are more comfortable, we can do this as a webinar, so it's you know almost at no cost.

**Dr. Bhaskar Balakrishnan:** That's right, it would be cost effective, and it would be easy for people to participate and of course if it is in Asia, then the time zone issues is not a serious problem.

**Mr. Abhas K. Jha:** Exactly. We would be definitely interested.

**Dr. Bhaskar Balakrishnan:** I think this is an interesting idea that I will take it forward with our team here and see. What would you think of involving other partners like the Coalition for Disaster Resilient Infrastructure, International Solar Alliance to these things?

**Mr. Abhas K. Jha:** Absolutely. We can easily pull them in. So in Solar Alliance, Ajay Mathur is a good friend, CDRI, I know very well. We could easily pull them in and we can also bring in other partners like Asian Development Bank or AIP, if you want. So that's not a problem at all.

**Dr. Bhaskar Balakrishnan:** Okay. Good. So tell me if there are, in the forthcoming as you mentioned about the COP-26 is coming up and I see that the World Bank has prepared a lot of very interesting papers on disaster, climate change resilience particularly for Latin American, Caribbean and I think what the lessons or the things which are happening there are to some extent also applicable to the Pacific Island Countries. So do you think that one could look at the special problems of Small Island Development Countries? We also have small islands both in the Bay of Bengal and Arabian Sea, to some extent we have some, and you mentioned the off-grid solar power which is there and biomass is another. So these are areas where I think we have something to offer the small island countries. What do you think?

**Mr. Abhas K. Jha:** Yes. Absolutely! The Pacific Islands are very unique as you well know. In that, you know, if there's a one meter or two-meter sea-level rise in India it will be devastating for the coastal cities and there will be a lot of damage but it's not that India will stop to exist, right. India is a very large country and you know it will have very negative consequences but we will survive. But if you take Marshall Islands or Kiribati, they will cease to exist in 50 years. Maldives is another one right. So if it continues like this, most of Maldives will not exist in 50 years and that is again we are in a completely new world right. Because if you look at even the legal aspects of sea level rise, what is going to happen, like for example, where do these people go. Are they migrants, are they refugees, there is no legal framework deal with these kinds of problems. So I think the world is now sort of just coming to grips with some of these issues. I am not sure we have all the answers yet but I think your specific question was that what can India offer these Pacific Islands. As I said, I think solar is a very, very good example, community-based DRM is another very good example where the islands would be very interested in dealing with that. Then there are early warning systems, hydro met services because some of these islands, there are so few people, it's very hard to fathom that how few people there. So you know their hydro met agency might have one person in total and that person can migrate to Australia or New Zealand where he will get a better pay. There are really, really big capacity challenges. So we were working with World Meteorological Organisation, when I was there to try and help put in a training programme for some of these staff who work on hydro met and early warning systems. So again, that's another area where India could offer their support. IMD could run training programmes for officials for the specific islands. I think those would be my initial ideas.

**Dr. Bhaskar Balakrishnan:** Well certainly. I think the meteorology and our space applications based on satellite which we are using to link different remote parts of India to us for various applications could be useful. I think various applications can be useful in dispersed island communities. That's another interesting area how to improve connectivity through the use of satellite technology. So, I think we have taken enough of your time. Is there any final message you would like to give us. You said that we are facing unprecedented challenges, I agree. I think COP 26 is also going to be very tough. The way it looks and you mentioned the whole issue of carbon space and the kind of carbon justice which is a hot issue. It is going to be very difficult to handle this and I think we all wish that there was a magic wand that somehow we would get the technology to remove the carbon dioxide especially from the power plants and directly from the air and remove. That would simply take the lid off the pressure cooker, so to say. But what is the World Bank think of the COP 26 and beyond? What are they looking at and looking for?

**Mr. Abhas K. Jha:** We are very hopeful like the rest of the world. We hope that there will be a substantial outcome in COP 26, but these things are not run by logic or by fairness. So there are many issues at play which we can't control. But I think even beyond COP, we need to start thinking about what the trajectory will be so. For example, India, despite being very poor and lots of people not having energy access, in spite of that, India is now the fourth largest emitter in the world of carbon dioxide. The question is that, what trajectory will India take? It doesn't necessarily have to follow the dirty path that the western countries took.

**Dr. Bhaskar Balakrishnan:** If you look at the whole business of reducing renowned gases, governments off course have to agree but the main actors involved are cities, industries, households and states and so on. We had this situation, when this US government pulled out of the Paris accord but big states like New York, California and even some of the big cities said no we are committed to it. So this raises the prospect of involving the actual actors in greenhouse gas like particularly, since you have dealt with cities, get a coalition of cities to commit to reduce greenhouse gas emissions. And that would actually send a powerful signal to the governments also at the sub-national level, that there is a serious commitment on this. What do you think?

**Mr. Abhas K. Jha:** I think that's a very good point and certainly you know some cities can take the lead. You know for example, Indore, everyone talks that it's the cleanest city in India. There are lots of good things that you can learn from the cities in India. Let me give you a slightly different example which is that of cement. Cement is one of the largest in terms of industrial processes, it's one of the largest emitters of carbon, right. But what very few people know is that more than 50% of cement is bought by government across the world, you know because of infrastructure investments and so on. So this is a good example where government procurement policies can make a difference right, if you start saying that you know we are only going to buy green cement, it increases the incentive for the private sector to invest in that kind of thing. So for example, Dalmia cement in India is a leader in this space. If the Indian government would say that from 2030 we are only going to buy greens. That would provide an incentive for the private sector to invest or even like cars, it can be said that from 2030 all the buses in India are going to be electric. That will jump start our electric bus industry and people will start producing. So these are the kind of examples where government action can sort of spur more action.

**Dr. Bhaskar Balakrishnan:** Now we have come to the question of what would be an optimum kind of housing in the new age of climate control because at present most of us live in homes where nobody thought much about insulation. We hardly thought about insulating the homes. Off course this is a huge problem in Europe (northern Europe) and they have extreme cold weathers. So they have moved on to putting in insulation and so on but in the developing world what do you think is the potential for that, using better housing designs.

**Mr. Abhas K. Jha:** That is a great example that you have said and this is something that we are actually very actively engaged in. Whereby as you said, we have never really thought about how to make houses more resilient against heat or even cold in the winter. And if you look at, for example, the British, the way they used to design the houses with high ceilings, cross ventilations. There was a much more thought given to that. All the buildings that we finance, we are trying to make sure that is part of it including use of local building materials. Things like hollow brick which are naturally insulated, making sure that there is cross ventilation. It's not that the whole of India is going to be air-conditioned, that every building is going to have air

conditioning, that's not going to happen. So we have to rely on things like passive cooling, it's really the design that's going to be critical. One of the things we are trying to work with the government of India is on a green building code where they gradually incentivise that building standards are upgraded. But that said, much of the buildings in India is informal so it's not that they adhere to any code so we have to think about the informal sector as well. For example, the *Pradhan Mantri Awas Yojana*, I didn't know the scale of this programme till recently because when I was in government it was not such a big programme. It used to be called *Indira Awas Yojana* but now it's like 10 million units are built every year. It's a huge programme, so if it's just this one programme if we could influence to build greener to build more energy efficient that would have a huge impact in India. So those are the kind of things we are working on.

**Dr. Bhaskar Balakrishnan:** Yeah, I think at an early stage if we can influence the design of the buildings like the Prime Minister's *Awas Yojana* (Housing Scheme) and integrate energy efficiency into that. It would be a huge achieving. Anyway, even in the informal sector people are much very highly responsive to price signals if you have something which is economical to run, I think people will go for it.

So let me come to your activities, I see that you've written two handbooks, one is a massive handbook on reconstructing after disasters and the other one is on flood risk management in cities. Both I think are extremely interesting and in fact I am happy that one can download them. It's an open source. Are you working on anything new at this time?

**Mr. Abhas K. Jha:** So, I am getting more and more interested and I am working a lot on heat. I think that is an issue that has not yet gotten the attention that it deserves. So, my team and I are trying to put together some analytical work on what can be done about heat in cities. In fact, we had a very interesting presentation by a Professor Eltahir Elfatih from MIT, Center for Global Change Science. He basically does regional downscaled models of heat and climate change and he showed a very striking map where he said that there's this crescent from Afghanistan through the Indo-Gangetic plane, right through Bangladesh where it will become the wet built temperature. Wet built temperature is the heat plus the humidity will cross 35 degrees centigrade which is beyond human capacity and it's very striking. This entire Indo-Gangetic plane is going to be hit hard. I don't think our policy makers are yet aware of this.

**Dr. Bhaskar Balakrishnan:** Well, we are already seeing it in the summers. Yes, the temperatures have been going up.

**Mr. Abhas K. Jha:** You know, people will die. We need to start thinking about things like heat shelters. Almost like you have for cyclone shelters we need to have heat shelters.

**Dr. Bhaskar Balakrishnan:** I think you are absolutely right. Yeah, we had heat waves, the last two years we remember, we had heat waves, there were a number of deaths especially of children in the UP and Bihar. It was attributed to encephalitis but some doctors feel it's actually heat stroke for children and I think that there is a need for heat shelters but particularly for the vulnerable people. So, it's a very interesting work ahead and I don't know if the kind of heat the islands are coming up in cities, if there is some thinking going on into how to mitigate that. Large part of it because the cities are getting increasingly concrete. That's the thing, is to do more and more greenery.

**Mr. Abhas K. Jha:** Exactly, more trees. If you have more trees in a neighbourhood it automatically reduces the temperature by one or two degrees.



**Dr. Bhaskar Balakrishnan:** Yeah, trees if possible or even a kind of urban garden, rooftop gardens or plants. I don't know there are people even growing vegetables on rooftop. I guess something like that. Mr Jha, it's been a pleasure talking to you and benefitting from your experiences both within India and across the world and there are very interesting topics you are working on very relevant and I think I look forward to further interaction with you in the future. Thank you very much.

**Mr. Abhas K. Jha:** Thank you very much. I would love to keep in touch. Let me know if there's anything I can do to help.

**Dr. Bhaskar Balakrishnan:** We will take this idea of workshop with the Global Development Centre. So I have a workshop or online webinar/workshop on many of these themes which are we are also interested in. Thank you.

**Mr. Abhas K. Jha:** Nice to meet you Sir, thank you.

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