

Climate Emergency

Let's talk climate, equity and individual responsibility

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Rakesh (Host): Every country agrees that we need to fight climate change but no one agrees to who is going to pay for it. Historically, most developed countries grew unsustainably, mainly by mining for coal for their development. In the process, they have released great amounts of carbon dioxide into the atmosphere which causes climate change. Scientists have predicted that increase in CO₂, increases the temperature, and if the temperature of the Earth goes beyond 1.5 degree centigrade, it will lead to irreversible damage. A UN report called Emissions Gap report came in just last week says that we have to cut down global emissions by 7.6% every year for the next decade to prevent irreversible damage to climate change. A long-standing discussion in global climate change negotiations is a demand for equitable distribution of carbon space. What it means is that we assume that only a certain amount of carbon dioxide is released into the atmosphere to limit temperature raised by 1.5 degrees and as the space in the atmosphere is a common property and every individual has a right to it, it has to be shared equally. There are many theories that carbon space should be divided equally among countries based on population, based on their historical use, based on their development and etcetera.

Hi, this is Rakesh here, your host for climate emergency. To discuss this concept and more we talk to Arjuna Srinidhi, a research analyst specialising in Climate Change policy, Natural Resource Management and Sustainable Development. He works with the Watershed Organisation Trust – WOTR – an NGO based in Pune and has over 10 years of experience across India and Southeast Asia working at the interface of science, policy and practice of development issues. Arjuna follows international Climate Change negotiations closely and writes extensively on the subject of Adaptation. He is also the author of a book and a TEDx speaker. Hi Arjuna, thank you for joining us on the Climate Emergency podcast. I hope you had a chance to read the report that came out yesterday.

Arjuna Srinidhi (Guest): Yes, I saw the report and the fact that global emissions and CO₂ in the atmosphere is at its highest levels ever. So, it is reaching scary limits and definitely a sign, an indicator of the climate emergency that everybody is talking about. It is a wakeup call for sure.

Host: There is very little debate about climate change in India or other developed countries.

Guest: I think it is probably a matter of perspective also, you know. For example, in India we have more than 300 million people living below the poverty line and what that looks like is not necessarily having a toilet in the house, education being limited to just about being able to read, drinking water being more than 15 minutes away, medical treatment being available for serious illness or pregnancy only. So, these are immediate concerns, affecting people today, tomorrow and how their lives would pan out for the rest of the year. Climate change is certainly a disaster and certainly an emergency, I would not deny that. But it is also a disaster - a sort of slow onset disaster that is creeping up on us and it will no doubt have huge impacts and erode any development gains we make in the next 15-20 years if we don't take proactive actions. It is because of these immediate concerns and these immediate challenges to livelihoods of millions of people below poverty line in places like India and other developing countries that I think climate change at times doesn't get the kind of

attention it needs to. That is fine from a general public point of view, but I hope that the policymakers and the leaders, the kind of people you expect to have longer-term vision, they should be the ones to definitely start taking cognizance of climate change impacts and talk more about it and bring it more into the public dominion.

Host: So, how come these developed countries have used so much fossil fuels in such a short span and do you think developing countries will do the same for development?

Guest: Well, in a way development until now, historically, any form of development whether it has been better housing, transportation, access to goods and services, food choices etc has been directly linked to emissions, increase of CO2 emissions. As you can look at the statistics, these have nearly doubled since 1980, for example. There is lot of improvement in terms of efficiency, which is happening in the last 20 years or 50 years. For instance, if you take the amount of lighting that you need for a room, typically about 1000 lumens of light is required for a room. Say 50 years ago, a kerosene lamp required 7000 watts of energy to light up this room. When I was kid, I remember we used to have these incandescent bulbs in the house, 100-watt bulbs. So, it came down drastically from 7000 to a fraction of that. Today, we have LED lights in our homes, offices and public places which provide an equivalent amount of light for like 16 watts or 18 watts. So, it has further come down. There is also so much in terms of alternate sources of energy becoming viable. Coal, petroleum, oleum gas was traditionally the only form of energy available and now, solar and wind is the coming viable. As you know that alternate sources of energy have also become viable, solar and wind are becoming cheaper. These have already become less expensive than producing energy from oil and gas. In the next 10-15 years, they are expected to become even cheaper than coal. There is also so much happening in terms of improving efficiency of power generation. There are also huge advances in terms of material and labour productivity. So my short answer is – No, the developing countries will not necessarily follow the same path as the developed countries which used a lot of energy in the last 50 or 100 years, but provided they have access to latest technologies we are talking about and financial support and technological support to adopt these latest technologies because the benefits of these is for everyone involved. It is for the greater good of the whole world and limiting climate change for the whole earth. So, the burden or the additional costs involved in adopting these technologies should not be only on the poor involved who are in the path of developing and it should be borne by everyone, especially, the ones who are in better off positions in terms of finance and technology.

Host: In the report that I saw yesterday, one thing that was interesting that there is an increase in, I mean India talks a lot about per capita emissions and you see that there is a steady increase in per capita emissions that is clearly visible. Per capita emissions of US have come down but India have increased. Relatively, it is a minor increase, but it is an interesting thing to notice. Do you have anything to say about that?

Guest: Yes, historically, we know that in terms of cumulative emissions, just three regions in the world – US, European Union including Britain for now and China have accounted for over 50% of the global CO2 emissions. All the other 180+ countries account for the rest including the so-called fast-growing economies like India and other countries in Southeast Asia account for a very small percentage of this. But these were historical emissions but if you look at current emissions, India's emissions have been rising. If you look at the total population of India, the current emissions do stand third in terms of net emissions. Also, if you look at the lifestyles of urban centres like Delhi, Bangalore, Hyderabad – the lifestyle is

very similar to developed countries in terms of having air conditioning, private transport, the kind of food choices we make with more meat in our diets and dairy products and alcohol. So yes, per capita emissions are rising driven by our industrial growth, and the urban centres but if you still look at the overall per capita emissions statistics, even though the US, Canada may have come down, they still have 16-18 tonnes per capita, Europe and China being around 6-7 tonnes per capita and India is around 2 tonnes per capita. So, we are one-third or one-fourth of where China is right now and one-eighth of where the US is right now. Often in these international debates it happens that India gets clubbed with China in the growing economy discussions. This is where India could lose out, if it is not careful in how it is positioned itself because what these current per capita emissions shows is that Indian emissions are way below where China is today. Maybe we are 20 years behind China in terms of our development indices. So yes, like I spoke about the leaders of our country and the political visionaries needing to take cognizance of climate change, it would be prudent on our part to make responsible choices and adopt a low carbon development pathway. In terms of overall emissions and per capita emissions, I think India is still way below the global average. On an average, it is probably not a concern, but it is important for us to keep in mind that we continue to make responsible choices.

Host: Since you brought up the point of global negotiations, why do developing countries keep talking about equitable distribution of carbon space? What is this space and what are they asking for when they say we want an equitable distribution of carbon space?

Guest: The global negotiations in 2015, as many of the listeners would also be aware of the UN Framework Convention on Climate Change came together to get a universal agreement on limiting global warming signed by all countries. The objective of this was to limit global warming to less than 2 degree centigrade and preferably 1.5 degrees. This global warming is driven by greenhouse gases of which CO₂ is a very large component of it. Now, there are lots of calculations by different agencies and to simplify the numbers, roughly, there is a certain amount of carbon dioxide in the atmosphere which would lead to these 1.5 or 2 degrees of global warming. Of this total, there is space for emitting 700 to 1000 giga tonnes of CO₂ into the atmosphere. Currently, we are emitting about 40 giga tonnes of CO₂ per annum. So, divide 800 by 40, that means we have about 20 years of emissions that we can continue at current rates before we hit 2 degrees of global warming. If we were to increase ambition to 1.5 degrees, which is a desired scenario, we roughly have only 500 giga tonnes of CO₂, roughly, and that means barely 12 years of at the current rate. If we say that there is very little carbon dioxide that we can continue to emit before global warming becomes uncontrollable, then there is lot of growth that we spoke about amongst millions of people living below the poverty line in India, others parts of Africa, South America and Asia that is expected to happen. Lot of this development is fundamental rights and needs of these people to assure basic necessities of food, health and well-being. What the developing countries are saying is that please make sure that these people get priority over the remaining carbon dioxide that can be emitted. These basic development needs of people are prioritized when you have only 12 years of carbon dioxide emissions that can continue and not the lifestyle related emissions like more air conditioning, bigger cars, fast fashion, processed food leading to food wastage. These are eating up the carbon space which can be prioritized for primary health, primary education and lifestyle. This is the crux of the debate happening at the international level negotiations, this is the kind of fights that developing countries through their negotiation blocks of African nations and other

developing nations have with so called “developed countries” to push them to reduce their emissions so that priority can be given to these millions to ensure their basic necessities.

Host: When we talk about equity, I always have this feeling that we are talking about communism - equal distribution for everyone. I'm okay with the concept but I doubt that countries like the US, basically capitalist countries, even China for that matter is capitalist now. If these countries would agree to, is one of the biggest concerns. Even when we look the other way, countries like India or any developing country, there are lot of inequalities within the country itself. We are seeing the rich getting richer and the poor getting poorer in these countries. So, it becomes an issue when a developed country talks about equity to a global audience because within the country they don't have equity but you're talking about equity to an external audience. Shouldn't equity be spread to the bottom of the pyramid? What do you think about it?

Guest: Yes, definitely. What you are pointing out Rakesh is a very important aspect for us to understand. There is such a large divide within India itself, we briefly touched upon the lifestyles of Bangalore, Hyderabad, and Delhi versus the rural parts of the country. I, myself, just out of curiosity used a simple carbon calculator a few months back and tried to do my own personal carbon budget and what I found was if I tried to work in my car versus if I used public transport or my bicycle while keeping everything else constant – my house, my food, the travel related to work that I do which involves some amount of flying time, just making that one change of private car versus public transport or an eco-friendly source say bicycling, reduces my emissions by half of what it is, from four times to two times in a year. This is the kind of difference even small changes in urban centres can make. There is so much more, this was just one example to show where a difference of 50% change can happen with just one change. There is also so much more in terms of building and construction materials, household related emissions can take place. What happens in a lot of international discussions is people see this part of India, which is projected from its growth in the IT sector, electronic sector and the development taking place in places like Bangalore, Mumbai and say that - India is no longer a poor developing country, it is a leader in many industries across the world, so there is a lot that you can do to take climate action at your own end, which is true. Therefore, the change must start from here and there is a lot that can happen – more awareness campaigns and I do see a lot of encouraging signs from civil society initiatives across the country which are highlighting these kinds of lifestyle choices and the difference it can make. Unless we do this, I think it would be morally very difficult to get into these kinds of debates. Yes, like you rightly mentioned, at some level they do seem a bit of a moral judgement or a communism versus capitalism kind of debate at the international level. There has to be some amount of initiative shown by us when we are making these kinds of claims or demands from other developing countries that we are also taking responsible action. It is also very important to understand that these changes we make within the country amongst the 10% of the rich or the super-rich population within the country would still make a very small difference to global emissions unless there is commensurate reduction and ambition and finance and technology transfer coming from the large emitters across the countries. It is important to take initiative and therefore show that the change is starting from home but that doesn't allow you to relax when it comes to the negotiations like what is going to start in the next week in Spain at the next climate summit where India will continue to bring up these issues of historical responsibility, equity and climate justice.

Host: Is equity even an argument anymore with people like Trump taking the biggest emitter – the US out of the Paris agreement? Is this even an argument that is going to happen in these negotiations as we go forward?

Guest: I think as much as the rest of the world is sometimes aghast by the decisions of the US president, he is a little bit of an exception and not necessarily reflects the general sentiment in the rest of the US. At least, that's what I hope. He has his own personal opinions about climate change and the stand that the US has taken is very unfortunate because it brings down the level of ambition the rest of the world, including many proactive European countries and many other small iron nations are trying to show. I think him being an exception and him having an equal number of people putting pressure on him within the US and outside the US, it won't necessarily dictate the way the rest of the globe deals with climate change. At least I hope that it is not held to ransom by one person and this will be corrected within a few years' time and especially in future cycles of climate change negotiations. There are many progressive civil society movements within the US. Some of the best research institutes on climate change are based out of Washington and other places in the US. These would continue to do the incredible work that they are doing and put the necessary pressure on the US government to be more proactive in their stand on climate change. Therefore, bring issues like equity back on the table within that country.

Host: Even when we talk from a developing country's perspective, they are usually in a dichotomy, India mainly, where you are at one side highly vulnerable and at the other end, you are currently one of the high emitting countries. So how can development be sustainable when you have two opposite sides of things that you have to address?

Guest: This is a very interesting question, one that we have to pay close attention to because if you analyse emissions from a lifestyle point of view, I came across a paper recently which discussed this, it said that nearly three-fourth of the emissions can be attributed to what we consume in our homes and these could be across sources like nutrition, housing, mobility, consumer goods, leisure and other services. To highlight a case in point here, the paper was analysing the difference between the carbon footprint of food consumption between a typical European country like Finland and India. It showed that Finland's carbon footprint is 1750 kgs of CO₂ per person per year compared to India's 510. Of course, the Fins are a foot taller than us and 10-15 kilos heavier but that does not necessarily account for why the carbon footprint of their food consumption should be three and a half times that above ours unless there was a lot going on in terms of the kind of food – processed foods, amounts of meat consumption, food wastage involved and things like that. Even when it came to mobility, what this was showing is that making responsible choices like shifting to car sharing, electrical vehicles and public transport can make a significant difference and it doesn't necessarily even have to be a 100% change. For somebody making a resolution that from next year I am only going to use public transport can probably be a difficult decision to make because you obviously have a lot of work commitments and other obligations. Even a 15% or 30% adoption rate of these kind of choices whenever is possible can bring down your emissions significantly. It is in statistics like these that you realize that there is a dichotomy of where India is today in terms of its total emissions and how the economy is rising and the disparity in lifestyles between the rich and the poor within the country. There is also a huge potential for changes that we can make, the choices that you and I make in terms of our food, clothing, transportation, reusing and recycling can ensure that we use lesser natural

resources which can lead to a low carbon lifestyle and keep climate change within manageable limits.

Host: So, in the end it all comes down to individual action, only with individual action we can empower our politicians to talk about it and hopefully change the system.

Guest: Yes, definitely. I think there is a lot that is in our hands and the choices that we make will make a huge difference to kind of redefine the trajectory that India takes. Yes, the choices that we make, we have a lot power in our hands to ensure that climate change stays within these manageable limits and India remains an example for sustainable development and an example possibly for the rest of the world to follow.

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