German Ethics Council · Public Hearing

Stakeholder Perspectives on Climate Justice

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Online meeting, Berlin

- Transcription of the English original version -

Note: The following text is not a verbatim transcription. It has been edited slightly for better readability. The video recording of the event can be accessed on our website at: https://www.ethikrat.org/en/hearings/stakeholder-perspectives-on-climate-justice.

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Welcome

Julian Nida-Rümelin

A warm welcome to everybody behind the screens. Today we have the second hearing on Climate Justice. The German Ethics Council elaborates a position, an Opinion on climate justice. This means justice issues that are correlated in one way or another with climate change or the policies against climate change but also more basic ethical questions. We have stakeholders this time, we have called them stakeholders. We have three of the four speakers who will present different forms of being affected by climate change. The fourth speaker will take a more metatheoretical position so it will be more about the debate on climate change. We look forward to this discussion and we will probably finish the Opinion this year or by the beginning of next year. All of the discussions will be relevant in one way or another for our final text.

Kerstin Schlögl-Flierl is the speaker of the working group that writes the text and she will moderate this afternoon. Please go ahead.

Introduction

Kerstin Schlögl-Flierl

Thank you very much Professor Nida-Rümelin. I would like to extend a warm welcome to you all. To this public hearing on stakeholder perspectives on climate justice. A warm welcome to all roomies, the persons who are here in this room, and to all zoomies, persons who are with us via Zoom, and a warm welcome to our four speakers. My name is Kerstin Schlögl-Flierl. I hold the chair of moral theology [at the university of Augsburg and I am a member of the German Ethics Council. What is our agenda for this afternoon? In our first session, we will hear 15-minute statements from three different perspectives. First Mr Mohammed Shamsuddoha. He is the Chief Executive of the Centre for Participatory Research and Development in Bangladesh. You can find all this information in the folder for the hearing located on your website. Today, he represents for us the perspective of the global south. The second speaker is Ms Sophie Backsen. She is a student at Kiel University and, more importantly for us today, she is an appellant before the Federal Constitutional Court. She represents the perspective of the young generation at this hearing. The third speaker is Dr Diarmid Campbell-Lendrum from the WHO. He is the team leader and head of the Climate Change and Health Unit. He will focus on the health impact of climate change. The focus of the German Ethics Council is on health issues and that's why we would like to hear more about the link between climate change and health. Then we will have about

55 minutes for discussion followed by a coffee break of 20 minutes. After the break, we would like to welcome Professor Michael Brüggemann. But now some organisational information. The audience via livestream has the opportunity to ask questions via a tool situated below the window of the livestream on our website. The questions will be reviewed by a Council member, Ursula Klingmüller, and forwarded to the speakers at the end of each block of discussion. I think that was all I need to say for now. I give the floor to Mr Mohammed Shamsuddoha. We are looking forward to your presentation.

Statement of Md Shamsuddoha

Md Shamsuddoha

(Slide: Climate injustice)

[technical problems] Thank you very much for this opportunity to talk about climate justice. I sometimes call it climate injustice so I bracketed "in". I would also like to share with you how the global south perceives climate injustice. About me – I work for the CPRD – the Centre for Participatory Research and Development.

(slide: Understanding Climate Change: Cause, rise in carbon emission)

I would like to go to my next slide. This is a brief talk about climate change. When we talk about climate change, we indicate a timeline. This is pre-industrial timeline indicating that climate change and global warming is related to industrialisation and industrialisation is causing more greenhouse gas emissions that are linked to global warming. So, if we consider that the root cause of climate change is industrialisation, then some countries are particularly responsible for this change. This is the timeline and before industrialisation, the concentration of these gases in the atmosphere was around 278 ppm. Right now, this is 417 ppm and some people say even 420 ppm.

(slide: Climate change: it's human induced, not an apolitical agenda)

During this time, we have also seen a rise in global average temperature. It is currently 1.1 °C, and some people say it is 1.2°C compared to the pre-industrial time. We are assuming that, for a safer world, we need to limit global warming to 1.5 °C by the end of the century. If we consider the Paris Agreement that has been agreed by the country parties in 2015, then at COP21 there has been strong political call to limit the global average rise in temperature to 1.5 °C. So, if we consider climate change, the scenario is that the global average temperature is increasing. Right now, it is 1.1°C. We set a timeline to limit this to 1.5 °C, but there is a prediction that we are failing to mitigate greenhouse gas emissions and we expect that we will be living in a warmer world.

The reason for this is greenhouse gas emissions and humankind is responsible, particularly countries in the north who are the beneficiaries of industrialisation development. They also add expanded areas to the carbon footprint.

The concern is that the countries who are less responsible for climate change, the ones who contribute fewer emissions to the global atmosphere, they are suffering more and are more at risk of extreme climate change. So, the countries who are responsible for climate change should take responsibility for correcting the injustices by addressing climate change.

(slide: Climate change: an outcome UN-JUST development history and paradigm)

If we again consider the injustice and the paradigm of injustice then I tried to relate this to the historical development. If we look at the history, then this is industrialisation. If we consider the development paradigm and the driving force of industrialisation there are three different elements:

One is exploiting resources from the global south. If I consider the current developed countries – G8 or G7 –, then all of them were colonial masters in the global south. They exploited the resources of the global south, and they undertook the industrialisation of their own countries in order to expand their markets to the countries in the

global south and to introduce some neoliberal economic policy instruments.

Then, there was structural adjustment for market liberalisation and sometimes this also caused the destruction of natural resources. There is an example from Bangladesh where we had two different mangrove forests. One is in the south-west and the other was in the south-east. The south-east mangrove forest, the second largest mangrove forest, was completely destroyed by the World Bank and an ADB supported project in the 1980s. That project – stage two expansion culture - exploited resources in south-west areas and exported the resources to European countries. We took this loan under a structural adjustment policy. We completely destroyed our mangrove forest and now there is no [...] farming and the entire coast is exposed to more cyclones and natural disasters. This is an example of how devastating this development was. It was promoted by some development institutions like the World Bank and ADB. They have contributed to climate change and global warming. So, if we look at the current investment in fossil fuels, most of the investment came from the multilateral development banks. They are also causing a debt burden for developing countries. They are also causing the violation of environmental and human rights and are violating social safeguards. [The third point on the slide has not been mentioned in the lecture.]

I tried to use the history of development to explain these three elements and explain how these developments are still continuing to contribute to global warming and climate change. If you look at carbon emissions on the left of my slide, then global emissions are contributing to global warming, and that is influenced by three levels of new economy instruments and policies. This is an injustice.

(slide: Cause and impact chain: Where injustice lies)

So, let's look at the cause and impact chain and where the injustice lies. I checked the GHG emissions contributing to global warming and then climate change. Then, climate change also contributes to frequent and intense disasters. In Bangladesh, we are facing cyclones, riverbank erosion and salinity intrusion everywhere in the coastal regions and cyclones every two or three years. In the last few weeks, we also experienced another cyclone. So that kind of cyclone and also storm events have risen significantly as have desertification and salinity intrusion in Bangladesh.

So, we see loss of lives and livelihoods and damages to properties that, in turn, contribute to forced displacement and migration, to the loss of basic amenities and well-being. This also contributes to the violation of human rights. The people who are marginalised, who are excluded, who contributed

least to the causes are the ones who are affected most.

My concern is that this is adding another chain of injustice – climate change is caused by some people but the impact of climate change, the vulnerability is felt by another group of people. This constitutes an injustice for those people who are not responsible at all for climate change.

(slide: Addressing climate change)

In this slide, I would like to analyse the history of climate change and negotiation and the extended link or chain of injustice. If I consider climate change, there are delayed actions and insufficient support... climate change caused by GHG emissions... due to the delayed action in addressing climate change and limiting these emissions... It has been said that we need to adapt to the impacts of climate change and this adaptation should be supported by finance and technology.

The failure to reduce GHG emissions has led us to a scenario of more impacts requiring us to undertake more adaptation. Again, we did not get proper support in terms of finance and technology and this brings us to another scenario, which we call loss and damage. When adaptation fails, then another scenario of loss and damage started. If we consider the loss-and-damage scenario and the total impact chain and if we consider the primary impacts of climate

change, this is floods, cyclones, riverbank erosions, the loss and damage of assets, livelihoods and other economic losses. But those primary events are extended to secondary and tertiary risks such as unemployment, drop-outs from school, child labour and child marriages. That then leads to involuntary migration, gender-based violence, human rights violations, poverty and inequality.

So, the primary events are contributing to the secondary and tertiary risk levels, and the secondary and tertiary levels involve violations of human rights. This constitutes yet another injustice for those people who are less responsible for climate change. For instance, during a flood there are some immediate losses and damages, but the residual impact of a flood, for instance riverbank erosion and the residual impact of a cyclone, when it causes waterlogging and salinity intrusion, lead to the collapse of economic activities. As a consequence, people are forced to migrate and there are many cases of school drop-outs, child labour, child marriages, and involuntary migration in the chain of climate change impact.

(slide: Climate injustice – Ground evidence– Primary impacts)

I would like to share a study with you because I am also talking about ground-level evidence and not just about theoretical elements. This is a practical scenario from areas prone to riverbank erosion. Bangladesh is a country with many rivers that originate from our neighbouring countries, from the Himalayas, which then flow down into Bangladesh. During their flow, they cause riverbank erosion. River flow is also influenced by monsoon rain and floods from the upstream area which, in turn, is connected to precipitation. [...] Then there is downward flow and riverbank erosion and this then leads to displacement and migration.

In the context of riverbank erosion, we commissioned a study that looked at 150 displaced families. We also conducted 20 key informant interviews and looked at some case stories. We found that there are some primary impacts and those primary impacts are extended to secondary and tertiary impacts. The primary impacts are loss of homestead due to erosion, loss of crops and livestock, damage to infrastructure and loss of agricultural land. If we consider the secondary and tertiary impacts then this means a shift to undignified occupations. If a farmer loses his agricultural land in a rural area, he or she is then forced to migrate to urban areas to find employment. And in urban areas, they fail to get a proper job. They find employment in undignified jobs such as rickshaw pulling, as housemaids, begging, or other undignified occupation.

In the context of riverbank erosion, the loss of income or school buildings, many children are forced to drop out of school. When this happens, their families want them to find employment to generate income. Child labour has, therefore, increased as have child marriages. There is also psychological trauma caused by the loss of assets. There is a loss of social identity when moving somewhere else. They lose their social identity, kinship. There is also damage to the religious and social infrastructure.

So, this kind of primary impact is contributing to the secondary and tertiary impacts, and we have seen many instances like this.

(slide: Climate injustice – Ground evidence– Drop-out from school)

During this study we also found that – in connection with displaced and migrant communities – 75 percent of the respondents confirmed a collapse in child education and many children dropping out of primary and secondary level education.

68 percent of the respondents confirmed an increase in child labour, especially in risky jobs like in brick kilns and working in other households. Some respondents also confirmed a rise in child marriages because when a girl drops out of school, then there is nothing for her to do in her family. She is sometimes seen as a risk. So, some families see child marriage as a risk transfer. In-

crease in child marriages is another consequence of riverbank erosion in the coastal areas of Bangladesh.

(slide: Climate injustice – Displacement and forced migration)

This diagram shows how displacement and migration are causing injustice. The push factors are slow onset events and then sudden onset events. Some people try to cope with this situation, but if they fail, they then undertake permanent migration. Some people cannot do this – women, children, disabled people and the elderly. They cannot migrate and, once again, they are exposed to more risk scenarios. They are trapped. This is also a case of injustice for those people who are unable to migrate and who are trapped in the situation and exposed to more or future climate risks and events like cyclones and erosions.

(slide: Example of injustice – Child marriage)

This is an example of an inhuman story. As I said before, child marriage is seen as a way of transferring risks. When a family is affected by a sudden onset event and is forced to migrate somewhere else, then in that new location they are not comfortable with their adolescent girls because those girls might be harassed by neighbouring communities or in their workplace. They see adolescent girls as a risk. So once again, they see the marrying off of adolescent girls as a risk

transfer. Here is a statement by a family that has suffered from river erosion who says that "no man shows an interest in marrying a girl whose family has lost everything." So it's better to marry off a girl before her family loses their household in a riverbank-prone area or before they are impacted by another cyclone. There is another study that confirms that child marriage has increased in coastal and riverbank-prone areas.

(slide: Climate injustice: Global vs national)

Here I have endeavoured to explain the context of justice and injustice. Once again, my concern is that when we talk about climate justice, we point to the international communities as being responsible for climate change. Even I, in my introduction, say that this is the responsibility of developed countries because they caused climate change and so they should assume their responsibilities.

The perenniality of climate justice is international and the perenniality of climate justice means pointing to the international communities who are responsible for climate justice. So they should ensure justice. So how should they do this? The key to ensuring climate justice is limiting the global average temperature rise to certain level which is aligned with the 1.5 °C goal. This will enable us to ensure a safer world for our future communities, but we are failing to do

this. This is because international communities, in particular, developed countries even [...] countries who account for more GHG emissions into the atmosphere are reluctant to increase their emission targets which would enable us to comply with the 1.5 °C goal. This is another injustice.

There is no specific target for ending fossil fuels. If we want to limit the global average temperature rise to 1.5 °C there is no other option than to end fossil fuels now. We need to go for a strong agreement on halting the use of fossil fuels and on transiting to safer, greener energy solutions, perhaps renewable energy sources. There is much discussion of innovative hydrogen and other sources, but the main thing is that we have to stop using fossil fuels.

If I look at the negotiations at COP26 and even COP27, then they failed to agree on ending fossil fuels. They opted for phasing down not phasing out fossil fuels. On the other hand, they said that we should keep using LNGs, a kind of cleaner fuel. LNGs were to be seen as a transitional fuel unless we can go for technological solutions for the reduction of GHG emissions or carbon capture. Developed countries and other developing countries, the fossil fuel colonialists, are still keeping the option open of using LNGs and other fossil fuels. This constitutes another injustice towards those people who are suffering more losses and damages.

This also constitutes a violation of human rights.

Developed countries have again failed to mobilise the long committed 100 billion US dollars to which they made a commitment in 2010.

On the other hand, the finances we receive from developed countries are mostly loans, not grants, which results in a debt burden in climate-vulnerable countries. This is the kind of injustice on the international level.

There are also injustices on the national level. National governments are not scaling up their GHG emission reductions. They are reluctant to do so and national interest takes precedence over global interest. This is not a justice-based cut.

On the other hand, climate-vulnerable countries such as Bangladesh are not considering the human dimension to climate change that encompasses school drop-outs, child marriage and other social conflicts and crises. The countries are only targeting some sudden onset events, and not how to prevent risk. They do not address the human dimension. If we fail to address the human dimension in climate change, then this constitutes an injustice towards those climate change vulnerable communities.

There is another huge concern relating to governance failure, corruption, political influence and a non-committal political position on addressing climate change. Also in my country, when we talk about global level debt, we need more finances to address climate change. But again, we fail to ensure the proper utilisation of climate finance. We are failing to extend the adaptation benefit to the more excluded, more vulnerable communities. These are injustices caused by the national governments.

Injustice in terms of climate change is not just a global but also a national issue. When we talk about international injustice, we are not talking about national injustice. If we want to talk about national injustice, then we should have a political space for civil societies so that we can communicate our priorities. Spaces for civil societies in Bangladesh and other countries are shrinking. So it is very difficult to talk about climate injustices in the national context and also about reducing climate injustices.

Thank you.

Kerstin Schlögl-Flierl

Thank you very much. The next speaker is Ms Sophie Backsen.

Statement of Sophie Backsen

Sophie Backsen

Dear members of the German Ethics Council. Thank you for inviting me to your meeting today on "Stakeholder Perspectives on Climate Justice". I am Sophie Backsen, I am

24 years old. I was an appellant before the Federal Constitutional Court regarding the German climate protection law from 2019. I am from a very small island called Pellworm in the North Sea of Germany. It is a tiny island, about 37 square kilometres in size. Parts of the island are already below sea level. It is an island that will be heavily affected by rising sea levels. We have dykes around the island right now and they will protect us in the future as well but the question is – how long can we keep raising the dykes, how high can we actually build the dykes.

Another effect of climate change what will have a major impact on myself and my future is changing weather extremes and increasing weather extremes. I come from a farm; my father has an organic farm. I am studying agriculture right now in Kiel with the goal of taking over the family farm someday and working in agriculture. With the changing weather extremes, it will become harder to work on the farm, especially on an organic farm like ours. Another effect of heavy rainfall and other weather extremes that we will experience on Pellworm is that if we have a lot of rain in a short space of time in combination with high tides and storms, it is very hard for us to drain off the water that comes from the sky. It's a bit like a bathtub, and we can't pull the plug. And parts of the island are under water because

of the high tides around the island. We can't drain the water into the North Sea.

It is not only my home Pellworm that will be affected by climate change. There are the huge consequences climate change will have for the young generations and the uncertainty that comes with it. No one really knows how different scenarios will really play out in the end. Also, there will be many restrictions on the freedoms of young people. Whether it will be that we will have to take strict political decisions, or react to the effects of the climate changes we experience. I would like to put a question about what the main ethical challenges are. We've heard about the huge injustices from the global perspective of the global south and north. Of course, there are also injustices regarding the young and the old generations. As I mentioned before, my generation and many following generations will have to deal with the huge consequences of climate change and restrictions on our freedoms. This is specifically because decision makers now and generations before us have refused to take action against the climate crisis even though they were already aware of the problems and challenges. My demands regarding climate justice are for politicians to finally take action and steps right now against global warming that are effective and have real consequences. The politicians in charge right now must fulfil their duty of care for their citizens. Through the decisions they have taken for climate protection, one generation has consumed a huge amount of the carbon emissions budget. The consequence is the need for future generations to reduce emissions radically and their lives and freedoms will be severely restricted.

This is also what the German Federal Constitutional Court said in its ruling from April 2021. Politicians have to take on board their responsibilities now in order to secure the rights of freedom of younger generations in the future by taking serious climate action. We have a lot of the solutions and ideas, and there are so many papers about everything that we can do, what measures we have to take. It's all there. Politicians need to start taking real action, and start taking care of future generations, especially.

I think that each and every one of us is partly responsible for this situation. But from my point of view, it is definitely politicians who have ignored this issue for far too long even though they had all the information. They knew that they needed to take action a long time ago. They had the chance to start the transformation process a long time ago with many years ahead and that way would have been a lot easier for everyone and for society. But by sleeping on the matter and putting it off for the future, we are now in a position where a lot of decisions have to be made. And we have to change our way of living and a lot of our habits in a very short time to meet climate

goals and to somehow stop climate change in a way that is still possible.

From my point of view, I can just say, I can only ask politicians to now start to take drastic steps. They have to find solutions that are possible for everyone to live with. People with lower income need to be supported. I think it is the most important thing for us to take on this problem as a society, take all parts of society into account, all the different economic and social parts. Especially from my point of view, we need to think about the younger generation and especially generations that are still to come. Unlimited growth on a limited planet with limited resources is just not possible. I can only ask from my point of view and my age to take actions and start the transformation processes now. Thank you.

Kerstin Schlögl-Flierl

Thank you so much Sophie Backsen. The next speaker is Diarmid Campbell-Lendrum from WHO.

Statement of Diarmid Campbell-Lendrum

Diarmid Campbell-Lendrum

Thank you for the invitation to speak here. It is really an honour and a privilege. Thank you for allowing me to speak in English. It is an act of international solidarity. I will try and summarise my remarks on climate

change and health in a quite short and simple argument. I'll start with my summary first so if I lose your attention half-way through, you will still have the headlines from the beginning. The message I would like to summarise is: It is us causing climate change. It is bad for health and many other aspects of human and natural human life in the natural world. It is going to get worse. But there is hope. But the hope comes from action and not from chance. So that is the thesis I'll be elaborating from the health point of view over the next 15 minutes.

The first point is quite easy. It's hardly up for debate anymore and we've also heard it elaborated quite well, I think, by Mr Shamsuddoha at the beginning. I think we all now know that there is no serious debate amongst scientists that climate change is happening and is mainly caused by human activities. It is basic physics. The basic understanding goes back more than 160 years and has been borne out by observations ever since. There is a disconnect, there seems to be some media debate and some political debate about the issue. But as someone who has a scientific background and who has worked on this issue for over 20 years, it is almost impossible to find a scientific study or a scientist who will dispute those basic facts. So I think we can basically take that off the board. There is no rational discussion about that issue.

The second point is: It's bad and it is no longer just bad as a future issue. The impacts of climate change are with us here and now, including for health. I was an author on the health chapter of the last two reports of the intergovernmental panels on climate change. One of the things that was more striking in the last assessment report was the evidence not just of the estimates of future impacts of future climate change but the observed impacts now across the world. In every domain we looked at for human health whether extreme weather events, infectious diseases and impacts on social and environmental determinants on health and in every region we looked at we were already confident that the impacts were negative and were being observed in each of those domains in each of those places. It is a here and now issue.

I will just elaborate a little bit on the dimensions. We have heard a bit about this already. The most obvious and direct is extreme weather, the most obvious is direct exposure to heat. We are experiencing that particularly in south-east Asia. We have seen record-breaking temperatures and the evidence tells us that it is exceptionally unlikely that the temperatures we are experiencing would have occurred in the absence of climate change. So the attribution studies say that the heat stress in Asia observed at the moment was made about thirty times more likely by climate change. We know

from the basic physiology, observations even in Europe, that heat kills people. We watch death rates go up as temperatures exceed comfort thresholds. In some cases, we are now seeing populations exposed to temperatures actually beyond physiological limits. It is not just increasing the risk of death, it is basically making it almost impossible to carry out, for example, physical activity outside. So those are some of the direct effects. We also see wildfires, we see those damaging not only property but taking lives directly, forcing huge spikes in air pollution, which again take lives.

We then start to see some of the more indirect effects such as infectious diseases. We are already documenting how climate change is making it easier to transmit infectious diseases through water, cholera and other forms of diarrhoeal diseases and through vectors. This makes it easier to transmit diseases such as malaria, Dengue fever and so on. Even more importantly, we think that climate change is undermining the environmental and social determinants of health. So it compromises our air quality, the availability of water, food security and nutrition security, all of the things populations need to live. Again, we have just heard really good evidence from Bangladesh about the impacts on social structures. The events have increased the risk of child marriage. That is an impact on the environmental and social determinants of health, that impacts on people's lives including their health. For all of these reasons we, at WHO and eminent scientific journals such as the Lancet, have termed climate change the greatest health threat of our century. So that's what I had to say about "it's bad". Now it gets even worse. It is going to get even worse. Unfortunately, as we have heard, we have failed to control GHG emissions. We are committed to ongoing global warming. We estimate through the IPCC but also through work done by WHO that those risks will continue to escalate as climate change continues. The latest full estimate we did at WHO published in 2014 looked at what we estimate, assess to be the expected increase in deaths directly attributable to climate change by 2030. Based on a very conservative estimate only looking at a subset of conditions, we would expect about 250,000 excess deaths a year, particularly from increases in things like malaria, diarrhoea and malnutrition by the 2030s. If we look at those populations most affected, and again as we've already heard in this session within societies it tends to be those already living in precarious conditions, either populations who already have problems with water supply or protection from malaria or food security. These risks are amplified by climate change. So we see that within populations the poorest parts of society in a particular country but also between countries as well. We see poorer countries or those living in more vulnerable conditions and in the most extreme cases such as lower-lying small island developing states, climate change is an existential threat. Unmitigated climate change will wipe out some countries. It will completely remove them off the face of the earth. It will either take those populations with it or it will force them to move to other societies. So in other words, if you want to summarise this: it is the poorest who are the hardest hit. Of course, there is the issue of climate justice and that is exactly the inverse of where the carbon emissions have come from. So the carbon emissions that are caused by a citizen of the highest emitting countries in the world are equivalent to the carbon emissions... one day from a high emitting population is the equivalent of about three years of emissions from a citizen of one of the lowest emitting countries. This is the complete inverse. Those populations that are directly causing climate change are the inverse of those who are most heavily hit by the effects. It seems to me, I am not an ethicist, that this is a qualitatively different issue from many of the issues that we deal with, for example, in global health. It is true that we have not fully controlled diseases like malaria, TB and malnutrition, and so on. We would say that that is a sin of omission by rich countries, that we have failed to muster the money and the political will to resolve those issues, but we could claim that we are not directly causing them.

Climate change is a sin of commission. Our acts are increasing the risk of those populations most at risk. I will just say a few words about the situation in Germany and in Western Europe. It is true that richer populations tend to be better protected, at least in the first instance than those more vulnerable populations. Unfortunately, now nobody is immune. We see, for example, in Western Europe that the population exposure to heatwaves, in Europe, too has gone up by about 50 to 60 percent for the decade 2010-2019 compared to the previous decade. Our vulnerability is also increasing. We have older populations, many with pre-existing health conditions, living in cities. There are impacts there. We are also concerned about the impacts of floods, the increased risk of infectious diseases. We have parts of Western Europe including Germany where we see a major increase in the suitability of transmission of certain vector-borne diseases.

We live in an interconnected world. If we are having impacts in other parts of the world, we are not fully insulated from them spilling over to the richer populations. That can occur, for instance, through effects on food prices. If we have impacts on agricultural production in other parts of the world, they will still impact food and nutrition security even in richer parts of the world. We also have the potential risk of peace destabilisation caused by populations on the move because of climate change.

I would just like to mention one other dimension of the impacts of climate change, one which is becoming increasingly clear to us - the impact on mental health. I have worked on this issue for 20 years now. Probably the first 15 and 16 we hardly touched on mental health but mainly concentrated on physical health. In the last couple of years, the evidence has become stronger and stronger that climate change is having significant impacts on mental health, particularly in young people. So we have credible studies now from around the world that show that almost half of young people – 45 percent of people aged 16 to 25 – report that climate change has a negative impact on their daily functioning, things like eating, concentrating, and taking pleasure in activities. In Germany, about 75 percent are somewhat or very concerned that climate change will harm them personally at some point during their lives. We even hear multiple reports of young adults electing not to have children due to their concerns over the climate crisis. I would just ask those of you who may be grandparents in the audience to consider the situation of having missed out on a grandchild because the next generation does not feel secure about bringing children into the world. These are the kinds of secondary impacts we are seeing through climate change.

I will just talk very quickly about another dimension of this which is the causes of climate change. So not only is climate change compromising our health but the causes of climate change compromise our health. Of course, climate change is mainly driven by the burning of fossil fuels, and the burning of these fuels also has massive negative direct impacts - air pollution kills approximately seven million people around the world. So the excess death rate due to air pollution is approximately the same as the excess death rate from COVID during the years 2020 and 2021. Air pollution kills at about the same rate as COVID did at its peak but we are basically neglecting that issue. About half of that comes from outdoor air pollution and about two-thirds of the outdoor pollution share is from the burning of fossil fuels. So we can really say that climate change and the drivers of climate change are killing people both directly and indirectly.

There are many other ways in which our unsustainable habits are also having the same effect, but air pollution is the most concrete one. Again, Germany is not immune from this. In Germany, ambient air pollution kills about 37,000 people a year. Over a two-year period – if you want to visualise that – outdoor air pollution kills about the same number of German people it would take to fill the Allianz stadium. That's the kind of scale of impact that we are seeing.

In the last couple of minutes, I will finally get to the hope part of this story. The hope part is that we can fix this. It is not only ethically right to fix this, it is also rationally and economically right to fix it. The IMF estimates that if you take into account the financial subsidies that go to fossil fuels and also the effective subsidy of them not having to pay for the damages to human lives caused by the consumption of fossil fuels, then global fossil fuel consumption effectively receives a subsidy of about five and a half trillion dollars a year. That's more than the world governments spend on health care.

It makes absolute sense to stop paying this huge fossil fuel bill. The final part on hope is not the hope that maybe we will be lucky, that maybe climate change will not be as bad as we think. That is the false hope. The hope is that we know what we have to do to decarbonise, we have the technological solutions. It comes from the fact that we can afford it. It will actually save money and lives.

So the last couple of points I would like to make is that the main objections raised to acting on the climate crisis is that it will cost us too much money or jobs. For any sensible time frame neither of those is actually true. Recent credible estimates show that using existing technologies, we could decarbonise the world and we would have upfront costs. Just by reducing energy costs,

we would get that money back in about six years. From then on, we are basically in profit. We will be saving more and more money.

If you take into account the health gains, that six-year repayment comes down to less than a year. If we include health in our vision of the benefits we get from decarbonisation, then it is absolutely rational to decarbonise basically as quickly as possible. The challenges are not economic, not even really financial, they are political. We need the political will to invest in the medium- to long-term. There are costs, there are vested interests in maintaining the status quo, and there are even cognitive vested interests. It is hard for us all to change, but it is absolutely the right thing to do.

Then the final part of the story I wanted to get across is that hope is actually an action-oriented message. I am looking forward to hearing from other speakers later about the science in communication on climate change. But the evidence we are aware of is that a positive framing of the health and environmental gains from acting on climate change cuts across political divides. In most countries around the world, it actually is the strongest way to stimulate action. That's the final hopeful message I will leave you with. Thank you once again for inviting me.

Discussion

Kerstin Schlögl-Flierl

Thank you Mr Campbell-Lendrum. Thank you all for your inspiring talks. Now we have time for discussion. In the first session, the members of the German Ethics Council have the opportunity to ask questions. Afterwards, Ursula Klingmüller, a member of the German Ethics Council, will present the reviewed questions of you all in the livestream. You have the possibility to write down your questions. Now the floor is open to my members. Who is first?

Wolfram Henn

Thank you very much for those different perspectives. We did not encounter any dissent between all of these stakeholders. Who is to blame for climate change and what has to be done? My question is for all of us. How far should we go to push those who have to decide at the political stage to do what is necessary? Perhaps a question for Sophie Backsen. To what extent do you think civil disobedience is justified? What shall we do? What about doing things that are not allowed according to existing law to press politicians to do what is necessary? This is what we call Mahatma Ghandi's civil disobedience. What actions do you think are justified?

Sophie Backsen

I think that it is important that we keep on taking different ways of getting politicians to act and to get those people who are making the decisions now to take this matter on board in an effective way. I think a good way could be to go the way of the courts and try different ways and try to fight in front of the courts or resort to legal means. I think it is very important for young people and everyone to keep taking this matter to the streets and to keep showing up on the streets to show that there are so many young people and people in general who are not going to give up. They expect the people in charge to take decisions now. I think it's quite difficult to find the right way, but for me it is important that we keep fighting in different ways, especially that everyone or young people should keep pointing their finger at politicians and try to get them to take action. Different approaches are the way to go and legal ways are the way to do that for me. For courts to hold politicians accountable – then also demonstrations and other environmental organisations that are taking different approaches and different issues, to always keep showing that something needs to be done.

Kerstin Schlögl-Flierl

Thank you, Ms Backsen. The question is also addressed to Mr Campbell-Lendrum and Mr Shamsuddoha. What do you think about the means of civil disobedience, especially in Germany?

Diarmid Campbell-Lendrum

Although I am not a medical doctor, I am a public health professional and I work closely with many medical doctors. They have a very strong code of ethics, very well described. Many of them actually feel compelled, not just that it is acceptable, but feel compelled to take direct action. We see many of them, our friends for example, treating children affected by the impact of air pollution which is entirely preventable. They feel that they are not going far enough if they are only treating people in their medical clinics. They feel compelled to engage in non-disruptive advocacy. Doctors for Extinction Rebellion is a very strong movement within the UK. They are at the forefront of active civil disobedience. They are gluing themselves to roads or to the Department of Energy and it's true that they may be breaking laws and the laws are moving ahead of them to stop this happening. I certainly see that there is a very strong defence for why they feel that even obviously nonviolent direct disruptive protest is entirely justifiable under the circumstances. I think they will often sum it up best by saying you think we are being disruptive by blocking a road for a short time, you should see the disruption that climate change is bringing even within our own countries with flooding, let alone to the rest of the world and the people

whose health we are committed to protect. Different people take different views where they lie on that spectrum but I can certainly see a strong case for non-violent direct action. Thank you.

Kerstin Schlögl-Flierl

Mr Shamsuddoha do you wish to respond to the question about civil disobedience? [technical issues] What do you think about legal or non-legal or unethical or ethical means concerning climate protest?

Md Shamsuddoha

Yes, I think it is a very good question. When we talk about campaigning and activism, then we have seen many groups, particularly from Europe and western countries like Fridays for Future and Extinction Rebellion. They are doing good work and are also trying to mobilise people's opinions. This is good, but again the entire chain will depend on political leadership. If the political leaders are convinced, if they are ready to sacrifice their national interests, if they are willing to prioritise global interests, then I think we might find a solution as early as we can. But civil disobedience has gone beyond that. It might succeed in exerting pressure on the global political leadership. It is useful and I think that a kind of pressure has been created not only by youth but also by professionals, scientists and university lecturers. But there are other groups that have lawsuits, legal cases against multinational companies. There are some cases [...], many cases are coming up so this kind of case might create pressure on multinational companies who are polluting the environment with more emission. Other countries are impacted by climate change and suffer secondary and tertiary effects. If I look at health issues in Bangladesh there are many women who are suffering from health-related effects, problems due to the consumption of [...], pre-eclampsia and premature deaths and deaths during childbirth. This kind of rights issue should be taken up, and we should claim human rights not only under the UN policy but also under the whole United Nations. A kind of holistic pressure should be created on the political leadership and governments so that they make a rational choice for [...]. This is not only civil disobedience, but also legal cases, also connecting to other instruments of the United Nations and creating holistic pressure on national governments.

Kerstin Schlögl-Flierl

Thank you for this global perspective. This is an important one. I have two questions in the Zoom. The member Armin Grunwald is online.

Armin Grunwald

Thank you. I felt a very strong common message despite the very different areas you touched upon. The strong message is that countries in the global north bear responsibility for doing much more for climate protection than they have before. This is one message I will take away with me. I have a question for Mr Shamsuddoha because I was a bit concerned. You raised the point that while doing something good for the climate, for more sustainable energy supply, there is a risk that western countries continue with patterns of colonialism. You mentioned the example of LNG and perhaps you can elaborate a little bit more about this. What can we do in order to perhaps go this way? Or opt for hydrogen partnerships with countries in the global south? This is heavily debated in Germany. How can we do this without falling back into old colonialist ways?

Md Shamsuddoha

Thank you for this question. I agree that this is a much debated issue. If we consider the total energy paradigm of the entire world, it is entirely fossil-fuel based. These countries are fossil-fuel colonialists. So they want to continue the regime of fossil fuels.

And they say that we can still keep using fossil fuels if we can innovate carbon capture and storage. The carbon that can be immediately captured from fossil fuel burning can be stored in big mines or other areas. This is one thing but this technology has not yet been invented and proven.

The other concern is that European countries are trying to innovate hydrogen fuel, hydrogen power. But the utilisation of hydrogen power is undergoing a transformation in the industrial sector. So again this is not a proven technology and it is expensive. On the other hand, there are two types of hydrogen fuel – one is grey hydrogen and the other is green hydrogen. Green hydrogen is very expensive and grey hydrogen still has emissions. The creation of grey hydrogen also requires fossil fuels. So hydrogen is not a solution.

The third option is to switch to renewable energies. Developed countries are currently reluctant to invest in renewable energy sources particularly wind, solar and other energies. There are some national governments that do not have enough resources to switch to 100 percent renewable energies. If I take the example of Bangladesh — we have a huge amount of solar energy but again we say that [...] in Bangladesh we cannot go for solar energy sources.

Three dimensions are working in parallel, one is renewable energy, two is still continuing with fossil fuels and the third is waiting until a hydrogen solution has been established. If we go for hydrogen, then this again constitutes another form of colonialism with market domination by western countries over countries like Bangladesh. We don't have other options than accept either fossil fuels or hydrogen if we fail to

transit to renewable energy sources. This is my understanding.

Kerstin Schlögl-Flierl

Thank you so much Armin. The next person on my list is Mark Schweda.

Mark Schweda

Thank you Kerstin and thank you all very much for your inputs. They were very illuminating and I thought one thing that all three inputs had in common was to point out that the consequences of climate change and global warming are not always that obvious or direct. There are also secondary and tertiary consequences that have to be taken into account when assessing the damage and the loss that take place. One of these consequences that Dr Campbell-Lendrum mentioned was quite interesting and that is the impact on mental health, particularly in the case of younger people. I was wondering what we can do about that. Of course, on the one hand we can say that we should start acting in an efficient way against global warming but maybe we also have to do something about the way we are communicating about the climate. Maybe we are in a bit of a dilemma there because on the one hand, things are very bad and dramatic so the rhetoric and the debate are very often quite dramatic, too. On the other hand, this might also be a cause of concern and for anxiety. And so how do we find the right way to engage in climate communication in this respect?

Diarmid Campbell-Lendrum

Thanks for the question. I agree it is a fascinating and important area. We have only really become properly engaged in the last couple of years. I think that the first issue to take into account is not to pathologise this, not to say that these young people are wrong, that they are suffering from an irrational fear. It is perfectly rational given the evidence. As Ms Backsen said, it is particularly young people who will be living with this for longer than the rest of us. That level of concern is an entirely reasonable, rational approach. We do have to be sensitive about how we communicate and how we take care of people who are suffering from these impacts. I remember when we first became aware of this issue in 2019 when talking to the leader of the UK Fridays for Future climate strikes. He was sitting at the back of the meeting writing a mental health strategy for the movement to take account of young people who were turning up distressed at these demonstrations. We have to manage this correctly. I think that the message that we are in fact trying to validate at WHO is the idea that taking positive action on the climate crisis – this is more anecdotal than proven – actually empowers young people. They actually feel better about the issue if they are able to act on it instead of just being a victim.

I should have said that one of the other things that came out of that study I referred to is that young people, particularly those living in countries in which they had higher trust in government, were less distressed. They felt that the government was at least doing their best by trying to act on this issue. They were more distressed in countries in which there was less trust in their governments where they felt that not only were they being impacted on by climate change but also that the grown-ups in the room were not actually doing what was necessary to protect them. Again, that seems a perfectly rational way to deal with this. So it does come back to the hope is in action.

By acting on this, we address the issue but we also genuinely grapple with it. I think we all feel better about this by grappling with it. It's part of my admiration for young people like Ms Backsen and others who are not sitting around and complaining about this. We see across young people's movements, they are standing up and taking action. Whether it's through the courts or demonstrations or coming into professional life in my field and saying you haven't taken care of it. We are going to have to. I think they should get all of the support that we can give them both in taking action and giving them the support to take action.

Kerstin Schlögl-Flierl

Thank you for stressing this point. Mental health is very important especially in children. Mr Shamsuddoha or Ms Backsen – would you like to respond to the question of Mark Schweda?

Md Shamsuddoha

I think the discussion around climate change impact is only limited to risk. If we consider the risk, then in Bangladesh the risk entails floods, cyclones and the response is to remedy risk. We do this by cyclone shelter preparation, by mending embankments. These are the technophysical solutions for climate change. We often ignore the secondary and tertiary impacts such as impacts on women, children and also on mental health. We should communicate those secondary and tertiary effects of climate change to the global communities through reports, publications, evidencebased material or cases for action. Unfortunately, if we consider the response to those secondary and tertiary effects, concern from national governments is very limited. If we look back to the development of the national adaptation plan – it was NAPA, national adaptation programme of action – and the current national adaptation plan, all of them ignored secondary and tertiary impacts. We should be more inclusive, we should include more civil society priorities and grassroots priorities so that the localised impact

and concern of the excluded communities are part of the national plans and policies. That's why we need to prepare better communication materials, not only for the national but also for the international stakeholders.

Kerstin Schlögl-Flierl

Thank you for reminding us of these important issues. The next person on my list is Hans-Ulrich Demuth.

Hans-Ulrich Demuth

Thank you very much. The presenters who are participating have made very important statements concerning their personal feelings and the impacts on society in relation to global warming. I have two questions. The first one is for Mr Shamsuddoha. I have a question about something I did not understand in relation to one of your slides concerning secondary impacts. How is it that in historical, cultural and religious terms things like child marriage are related to global warming and to the interactions between the third and the first worlds.

Md Shamsuddoha

In relation to child marriage – we did some studies in riverbank erosion areas and also in coastal areas. Riverbank erosion is distantly connected to climate change through precipitation. We sought to establish a connection between riverbank erosion, flooding and also precipitation. If we establish

that link then riverbank erosion displaces many people. People lose their households, their assets, everything. Primarily, they move to new areas and informal structures are not secure. Again when they go to these informal structures, they feel that their adolescent girls are at risk because adolescent girls may be harassed by neighbouring communities. I agree that this is a social problem but the causes are riverbank erosion and climate change. Their vulnerability is intensified by social and cultural norms. Social norms mean when a newcomer goes somewhere, and they have adolescent daughters, they may suffer social stigma, they might be harassed by neighbouring communities. If families leave them alone in houses, then there might be concern about sexual abuse, harassment. So girls in this specific position are seen as a risk for the families so the family members, particularly parents, reflect on how to transfer this risk. The easy approach to transferring risk is by marrying off these girls to other people. So this is one thing.

There is also a concern about social issues. If I consider the grooms, the youths are preferred to be married by the grooms. That's why there is a demand for adolescent girls to be married, from a certain class of grooms. When we consider all this, then child marriage has increased. So my concern is that where the adolescent girls from child marriage are concerned, the impact of climate change is related. But again, there

are some social issues, social stigmas, cultural issues that also include increasing child marriage.

Hans-Ulrich Demuth

Thank you very much for your answer. And now I have a question for all three. The European Commission has decided to designate atomic power as a safe issue and a safe development to protect our environment in the future. What is your personal opinion about that?

Kerstin Schlögl-Flierl

Who wants to answer Hans-Ulrich Demuth's question?

Hans-Ulrich Demuth

You don't have to be politically correct but this is an issue that we have in Germany right now between the different political sides and parties.

Diarmid Campbell-Lendrum

I can say a few words from the health risk point of view. Certainly, in my opening statement I think I was perhaps over-simplistic in some of the things I said. I stand by the headlines that we can decarbonise, that it is in our interests and it makes sense. But within that the transition is not necessarily completely simple. The pace at which we go, the choices that are made about what energy swaps we make for highly polluting fuels is not necessarily completely straightforward. From a technical point of view, it

is a risk comparison issue whether people will need energy. They need energy to live their lives and for their health. You have choices as to how you supply that. None of the technologies is entirely without risk and without consequence. Some are generally much better than others; renewable energies have lower social, environmental and health impacts. Coal generally has higher burdens on all of those things. Then you have the difficulty of something like nuclear power where it is a low carbon source of electricity. From a health point of view, over the years we've used atomic power the health impacts have been relatively low, much, much lower than from coal-fired power generation. There are certain merits to nuclear energy but then the risks are different. It carries the risk of the health impacts of the disposal of nuclear waste, proliferation and so on. I think there is no simple answer to this because you are often balancing quite different types of risks. Air pollution and climate pollution from coalfired power against the potential of significant impacts but with a far lower probability for atomic power. Sorry to give you a slightly technocratic answer but I think this is a case where there is no absolute evil or absolute good. There are difficult choices to be made.

Kerstin Schlögl-Flierl

That's a typically ethical approach – all sides should be considered. Ms Backsen or

Mr Shamsuddoha – would you like to answer this question?

Md Shamsuddoha

I fully support what the previous speaker said.

Kerstin Schlögl-Flierl

Our next speaker is Mr Michael Brüggemann. I can see you on Zoom. He is not a member of the German Ethics Council but I think he would like to ask a question.

Michael Brüggemann

I would suggest that we postpone this debate and deal with it in the communications part. This is because I was going to make some comments on how to deal with emotionally problematic messages.

Kerstin Schlögl-Flierl

I would now like to hand over to Ursula Klingmüller who is in charge of all the questions via the livestream.

Ursula Klingmüller

I would also like to thank all three speakers for giving us these very good and different perspectives on this topic. May I take this chance, also as a member of the Ethics Council, to ask just one short question? In Germany, we always discuss the topic. Germany is very advanced and has benefitted a lot from the developments. We always feel like what we are doing here does not have a

huge impact. We see little chances concerning what we can do in Germany to really change the kind of development. I would be curious to hear from the three of you where we could start to develop an impact. I was really interested to hear what is being done in Bangladesh. So what are your thoughts about where to start and what a possible contribution could be to change the developments in the world? Mr Schamsuddoha – could you begin?

Md Shamsuddoha

Thank you. My first concern has to do with the crisis we are facing. We should all share the responsibility and responsibility should start in my own house, in my personal life. If everyone opts for a greener life, a sustainable lifestyle – in Europe you talk about a circular economy - then I think that we could really remove a certain level of emissions from our personal lives. That kind of knowledge, communication should be conveyed to everyone. So the people-to-people connection is very important. Connecting people from Europe to people in Bangladesh, how we should cooperate with each other and how we could share these lessons with our political leadership. This is the first concern.

The second concern is that if I consider the growth and development of Bangladesh, then Bangladesh is becoming desperate in

terms of development. Why is this? Because Bangladesh is trying to showcase development. And Bangladesh is considering development to showcase instead of democracy, because this is a message to the people of Bangladesh that you should rather prefer development and not democracy. But it should be the people who choose their energy system, who choose adaptation and its resilience and that kind of things. But again, in a constrained environment, in a constrained political system and regime and with autocratic governance, it is very difficult to communicate people's choices.

The other concern is that there should be a global argument for democratic practices everywhere so that people can communicate their choices for development to the national policy stakeholders.

The third concern is about climate change finance. When we talk about this, developed countries have adopted different positions. For instance, there are some climate change finance options through the multilateral development banks and climate change is also funded through the channels under UN policy like the adaptation fund or special climate change funds like green climate funds. So, those funds under the UN policy are facing fund constraints because developed countries are not putting more money in those funds. Fortunately, Germany committed two billion about two months ago. But many other countries are not committing

money to the green climate fund but to the multilateral development banks. If countries like Bangladesh want to access money from these banks, they do not receive grants but essentially concessional loans. There are many opportunities for corruption if I take money from the multilateral banks, there are fewer chances of corruption if I take money from the UN policy funding channels. [...]

My third appeal to the developed countries is to channel more money into UN policy channels and not to the multilateral development banks so that countries are not debtburdened. There are other options for supporting countries through bilateral funding, government-to-government, and also funding through civil society channels. Many civil societies have important challenges to work on the ground with communities, implementing some small projects, and also doing some research and then communicating the findings to national and international stakeholders. Developed countries and the organisations in these countries can support civil society associations in the carrying out of research and implementing projects. I have four different concerns to address to the governments and the people in developed countries. Thank you.

Ursula Klingmüller

Thank you very much. I would also like to put the question to Sophie Backsen, as the representative of the young generation. You described your home situation to us, but where should we start, how should we prioritise in Germany?

Sophie Backsen

Well I think it is very important that we start at all and that we take more drastic action in Germany. It is an argument that is always raised when you talk about climate change and measures against it and global warming. It is always brought up that Germany is only responsible for such a small share of the global emissions. That's right but Germany is also a rich country, a very developed country and I think we can assume a big role in taking big steps and show other countries how it could be done.

We could transform society using different processes and pretty much every part of our lives, and take on a little bit of a pioneer role. And show other countries that are as developed as we are but also other countries in the global south what is possible and how we can create a future that is better for everyone, especially for my generation and future generations. Every time someone brings up that argument, I always say: But we have the money, we have the power, we have the knowledge here in Germany. The politicians should start this process, and take big steps to show other countries how it can be done, and hopefully inspire them

to take the same actions or go in the same direction.

Ursula Klingmüller

Thank you very much. And then Mr Campbell-Lendrum. Can you also tell us something about the Dutch perspective?

Diarmid Campbell-Lendrum

I live in Geneva but I am actually French and British. But to be honest, as somebody who is not from Germany, it is almost a surprise to hear that Germany might say "why should we act". Most of the world looks to Germany. You are one of the richest, most powerful countries in the world. You are one of the G7. You are part of the power-house in the European Union, which is arguably the most powerful economic block in the world. There is no better position from which to drive climate change than Germany.

And I would make the same argument even if it wasn't Germany, even to a small country that we do need to play our part in this. There are many aspects of elective action where your own individual action itself doesn't make the change but collectively the individual actions add up. Voting is a good example. Very few elections are won by an individual vote. It is via collective acts that we all need to step forward. I would say that some of the smaller countries that are on the receiving end of climate change, including small and development states, even

though they emit small amounts of emissions, they are stepping up and acting on this issue. I don't know the details of Bangladesh. But Bangladesh is putting its own money on the table in some cases for adaptation, saying: We are not just a victim here, we need to act on this, even though the Bangladesh is on the receiving end of most of the damages. The short answer is that we all have to play our part.

Another point I would make is that it is actually in our own individual societal interest to make this transition because lives are just better when in your own country, when you make the transition to, for example, to clean energy, your electricity bills come down. You release yourself from reliance on foreign fossil fuel supplies. Your air pollution comes down if you do things the right way. Your benefits actually accrue within Germany as well as by contributing to saving the planet as a whole. It is an argument that I've heard in other situations but I would say Germany is one of the best places to take leadership on this.

Ursula Klingmüller

Thank you very much for this insightful statement. And now I really want to come to the questions we collected through Slido. I will summarise the first one. The first question is what kind of obligations apply to institutions like businesses, civil organisations and churches in this context?

Md Shamsuddoha

I need to understand the question.

Ursula Klingmüller

I think the question has to do with the kind of obligations that different companies have when it comes to considering ways of improving the situation. What measures do you also see for companies that have benefited greatly from their opportunities – the building up of economies? What could they contribute? Let's focus on the companies. The churches were mentioned, too. What could they do in this context?

Md Shamsuddoha

Churches and civil society. If I think of companies then they are regulated by state laws. In countries like Bangladesh, company owners are also the policymakers and the legislators. So they make policies that will benefit them. My concern is that state policies should do more to regulate private companies so that they are obliged to limit emissions. This is one thing.

Another thing is that corporations should also be motivated to assume their responsibility for a shift towards a greener production system. Again, corporations always compete and consider their comparative advantages. A company in Germany will consider their comparative advantages over a company in China. So this is the problem when it comes to placing the private sector

under a single regulation because the market is open and the market is very complicated.

If there is a strong commitment to limiting the global average temperature rise and countries have a strong obligation or targets to limit GHG emissions to a certain level, then those targets should be attributed to the private companies. This is how I think we should place companies under a strong regulatory framework.

The other thing is that if I consider the lifestyle changes, behavioural changes towards a cleaner general lifestyle, I think that civil societies, companies and also churches can play an important role to getting most people to adapt by undertaking a more sustainable, greener and less energy-consuming life.

Ursula Klingmüller

Maybe Sophie Backsen also has some comments. How could we also make companies a bit more accountable? They also have a role to play here. We usually focus on legislation, politics.

Sophie Backsen

I think a lot has been said already by Mr Shamsuddoha. Companies and corporate groups play a huge role in reducing emissions and taking action against global warming and climate change. It is always a bit difficult to take measures in the private sector as it's always difficult for politicians to tell them what they can and cannot do. In some way, it is possible but it is still the private sector. Politicians have to find a way to push green energy. An economy which is sustainable for the future is something that companies have to want to achieve. It has to be cheaper or better to have a sustainable economy or company than one that is actually not good for the climate. I think that is the way politicians can try to set an example or try to change the narrative in the private sector. It has to be made much easier for companies to work sustainably and it has to be cheaper. Of course, it has to be made easier for people and society to live in a climate-friendly way than in a way that is not good for the climate. This should include churches and other institutions like that. They have a huge role to play in educating people. They have a lot of people who listen to them and they have a huge part in communicating this message and in the way in which we communicate about this as well.

Ursula Klingmüller

Thank you very much. We can move on to our last block of questions which we received, that have to do with the use of nuclear power. Do you think it is a violation of human rights to use nuclear power and do you think it is acceptable to leave nuclear waste for the next generation? This is a discussion we constantly face and we would like to hear your opinions.

Diarmid Campbell-Lendrum

This is clearly a very challenging question and we know it is a subject of a very animated debate in Germany. It's the point I made earlier that there are no completely clean sources of energy generation. So I personally would not say that it is unethical to use nuclear energy under any circumstances. It's perfectly reasonable to say that when comparing the risks, the problems and the expense of nuclear energy to other potential sources of energy. You can make a political, economic and environmental choice not to use nuclear energy and instead, for example, invest very heavily in energy efficiency, renewables and so on. I wouldn't at least for my own assessment of the situation say that nuclear energy is completely unacceptable in all situations.

I think that the issue that is raised about handing on a potential risk to future generations is an extremely valid concern because it is one of the characteristics, one of the defining problems of nuclear energy that the waste lasts an exceptionally long time. It's a very valid question to ask, but again if it is possible to safely dispose of the waste or as safely as possible, then you have to balance that risk and that problem against for example the known damages of burning coal if that is the alternative source of energy.

Before this Ethics Council, I would say that I would find it difficult to judge this solely from an ethical point of view and to say this energy source is unethical or ethical. There is a sliding scale of risks and risk types for the different technologies and that is the business of the politicians and of the public to express their views as to which solutions they would like to collectively select.

Ursula Klingmüller

Thank you to all the participants in the discussion. I will now hand back to Kerstin Schlögl-Flierl to conclude this round.

Kerstin Schlögl-Flierl

Thank you for the first session. See you back in 20 minutes and we are looking forward to the talk by Michael Brüggemann.

[20 minutes break]

Welcome back to the public hearing on "Stakeholder Perspectives on Climate Justice". I have the pleasure of welcoming Professor Michael Brüggemann who holds a chair in communication research, climate and science communication at the University of Hamburg. We like to consider the debate on climate change. He was invited to join The New Institute, a think-tank, in spring 2023 as the chair of the programme for depolarising public debates and developing tools for transformative communication. We look forward to your talk.

Statement of Michael Brüggemann

Michael Brüggemann

Thank you very much. It is an honour to be here. I shall first try to share my slides.

(slide: Disregard, Doom, Denial, Delay)

I will talk about the role of the news media in the debate on climate change and then we will have an opportunity to widen the topic a bit. Why do I talk to you about the media, the news media? Isn't that something that is a bit old-fashioned? I would argue that it is not because we have surveys about where people learn about climate policy or climate change. In Germany at least it's from public television and even if people say okay I use the social media and other sources, the Internet, then more often or not the origins of a lot of information are journalistic media. For instance, the German *Tagesschau* is big on TikTok. When it comes to political information, there are a lot of other things on TikTok. It might still come from the media and that's why it is an interesting topic that I have been researching.

A second thing I want to stress is that there is a lot of great journalism and information on climate change out there. Great documentaries, podcasts, great media coverage but I will nevertheless talk about the news media more broadly and draw attention to a

rather problematic pattern of the media debate, what I call the four apocalyptic riders haunting the media debate on climate change. These four riders are disregard, doom, denial and delay. I will explain what I mean by this.

(slide: Apocalyptic rider 1: Disregard)

The first problem in the climate debate in the news media is disregard. This basically means that in routine news coverage climate change is still a niche issue. It is not at the centre of routine coverage of the news. We are counting that in the online media monitor in different countries – here you can see some German outlets we have included. Over the years, it's between 1 and 4 percent of online news items on average that only mention the words "climate change" and its synonyms. So 1 to 4 percent of the coverage, it's going up and down. Different news outlets differ. Obviously, in the newspaper *Bild* it is below 1 percent.

(slide: Climate change on German TV)

Let's now take a look and see whether this also holds when looking more closely at other media. This is our study of the main evening news in Germany – *Tagesschau*, a TV programme – and there we see that over a long period of time we counted each and every minute when the word "climate" is used. And if I look at nine years from 2009 to 2018, then these are nine lost years in the news coverage of *Tagesschau* concerning

climate change. Eight out of these nine years involved summing up on the programme minutes, eight years without even mentioning the word "climate".

If we take another look at this. The minutes of the *Tagesschau* then last year 2022, it's about 5 percent of minutes that mention the word "climate". It is not in the focus of the main news media outlets. It is a niche topic and the year 2019 is an exception with the global climate protests because of drought, heat, IPCC reports. A lot comes together to bring it up to 8 percent.

We also looked at the overall programme scheme over the last couple of years of ARD, ZDF und WDR. All the programme minutes of all the programmes mentioning the word "climate" is below 2 percent of the programming.

(slide: Every 500th article)

Let's look beyond this. Different countries have different levels of climate change coverage. This is not our own study. But it is very low. In other countries first of all the share is very low, below 2 percent. This refers to the quality press in Germany, looking only at the *Süddeutsche Zeitung* and the *Frankfurter Allgemeine Zeitung*, the best of the quality press. It is only every 500th article, 0.2 percent, that actually focuses on climate change. This is not only mentioning the word but putting it into focus. There are 499 articles which don't and 1 article that

does mention it in the quality press. In other countries, the situation is a little better, up to 0.5 percent. These are countries that are more vulnerable to climate change or where climate change is more contested, where there is more conflict so this creates more attention, like the United States or Australia.

(slide: "Forum Handeln")

Regarding this disregard of the issue of climate change, I would like to tell you an anecdote about the coverage of disruptive climate protests. There was a group called End Fossil Occupy. They occupied a small museum in Göttingen. They didn't throw paint, they had banners, they distributed flyers. It was a very constructive climate protest. Two camera teams were on site and they didn't generate any news, there was no coverage because it was too boring for them. The general news logic also applies to climate change: extreme disruptive voices are privileged over moderate voices. Events are privileged over issues. If Greta Thunberg says something about the Atlantic, it is not necessarily the content that is at the centre of attention. This is also a way of neglecting climate change even when you talk about it. You don' talk about or report the issue.

(slide: From messages of doom towards solutions)

Let's look at the second apocalyptical rider. Once you have the media's attention, there was already a doom scenario in the 1980s. On the famous cover page of the news magazine *Der Spiegel* where you saw the dome of Cologne Cathedral drowning under water. There were similar cover stories in the decades afterwards but we see at least in the German news magazine *Der Spiegel* a shift towards more constructive messages where you pull the plug on climate change or where you see at least a little fence being built around the cathedral in Cologne.

(slide: Apocalyptic rider 2: Doom – Begriff)

This is something I just looked up for this presentation. We looked at the words because you also asked about that. How climate change is being depicted in the German language. Again, we see that the upper blue line indicates that climate change is mentioned quite frequently. On the left lower corner you have the climate apocalypse. Catastrophic climate change was something that was already there in the early period. It's not going up. What is going up is use of the term "climate crisis". You see the same in the English data, use of the term is going up. One could, of course, criticise that but, from an ethical point of view, I would argue that there is an increasing problem, there is an increasing crisis. If we call a problematic situation "climate change" then that might actually be window dressing. If there's a crisis, if there's an increasingly severe problem, you will probably – if you want to be honest –have to call

it that. So, yes there is increased use of the term "climate crisis".

(slide: Focus on the problem rather than its treatment)

Generally speaking, yes there is a media focus on the negative, on the problem of climate change and – from our own content analysis again for different countries – on the negative consequences and effects of climate change. That is the bulk of coverage in different countries. There are not that many country differences and there is less coverage of solutions and what to do about climate change. The focus is not on this. The blue half-moon is all about negative consequences of climate change, not about solutions. The red one is mitigation, so there is less on adaptation in the media.

If we look at when the media cover solutions, it is interesting that these are mostly small-scale solutions. In the academic discourse, there is substantial debate about whether the economic system should be changed. Is the option of degrowth possible or useful and so on. But that doesn't play a role at all in the coverage of socio-economic system change. This is not something that online news talks about.

(slide: Apocalyptic rider 3: Denial)

I will only cover the next apocalyptical rider denial briefly. It is not such a big problem anymore in mainstream news media. The little red bars are instances of denial in a content analysis that we did. It is very rare. We also see false balances of scientists and some lunatic who denies climate change in the same transmission. This is not something that is happening very often in mainstream media anymore. It happens only in the niches of fringe, populist extreme news media outlets. Some columnists in conservative newspapers still deny climate change from time to time but it is no longer much of a problem. There is a shift towards interpretative journalism, which means that deniers of climate change are still being mentioned and quoted but they are being put into context. The journalists say that this is a fringe voice in the debate. There is a learning process here.

(slide: Apocalyptic rider 4: Delay)

I also fear there is a learning process on the other side, on the side of those actors who really want to delay substantive change, who are afraid of losing money or of having to change. There is a range of discourses of delay that are gaining traction in the public debate. We can't prove that yet but these are the same people.

My hypothesis is that people have also switched from denying climate change to trying to delay it with other arguments. The four main patterns here are pushing nontransformative solutions or having some technological optimism, some surprise technology that will save us, and claiming that natural gas or nuclear power are sustainable. Obviously, that is also a non-transformative solution, emphasising the downsides of climate protection or redirecting responsibility. We have heard this today. Germany is such a small country so what about China. This "what about" is heard. You have these different discourses.

(slide: Discourses of climate delay)

There is also a much funnier display of these discourses here where the French translated these concepts into drawings.

(slide: Our carbon footprint is trivial compared to...)

Let's have a closer look at some of these discourses – like the "whataboutism", "our carbon footprint is so minimal compared to country X". Individualism is also a way to draw attention away from the challenge to make better rules.

(slide: We should focus our efforts on current and future technologies...)

Individual consumers should clean up everything. We see technological optimism. We trust that technologies in the far distant future will solve the problem. I recently attended a conference in Norway and some people even talked about clean oil. It is so ridiculous, they dress up oil as the solution.

(slide: Blue: Mainstream channel)

Let's return to the more scientific view of this. As yet, there are no strong data but a small study on these discourses of delay shows us that on national TV channels in different countries, these arguments play a role. The most popular ones are economic of climate costs protection whataboutism. What about China, they are polluting. We can't do anything about that. So these two arguments and personal sacrifice "Oh no, I have to change. I have to put new heating into my house". This is popular in mainstream TV channels and it is unsurprisingly stronger in right-wing channels but it also happens in main channels.

(slide: Summary / Conclusion)

To sum up, we have these four apocalyptic riders that haunt the debate. Disregard: I'm talking about the routine coverage, the non-specialist journalist who just misses the climate angle. They could put it in news stories. The only good news here is that coverage has been going up since 2019. But you saw the levels in the beginning, they are still very low. They have never been really high.

The second one is doom. It draws a vision of the world that is going down. This already happened in the 1980s so it's not new. It still appears from time to time. Generally speaking, climate coverage is still very much about the problems rather than discussing the solutions.

Then we come to denial. This advice is found online in niches, amongst populist right-wing populist outlets and some youtube videos and user comments. But we see a shift towards weight-of-evidence reporting among professional journalists.

Then the problem of the future. I would point to the strategies of delay of political actors who try to delay climate action by redirecting responsibility, by presenting false easy technical fixes to the climate problem and by emphasising the costs and problems of climate protection.

In the end, I also want to emphasise the good news. There is a wealth of great climate journalism as well. I would define it as journalism that really focuses on the issue rather than disregarding it. It does not provide a form for lunatics denying basic facts about climate change. It clearly communicates the challenge and does not talk about this not being such a big problem nor evoke apocalyptic visions that we are all going to die in seven years. Finally, there is news coverage that discusses ways out of the crisis.

That was not all my research but is the work of a climate communication lab that we have here. I will put the literature list on our blog. Thank you very much for your attention.

Discussion

Kerstin Schlögl-Flierl

Thank you Professor Brüggemann for your instructive talk. Now the floor is open for questions by members of the German Ethics Council for about thirty minutes. Then there will be a possibility for all others from the livestream to ask questions. My questions first. This time I would like to know what do you recommend to us for the ethics of climate communications after your presentation? I learned that only bad news is good news. How should we talk about climate change in our statements in your opinion?

Michael Brüggemann

How should you should talk about climate change? If you want to get on the news, then you could glue yourself to Julian Nida-Rümelin and that will draw attention. That would be my recommendation to get on the news. But you also have to be aware that this will distract attention away from the actual issue you are interested in which is ethical considerations about climate change. There is a fundamental problem between the economy of attention, drawing attention and being interested in drawing attention to the actual issue. It would be better for you to glue yourself to someone who is more responsible for actually delaying climate protection measures. You could glue yourself to the Minister of Transport. Then you will

also attract attention and you will focus attention on an actor who is actively responsible for delaying climate protection in Germany.

Kerstin Schlögl-Flierl

Thank you. We are going to give that some thought.

Michael Brüggemann

I would also like to give you some really useful advice, obviously.

Kerstin Schlögl-Flierl

The next question is from Alena Buyx.

Alena Buyx

Thank you for your very interesting presentation. I read a while ago that there is something called, I think, catastrophe fatigue. People are getting tired of negative news. They tune out. That was something that was reported first during the pandemic but I have seen it since. There seems to be a certain cognitive barrier to reading negative news all the time. Many people actually then stop consuming news at a certain point. So my question to you is – I arrived during your presentation so you might have said and, if so, I apologise. My question to you would be that even though climate change is not a huge topic as you have shown us. It is one of those topics that is consistently reported in a quite doomsday way, as you

showed us, where there is also a certain danger of it contributing to this catastrophe fatigue.

Michael Brüggemann

This is an actual problem. The term is news avoidance. Especially during the pandemic, the war in Ukraine, climate change and other ecological disasters, some people can only deal with this by switching off and avoiding the news. Luckily, that is not yet the majority. It is more pronounced in other countries than in Germany, but it's a problem. I argued that morally we can't just talk positively and say that climate change is not so bad after all. That would be a lie. So we can't do that ethically. But we can also cover more solutions, talk about what can be done to both mitigate and adapt to climate change. There is a wealth of propositions and a wealth of activities that are taking place. You can focus on them in this debate.

Kerstin Schlögl-Flierl

Thank you for your answer. In the last session, you had a question for the three other speakers – Professor Brüggemann.

Michael Brüggemann

I think someone else had a question on the impact of these negative climate change messages. It was not actually a question but more a comment. The question was how does youth deal with negative climate news.

I wanted to stress first of all that efficacy information means also telling audiences that you can personally do something about it in many ways and that is also already being done. This efficacy information should not be confounded with: you can save the climate by not eating meat. Of course, you can contribute. It is a good thing to eat less meat, but there might be more powerful leverages. You can also go and vote. You can base your vote on climate protection. You can go out on the streets. Glue yourself to something. You can do a lot of things and this efficacy information does change things. Thinking about Bavaria now and the referendum to protect bees. There was a different form of protest but it really changed something. For a short time, we had a conservative Bavarian government that wanted to protect the bees and the environment. They want to make this a priority so these protests work. These activities work.

The second thing is that when you engage, you also realise that you are not alone. If we talk about what people do, we also give them the impression that they are not alone if they do something. There is a high number of initiatives by people on all levels where people do something and this also helps them to deal emotionally with the depressing news about species dying and environmental problems.

Kerstin Schlögl-Flierl

Thank you. So common action and talking about climate change or the climate catastrophe. In this round, I would like to invite Sophie Backsen, Diarmid Campbell-Lendrum and Mohammed Shamsuddoha to put questions to Michael Brüggemann who is such a good guide in communication sciences. The next person on my list is Susanne Schreiber from the German Ethics Council.

Susanne Schreiber

I have a follow-up question to the one put by Alena Buyx earlier. How can we communicate the issue of ethical problems arising from injustice? I'm not looking for the answer that we should glue ourselves to somebody else. Do you have some constructive advice about how we can proceed in communicating these issues and attract more attention and not contribute to worsening the situation? I know this is a difficult question but I am asking it anyway.

Michael Brüggemann

It probably helps if the media can really do something because it is all about salients, it's about people reflecting on the impact of their actions on others, on future generations or on other people in the world. When it comes to future generations, it is actually very simple. If you have children, think about them, about your grandchildren. What kind of world do you want them to grow up in? That is a very simple way to

illustrate this injustice of leaving behind a polluted world for future generations. That is one way of bringing it home to everyone. It's about bringing it home to remind them that there are vulnerable people around them. They might not die because of heat but their grandmother might. There are very vulnerable people close to us who might be victims of the next summer heatwave. Even in Germany – that might be your grandmother. Here, we are talking about intergenerational justice in the other direction, too.

Vulnerable people, poor people – people in Bangladesh are very far away from me. So I need the media, I need people to put me in touch and actually feel the problem. Now, we are in a situation, unfortunately, that the problem like the flooding in the Ahrtal last year was not imaginable to me personally. I couldn't imagine that something like this could happen in Germany. Flooding events seemed to happen far away, somewhere in East Asia. But now it's happening here. We have to communicatively draw the connections between our lives and other people's lives and emphasise that these are people with the same rights as us. These are people now and in the future in the global south who are vulnerable. They don't have air conditioning, they can't afford it.

Kerstin Schlögl-Flierl

Thank you. The next person on my list is Mark Schweda who is a member of the German Ethics Council and then Diarmid Campbell-Lendrum.

Mark Schweda

Thank you very much for your input. That was really fascinating and really interesting. You had a slide where you did comparative work focusing on the problem rather than on the solution. You compared several countries. It was surprising to me to see that there weren't that many differences. The picture across countries was pretty similar. There is this stereotype about the Germans being particularly fond of catastrophic and doomsday messages, you know German angst. Did you find any evidence in your work that there is something to this stereotype in the context of climate communication in Germany?

Michael Brüggemann

Well, actually it was surprising for us, too, because I'm a comparative researcher so I enjoy making comparisons. But in the case of the climate debate again and again studies find very similar patterns in different countries. I think this is because the debate is still very much directed by climate science, and climate science is a transnational abstract issue. Global institutions like the IPCC, the UN climate conferences very much create similar patterns of talking

about climate change. Below this level, there are lot of minor differences but not in terms of negativity. There is no significant difference between the US, Germany and India. There was a little bit less of this in South Africa. They actually had a slightly lower focus on about negative consequences, and a slight greater focus on mitigation and adaptation but this is not a big difference.

Kerstin Schlögl-Flierl

The next person on my list is Mr Campbell-Lendrum with a question for Mr Brüggemann.

Diarmid Campbell-Lendrum

First of all, thank you for your fascinating presentation. This is very important to us, WHO, from the health point of view. I have two question or comments. One is whether you have evidence about who sends out these messages and the degree of penetration or trust or receptivity. It is our understanding that health professionals are amongst the most trusted people in society, often narrowly beating scientists. We put across the message that it is important for health professionals to speak up on climate change.

The second comment is pretty much the same question that has just been raised. From the little I know directly about climate change and health communication, I was aware of studies from UK that looked across

different audiences. I quoted the fact that positive messages of shared health environmental benefits seem to cut across political divides and build support. The one study I know of did in fact single out Germany as an outlier. So hope works everywhere apart from Germany. It may be a one-off study but you may know it. It is by Nairn [...] et al. They did seem to think that this was a real effect. We are coming up with explanations for it, including the fact that the dominant discourse on climate change in Germany had been consistently warning of the threats for a long period of time. Positive framings may, therefore, have gone against that dominant narrative. I was just curious about both of those points.

Michael Brüggemann

I am not aware of this concrete study but it is a little bit ambivalent. On the one hand, there is the problem with doom messages we talked about. On the other hand, with hope messages it is also ambivalent because they may also lead to what I called in one publication the appearement effect. After the summit in Paris, we conducted a beforeand-after survey of the German population and we found out that afterwards they were less in favour of Germany taking the lead on climate protection because they thought the politicians were celebrating. They had solved the problem so there was this kind of optimistic message of hope in Paris which disengaged the audience, at least a little bit.

The effect was not that big. This is the problem of false hope. It probably also depends very much on the audience you are talking to. If you talk to our audience right now, then everyone is aware of the risks of climate change so there's no point explaining the risks of climate change at great length again. We are all aware of that so we would rather focus on hope, on some ways out. But for others, and there are also studies on this: fear messages do sometimes also work particularly in the United States on conservative audiences. Some people need first to understand that there is a problem and this problem concerns me. I will lose my house or whatever. So I have to do something. False hope is also a problem. So maybe the complex answer is that you have to think about the audience, to whom are you talking - to people who are already climate activists, to people who are already worried enough or to people who have not understood that climate change is a severe challenge.

Kerstin Schlögl-Flierl

Have your two questions been answered – Mr Campbell-Lendrum?

Diarmid Campbell-Lendrum

Just very quickly a response about trusted messengers and health professionals.

Michael Brüggemann

Sorry, I forgot that question. I am not aware that we have identified the share of health messengers on climate change. We just know from our own and other studies that have shown again and again that scientists are very prominent. But they are mostly natural climate scientists who dominate the debate and the other type of actor are politicians. It is also a very common pattern in journalism for them to just follow the elite. So, politicians are very prominent there and, in this particular case of climate change, scientists and certainly doctors are very trusted. At least in Germany and Europe and many parts of the world, it is scientists who are very trusted. So, actually we don't have a problem of loss of trust in climate scientists in large parts of the world except for the United States. I am not sure whether it is a loss or whether trust is not as high. There are trusted voices and I think doctors could perhaps also play a role. Weather forecasters are also very powerful in the United States. They don't trust scientists but they trust their weathermen/women and they are also partly engaged. In Germany, of course they are engaged and the weather forecaster or someone like Eckert von Hirschhausen in Germany – a celebrity who promotes health issues – draws much bigger audiences, reaches much bigger audiences than a climate scientist with a boring story or study on the news.

Kerstin Schlögl-Flierl

Mr Shamsuddoha, you are next on the list.

Md Shamsuddoha

Thank you very much for your presentation. For Bangladesh, I would like to clarify some issues like media in my country and print media. They all follow the government, the political leaders. Whatever the political leaders say, they just put in in their newspaper articles and journals. But very often political leadership does not communicate the real messages. First they deny, and second they say that we are dealing with many issues. The political leadership in Bangladesh says that we are not responsible for climate change so we will not go for mitigation, for emission reduction.

In the context of resilience building there are politicians who say that Bangladesh is investing a lot of its own resources. We are trying to adapt to the situation so we need more money. We are not getting the proper information from the media. That is the problem.

Another problem is that the media also needs additional capacity in terms of conducting investigative journalism on the effects of climate change, particularly in developing countries. [technical issues]

Kerstin Schlögl-Flierl

Mr Shamsuddoha, can you repeat your question please?

Md Shamsuddoha

My question is that I assume that the media houses in western countries are more sensitive than ours. We need a kind of inclusive collaboration between media houses in the global south and the north in terms of capacity building. Do you see any of that?

Michael Brüggemann

In some countries, the media are not as free as in many western countries. There are differences. We know something about Bangladesh but not about China for example. But for Bangladesh, at least we had one PhD student who wrote about climate communication in Bangladesh. It was very interesting as it was pointed out that NGOs play an important role there. That there is really also a void of traditional media coverage, and NGOs play an important role in communicating climate change on the ground.

There was a question about media partnerships between western and southern media. They exist probably but I am not totally aware of them so I couldn't say. I am pretty sure that they exist but they are not that strong. It is something that could or should be established. But then it's also difficult because capacity building sounds nice, but it should not be about us telling them how to communicate as this will not work. How to talk to an audience in Bangladesh is something that a journalist in Bangladesh knows much better than some journalism

professor in the United States or in Germany.

Kerstin Schlögl-Flierl

Alena is the next one on my list.

Alena Buyx

I want to come back to the questions on how to communicate. It is very interesting because there is a fine line between effective communication and knowing your audience on the one hand and manipulation on the other. That's a general issue with any type of communication. But I wanted to push you on one point you underlined which is the suggestion to focus more on the solutions and not so much on the problem. At first glance, it seems like a sensible recommendation. That is something that you hear every once in a while. Is there already some evidence on the best way to do this? Some of the solutions obviously come with complex implications. There are alternative solutions. There is inconsistency in how solutions are assessed and evaluated. So, do you already have a body of research to help us communicate the solutions? Because my hunch would be that you can make a lot of mistakes in communication here too, similar to the ones we have seen in other areas. So I would like to know if you already have some knowledge on this?

Michael Brüggemann

I didn't want to say or imply that we have a list of solutions and that the journalist should then present the solutions or that you or I should do this. I rather wanted to place the discussion about the solutions at the centre. Climate change is a wicked problem, so there is not the one solution to the problem. The problem will not go away. We can only try to deal with it. So there's no clear list of solutions that we can just communicate in a strategic way. We should rather enhance the debate about the solutions. We should really try to explain the complexity. There is no PR strategy on how to communicate the solutions. This is a very complex issue.

If you think about Germany and the debate about how heating in houses can be reformed. It is a complex problem and you have to explain a lot and you have to really get the facts straight. Don't fall victim again to only airing the most extreme voices with the best quotes and the craziest statements. You should really focus on what is the policy that one actor proposes and what are the actual implications and is it useful.

The same thing that could be said for heating can be said for all these debates. It seems to me that in the debate there is a kind of attention disorder, that somehow you can't focus on the actual issue. You get lost with people focussing on the craziest voices in the debate who make very... and partly

factually wrong statements about solutions. This is where we and also journalists have the task of setting the facts straight and correcting the statement each time someone implies, for example, that gas heating will be forbidden in two years although no-one has proposed that. There are disruptive protests on the streets but there are no climate terrorists on the streets. They are not criminals, they are protesters. There is a lot of room for setting the facts straight and just explaining the difference between civil protests and terrorism. What is the difference between forbidding heating? I could go on at length about what could be explained in these debates. You could always try to focus again on what are the different solutions that different actors propose.

Kerstin Schlögl-Flierl

Now it is time to hand over to Ursula Klingmüller and the questions via the livestream.

Ursula Klingmüller

Thank you very much for this fascinating presentation and several ideas that seem to be important when communicating about climate risk. There are several questions that I will try to summarise. One question that we haven't yet touched upon is how could you as a journalist contribute to more comprehensive risk management? How could we communicate in a way that this is better contained?

Michael Brüggemann

In terms of more comprehensive risk management, when I think about the flooding we had in the Ahrtal in Germany, apparently there was over the years very poor preparation for such an incident. This is probably true of many areas in Germany but also around the world. The journalist would actually have to dig very deep into potential future problems. And they are very bad at doing that because they are focussed on current events. Where there is no flooding, the news doesn't focus on potential flooding. But this is what they would have to do. They would have to look at potential future problems and become very well informed about this. How high is the risk of severe flooding and of other extreme events? That is asking a lot. They are not experts in this area. Maybe this is an area where the actual experts need to communicate more. So those researchers who do this kind of research should go to the public and say more clearly that we have this problem. It is severe and in this and this town, there is really a severe problem here of potential flooding or drought or no water if there are hot summers. The woods will die if we don't do anything. Here perhaps there is a need for more proactive communication by those people who specialise in these risks.

Ursula Klingmüller

I see you as a kind of a mediator because these people are usually in their separate communities, and politicians have a short time horizon. This would be a chance for you where you learn from the Ahrtal and also use this as a topic that is looming at other sites. You could maybe trigger a discussion, as there may also be some degree of confusion. There are no activities at this point. Are you engaging in activities to enable us to prepare better for the consequences of climate change? The Ahrtal is just one example, so we will probably have to look around at several sites in order to be much better prepared for these events. You could be a kind of mediator of these discussions. Is there any activity going on that we are not aware of?

Michael Brüggemann

Personally, I am not a climate communication coach although I am kind of acting like one right now. I analyse the debate and I try to identify the problems. I can't at the same time coach journalists. But networks are evolving and for journalism there is a network on climate journalism in Germany and there are also international networks where they do this capacity building that we mentioned. They exchange expertise. So a lot of things are going on.

I would also like to call more strongly for those researchers who are actually working in this very specific risk research to not be afraid to be considered activists. They should go public and warn people about the problems because we can't wait for politicians. They, as you said, like journalists, have a short-term vision. Journalists are focussing on what is happening today. Maybe politicians focus on what is happening on the next couple of months or years ideally. Their vision is also limited by re-election dates and other such things. So here the specialised researchers, not just me in this case, the risk researchers or people who really see the risks have to be much more aggressive in putting this onto the agenda. They should not just say that they are publishing their research in a certain specialist risk journal, that they are now done with their work. They have to go public more.

Ursula Klingmüller

Thank you very much. There was a second question and the two questions were related and perhaps you can very briefly address this. The first one – would the emphasis on communication about the solutions also contribute to higher acceptance of those solutions because people get used to hearing about them? Something about repetitive communication of potential solutions.

Michael Brüggemann

What is the problem about repetitive communication?

Ursula Klingmüller

Would the emphasis on the communication about solutions not also contribute to higher acceptance? We had the problem that people get tired of hearing about this. They think there are solutions, so they don't have to care about the topic anymore. How can we keep this topic interesting?

Michael Brüggemann

Probably, it's about emphasising at the same time that there are several attempts to solve parts of the problem but there is not this one solution that someone will offer me. We will have to keep up the pressure first and foremost on all decision makers in society, on the politicians who make rules that direct society at large towards a more sustainable path. If this pressure is going down at this very moment, people will start to slow down and opt for the more convenient way. That is the problem perhaps with the word "solution". It implies that there is this solution or set of solutions. We just have to apply it. But it's not true. There are some solutions to parts of the problem but only if many of these solutions come together, society at large will move slowly towards shrinking the problem just a little bit.

Ursula Klingmüller

Sometimes, it is also very difficult for the public that there are controversies about solutions. There is no agreement on solutions. At some point, people think that they don't

agree, so we are not going to do anything. Sometimes I think that communication could help to sort this, and inform people better about a potential solution for their particular circumstances that is within their reach and avoid others that are just too far off and which they can't contemplate. What is your experience with this?

Michael Brüggemann

A very short answer. It could be that we should search more for voices with expertise, to really search for those people who, to quote the journalist, carry out research on the solutions or have experience with them rather than those voices who go out and make the most extreme statements about some kinds of solutions.

Ursula Klingmüller

Thank you very much.

Kerstin Schlögl-Flierl

I would like to move on to the last round with all four speakers at the end of this public hearing. We should, we would like to write a paper on normative stances on climate justice. So my question to all four speakers is: what concept of climate justice do you prefer? Or can you frame your concept of climate justice in just a few words? That is our task and we would like you to help us. Who would like to start?

Diarmid Campbell-Lendrum

Thanks. I think maybe we are looking to you as the ethics experts to give the guidance. I think in terms of the general principles from the health perspective that, as I mentioned during my intervention, there are quite well defined medical-ethical principles. They start with first do no harm, and that is something that has guided the health climate justice movement and even some of our practical interventions. Even when we think about the decarbonisation of health care – a sector that contributes about 5 percent to carbon emissions, it does not make the biggest contribution but it is still significant. This is directly linked to the concept of "do no harm" because as health professionals we feel that we should be minimising the damage we do to others. But the list of principles goes on from the medical-ethical side and it is about maximising the benefits, having the consent of those who you are claiming to try to help.

I think from our point of view and our health community which is now very strongly engaged on this issue, we would welcome a reference to those kinds of medical-ethical principles. As I talk through them, I think that this may be quite relevant to our formulation of climate justice from a health and wellbeing point of view. Health and wellbeing writ large for the protection of people in general. Thank you.

Kerstin Schlögl-Flierl

Thank you for the medical-ethical point of view. Mr Shamsuddoha – your recommendations for us.

Md Shamsuddoha

When I was talking about climate change in Paris, I tried to narrate the secondary and tertiary levels of climate change impacts. I would like to relate those secondary and tertiary impacts of climate change to climate justice or injustice. This is my first concern. Another concern is that I would like to really caution the global narrative of climate justice. When we talk about climate justice, we talk [...] amassing more greenhouse gases in the atmosphere. We should also caution the governance failure of national governments because if we fail to ensure governance in terms of climate response and activities, then again this will cause injustice to the communities and peoples affected by climate change. I would like to make a debate between the global narrative of climate justice and how the governance failure... [technical problems] Thank you.

Kerstin Schlögl-Flierl

The internet isn't very good today. It is time for Professor Brüggemann and then Ms Backsen to comment.

Michael Brüggemann

I'm obviously not a professional definer of sustainable climate justice. The basic principle of sustainability is to provide a good life to future generations around the world and not to us alone. This is not new but this is the basis for climate justice. If we are faced with a set of global ecological crises, then everyone must do as much as he and she can. That means our responsibility to act should be in line with our resources. The richer I am, the more power I have in society or compared to other countries, the more I must do.

Kerstin Schlögl-Flierl

So it is a responsibility question. Ms Backsen.

Sophie Backsen

I strongly agree with Mr Brüggemann. Climate justice is a question of global justice and also of course a question of justice for younger and future generations. When I think about society in Germany, then the question of social justice is hugely important and we should try to take on this problem as society as a whole. We should always keep in mind the responsibilities we have for future generations to secure their rights, especially their rights of freedom which will be heavily impacted by global warming and climate change. We should try to take this on as a whole. Of course, as Mr Brüggemann said, each and every one of us

has a responsibility to do something and change their lifestyle. We should keep on pointing to the politicians because they are the ones who are putting in place the major regulations and they are the ones who can contribute to the big problem of emissions and the other big things we have to change. I think it is very important to keep stressing that point. Everyone has to do their part. We have to point out that politicians need to do their job.

Kerstin Schlögl-Flierl

Climate justice is an individual and a collective problem. It is also a task for politicians. Thank you for the last round. I would like to thank all four speakers for your ideas. You can read perhaps something, some ideas in our paper. We will see. We have discussed fruitful and enriching ideas. It is now time to say thank you to all the technical staff behind the scenes and to the translators, thank you so much for everything, and to all you members of the German Ethics Council for your questions. Thank you to all the people in the livestream. You will hear from us. Now it's time for Alena Buyx for the closing words.

Closing words

Alena Buyx

Thank you. I don't have many closing words. I would just like to add my thanks. You haven't made our job easier. Thank

you so much for opening up the complexity of these issues and for allowing us to pester you with a wide range of questions. This has been wonderful. I feel that we have only scratched the surface. But we always say that when we work on these questions. Kerstin Schlögl-Flierl has already thanked everybody so I won't do it again. I would just like to thank her very much as well as Julian Nida-Rümelin and my colleagues from the working group of the Council for preparing this hearing today. Thank you again to our speakers and to everybody on the livestream who has participated and asked questions. Watch this space. We are looking forward to hearing from you at the latest when we put out our report. Have a lovely afternoon and evening. See you soon. Thank you.