

Global Risk Forum GRF Davos

The Climate Change Debate – Eight Key Aspects from an Integrative Risk Management Perspective

1. Climate Change has a severe impact on natural hazards and human well-being.

The number, frequency and intensity of weather and climate related natural hazards and extreme events such as floods, droughts, heat- and cold-waves, hurricanes, and sea level rise are significantly increasing as a direct consequence of global climate change. The combination of such events with a dramatically increasing vulnerability of the world's societies results in an ever-increasing number of disasters. They afflict many if not all regions of the world. Their impact and damage patterns may differ, but their direct and indirect impact in terms of lives lost and livelihoods and economies affected and disrupted tends to fall most heavily on the poor and marginalized, particularly in developing countries. The adverse effects of such disasters as well as other climate-related impacts such as water scarcity, vector borne diseases, poor harvest or even crop loss leading to hunger and malnutrition are putting unbearable and multiple stresses on affected communities with already limited basic access to and capacities in resources, institutions, services and infrastructure. Moreover, climate change is very likely to harm the health of many millions of people, and no country will be spared.

2. Climate change is a humanitarian crisis.

Climate change with its related extreme weather events and disasters affects human beings and their social and economic well-being. It will additionally jeopardize the sustainability of the global development process, the attainment of the Millennium Development Goals (MDGs), and undermine any progress made in poverty reduction. Once more, the world's poorest – those who are least responsible for climate change – are suffering its impacts the most. The consequences leave people and communities in a desperate cycle of poverty, malnutrition and diseases. Climate change thus is not just of environmental but equally of serious humanitarian concern. It heavily affects human health, human rights, social welfare, food security, political stability and the foundations of socio-economic and sustainable development world-wide. Climate change thus primarily unveils a tragic human side urging those nations who are emitting most and thus contribute most to climate change to assume their ultimate responsibility. Climate change with its frightening consequences represents an additional unbearable burden to the world's poorest. The human tragedy of climate change is global. Worldwide solidarity is therefore needed to meet the challenges imposed by climate change.

3. Climate change affects humans disproportionately and calls for global solidarity and climate justice.

In an already ecologically, socially and economically fragile world, climate change is having a disproportionate and adverse impact on the world's most vulnerable populations, placing them under additional and multiple stresses. The growing intensity of climate change is set to create one of the most significant humanitarian challenges of our time. Many of the world's poor, marginalized and vulnerable already live in harsh environments, in communities lacking even the most basic achievements and services, and many already struggle to ensure their own survival or that of their family. Some 80% of the world's population live in developing countries and contribute, on a per capita basis, to very significantly less greenhouse gas emissions than advanced economies. The poor and vulnerable require bold and sustained support to adapt to climate change and to limit emissions associated with new or continued development.

According to recent studies, a total of 150 - 200 billion US\$ has to be spent per year to cope with the consequences of climate change – with half of the sum in developing countries. An international transfer mechanism should therefore be established that enables the developing countries to invest in effective coping strategies and projects, underpinned by knowledge and technology transfer, and capacity building. Every polluter is a global player in terms of the widespread and distant impacts of emissions. Polluters, and above all the well advanced economies, have an obligation to enable developing countries to pursue sustainable socio-economic growth. *Climate justice* is realized when polluters take responsibility for their actions on a global level. Climate justice should be the basis of the international community's responses to climate change and of any future global climate agreement and needs to be prominently integrated in political agendas.

4. Climate change adaptation prevents conflicts triggered by environmental migration.

Disasters due to natural hazards and extreme events cause enormous losses of people and livestock every year. In addition, destroyed homes and infrastructure, failed harvests and perished livestock, the diminishing availability of basic resources such as water and food, and the expansion of vector-borne diseases feature severe economic impact and productivity fall-offs. At the same time, climate change in many regions of the world, but in particular in Sub-Saharan Africa and large parts of Asia is diminishing basic resources, such as freshwater, grass-, and arable land. Soil erosion will intensify land degradation, and floods and sea-level rise threatens societies in the coastal zones. As a result, political tensions and social unrest may lead to instability and violence in a number of the worst affected countries. In an already difficult political context and in a number of fragile states, such tensions can jeopardise national and regional stability and security.

At any rate, these scarcities force inhabitants to leave their homelands, making them move within their own country, eventually to a neighbouring country or even to a different region or continent. The International Organisation for Migration IOM estimates that by the year 2050 over 200 million people will be environmentally induced migrants or "environmental refugees" without the legal status of refugees. Effective adaptation measures reduce the risks for

people exposed to climate change, improving the security of vulnerable populations. Empowering the worst affected and most vulnerable populations to adapt to climate change is therefore an investment in human security and conflict prevention and will substantially reduce the number of environmentally induced migrants and increase stability.

5. Climate change necessitates a redefinition of the UN Millennium Development Goals

When the Millennium Development Goals MDGs were agreed upon in 2000, climate change was not seriously taken into consideration. Meanwhile, it has become an obvious and serious threat to almost the entire spectrum of development targets and any progress made so far. Therefore, human development can only be sustainable if it is climate-proofed. Also, adaptation to climate change is more effective when implemented in combination with development strategies while development itself can become a very effective form of adaptation for most vulnerable communities. To cope with the impacts of climate change, a redefinition of the global development goals and hence the MDGs is needed to fully reflect the interwoven nature of these issues. In addition, governments and international institutions should encourage investment in climate-protective, sustainable business in order to accelerate private sector driven adaptation, particularly in least developed economies. The “P8 Initiative” established and promoted by HRH the Prince of Wales, is a valuable example in that direction.

6. Climate change mitigation and adaptation have to be harmonized with integrative disaster risk reduction.

Measures taken to prevent or reduce the impact of natural hazards are valuable climate change adaptation efforts. Climate change adaptation with respect to natural hazards is most effective when investing in preventive measures. On the other hand, the long-term benefits of effective risk reduction strategies are still insufficiently recognized. Coping with disasters is still dominated by response and recovery – even though preventive measures are proven to be much more cost effective. Obviously, we lack economic and political incentives for local governments to invest in natural disaster prevention, as stated by Kofi Annan, former UN Secretary General: «The benefits of prevention are not tangible; they are the disasters that did not happen». Mainstreaming climate change adaptation with risk and disaster reduction efforts clearly reveals huge benefits for both sets of stakeholders, as they improve their strategies and action at all levels and sectors through collaboration. Whereas know-how in disaster prevention is well established but in practice still dominated by response and recovery activities, the public awareness of climate change adaptation in terms of preventive measures seems to be raised easier.

From a fiscal perspective, the links between mitigation, adaptation and integrative disaster risk reduction open opportunities of access to financial resources allocated to mitigation and adaptation measures. Access to mitigation funds is even more important as most of the revenues from emission trading and taxes nowadays go into these funds whereas only limited financial support is available for adaptation measures. It is important that future political debates pay equal attention to the allocation of these two funding schemes. Each

country should therefore not only have a climate change mitigation strategy in place but also an adaptation strategy with a strong link to an integrative disaster risk reduction approach. Such an adaptation strategy should deal with all the relevant sectors such as health, water, agriculture, fisheries, energy, finance, biodiversity, science, and other country specific sectors and would itself have to be an adaptive and not only linear strategy.

7. Climate change calls for new investments for green and clean technology.

In particular green and clean technology has to become the future standard for the production and distribution of goods and services, and has to be made accessible for developing countries. To give one example, the lack of modern forms of energy for some 1.6 billion people is a major impediment to the development progress. Therefore, there is an urgent need to energize development and the MDGs by providing access to modern and wherever possible renewable energy sources and services especially for the poor. An environmental friendly energy supply will be an additional positive contribution towards resolving the climate problem.

8. Climate change requires action-driven leadership, global stakeholder engagement and the empowerment of people.

Climate change has long been understood as restricted to an environmental and ecological concern, thus focused on natural sciences, and as a problem to be solved only in the distant future. Science will remain an important role in the future, but time has come to reflect on how to overcome the current transition phase from the science driven gain-in-knowledge phase to the problem-driven adaptation and mitigation phase, based on easy and timely availability of applicable know-how worldwide. Leadership has to move from science to practice, and from the status of scientific understanding of the process of climate change toward problem driven options and solutions.

Successful mitigation and adaptation strategies must be implemented immediately, and have to be effective and efficient. There is no time for lengthy disputes on definitions and respective roles among scientists, institutions, politicians, funding agencies, or the private sector. There is worldwide consensus that climate change is man-made. Both mitigation and adaptation ask for participative solutions where many different stakeholder groups have to contribute – science, politics, the private sector, and society as a whole. A global brain trust is needed searching for options and solutions with a unique spirit of *climate responsible entrepreneurship* to accelerate the spread-out of applicable solutions and green and clean technologies. Moreover, mitigation and adaptation must be addressed at all levels of political action, be it the national, regional or local level. Good governance rules for a holistic, integrative risk management process have to be established, and funds for appropriate actions made available. Much of the adaptation physically takes place at the local level and must be appropriate to the immense diversity of social, environmental and economic settings. For this it is imperative that citizens affected by climate change are actively involved in evolving adaptation strategies, and empowered and informed so as to implement them effectively.