The Heiligendamm G8 Summit in June, 2007 will not be about the G8 countries, or the rich world, as it was when the Summit tradition got started. This year's G8 Summit will be about the world, nothing less. Global summits have a great legitimacy problem, because, until very recently, they have been about rich countries pretending to decide global problems, even though the rich world represents only one out of six people on the planet. Therefore, the meaning and purpose of such summits have come into deep question in recent years.

The challenge of legitimizing such global meetings is now being addressed in two ways. First, on the rhetorical and political levels, the rich countries have begun to recognise their responsibility to the world, such that the discussions have begun to shift from "What's in it for us?" to 'What are we going to do for the world?". Second, the list of participants has been broadened; as a routine matter, leaders from developing countries in all parts of the world – Brazil, Mexico, China, India, South Africa and others -- are invited as well. That is absolutely essential, because, in today's world, no country can speak for another with much legitimacy, and none of the problems we grapple with can be solved by one part of the world alone. In all of our summits, we try to find peaceful development and global approaches to truly global challenges. If we do not understand that, and if we fail, these summits mean nothing and our world gets into even greater peril. Making the most of the Heiligendamm Summit will help to make our world survivable in a very dangerous age.

We have several distinct, urgent challenges that should be at the top of the list. Our planet is crowded in several ways. In my opinion, there are three dominant risks of our time. The first is the challenge of a physical environment being overwhelmed by human activity. Noble Prize winner Paul Crutzen has declared, that we live in the Anthropocene, a new geologic era that is dominated by human activity, where human beings dominate natural

physical cycles – of carbon, water, nitrogen, species extinction and habitat loss -- to an unprecedented and extraordinarily dangerous extent.

The second great challenge is that of an interconnected world, in which people in different regions face vastly different prospects of economic well-being. Because we are all interconnected, our fates are intertwined in a unique way. We learn throughout history that our fates are always intertwined more than we believe them to be, but now we know that there is absolutely no such thing as a distant and far away place. There is no part of the world that cannot do profound damage to any other part of the world, or contribute in some way to human well-being. Yet we have a planet that is divided along wealth lines as never before, and poverty so desperate that life is a daily struggle to stay alive.

One billion of us live in the rich world, with an average income of about thirty thousand dollars per year, while many among us have annual incomes of millions of dollars, and one thousand of us have fortunes of more than one *billion* dollars -- more money than anyone could conceivably spend in many lifetimes. At the same time, there are another billion people who do not have an assured meal on any given day, who have water so dirty that you or I would not drink it even once, much less on a daily basis. They live in places where a single mosquito bite can kill, because there are no insecticide-treated bed-nets or readily available one-dollar medicines to decisively end the malaria infection. Such are the vast differences between different parts of the world that can lead to such disarray, as in Afghanistan, Somalia and Darfur. Disaster struck in those places because of poverty first, not politics. We must understand the nature of the challenge we face in those places, which is not fundamentally political. The challenge is fundamentally economic and ecological.

The third challenge is living together on a crowded planet. In the United States, we have forgotten that coexisting means talking with each other. That's why summits can be so important. American politicians and diplomats now set preconditions to talk. It is an absurdity not to talk to Iran, or to North Korea, or to a freely elected Palestinian government,

until conditions are met. It is also a danger for the whole planet, because the beginning of understanding is an interchange of ideas. We somehow misunderstood the events of history to mean that talk is appearement and that merely sitting down to have a discussion means surrendering our freedom. We suffer mightily from this profound misconception.

A successful summit must be about three things. First, it has to be about solving an ecological crisis of unprecedented proportions that is worsening dramatically. Second, it has to be about a crisis of planetary inequality, because one billion of us on the planet are engaged in a fight for daily survival and ten million of them die every year because they are too poor to stay alive. Third, it has to be about honest discussion without preconditions and peaceful solutions to problems, rather than solutions that involve threats, sanctions, and bombs.

How can we achieve something practical through the upcoming G8 Summit? Let me start with the ecological challenge. We have already made promises regarding climate change, but have not fulfilled them. For climate change as well as for poverty, we do not need new promises. We need to follow through on the promises we have already made. In the case of climate, there already is a world-wide agreement on climate, the UN Framework Convention on Climate Change, ratified in 1994. That document recognizes the basic needs of our stressed planet for a shared global commitment of 190 countries, including the United States and other non-actors under the current system, to take measures to stabilise greenhouse gas concentrations in the atmosphere and to "avoid dangerous anthropogenic interference in the climate system". The Heiligendamm Summit needs to take a practical step forward to achieve that. The Kyoto Protocol was one small step forward, since the limits on emissions it set are too small to make a material difference towards stabilization, and it applies to too few countries.

So what should Heiligendamm aim to achieve? The Summit can accomplish a very basic and important task: setting the foundation for a post-Kyoto Protocol world, one that makes commitments in conformity with the objectives that we set for ourselves in 1992. How

can this be done? I hope and expect that the participants in this Summit -- the G8 plus the invited developing countries – will agree that the 13<sup>th</sup> meeting of the parties of the UN Framework Convention in Bali in December of 2007 will be committed to a Post-Kyoto agreement that will be sufficient to seriously address the challenge of climate change. Unlike the Kyoto Protocol, this agreement should have universal obligations, with no division between Annex-I and Annex-II (developed and developing) countries. Though that may seem unfair to some, the reality is that China is about to become the world's largest emitter of energy based carbon dioxide missions. Soon it will be far and away the largest emitter. There will be no solution to the problem of climate change without China agreeing to a binding set of objectives. India will become a major emitter in short order as well. Countries such as the United States and Australia, which are not parties to Kyoto, as well as those such as Canada, which are signatories but have not met their commitments, will have to commit to the same objectives. The first step will be securing a truly global agreement.

The second step will have to be bold, long-term goals to mid-century, as well as short-term objectives. We have to agree what it means quantitatively to "avoid dangerous anthropogenic interference," whether it is to avoid atmospheric carbon concentrations exceeding 500 parts per million (ppm), or to avoid a two degree Celsius rise in average temperatures. That quantitative limit can then be translated into a policy regime that can achieve that objective. In my view, the best approach is to state a target ceiling for atmospheric carbon dioxide concentrations and similar targets for the other five major greenhouse gases, with emissions and concentration targets set at regular intervals along a long-term 21st century course. This can be agreed in the COP 13 and follow-up negotiations and be suitably revised over time as new scientific evidence pushes us towards tighter or less stringent standards over time.

The third step is to agree that there needs to be a market price of carbon emissions.

This is the market incentive will underpin action, whether it is an extension of the trading

system in Europe, or carbon taxation, or other kinds of levies. A Summit cannot decide the specific modality, but the principle of a world market price charged for carbon emissions can be accepted.

The fourth is that there needs to be a major effort on technology for energy efficiency, for new energy sources, and, crucially, for using fossil fuels in an environmentally safe manner through carbon capture and sequestration technologies.

Fifth is suitable financing from the rich countries for adaptation efforts within the rich countries and the poor countries. Climate change is not only a static reality; it is going to get a lot worse in the next 50 years, no matter what we do. We have enough thermal inertia in the climate system to get at least another half a degree Celsius of warming as the oceans catch up with the land warming, even if we do not emit one more ton of carbon dioxide into the atmosphere. We will face drought, adverse retiming of snowmelt in the Himalayas, the disappearance of glaciers that provide water for irrigation and drinking water, and other profound stresses, even if we were to stop emitting today. Because we will continue to emit and the climate will continue to change for decades to come, adaptation is necessary.

So the first thing Heiligendamm can do is to guarantee that we're on a track to reach a global agreement. We cannot negotiate the details at a Summit, but we can agree on the principles that will guide the negotiations that will follow the Summit. The second thing the Summit can do is to take very practical steps now, even before a global agreement is reached.

There are two practical things we can do at this Summit: we can commit funding for demonstration projects of crucial technologies and create a mechanism by which poor countries in the equatorial rainforest belt can get compensated to avoid deforestation.

In my view, the most important of the technologies is carbon capture and sequestration. China and India have enough coal by themselves to wreck the planet, and coal is the cheapest source of energy for them. We have to make sure that low-carbon coal is made to work, because our next best options are miserable, compared with safe coal. We

need demonstration projects, such as the Vattenfall Project in Germany and other projects around Europe. But we also need such projects in India, China, the United States, Brazil, Russia, Australia, and Indonesia. There is no time to lose, so I urge us to agree to a worldwide demonstration programme to test carbon capture and sequestration.

We know that deforestation is responsible for about 20-25% of the total carbon dioxide emitted on the planet. The leadership in rainforest countries has been coming to me and to others saying that they want to stop deforestation, but their farmers get paid, loggers, and others who are responsible for deforestation in the Amazon need financial incentive to stop deforestation. That is true not only for the Amazon, but for the Congo Basin, for Papua New Guinea, and others. There should be a financial incentive in place to help these countries stop deforestation. This would help secure three global public goods by reducing poverty, sequestering carbon biologically, and conserving biodiversity.

The other side of the challenge of a civilized and safe planet is reconciling the unprecedented, tremendous wealth of certain individuals with the inconceivable poverty that still exists for others. Seven years ago, the Millennium Development Goals (MDGs) were put forth to do just that. The Heiligendamm Summit comes mid-way in the MDGs' 15-year agenda to halve hunger and poverty, to cut child mortality by two thirds and maternal mortality by three fourths by the year 2015. Heiligendamm must not take this on grudgingly, but with energy, ingenuity, commitment, excitement and a sense of privilege. Germany has a chance to lead and the fight against extreme poverty, one of the great challenges of decency and survival for millions who are dying every year.

As with the climate, we must be practical and remember our commitments. The main commitment we made was to partner with the poorest countries to help them meet the MDGs. In 2002, at the Monterey Meeting on Financing for Development, achieving the MDGs was put in financial terms. The Monterey Consensus, which came out of that meeting, says that

"we urge developed countries that have not done so to make concrete efforts toward the international target of 0.7% of gross national product as official development assistance." At Gleneagles in 2005, those words were taken to heart by members of the European Union, although not by the United States. Europe promised to reach 0.51% of GNP in development assistance by 2010 and 0.7% by 2015. For Germany reaching, 0.51% means essentially an increase of 0.16% of GNP over the next three years. That is manageable and should be accomplished with enthusiasm. That money will save lives, create livelihoods, and help bring peace.

There is one very simple recommendation I would give: no new promises, only follow through. But rather than making it a guessing game, we should set a proper timetable for action, which allocates who is going to increase aid by what amounts and on what schedule up to the year 2010.

There is no way to usefully use \$50 billion per year without proper planning. If countries are told to make plans for increased aid flows without guarantees that the aid will come, we will continue to see the terrible self-fulfilling cycle by which donors withhold aid because they argue that there is no capacity to absorb aid. Aid recipients are told that, despite the political commitments to increase aid, there is no way of knowing if, when, or how the aid will actually come. Thus they're unable to plan, to start training doctors and nurses, to build clinics, because they don't know if the money will be available. Though that may be prudent accounting, it is not ending poverty and it is not helping to meet the MDGs, nor is it responsible stewardship by the rich world of its commitments.

The profound breakthrough would be if the rich countries made clear the specific timetables for the yearly increase in aid to 2010, so that well-governed countries in Africa could begin acting now. They could know that when aid goes from \$40 per capita to \$80 per capita, there will be financing for them to train and hire more nurses, community health

workers, malaria medicines, anti-retroviral drugs, school construction, and new teachers on a payroll backed by development assistance.

Germany's could lead such an effort without adding a single penny of promised aid. It would simply put into operation the commitments that have been made, which are so urgently needed for success. There are a few other major problems that could be dealt with very quickly. There is no lower hanging fruit on the entire planet than controlling malaria. This disease is preposterous and tragic, because it will claim two million lives this year and yet it is one hundred percent treatable with a one dollar medicine. We let people die of malaria by the millions for no reason at all. Malaria is controllable by mass use of insecticide treated bednets, which prevent infection, and can be treated by artemisin-combination therapies, drugs that clear infection when it occurs. In some ecological contexts, indoor residual spraying with insecticides and other methods of vector control are appropriate as well. That package is the unbelievable bargain of our time. There are approximately three hundred million sleeping sites in regions of Africa that transmit malaria. The bed-nets are made by BASF, Vestergaard in Denmark, and Sumitomo Chemical in Japan, and they cost five dollars and last five years. Since two children often share a sleeping site, one dollar per net per year could mean sixty cents per child per year. They are remarkably effective and affordable, yet they still cover a tiny fraction of those who need them.

300 million sleeping sites multiplied by five dollars is \$1.5 billion. The requested US military budget of \$660 billion – more than all of the rest of the world combined – for 2008 comes out to \$1.8 billion per day. Covering every sleeping site in Africa with an insecticide treated bed-net for five years would cost roughly 20 hours of Pentagon spending. If we add the medicines, the community health workers, the rapid diagnostic test, the microscopy and so forth, my colleagues and I have estimated that it requires \$3 billion per year in Sub-Saharan Africa to comprehensively control malaria. Three billion dollars: there are one billion of us in the rich world, whose governments will be at Heiligendamm. Three dollars – one cup of

coffee-- from each of us per year would suffice to accomplish the goal of saving one to two million children per year. How can we not do that?

The work of the UN Millennium Project has taught us that holistic approaches to meeting the Millennium Development Goals -- fighting disease, empowering women, introducing family planning, introducing clinical health services, empowering farmers -- cost fifty to sixty dollars per capita from outside donors in rural areas. That includes controlling the major diseases (Malaria, AIDS, and TB), providing clinical health services, doubling or tripling farm productivity by helping small holder farmers get access to inputs of high-yield seed and fertilizer, digging safe water points and protecting them, introducing supplemental irrigation for drought-stressed and drought-vulnerable regions and the rest. The cost of those interventions would amount to roughly 0.55 percent of rich world GNP.

Based on those recommendations, UNDP, the Earth Institute at Columbia University which I am honoured to direct -- and a non-governmental organisation called Millennium
Promise have started the Millennium Villages Project in Africa. We've been putting these
ideas to the test with remarkable results. Within a year or two, villages go from hunger to
food surplus; malaria is reduced by 80 or 90 percent; within a few months, one hundred
percent of the children are in school thanks to free school feeding programs. In ten countries
across the continent, this project is showing tremendous results. More and more countries
are asking to be included. And so I'd like to say to the Summit governments that we don't
need long studies for years to come, or teams of consultants in offices; we need practical
approaches on the ground, to grow more food, control malaria, treat HIV infected individuals
and restore hope to the continent. Let that be the promise of Heiligendamm.