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Excellencies,
Distinguishes ladies and gentlemen,

I am happy to be able to speak to you in this manner but I do apologize for not being present physically on this occasion. Unfortunately there were circumstances which just did not allow me to join you, much as I would have liked to be in your beautiful country, Morocco, and in Rabat.

I think this is an extremely important conference, and what I would like to do, with your kind indulgence, is to present a few points that have come out from the fourth assessment report of the IPCC, which will be of relevance for people in the region and for all the people in the world across the globe.

What we have found in the fourth assessment report is firstly, the fact that warming of the climate system is unequivocal and therefore I think that the time has come for the global community to accept the fact that climate change is taking place and also, the fact that, the bulk of changes that have taken place at least in the last five decades are the results of human actions. And if that is the case, then, clearly, we all have to rise to the occasion and to be able to meet this challenge. Essentially this challenge will require both adaptation measures as well as mitigation and I am going to explain, very briefly, why we have to worry about both of these aspects, because if we start looking at the impacts of climate change, then they are going to be varied, they are already being observed and experienced, and therefore we have to ensure that we arrest the situation and stabilize the climate of this planet so that some of these impacts don't worsen over a period of time.

Now what we have found for instance, from the findings of the fourth assessment report is the fact that precipitation patterns are changing. Typically, we find that those areas which are in the upper latitudes are experiencing an increase in precipitation but others in the tropics, in the sub-tropics, are finding a decline.

Of particular relevance, is the Mediterranean region where, clearly, there is a perceptible reduction in precipitation levels, and from that point of view, certainly Morocco is being affected quite seriously. We also know that extreme precipitation events are on the increase. And this really means that, in very short periods of time, we might get excessive quantities of rainfall which make it very difficult for human society to make use of the resource that we get in the form of water, through precipitation.

There are other impacts which we have to be concerned about, for instance heat waves, floods and droughts are on the increase. At the same time we know that impacts on agriculture, health are harmful, so also in the case of ecosystems. So, most of the African continent has to be quite concerned about the impacts on agriculture because there is already evidence that yields of some very important crops are going down quite significantly.

In fact we have projected in the fourth IPCC assessment report that as early as 2020, some African countries may experience a decline in the agricultural yields of certain crops by as much as 50% and unfortunately this is likely to happen in those countries where there is already excessive malnutrition and hunger and therefore, if we see a decline in yields, some of these societies would find it very difficult to feed their populations because they don't even have the resources by which they may be able to bring about major imports of food grains in the coming years.

Other impacts of climate change include effects on human health and certainly when you have larger incidence and larger frequency and intensity of floods and droughts and of course heat waves, then there are clearly health impacts we have to be concerned about.

Health impacts will also take place in the form of vector-borne diseases that are on the increase, so all of this means that human society has to do everything possible to bring about a stabilization of climate.

But we also note that there is a certain amount of inertia in the system as a result of which, even if we were to stabilize emissions of green house gases at current levels today or bring them down to zero, the inertia in the system will continue with climate change for several decades, and therefore, it is inevitable that we will have to face the consequences of the impacts of climate change. This means that human society has to adapt to these inevitable changes that are going to take place. And therefore I would like to submit that we have to come up with adaptation strategies.

Some of these will require better information systems by which societies, for instance, can be informed about extreme events before they occur so that the proper measures can be taken to safeguard lives and property. But in several cases, we might need to bring about revamping of infrastructure and this will include dams where, for instance, there are changes in precipitation patterns which might require a complete revamping of the engineering of those dams. We would need to bring about changes in drainage systems because, with extreme precipitation events, it's entirely possible that drainage systems be stressed and tested in periods of extreme precipitation which, let us say, occurred once in fifty years, but now are likely to occur once in five years. Then, clearly we have to ensure that drainage infrastructure will have to be changed to reflect these projected increases in the frequency and intensive of extreme precipitation events.

There are some parts of the world that are particularly vulnerable to the rise in sea-water levels. This includes small island states and several locations that have very low line coastal areas and clearly they are going to be very vulnerable to sea-level rise as we find already because in the case of this particular factor, during the 20th century, the sea level increased by about 17 centimeters and for some countries, like the Maldives Islands, that clearly is a very serious development because, what would happen, is that since the land area there is barely a meter or so, every time there is a weather event like a storm surge or a cyclone, then the extent of devastation that would take place will be much higher. So in order to protect some of the most vulnerable regions in the world and, of course, every other place on the planet, it is essential that we stabilize the earth's climate by reducing the emissions of green house gases.

Now, we have found in the IPCC that in order to stabilize temperature increase to, say between 2 degrees Celsius and 2,4 degrees Celsius, we will have to ensure that global emissions of green gases peak no later than 2015. Now this means the world has a very short window of opportunity and it is for this reason that the Copenhagen conference of the parties where we hope we will arrive at an agreement by which the world starts taking this problem seriously, and starts acting to manage it effectively; that Copenhagen gives us an agreement wherein, at least, the developed countries bring about a sharp reduction in emissions by 2020. Because, let me go back Distinguished ladies and gentlemen, to what I said: if emissions have to peak by 2015, then clearly, we have to ensure that we set ourselves some very clear and very firm targets by which emissions are reduced substantially by 2020, or else, this date of peaking will be shifted substantially into the future, and that will only increase the severity of climate change and therefore, the impacts which could become much worse.

Now, as it happens, mitigation is quite an attractive option. It is not costly. As a matter of fact, there are also a whole range of co-benefits associated with mitigation and these include, certainly lower levels of air pollution at the local level, which provide enormous health benefits, there will be much greater energy security, there would be much greater employment as a result, and certainly, a stabilization of agricultural yields which otherwise might decline in several parts of the world with the impacts of climate change.

Now what is it that a country like Morocco can do?

Here, may I submit that, firstly, you need to come up with a clear assessment of the impacts of climate change and therefore devise a set of adaptation measures that would take care of those impacts, particularly those that are inevitable even if you bring about a stabilization of emissions at levels that are currently experienced.

Secondly, Morocco would have to see how it can bring about mitigation of emissions of green gases, and clearly, there are opportunities for that, but I would even go beyond. You know that there is a large area of land in Morocco, in the surrounding areas, in neighbouring countries, where you get excellent sunshine, sunshine throughout the year; and I am very happy to see that the European Unions in now showing interest in the possibility of large scale solar-thermal power generation which would allow areas in Morocco and in surrounding and neighbouring countries to generate large scale electricity using solar energy. And this electricity can then be exported to Europe. So the point I would like to make is that mitigation measures also open up a whole lot of business opportunities, a whole lot of opportunities for economic development in those regions which have an abundance of valuable sources of energy.

So, I think the agenda is very clear. I think a country like Morocco has to first, assess the projected impacts of climate change, come up with a strategy for adaptation which would involve, not only changing institutions and ensuring that institutions that already exist are able to deal with the impacts of climate change but also, perhaps revamping some of the infrastructure in dams, water treatment and water redistribution systems, as well as drainage systems, etc.

Here may I, in conclusion, also mention that water is going to be a critical resource that is going to be stressed very heavily as a result of the impacts of climate change. And I think that is where one may have to redesign some of the institutions and the policies by which water is managed because that would clearly be of great benefit to the people of Morocco and the neighboring countries as well. But then, most importantly, I think we have to come up with mitigation measures and this is where the developed world has really to take the lead; but if they take the lead, there will also be opportunities for a country like Morocco, as I indicated, to generate large quantities of electricity using solar energy. There would also be benefits to Morocco in using some of that energy locally, domestically.

So, I think what we have is a set of challenges that require really detailed scientific analysis and would certainly require a great deal of policy support, but, if we start early, if we understand what the future holds for us, then clearly, some of these solutions will turn out to be to the benefit of the societies where they are being implemented and for the world as a whole. Overall, may I say, these would lead to economic welfare not only for the people who are implementing these solutions but also for the rest of the world. That is why I think it is critically important to ensure that we bring about a new era of cooperation between countries and between societies because this is a common problem that all of us face. Even though responsibilities are differentiated we must remember that all of us have to be part of the solution. If we are not, then we will continue to remain part of the problem.

So thank you very much for giving me this opportunity and I hope you have an extremely productive and useful conference and thank you for having invited me. I wish I was there but I certainly look forward to being in Morocco sometime in the very near future.