Introduction

I am pleased to be here because I have just come from Philippines. Where I spent a large part of last week in the province of Tacloban, where the strongest storm in human history to hit a populated area hit the Philippines about six months ago. I have moved from climate sublime to climate ridiculous here, where you see the black carbon having the effect the minister referred to. I was sitting in a village of farmers who were trying to build back their irrigation system so it would resilient till the next storm, and I was explaining where I am going next and it was a very interesting conversation. They asked me, how climate change is affecting the lives here. Without having been here but read about it, I explained there was an impact for the people and economy here as well. They said with gods will we will be resilient too, but we have nothing. It is close to nothing except their fortitude, creativity and inventiveness.

When you sat on irrigation dam and looked a few kilometers across land which has been completely laid to waste and there is the ocean and there is nothing between them and the ocean. That ocean now storm surges at a projected rate they are not resilient to. The cost of that is incredibly in human lives, still more than 1 million people without housing, let alone resilient housing, hundreds and thousands without employment and the effective absolute poverty rate went in a three day period from being about 40 percent to about 55 percent. That is the cost we are talking about, the cost of pushing progress backwards. As we think about how to explain this challenge in terms that people outside this room understand, the cost of inaction over the cost of action, which so clearly came across in the latest IPCC reports, is one of the ways to get a broader sway of attention than we have been successful in getting in the past 20 years.

So what I would like to is honor the people I sat with last week and try to talk about our effective goal, which is to be carbon neutral by the second half of this century, and not get to hung up on the degrees. To work back and think about what that means in terms of how we will manage a global economy differently. Now a lot of this is quite well known but we are still having a hard time putting it all together. We are still having a hard time fitting the global economic retooling conversation into a conversation about adaptation, mitigation and now increasingly loss and damage. I think we have two lexicons, two frameworks. When I say we I mean the global broader community. There is still some way to go in terms of tying all this together.

So if indeed our goal is to be carbon neutral by the second half of this century, then if we work back we have a lot to do inside the current economy. A lot to do that in some cases you can see is beginning to happen but a lot at the speed and scale that has eluded us till now.

Efficiency

The first is really the question of efficiency within the economy. This is an enormously inefficient global economy. Inefficient in the way we use energy and price it. Inefficient in the way we manage our food system and price it as well. Highly inefficient in the way in which we manage our water system. This inefficiency is costing us dearly. Efficiency is a complicated issue when it comes to economics and finance but also because it compounds with human behavior, both at the individual and system level. While there have been individual pockets of efficiency both in industry sectors and individual economies, we have yet to see a broad sway of move to the kind of efficiency in the throughput of resources that we will really need as we move forward. So the simple answer to that is to put a price on it, to put a price on carbon that is. We argue that is the most important thing to be done. It is necessary and yet insufficient for the kind of change we need to see.

Putting Price on Carbon

Putting a price on carbon would be an essential signal within the economy that investors and others would head. But there is also a social cost to carbon that we are not very good at measuring in relative terms yet and the measurements are not consistently applied within economic models. The social costs are those who die result of black carbon in the local air environment, the lost productivity as cities become places where people don't want to invest, cities where people find it difficult to get from a to b. Social cost is not something we are effectively running through all our models and helping to make different decisions.

We know already that a polluted environment from carbon and other GHG gases also relates to an economic degradation that is on average worth 8 percent of GDP in the developing world. So the effect on the natural environment as well as on land and forests is substantial. So we are truly in this ever-diminishing circle. Can we put an effective price on carbon now? Yes. Many of my colleagues are involved this week in Carbon Expo, we're just having a Partnership for Market Readiness meeting yesterday and today where 22 countries and many others who are already pricing carbon or planning to meet to talk about how to do it.

We estimate that about 20% of global emissions are coming from an economy with some form of price on carbon already. So I think there's definitely momentum in the right direction. The question is how to push that through all economies sooner rather than later on the basis that they can understand that efficiency that will be effective for them.

Removing harmful policies

The third thing that we need to do to get to this carbon neutral world is a much smarter public policy which allows free financing to be redirected. That's about removing harmful policies as we already mentioned and it's not just harmful fossil fuel subsidies, it's also agricultural policies and others that don't effectively allow land to be managed in the most productive way.

Now, to move smart public policy requires a smart public debate about what we're doing with our fiscal policy and what the pressures are on our jobs and competitiveness going forward. And this is where I think we absolutely have to make a breakthrough. The single most gripping issue of international economic management today for all of Tina's colleagues in government on the financial side, and I think this would be true of most countries, is the prospect of how to grow and create jobs at the same time.

That's today's electoral issue. And so we have to find some way to address today's electoral issue, bringing in the concepts of short, medium and long term that we understand climate poses. The costs of inaction have to be brought into that debate. And I think this is where we've still got much more work to do in terms of job creation, in low carbon resilient development, understanding what are the needs of that different forming of the economy going forward.

So smart public policy we know can have a huge impact. We also know that for example the introduction of performance standards in an economy, whether it be building standards or fuel efficiency standards for cars, etc., when done properly can produce enormous investments. And I think it was the International Energy Agency that came out with a figure that said that these kinds of performance standards in 2012 had produced about $300 billion worth of investment in the economies that had pursued them.

This smart public policy also relates to one of the great engines of growth and those are today's cities. And they will have to obviously grow equal but differently. That's going to require a different but benign form of public policy at the central level and a different capability in the management of cities going forward.

So, after I'd been in Tacloban I was in Manila, where we've spent a long time working with the government on what the master flood management plan for Manila will look like. That's an $8billion worth investment into one of the fastest growing metro areas in Southeast Asia. You could replicate the same kind of scenario for Jakarta and many other cities that are coastal. Of course for Manila, it falls between the ocean and the bay and the mismanagement of the natural environment, the growth of the city, and its geography, i.e., right in the middle of a much broadened typhoon alley with much more intense storms expected in the next 20 years and also on the ring of fire mean that this is one of the most vulnerable places in the world to live. So, with huge public works, but also with enormous social development and housing development it will be possible to protect more citizens of Manila going forward, but at huge public cost.

And obviously there's a huge role for private sector as well but they require a governance by central government and by metro Manila government and then by local cities within metro Manila, which would require a normal level of capability management capacity and bandwidth, financial modeling, hydrometeorological modeling, which is simply not available to a country like the Philippines despite the fact that it has grown 6-7 percentage points a year and it is one of the success stories in the region.

So we're extremely pragmatic about what we're really talking about when we talk about low carbon and resilient growth. We're talking about taking cities like Manila and putting amazing investment resources at their disposal with an awful lot of technical science and capability that isn't simply there for them today. Now the good news in Manila is that they can actually afford to invest a lot of this themselves and they have a government that has a vision for inclusive growth. They don't talk about climate change, only inclusive growth but in that inclusion is the factoring in of the resilience necessary to get the inclusive growth that they need.

Now, if we have efficiency, and we have a carbon price, and we have smart public policy and fiscal policy that actually rewarded the kind of investments that we want for the future, we then would have to have within that investment climate a much more energetic investment in new forms of forest management, new forms of agricultural management, and of course renewable energy. This requires the putting in place of policy. But what I would say as a development professional, it's not just putting the policy on the books, it's the actual implementation of that policy.

And again and again and again we see the beginnings of what we think would be a tipping point in the way in which renewables are being incentivized in different economies but the actual execution of those fits and tariff rates and new positive regimes is leaving a little bit to be desired. And of course this fear that it's only for the duration of one elected government and that there could always be a reversal is paralyzing in many countries. Although you'd think in the developing world where people really do want to invest because that's where the growth is, the fear of regulatory risk is not quite so common.

Divestment in the brown

So if we can get the investment in the green, we're also beginning to notice some very interesting signs about the disinvestment, or the divestment in the brown. Now these are early, early, early warning signals that investors are concerned about an overexposure to carbon in the 21st century. This is by no means a global trend, it is by no means accepted by the Basel Committee or by ministers of finance or by central bank governments as a surefire thing, but I think what's been really interesting is to see the debate on stranded assets, the debate on the carbon bubble move from the fringe to the center of debate in a little over 18 months. And by the center of debate I do mean the bank community, the international committee, the FSB, and others. Still in the early stages yet, but I think an important indicator of concern.

This is of course on the back of the massive over investment in the oil industry which is a phenomenon the industry recognizes irrespective of our concerns about carbon. And then we have the question of benefits and wealth. We measured wealth without any real sense of natural capital which is being degraded by the environment. While not an issue for Paris in 2015, certainly an issue for the post-MDG and development framework in 2015; how do we measure the baseline of progress over which we want to improve when we set development goals for ourselves as a world.

Natural capital will be a big part of that debate and its translation into helping us understand wealth in the climate world is something we shouldn't ignore. In the climate world when we talk about a co-benefit of mitigation, we talk about human health, transport solutions, competitiveness and the economy. For most people outside the climate world, when they talk about co-benefits they talk about emissions that are achieved from the growth and development policies that protect human health, that provide inclusion. We get caught up, when we talk about benefits, depending on which debate you're in and which room you're in, you're talking about the wrong thing.

Social safety nets

One of the most important aspects of the resilience we need in the adaptation agenda, is the functioning of social safety nets. If those safety nets are not there when the storm hits, when the drought comes, and when the perilous impact of slow-onset climate change, not just charismatic extreme weather events, grinds people back into poverty, those social safety nets are going to be the way we infuse cash, insurance, and support to poor people to sustain themselves through what we would call adaptation.

So when we move from understanding benefits to investing in that resilience then we have at play not just climate finance but development finance, other forms of public-private investment, and other forms of domestic resources.

Just take the smallholder African farmer. He has done the least to contribute to this problem but may suffer the most because of the depth of poverty in Africa, because the baseline of inequality in Africa, and because poverty is stuck in the rural areas in Africa. The only way we are going to reach them is not through adaptation policies financed by climate finance but it will be by the building of social safety nets administered at the national level in those countries, upon which we can invest more resilience through micro-insurance for crops, with index-based instruments through future adaptation money.

Loss and Damage

The last thing is loss and damage. You don't get to travel very far in the Philippines without a conversation about justice, reparations, solidarity payments; whatever you want to call it. But I do think we are a stage where we think about how we direct public money to the most vulnerable. It has to be part of the conversation because green bonds however dynamic aren't going to reach the people of Mindanao. Some of the incredible investment opportunities now in renewables even in a country like the Philippines aren't going to reach the poorest communities where poverty is lowest because they are post-conflict and still suffering from decades of corruption. We will need to use public money to reach the furthest. That money is hard to come by.

Kofi Annan, who is one of the elders, always talks about that the only promises that are really important are the promises that are kept. It is not perceived that we have kept our promises on climate finance. This hinders us now because the solution isn't going to be climate finance narrowly defined.

Climate Finance

The solution is domestic mobilization of resources, of the emerging pension funds of middle income and fast growing economies, it is going to be in development finance – which will not substitute but will complement climate finance. It will be in the dynamism of international finance, it will be in the markets; equity , and debt, it will be in all of these things and it will be up to ministers of finance and cabinets to decide which stream of revenue they wish to use for which investment purpose.

Which means the role the negotiations provide, in creating a deal for climate finance to flow are singularly important politically, but only one piece of this broad panoply of this reorganization of the global economy. But for the people of Tacloban, the promise hasn't been kept yet.

Which is rough on the people of Norway, who have kept their promise. That is an undeniable fact. We have to square that circle when the delivery of climate finance is not going to be possible on the timeline needed. So the question really is, how do we build trust that finance will flow, can flow, and is flowing?

We estimate that about a billion dollars a day of climate finance is flowing through all these different avenues, but people don't see it, don't feel it, they don't feel touched by it. it is too easy for governments to not relish that and put their arms around that and say how can we leverage that into a lot more because people need to feel it.

I think I should stop there because I don't mean to be bleak but there is a global economic reengineering going on at the moment and it is being driven by the very difficult structural issues in the economy around employment, around where growth is going to come from; which is both geographic and sectoral, within economies. And the layering on for the need for that growth to be low-carbon and resilient is in some places happening, unfortunately normally as the result of extreme events. But it is not happening everywhere quickly enough.

We really only have a small amount of time to layer those things over each other because every investment decision made in large-scale infrastructure or in efficiency in agriculture locks us into a pathway that may be high-carbon in the future and may not turn out to be the best thing – which we may not know until another five to ten years, by which time it may be too late.

Let me bring the climate discussion and the economic structuring conversation together, both because of the fear of the brown and the opportunity of the green; it is what me and many others like me in the MDBs are extremely focused on because we so no dichotomy anymore between the development and economic growth debate and the climate debate but I do think the way our use of different languages and different idioms and starting points, even if we have the same ending point, which is carbon neutrality by the end of the 21^{st} century can set us on the wrong foot.

Hopefully seminars like this and the honesty amongst us can help us get onto the right foot on the right speed of march, and in the right direction.