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Statement by Christiana Figueres, Executive Secretary United Nations Framework Convention on Climate Change

Thank you, Professor Stavins, for that kind introduction.

I am glad to have the opportunity to speak to you all today and thank Harvard and the Kennedy School for making that happen.

I feel a special connection to this school and this place because my father was a visiting professor here in the 60s and my brother graduated from this school in the 80s, way back in the pre-historic times in which there were no pianos on every street corner in Boston.

I do, however, have to warn you that I also have a brother and a daughter who graduated from Stanford, so dinner conversations in my home tend to steer away from alma mater loyalties out of sheer personal survival strategy.

Today, because I am here with no member of my family, I can honestly say that Boston evokes many fond childhood memories.

I visit with you today at a time when bad news seems to dominate the climate dialogue.

- The IPCC has just released the first part of their Fifth Assessment Report, AR5, (thanks Professor Stavins for your contributions) which shows the window on limiting warming to 2 degrees is closing fast. The release is an alarm clock moment for all of us.
- This year, for the first time in human history, atmospheric CO2 concentration passed 400ppm. This year the North Pole turned into a lake due to arctic ice melt, and much of the devastating weather across the world was partly caused by climate change.
- Meanwhile, global greenhouse gas emissions continue to rise.

So the circumstances under which I join you are extremely worrisome, and we cannot afford to slip into irresponsible complacency or even worse, defeatism.

I could spend many hours sharing bad news on climate, but I am sure you have all read or studied that.

Without in the least underestimating the challenge we face, today I would like to focus on the good news regarding climate.

I would like to share the good news with you not out of naiveté, but rather out of my profound conviction that the opportunities offered by addressing climate change significantly outweigh the costs.

Three things to impart

I will share three points with you:

- 1. I will outline the complex problem we face, a problem unlike any we have ever seen;
- 2. I will talk about the new world that is emerging, a low-carbon high resilience world with cool, new technology and ways of living; and
- 3. Finally, I will speak to the power that you as young leaders have in creating that new world.

Wicked problem

I am sure we can agree that addressing climate change is what we call a "wicked problem".

- I will not quibble with the Boston definition of the term, because that is also fitting.
- But I actually use the term in its more formal definition from social policy planning: "a problem that is difficult or nearly impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize".
- And, to make matters worse, wicked problems have on the one hand neither a defined set of potential solutions, nor on the other hand do they have room to fail.

Well climate change is just such a challenge.

- Today's AR5, the most comprehensive report on climate science, doesn't say what is required to "solve" climate change.
- It describes different scenarios with probable rise into a range of temperatures for the late 21st century.
- This lack of predictive specificity is used by some to say the problem doesn't exist, but nothing is farther from the truth.
- Scientists are now more certain than ever: climate change is real, human caused, and we must urgently work together ,
 - Because it is a problem of governments needing to provide growing populations with energy, food, water and security.
 - Because it is a problem of the private sector, which relies on certainty and stability to remain competitive.
 - Because it is my problem as I work to give my daughters a better world than the one we have now.
 - And because it is your problem, as you consider your career in a changing world.

While we may have many excuses not to act, it is actually imperative that we act now, that we look for and seize our own opportunity.

World that is emerging

Unfortunately, the opportunity presented by taking action on climate doesn't get the good press it deserves, because bad news sells better than good news.

So too often, climate action is framed only as a burden, or as the inevitable determinant of a doom and gloom future.

I reject these ideas and so should you.

There is immense opportunity in addressing climate change, and some are already seizing it, already moving to low-carbon, high-resilience opportunities.

Let me walk you through a few illustrative examples in policy, corporate strategy, and technology.

Policy plays a powerful role in pointing the direction toward healthy low-carbon growth. And policy is moving forward.

- At the international level governments are committed to building a global legally based construct that will harness all current efforts and catalyze increased efforts in the future. That is the essence of the 2015 agreement that will be applicable to all countries.
- At the domestic level there are more than 30 countries that have climate change legislation, and over 100 countries that have renewable energy regulations.
- There are more than 300 cities that are already implementing climate smart policies and measures
- The World Bank has announced that it will no longer finance coal plants.

Those policies chart the course toward low-carbon but they do not necessarily have delivery power. It is the business sector that has the capital and the entrepreneurship necessary for the transformation.

Corporate responsibility and climate action increasingly proves to be good business strategy. Consider that:

- 81% of the top 500 companies (\$78trillion in assets) already consider climate change an operational risk and see value in investing in resilience.
- The Consumer Goods Forum, with 400 corporations (representing sales of \$2.5 trillion), will no longer purchase products with HFC refrigerants, because there is value in moving en masse to a level, low-carbon playing field.
- Companies all around the world are investing more and more in green buildings, clean energy and efficient transportation because there is value in ensuring energy security and controlling costs.

These actions show that the reason to move to low-carbon strategy is added value to the bottom line .

This bodes well for society, but the most exciting opportunity to move forward to meet the climate challenge, and what supports bold policy and business action, is progress in technology.

Technology, as you are all aware, has transformed the world several times in the last 100 years.

Today we stand on the verge of the deepest energy transformation human society has ever seen, and it has already started. Consider that:

- Over \$1 trillion dollars has been invested in clean energy technologies.
- The cost of solar panels has decreased 80% since 2008
- Tesla sales are already outpacing other luxury cars in California, and news about charging infrastructure is great.
- Bike share programs in the US have doubled just this year.
- Building technology is moving towards sustainably produced materials and smart thermostats

These and many other technologies are just the foundation.

The larger opportunity comes from building on this foundation because it is a better way of doing things, not just a low-carbon life but a better life.

Imagine a future of practically unlimited energy harnessed efficiently from the power of the sun, wind and tides.

Imagine a future where this energy is stored personally instead of delivered to you, untethering you from power outlets, cables and adapters, increasing freedom and mobility.

Imagine a future where you can travel from coast to coast in mere hours, and the technology to get you there produces more energy than it uses.

Imagine a future where driverless vehicles communicate to maximize roadway capacity and fuel efficiency, so you are free to happily text your way to work without being stopped by the police.

Imagine a future where electric cars charge through inductive power transfer so you never have to stop to get fuel.

Imagine a future where intelligent buildings are capable of producing all the energy they need, learning how to best use that energy to maximize your comfort and reduce your costs.

Imagine a future where cities are not just planned, they are "planted", cities where nature and engineering act as one to anticipate and meet residents' needs.

This is a future where technology moves us towards constantly lower carbon intensity not just because it is good for the climate, but because it is good for people, for you and me, for my kids and your kids.

The good news is that this future is actually right around the corner, this world is already emerging. Just one or two years ago a spaceship capable of leaving the solar system would have sounded like a fairy tale. As we now know it is no fairy tale, and neither are any of these other technological breakthroughs.

But to put our feet back on the ground, let me remind you that there is also good news right here in Massachusetts.

A recent Massachusetts Clean Energy Industry report shows that there are more than 5,500 clean energy firms in the state and almost 80,000 jobs in that booming sector.

This didn't happen by accident, it is the result of various interrelated efforts.

- Smart energy policy that made Boston the most energy efficient US city helped.
- Participation in the Regional Greenhouse Gas Initiative helped.
- Emissions reductions at city and state levels helped.
- Even the emission targets and conservation efforts here at Harvard helped.
- And, businesses looking to capitalize on the prospect of a stable, long-term green economy helped.

This city and this university point the finger in the direction of the world we will create, as leaders recognize the risk of inaction and the opportunity of multifaceted action.

It is clear that a wicked problem is solved not with one magic bullet but rather via multiple solutions across multiple sectors converging to meet the challenge.

Perhaps we could call this a "wicked solution," or even a "wicked awesome solution," to which we could attach the following definition: "a solution to a problem that is difficult but possible to solve based on an unknown number of mutually reinforcing solutions".

What a wicked problem and a wicked solution have in common is that there is no room to fail. In the case of climate change, there is no Plan B because there is no Planet B.

Power of young leaders

So let's look at Plan A.

With the pardon of my Stanford family members, or rather in their absence, I firmly believe I am speaking to a room full of future leaders of politics and policy, of industry and academia, of science and technology, of communities and families.

There is leadership power in each of you, and this is the truly great news.

- In politics, you future leaders can advocate for climate policy and action that creates opportunity, safeguards resources and protects health.
- In industry, you future leaders can protect the bottom line through climate action that minimizes risk and guarantees return.
- In science, you future leaders can redefine modern life through technological eco-innovation that is adopted because it helps people's lives, not just the planet.
- And as leaders of communities and families, you can use your power of consumer choice to go low-carbon and contribute to the wicked solution.

I look around and am certain that this group will bring "eager minds of tomorrow" into today's sociopolitical and economic landscape.

I did not go to Harvard or Stanford, but at least I was taught to not plagiarize. So, for the record, I publicly attest to the fact that "eager minds of tomorrow" is not my term.

It is the term used by the wonderful interns at the climate change secretariat for their Facebook group page, where they call themselves the "EMOTs".

I am here today because I-Chun Hsiao, an EMOT intern and Harvard student, suggested I come to Harvard to meet with you, and I thought it was a wicked idea.

But in the spirit of full disclosure, I do happen to know that the EMOTs' full slogan is "eager minds of tomorrow trying to take over Christiana's position sooner or later."

Well my friends, I warmly welcome the eager minds of tomorrow. I applaud your energy and enthusiasm to take an assertive and leading role in climate policy and action. I even celebrate your eagerness to take over my job.

And it can even happen sooner rather than later. But I am bold enough to perhaps disappoint you by stating that I will stay the course to 2015. I will support governments to make good on their commitment to a new, universal climate agreement.

But afterward, as the world shapes our post-2015 future, I encourage you to bring your energy and knowledge to the global level of the intergovernmental negotiations, to national and local governments, to boardrooms and laboratories, to small businesses, to performing arts art stages and to music studios. Eager minds are needed and welcome everywhere to accelerate the world that is emerging, the world we want to give to the generation beyond those of you sitting in this room.

Dear friends, you are undoubtedly privileged to be soaking up knowledge in these noble halls. You therefore have the responsibility to make intentional choices about how you use that knowledge.

I know you will make wise choices. I know that my grandchildren, still unborn, are safe in your hands.

Thank you.

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