Keynote Address:
"Climate Change: Avoiding A 4 degree Warmer World"

Thursday, March 21, 2013
Australian National University
Canberra, Australia

Remarks Prepared for:

Rachel Kyte
Vice President, Sustainable Development
The World Bank

(check against delivery)

Ladies and Gentlemen,

- I am delighted to be here today at the Australian National University to talk about climate change. I would like to share some ideas with you on the magnitude of the challenge that our world is facing but also on possible solutions.
- Here in Australia this last summer will be recorded in the history books. As the Climate Commission has noted, in a period of just 90 days this country recorded the hottest summer ever, the hottest day and the hottest seven consecutive days.
- Many of you have experienced the impact of extreme weather first hand and we have all seen pictures of tragedy and suffering.
- Images of Tim and Tammy Holmes and their 5 grandkids who had to seek refuge under a jetty when a bush fire destroyed their home and their village in Tasmania touched the hearts and minds of people all over the world.
- Bush fires were one of the most devastating effects of the unprecedented heat waves in the East and Southeast in Australia this year. But floods and torrential rains in other parts of the country also led to the loss of lives and caused destruction.
- As you know better than I do, Australia is well known for its climate extremes but these days it's different.
- The Australian government's Climate Commission argues that climate change was a major driving force behind this string of extreme weather events. Scientists have been reluctant to link specific extreme weather events to the longer-term trends of climate change, so your Commission's assessment made news around the world. We should pay attention to it, and have a closer look what a warming world will mean. Here in Australia – and beyond.

FOUR DEGREE REPORT

- At the World Bank Group our mission is to end poverty. We are helping countries improve the well-being of their people. This cannot be achieved over night. It requires a long-term understanding of what needs to be done and how best to do it.
- So one of the challenges we were facing was to get a better understanding of what a warmer planet means for the world. The World Bank Group recently commissioned a report, *Turn Down the Heat: Why a Four Degree Warmer World Must Be Avoided*, which spelled out the consequences of a 4 degree C warmer world. Scientists agree that even countries' current UNFCCC emission reduction pledges would likely result in 3 to 4 degree C warming by 2100. And those pledges have not been met. The longer they remain unmet, the more likely a 4 degree C world becomes.
- So what are the findings: Climate Change would cause seas to rise from between 0.5 to 1 meter, dramatically affecting the lives of hundreds of millions of city dwellers; large sections of the world would become much, much hotter, providing huge challenges for growing crops; and extreme weather events that were seen as "once in a lifetime" occurrences could start happening every year. By 2025, 2.4 billion people are estimated to live in countries where there is not enough water to meet their needs.
- Australia would become increasingly arid – some of the most extreme droughts are predicted for southern Australia. And extreme temperatures in summer will get worse: January temperatures of 40 degree C or about 5 degree C warmer than present-day January days will be commonplace. It will get much more difficult to grow food. Heat and drought stress will likely lead to increased mortality and species extinction. Temperature extremes have already been held responsible for mortality in Australian flying-fox species.

- But Australia's future depends not only on what happens on this continent. It is deeply interlinked with the fate of the region. The Pacific islands will see unprecedented extreme temperatures becoming the new norm every month of the year. The sea level rise in the western Pacific will be even larger than the global mean which I mentioned earlier. Together with stronger tropical cyclone storm-surges and groundwater extraction, this will lead to an increasing risk of contaminating freshwater sources, particularly for smaller islands. So Pacific Island nations will face even greater real fresh water shortages.
- In February, I was at the UN Security Council in New York to speak about climate change, Minister Tony deBrum from the Marshall Islands was there, too. He made a dramatic appeal to the Council that the very survival of his nation is at stake. He motioned to their ambassador to the UN and noted that her island no longer exists. The room was silent.
- As the existence of entire nations is placed at risk there could be serious implications for peace and security leading to migration and conflicts over increasingly scarce natural resources.
- The 4 degree report paints a devastating picture of a world that would affect each one of us. Climate change threatens to roll back decades of development and it will be the poor in every country who suffer most. We owe it to our children and grandchildren and all future generations to change the current climate trajectory of our planet.

SOLUTIONS

- In the light of this report, the President of the World Bank Group, Jim Kim, has put climate change high on our agenda. Based on the World Bank Group's work with the poorest to build resilience, we will make sure everything we do takes into account a climate risk.

- But we must do more; not least because it's the six biggest economies that account for two-thirds of the energy sector's global carbon dioxide emissions. We must redouble efforts to reduce emissions, drive investment in low carbon growth and avoid a 4 degree world. Jim Kim has put forward four bold actions that would make the biggest difference on climate change:
    - catalyze a predictable price on carbon
    - remove harmful fossil fuel subsidies
    - create low-carbon climate resilient cities
    - moving forward on climate smart agriculture
- And while promoting aggressive mitigation efforts, we will also remain focused on adaptation, and help developing countries build resilience to the impacts of these changes.

GREEN GROWTH AND CLIMATE RESILIENCE

- So this is not only about doom and gloom, there is reason for optimism. Our future is in our hands.
- Where climate change is the threat, Inclusive Green Growth is the opportunity. It is possible to maximize efficiency and avoid decisions that lock in harmful and high carbon growth options while at the same time helping reduce vulnerability to climate change for future generations.
- Making infrastructure climate resilient results in lower capital losses from natural disasters – and creates jobs. Abolishing fuel subsidies can reduce CO2 emissions – and create fiscal space for government to subsidize public transport. Well-designed environmental regulation stimulates innovation by firms – and improves businesses' climate footprints.
- More and more countries are seeking ways to change their growth trajectories towards such greener, and more inclusive growth.

- At the World Bank Group we are helping governments all over the world to assess and manage risks from climate change and provide analytical guidance. For example, drawing on experiences from a similar project in the Caribbean, the World Bank established the Pacific Catastrophe Risk Assessment and Financing Initiative. It assessed disaster risks in the region and the Bank is now working to provide catastrophe risk insurance coverage as a pilot in five participating Pacific Island countries.
- In Samoa we are supporting the government's efforts to make a coastal road climate resilient which links the airport with the capital and which passes through the main economic artery of Samoa.
- And everywhere we work we are forced to rethink how people will get the water they need to drink and grow food, and how we produce the energy needed to cook and light our homes.

WATER

- Tomorrow is International World Water Day. The world needs to wake up and realize we are already in the midst of an urgent water crisis. Water stress will increase around the globe. People living in deltas – about 500 million people – and people in monsoonal basins – about 1 billion people – are especially vulnerable. By 2025, it is estimated that 2.4 billion people will be living in countries where there is not enough water to meet all of their needs.
- Water is the primary medium through which climate change will impact people, economies, and ecosystems.
- So better water management is at the core of helping countries, especially the poorest, to strengthen their resilience and adapt to climate change.

- Since so much of our work has to balance the nexus of food, energy, and water, we are increasing our attention to analysis of complex hydrologies – and Australia by the way has world leading expertise on this topic.
- We need landscape approaches that integrate the management of land, water, and living resources like forests while promoting equitable, sustainable use and conservation. This is possible: Over the past 10 years we have worked for example in India on watershed management as an effective approach for improving natural resource productivity and rural livelihoods. Or in Ethiopia's Great Rift Valley, integrated community approaches to natural forest regeneration were central to restoring groundwater reserves that provide 65,000 people with potable water.

FOOD

- The way we produce food has an impact on the amount of greenhouse gas emissions generated. But there is much we can do: Through farming practices like mulching reduced tillage and crop rotation, and new technologies like drought and flood resistant crops we can increase agricultural productivity, make farmers better able to ride out droughts or floods (adding to food security), and pull greenhouse gases out of the atmosphere into the soil.
- You ever heard of Faidherbia albida? In Niger, trees of this species were planted by the local communities which drop their leaves in the rainy season. This helps in controlling erosion, restoring soil fertility, and increasing sorghum and pearl millet yields putting more money in farmers' pockets.
- I don't have to emphasize here at ANU that research and development is key to finding solutions. In Senegal for example a research center has developed several drought resistant varieties of crops, each of them with a potential of improving yields between 30 and 60% over existing varieties. These varieties are currently being disseminated and adopted by farmers.

ENERGY

- Any discussion of climate challenges quickly brings us also to the question of energy.
- The burning of fossil fuels for energy accounts more than 80% of greenhouse gas emissions, so it's clear that shifting to cleaner sources of energy generation will be a big part of mitigating climate change. But 1.3 billion people in developing countries still do not have access to energy. And about 2.7 billion people use solid fuels – wood, charcoal, dung, other biomass, and coal – for cooking and heating.
- This lack of access to energy means stifled economic growth. Kids cannot learn in the evening without light. Women have to spend enormous amounts of time collecting firewood. And we have to keep in mind that delivering access to electricity to those 1.3 billion people would increase greenhouse gas emissions by only 1%.
- Indeed, this is a key motivating factor behind the Sustainable Energy for All initiative. This initiative, led by UN Secretary General Ban Ki-moon and World Bank Group President Jim Yong Kim, aims to double the share of renewable energy in the global energy mix. At the same time, the initiative seeks to deliver access to electricity and clean household fuels to those without it, and double the rate of improvement in energy efficiency—all by 2030.
- At the World Bank Group we have already doubled the share of renewable energy in energy lending since 2007. Given that fossil fuels account for over 80% of energy generation worldwide but less than 20% of World Bank energy lending, this underscores the World Bank Group's focus on cleaner energy in its client countries.
- On water, food, energy many solutions are already there. They work. Our task now is to scale up.

THE PRIVATE SECTOR

- This challenge goes well beyond governments or international institutions like the World Bank Group. The private sector is also already feeling the consequences of climate change as it affects its business bottom lines. Without water – no drinks to sell. Without cocoa – no chocolate. The effects of the floods in Thailand in 2011 spread across borders and disrupted supply chains all over the world. Insurance costs and availability are being dramatically affected in many parts of the world.
- As companies recognize opportunities and risks from climate change, they need to step up to the climate challenge and increase climate-smart investments.
- Many business leaders I meet understand this very well and are ready to act. At the World Economic Forum in Davos my impression was that climate change was as much on the agenda of many as were other imminent threats like the Euro crisis.
- In Colombia, Muelles el Bosque a private port management firm is operating the port under a long-term government concession. Ports are among the installations most exposed to climate change. A study concluded with support of the International Finance Corporation, the World Bank's private sector lending arm, analyzed the risks from climate change, for example rising sea level and – on land– inundation and possible landslides. The study recommended actions to be taken such as raising the height of a road, improving drainage and changing the dredging regime for the approach of ships. Muelles el Bosque used the information in the report to make a $30 million capital investment to protect its operations from future flood risks and the studies have gone on to be studied by other port managers all over the world.

Ladies and Gentlemen,

- Last World Water Day at the World Bank, we showed a film called ‘Last Call at the Oasis’ based on the book ‘The Ripple Effect’ by Alex Prud’homme. The documentary film tells the story of the state of the world’s water from various perspectives. One of those stories is about a farming couple living in Australia for whom the water had essentially run out. There was no longer enough of it to grow the crops they needed to make a living. One of the most moving moments of the film was when the couple sat through the auction of their own livestock and of other farm assets.
- We must not allow this and other tragedies to happen and do what it will take to step up to the climate challenge. To all the students of ANU here today, I want to say: We will need you, your ideas, your creativity and your commitment to make this happen!
- Thank you.