Dear Minister Ishihara, Dr. Pachauri, colleagues, and distinguished guests. It is a profound pleasure for me to add my voice in welcoming all of you to the plenary for the evaluation and approval of the Working Group II contribution to the IPCC 5th Assessment Report.

As you know, Working Group II focuses on climate-change impacts, adaptation, and vulnerability. This is a complicated, dynamic, and important set of interconnected research topics. I want to speak to a few of the new themes in the Working Group II report, but before I do that, I would like to say a few words about a different kind of impact, the impact that working on this report has had for the hundreds of scientists who made it a reality.

Work on this report began nearly five years ago, with a meeting in Venice to define topics and establish an outline. Recognizing the abundance and diversity of outstanding new research, Working Group II established a bold vision, covering both traditional areas and new topics never assessed before in an IPCC report. Some of the new areas are geographic, the oceans. Others reflect a flowering of the scientific knowledge concerning climate-change impacts on humans, especially topics related to the places people live, the factors that trap people in poverty, and the diverse relationships between climate change and human security. Embracing this vast array of scientific topics required a big report – 30 chapters, and a giant writing team, with over 300 coordinating lead authors, lead authors, and review editors.

Working with this giant author team has been one of the great privileges of my scientific career. The author team has been dedicated, collegial, and wise. With every interaction, I learn something new, see a traditional issue from a new perspective, understand a new set of interactions, or simply get a new respect for the integrity and commitment of the global scientific community working on climate change. I know that all of us who work with the IPCC see managing responses to a changing climate as one of the defining challenges of the 21st century. It is inspirational to see colleagues find the time and the creativity to make volunteer service to the IPCC an important part of their lives, over a long period of writing, revising, responding to comments, rewriting, and revising again.

The Working Group writing journey depends heavily on wonderful support from Japan, support for which all of us are deeply grateful. Our writing Odyssey began in Japan, with our first lead author meeting at Tsukuba in early 2011. After Tsukuba, we met in San Francisco in late 2011, in Buenos Aires in late 2012, and in Bled, Slovenia, in mid-2013. Between Tsukuba in 2011 and Yokohama in 2014, the author team assessed over 12,000 scientific publications, benefited from thoughtful comments from over 1,700 expert and government reviewers, read and assimilated more than 50,000 review comments, under the careful eye of dedicated review editors. With every line carefully checked and rechecked, Working Group II has produced what I believe to be the most complete, thorough, and authoritative assessment on climate change impacts, adaptation, and vulnerability to date. We are confident that it is ready for the careful scrutiny of first the world’s governments and then the world.
The report itself is scientifically bold. It frames managing climate change as a challenge in managing risks, using this characterization as a starting point for two of the report’s core themes. The first is the importance of considering the full range of possible outcomes, including not only high-probability outcomes. It also considers outcomes with much lower probabilities but much, much larger consequences. Second, characterizing climate change as a challenge in managing risks opens doors to a wide range of options for solutions.

One of the things I like most about the report is that it combines cold, analytical realism, with a careful look at a broad range of possible solutions. This mapping of not only the serious and admittedly sometimes depressing “problem space” but also the exciting and potentially uplifting “solution space” allows the report to assess not only the impacts and challenges but also the opportunities and synergies. Truly, much of the material in the WGII report is as much about building a better world as it is about understanding serious problems.

For all of us who have been consumed with this report over the last 5 years, it is really exciting to stand at the boundary between assessing knowledge and sharing it with the broader community. There are lots of groups that share information about climate change. I think of them as mainly bells. Their goal is to ring a message as loudly and clearly as possible. The IPCC is fundamentally different. It is more like a bell tower than a bell. Its role is not so much to ring the message of climate change as it is to elevate the community, giving everyone a chance to see farther and more clearly from a great height.

Dealing effectively with climate change is one of the defining challenges of the 21st century. The IPCC can play a central role in making the process smart, effective, and balanced, addressing the need for knowledge around the world.