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we've got. Leo is also debuting his documentary film on climate change tonight.

Given his day job, I'm betting it's pretty good.

So join us today on the South Lawn to see how you can lend a hand in building a world we want to live in.

That's our responsibility as citizens. That doesn't mean this has be your full-time job. It doesn't mean you have to run for office or launch a start-up. But it does mean that whatever field you're in, whatever skill you have, whatever passion you're pursuing, you can find a way to engage, to participate, and to make a difference.

See you on the lawn,

PRESIDENT OBAMA

NOTE: This statement was released by the Office of the Press Secretary on October 2 as an e-mail message from the President to be distributed on October 3. The statement referred to Jukay Hsu, founder, Coalition for Queens; Oscar Menjivar, founder and chief executive officer, URBAN Teens eXploring Technology; Nina Tandon, chief executive officer and cofounder, EpiBone; Katharine Hayhoe, associate professor of political science and director of the Climate Science Center, Texas Tech University; and actor and producer Leonardo DiCaprio.

Remarks During a Panel Discussion on Climate Change at the White House South by South Lawn Festival

October 3, 2016

The President. Hello, everybody.

Actor and producer Leonardo DiCaprio. I want to thank you all for coming here this evening. I want to particularly thank our President for his extraordinary environmental leadership. [*Applause*]

The President. Thank you.

Mr. DiCaprio. Most recently, in protecting our oceans.

Katharine, thank you for the great work you do on climate change and in helping improve preparedness of communities to deal with the impacts of climate change.

And thank all of you for showing up here this evening.

Tonight I am pleased to present the U.S. premier of my new documentary, "Before the Flood." This was a 3-year endeavor on the part of myself and my director, Fisher Stevens. Together, we traveled from China to India, to Greenland, to the Arctic, Indonesia to Micronesia, to Miami to learn more about the effects of climate change on our planet and highlight the message from the scientific community and leaders worldwide on the urgency of the issue.

This film was developed to show the devastating impacts that climate change is having on our planet and, more importantly, what can be done. Our intention for the film was to be released before this upcoming election, because, after experiencing firsthand the devastating impacts of climate change worldwide, we, like many of you here today, realize that urgent action must be taken.

This moment is more important than ever. We must empower leaders who not only believe in climate change, but are willing to do something about it. The scientific consensus is in, and the argument is now over. If you do not believe in climate change, you do not believe in facts or in science or empirical truths, and therefore, in my humble opinion, should not be allowed to hold public office.

So, with that, I'm so very honored and pleased to be joined onstage with one of those leaders, a President who has done more to create solutions for the climate crisis than any other in history, President Barack Obama——

The President. Yay! Thank you.

Mr. DiCaprio. ——along with leading climate scientist, Katharine Hayhoe, for this conversation about how we can make real progress on this issue.

The President's Environmental Accomplishments/Paris Agreement on Climate Change

So, with that, let us begin with the first question. President Obama, you're nearing the end of your second term as President. You've had an opportunity to reflect on the issues facing our country and our planet. How do you grade the global response to the climate change movement thus far?

The President. We get an incomplete. But the good news is, we can still pass the course if we make some good decisions now.

So, first of all, I just want to thank everybody who's been here, all day, some of you; everybody who's been involved in South by South Lawn. It looked really fun. [*Laughter*] I was not allowed to have fun today. I had to work, although I did take some time—you guys may have noticed—to take a picture with one of the Lego men. [*Laughter*]

Audience member. Happy anniversary, Mr. President!

The President. Thank you. It is my anniversary today. We celebrated it yesterday, yes; 24 years FLOTUS has put up with me. [*Laughter*]

I want to thank Leo for the terrific job he's done in producing the film, along with Fisher. All of you will have a chance to see it at its premier tonight. And I think after watching it, it will give you a much better sense of the stakes involved and why it's so important for all of us to be engaged.

And I want to thank Katharine from Texas Tech.

Audience member. Woo!

The President. We've got to give—there we go. We've got a couple Texas Tech folks in here. But because Katharine, in addition of being an outstanding climate scientist, is a person of deep faith, and she has really done some amazing stuff to reach out to some unconventional audiences to start fostering a broader coalition around this issue.

To your question, Leo, we are very proud of the work that we've been able to do over the last 8 years here in the United States: doubling fuel efficiency standards on cars; really ramping up our investment in clean energy so that we've doubled the production of clean energy since I came into office. We have increased wind power threefold. We've increased the production of solar power thirtyfold. We have, as a consequence, slowed our emissions and reduced the pace at which we are emitting carbon dioxide in the atmosphere faster than any other advanced nation.

And that's the good news. The other big piece of good news was the Paris Agreement, which we were finally able to get done. And for those of you who are not as familiar with it, essentially what the Paris Agreement did was, for the first time, mobilize 200 nations around the world to sign up, agree to specific steps they are going to take in order to begin to bend the curve and start reducing carbon emissions.

Now, not every country is doing the exact same thing because not every country produces the same amount of carbon dioxide and other greenhouse gases, per capita. So the expectation is, is that a country like the United States is going to do more than a small, underdeveloped country that doesn't have the same scale of emissions.

But the good news about the Paris Agreement was, it committed everybody to do something. And although, if you add it up, all the commitments that were made by all twenty—200 nations, it would still not be sufficient to deal with the pace of warming that we're seeing in the atmosphere. What it does do is set up for the first time the architecture, the mechanism whereby we can consistently start turning up the dials and reducing the amount of carbon pollution that we're putting into the atmosphere.

And one last piece of good news about that is that I anticipate that this agreement will actually go into force in the next few weeks. India, just this past week, signed on.

Mr. DiCaprio. Big deal.

Texas Tech University Climate Science Center Director Katharine Hayhoe. Yes, huge.

The President. And we're going to get a few more nations signing on. And so, officially, this agreement will be into force much faster than I think many of us anticipated when we first organized it.

Last two points, little tidbits of good news. This week, we'll begin negotiations on an aviation agreement, an international aviation agreement, where all airlines and major carriers around the world begin to figure out how they can reduce the amount of greenhouse gases that they're emitting——

Ms. Hayhoe. That's huge.

The President. ——which can make a big difference. And over the next couple weeks, we're also going to be negotiating around something called hydrofluorocarbons—or HFCs—which are other sources of greenhouse gases that, if we are able to reduce them, can have a big impact as well.

So, even with the Paris Agreement done, we're still pushing forward hard in every area that we can to keep making progress. But, having said all that—and this is where you'll need to hear from Katharine, because in the nicest way possible, she's going to scare the heck out of you as a precursor to the film—what we're seeing is that climate change is happening even faster than the predictions would have told us 5 years ago or 10 years ago. What we're seeing is changes in climate patterns that are on the more pessimistic end of what was possible—the ranges that had been discerned or anticipated by our scientists—which means we're really in a race against time.

And part of what I'm hoping everybody here comes away from is hope that we can actually do something about it, but also a sense of urgency that this is not going to be something that we can just kind of mosey along about and put up with climate denial or obstructionist politics for very long if in fact we want to leave for the next generation beautiful days like today. So—[*applause*].

Mr. DiCaprio. With that, Katharine, all the environmental crises we face have a huge toll on humanity—on poverty, security, public health, and disaster preparedness. The interconnected nature of our climate means that no country or community is going to be immune to any of these threats. What are the most urgent threats to our modern day civilization? And where do you feel the solutions lie?

Ms. Hayhoe. Well, how many hours do we have again? [*Laughter*] It's true, when we think of global issues, we think of poverty, we think of hunger, we think of disease, we think of people dying today from preventable causes that no one should be dying from in 2016.

And when we're confronted with these situations head on—and I, myself, spent a number of years as a child growing up in South America, so I know what this looks like—we think to ourselves, climate change, it's important, but we can deal with it later. We can no longer afford to deal with it later. Because if we want to fix poverty, if we want to fix hunger, if we want to fix inequality, if we want to fix disease and water scarcity, we are pouring all of our money, all of our effort, all of our hope and prayers into a bucket, and the bucket has a hole in the bottom. And that hole is climate change. And it is getting bigger and bigger.

To fix the global issues that we all care about, including environmental issues, including humanitarian issues, we can no longer leave climate change out of the picture because we will not be able to fix them without it.

Alternative and Renewable Energy Sources/Environmental Regulations/Acid Rain/Ozone Depletion

Mr. DiCaprio. Mr. President, in "Before the Flood," we see examples of the environmental impacts of corporate greed—corporate greed from the oil and gas industries, for example, what's happening right now in Standing Rock—but some companies are starting to realize that addressing the climate change issue can actually spur economic activity. How do you get more companies to start moving in this direction, to take fundamental action into their business decision?

The President. Well, companies respond to incentives. And the question then becomes, can we harness the power and the creativity of the marketplace to come up with innovation and solutions?

And look, the economics of energy are extremely complicated. But let me just simplify it as much as possible. Dirty fuel is cheap, because we've been doing it a long time, so we know how to burn coal to produce electricity.

We know how to burn oil, and we know how to burn gas. And if it weren't for pollution, the natural inclination of everybody would be to say let's go with the cheap stuff.

And particularly when it comes to poorer countries—you take an example like India, where hundreds of millions of people still don't have electricity on a regular basis, and they would like to have the standards of living that, if not immediately as high as ours, at least would mean that they're not engaging in back-breaking work just to feed themselves or keep warm—it's completely understandable that their priority is to create electricity for their people.

And if we're going to be able to solve this problem, we are going to have to come up with new sources of energy that are clean and cheap. Now, that's going to involve research; it's going to involve investment in R&D. And there are going to be startups and innovators, and there are some in this audience who are doing all kinds of amazing things. But it takes time to ramp up these new energy sources. And we're in a battle against time.

The best way we can spur that kind of innovation is to either create regulations that say, figure it out, and if you don't figure it out, then you're going to pay a penalty; or to create something like a carbon tax, which gives an economic incentive for businesses to do this.

Now, I'll be honest with you. If—in the current environment in Congress, and certainly internationally, the likelihood of an immediate carbon tax is a ways away. But if you look at what we're doing just with power plants, a major source of greenhouse gases, we put forward something called the Clean Power Plan—clean power rule—as a centerpiece of our climate change strategy. And we did this under existing authorities under the Environmental Protection Act.

And what we're saying to States is, you can figure out the energy mix, but you've got to figure out how to reduce your carbon emissions, and you need to work with your utilities and you need to work with your companies, and come up with innovative solutions. And we're not going to dictate to you exactly how do you do it, but if you don't start reducing them, you're going to have problems. And we'll come up with a plan for you.

So the good news is that in the past, where we create an incentive for companies, it turns out that we're more creative, we're more innovative, we typically solve the problem cheaper, faster than we expected, and we create jobs in the process.

And if you doubt that, I'll just give you two quick examples—because this is probably a pretty young audience, and I know this is going to seem like ancient history, but when I arrived in college in Los Angeles in 1979—[*laughter*]—I still remember, like, the sunsets were spectacular. I mean, they were just these amazing colors. It was like I'd never seen them before, because I was coming from Hawaii. And I started asking people, why are the sunsets here so spectacular?

Ms. Hayhoe. Yes. Right.

The President. They said, well, that's all smog, man. That—it's creating this psychedelic stuff that normally is not seen in nature—[*laughter*]—because the light is getting filtered in all kinds of weird ways.

You couldn't run for more than 10, 15 minutes on an alert day without really choking up, the same way you still do in Beijing. Well, L.A. is not pristine today, but we have substantially reduced smog in Los Angeles because of things like the catalytic converter and really rigorous standards.

The same is true with something called acid rain. In the Northeast, there was a time where—Doc, make sure I'm getting this right—it was sulfur dioxides, right?

Ms. Hayhoe. Dioxide, yes.

The President. Which was being generated from industrial plants, was going up into the atmosphere and then coming down in rain. It was killing forests all throughout the Northeast. And through the Clean Air Act, they essentially set up the equivalent of a cap-and-trade system. They said, companies, you figure out how to reduce your carbon dioxide emissions; we won't tell you exactly how to do it, but we're going to give you a powerful incen-

tive. We'll penalize you if you don't do it. You can capture some of the gains if you do do it.

Most of you don't hear anything about acid rain anymore, even though it was huge news 25, 30 years ago, because——

Ms. Hayhoe. We fixed it.

The President. We fixed it. And the last example I'll use is the ozone. It used to be that one of the things we were really scared about was the ozone layer was vanishing. And when I was growing up, I wasn't sure exactly what the ozone layer was, but I didn't like the idea that there was a big hole that was developing in the atmosphere. [*Laughter*] It just didn't sound good. And it turned out that one of the main contributors to this was everybody was using deodorant with aerosol. And so everybody starting getting speed strips or whatever. [*Laughter*]

And it wasn't that big of an inconvenience. Deodorant companies still made money. But something that I was amazed by—and it gives you a sense of nature's resiliency when we do the right thing—we just got reports over the last couple of months that that hole in the ozone layer is beginning to close, which is amazing. [*Applause*] Right? And all it took was people not using aerosol deodorant.

Ms. Hayhoe. A few more things. [*Laughter*]

The President. There were a couple other things. I'm exaggerating. [*Laughter*] Well, but essentially, we regulated the kinds of pollutants that were creating this hole without impeding our economic development. Nobody misses what we didn't—because companies were innovated enough to come up with substitutes that worked just fine.

And that's the basic strategy that we've got to employ here. We've got to give incentives to companies: startups, existing companies. And we're going to have to do that initially, country by country. But America has got to lead the way because not only do we have the highest carbon footprint, per capita, but also because we happen to be the most innovative, dynamic business and entrepreneurial sector in the world. And if we create incentives for ourselves, we will help to fix this problem internationally. I'm absolutely confident of the matter.

Mr. DiCaprio. Back to something you mentioned earlier, Mr. President, which I'd like both of you to talk a little bit about. The United States, as you said, has been the largest contributor to global emission in history. And as you said as well, we need to set the example for the rest of the world to follow. Throughout my journey, most of the scientific community truly believes that the silver bullet to combat this issue is a carbon tax.

Now, a carbon tax, as complex as it is to implement, I would imagine, is something that needs to be—needs to come from the people. It needs to come from the will of the people, which means there needs to be more awareness about this issue. Do you think that I will get to see a carbon tax in the next decade? [*Laughter*] Will we get to see this in our lifetime? Because most scientists specifically point to the idea that that's going to be the game-changer.

The President. Katharine?

Ms. Hayhoe. Good question. I think he knows the likelihood of that more than I do, but I do know that one of my absolute favorite organizations is Citizens' Climate Lobby, and they are founded on the premise of a simple carbon tax: nothing fancy, no difficult regulations, no 3 feet of code. It's putting a price on carbon to allow the market to then figure out what's the cheapest way to get our energy.

Mr. DiCaprio. Can you explain to our audience what a carbon tax would mean?

Ms. Hayhoe. Sure. In very basic terms, when we burn carbon it has harmful impacts on us, on our health, on our water, on our economy, on our agriculture, even on our national security. By putting a fee on that carbon, it makes certain types of energy more expensive, and it makes other types of energy less expensive.

And the way I like it—there's many different flavors—the kind I like is where that extra revenue is returned to us through our taxes and also used to incentivize technological development.

Mr. DiCaprio. Or it could be given to education, for example.

Ms. Hayhoe. Yes.

Mr. DiCaprio. Bravo. [*Laughter*] Katharine, you live in Texas.

Ms. Hayhoe. I do.

Audience members. Woo!

Ms. Hayhoe. So do people over there.

Mr. DiCaprio. [*Laughter*] They've experienced unprecedented drought and floods in the past five years, and they're also a major energy producer. As you travel the State, what are the biggest misperceptions you hear about climates—from climate skeptics who often say these changes are the result of the cyclical nature of our planet's temperature patterns? And how do you change their minds?

Ms. Hayhoe. Any of us who pays attention to the weather, we know that we have cold and hot, we have dry, and we have wet. And anybody who has ever been to Texas knows that it looks more like this.

[*Ms. Hayhoe moved her arm up and down in a wave pattern.*]

Yes. So you might say, well, then why does it matter if our weather is incredibly variably anyways? It matters because in a warmer planet, it's taking that natural pattern of variability and that brings drought and flood, heat and cold, and it is stretching it. So our heavy rainfalls are getting more extreme, because in a warmer atmosphere, the oceans are warmer, so more water evaporates. So the water is just sitting up there waiting for a storm to come through, pick it up, and dump it on us. Just as has happened in recent days, what happened in Baton Rouge a little while ago, and if you read the reports of the meteorologists and the weather people talking about these heavy downpours we are experiencing, you will see this phrase they repeat again and again.

The warm oceans—and again this year is a 99-percent chance of being again the warmest year on record after last year and the year before—the warm oceans are providing a nearly infinite source of moisture for these storms. But at the same time, when we are in a dry period, as we get all the time in Texas and its hotter than average, then all of the moisture and soil in our reservoir evaporates quicker leaving us dryer for a longer period of time. So yes, we know natural cycles are real. But we know that climate change is stretching that natural pattern, impacting us and our economy.

Here's the cool thing about Texas though. What do you think when you think of Texas?

The President. Wind power.

Ms. Hayhoe. Wind power, yes.

The President. I cheated, I know.

Ms. Hayhoe. He cheated. He knows the answer. [*Laughter*] Texas knows energy. And here's the cool thing about Texas. Did you know that already Texas is getting 10 percent of its electricity from wind? On a windy night, we get 50 percent of our energy from wind.

[*At this point, Ms. Hayhoe continued her remarks, concluding as follows.*]

In Texas, we have entire towns going a hundred-percent renewable because it is the cheapest way for them to get their energy. We have Fort Hood, which is the biggest military installation in the U.S., signing a new electricity contract for wind and solar because they can save the American taxpayer $165 million by going green.

Green is no longer just a color of money—or the color of trees, I should say. Green is also increasingly in Texas, around the U.S., and even in China, becoming the color of money as well. Wind and solar are the way of the future. And we're seeing it happen. As a scientist, though, I have to say my only concern is, we're not seeing it happen fast enough.

Politics of Climate Change/Alternative and Renewable Energy Sources/Coal, Natural Gas, and Nuclear Energy

Mr. DiCaprio. Mr. President, this has been an unusual election year, to say the least. [*Laughter*] And Gallup regularly polls Americans with an open-ended question about the issues that matter most to them. And the environment consistently polls low on that list, around 2 percent. As you know, climate change is a long-term problem that requires long-term solutions. How can we all do better—do a better job of engaging the public, especially those who are skeptical, in a meaningful and produc-

tive debate about the urgency of these issues and inspire them to be a part of the solution now?

The President. Well, climate change is almost perversely designed to be really hard to solve politically because it is a problem that creeps up on you. There's no single hurricane or tornado or drought or forest fire that you can directly attribute to climate change. What you know is, is that as the planet gets warmer, the likelihood of what used to be, say, a 100-year flood—it's supposed to happen only every 100 years—suddenly starts happening every 5 years, or every 2 years.

And so the odds just increase of extreme weather patterns. But people, they don't see it as directly correlated. And the political system in every country is not well designed to do something tough now to solve a problem that people are really going to feel the impacts of in the future. The natural inclination of political systems is to push that stuff off as long as possible.

So, if we are going to solve this problem, then we're going to need some remarkable innovation. I mean, Katharine is exactly right that solar and wind is becoming a job generator and an economic development engine. But what's also true is, we're going to need some real innovation in things like, for example, battery storage. How do we keep wind and solar stored without too much leakage so that when the wind is not blowing or the Sun is not shining, we still have regular energy power. We're still going to need some really big technological breakthroughs.

But with the technology that we have right now, my goal has been to build that bridge to this clean energy future. To make sure that over the next 20 years, using existing technologies, we do everything we can even as we're creating the even more innovative technology, so that by the time those technologies are ready, we haven't already created an irreversible problem.

And that's going to require mobilization. It is going to require us all doing a better job of educating ourselves, our friends, our neighbors, our coworkers, and ultimately, expressing that in the polls. And in order to do that, I think it is important for those of us who care deeply about this—and Katharine is a wonderful example of the right way to do it—to not be dismissive of people's concerns when it comes to what will this mean for me and my family. Right?

So, if you're a working class family, and dad has to drive 50 miles to get to his job, and he does—he can't afford to buy a Tesla or a Prius, and the most important thing to him economically to make sure he can pay the bills at the end of the month is the price of gas, and when gas prices are low that means an extra 100 bucks in his pocket or 200 bucks in his pocket, and that may make the difference about whether or not he can buy enough food for his kids—if you just start lecturing him about climate change and what's going to happen to the planet 50 years from now, it's just not going to register.

So part of what we have to do, I think, is to engage, talk about the science, talk about the concrete effects of climate change. We have to make it visual, and we have to make it vivid in ways that people can understand. But then, we also have to recognize that this transition is not going to happen overnight, and you're not starting from scratch. People are locked into existing ways of doing business.

I'm—look, part of the reason we have such a big carbon footprint is our entire society is built around Interstate Highway Systems and cars. And we can't, overnight, suddenly just start having everybody taking high-speed trains because we don't have any high-speed trains to take. And we have to build them.

Ms. Hayhoe. Yes, right. [*Laughter*]

The President. And we should start building them. But in the meantime, people have to get to work.

So I think having an understanding that we're not going to complete this transition overnight, that there are going to be some compromises along the way, that that's frustrating because the science tells us we don't have time to compromise; on the other hand, if we actually want to get something done, then we've got to take people's immediate, current

views into account. That's how we're going to move the ball forward.

And I'll just give you one example. And this is—generally, I get—this is a pretty sympathetic crowd, but some folks will push back on this. When you think about coal, we've significantly reduced the amount of power that we're generating from coal. And it's going to continue to go down. Well, number one, coalminers feel like we—they've been battered, and they often blame me and my tree-hugger friends—[*laughter*]—for having created real economic problems in places like West Virginia or parts of Kentucky or parts of my home State of southern Illinois.

Interestingly enough, one of the reasons why we've seen a significant reduction of coal usage in the United States is not because of our regulations. It's been because natural gas got really cheap as a consequence of fracking. Now, there are a lot of environmentalists who absolutely object to fracking because their attitude is, sometimes, it's done really sloppy and releases methane that is even a worse greenhouse gas than carbon dioxide. It leaks into people's water supplies and aquifers and when done improperly can really harm a lot of people. And their attitude is, we've got to leave that stuff in the ground if we're going to solve climate change.

And I get all that. On the other hand, the fact that we're transitioning from coal to natural gas means less greenhouse gases. Same thing with nuclear power. People don't like nuclear power because they have visions of Chernobyl or Three Mile Island, what are we doing with the storage of the waste. Nuclear power generally evokes a lot of stuff in our imaginations. But clean—nuclear power doesn't emit greenhouse gases.

So we've got to make some decisions. If we're going to get India or China to actually sign on to reducing carbon emissions, then we're going to have to have a conversation with them about nuclear power and help them with technologies that ensure safety, and we can figure out how to store it until we invent the perfect energy source—lithium crystals or whatever, and Scotty is there beaming us up. [*Laughter*] But until then, we've got to live in the real world.

So I say all that not because I don't recognize the urgency of the problem. It is because we're going to have to straddle between the world as it is and the world as we want it to be and build that bridge. And what I always tell my staff, and what I told our negotiators during the Paris Agreement, is better is good. Better is not always enough; better is not always ideal, and in the case of climate change, better is not going to save the planet. But if we get enough better, each year, we're doing something that's making more progress, moving us forward, increasing clean energy, then that's ultimately how we end up solving this problem.

And that's when we can start creating political coalitions that will listen to us, because we're actually recognizing that some people have some real concerns about what this transition is going to do to them, to their pocketbook, and we've got to make sure that they feel like they're being heard in this whole process.

Ms. Hayhoe. Absolutely. I couldn't agree more, first of all. And second of all, I think that this really underscores one of the biggest lessons that I, as a scientist, have learned. So, so often, we feel like facts and information are what's going to make people care.

And so many times, I have somebody come into me and say, Katharine, if you could just talk to my mother, if you could just talk to my brother-in-law, if you could just talk to our city councilperson and give them the facts—it's real, it's us, it's bad, we have to fix it—that will change their minds. The biggest thing I've learned is that facts are not enough. In fact, the more literate we are about science, the more polarized, we are about climate change.

The most important thing to do is not to pile up scientific reports until they reach a tottering pile of about 8 feet, where they'll tip over and crush somebody. The most important thing to do is to connect this issue to what's already in our hearts. Because one of the most insidious myths I feel like we've bought into is that I have to be a certain type of person to care about climate change. And if I am not that person, then I don't care about it because I care

about these other things. But the reality is, is that if we're a human living on this planet—which most of us are, yes—as long as we haven't signed up for the trip to Mars—I don't want to know if anybody has. I think you're crazy. [*Laughter*]

Mr. DiCaprio. I did, but I canceled.

Ms. Hayhoe. Oh, you did? Oh, I'm sorry, I take that back. [*Laughter*]

The President. No, no, he is—I think he'll acknowledge he's crazy. [*Laughter*] That's okay.

Mr. DiCaprio. That's out.

Ms. Hayhoe. All right, we'll go with that. [*Laughter*] So, if we're a human living on this planet, this is the only planet we have. It's our home. If we're a parent, we would do anything for our children's sake. If we're a businessperson, we care about the economy. We care about the community that we live in. We care about our house. We care about the fact that we want to have clean air to breathe; we want to have enough water to drink; we want to have a safe and secure environment in which to live.

The single most important thing I feel like I've learned is that we already have all the values we need to care about climate change in our hearts, no matter who we are and what part of the spectrum we come from. We just have to figure out how to connect those values to the issue of climate.

Climate Change/Sea Levels/National Security Implications of Climate Change/Energy Efficiency

[*Ms. Hayhoe responded to several questions posed by Mr. DiCaprio, who then continued as follows.*]

Mr. DiCaprio. I got the opportunity to sit with the head of NASA, and you'll see a lot of this in the film, but he basically projected the next 20 to 30 years. And he started talking about specifically the United States and the possibility of another Dust Bowl coming up. I asked about my home State of California and the wildfires and the droughts that are occurring there. And he said you can expect to continue that.

Ms. Hayhoe. Yes.

Mr. DiCaprio. Do you agree that if we—we're going to feel some of the repercussions of climate change in the form of rising sea levels, more intense hurricanes, and we're going to see droughts and wildfires like that start to occur in the future. How—what do you think the future is going to look like for us if we do not take immediate action? Do you think we'll be able to sustain the projected levels of what's going to happen to our planet for the next 20 years? Or do you think that if we don't take immediate action, things are going to get exponentially worse?

[*Ms. Hayhoe made brief remarks, concluding as follows.*]

Ms. Hayhoe. It isn't a single event where we can point at, and we can say, okay, that event was definitely climate change, but that event was a hundred-percent natural. It's more like climate change is taking the natural weather dice—and there's always a chance of rolling a double six, an event that has a huge impact on us, economically—and climate change is sneaking in when we're not looking, and it's taking another one of those numbers and replacing it with a six and then another number and replacing it with a six. So the chances of rolling that double six are increasing the further we go down this road.

The President. Now, one thing I'd say, Leo, and I think Katharine alluded to this—another analogy to think about is, we're heading towards a cliff at 90 miles an hour. And if we hit the brakes, we don't come to an immediate stop without spinning out of control. And so what we have to do is, we have to tap the brakes. And if we tap the brakes now, then we don't go over the cliff.

So, when you think about climate change, there's a big difference between the oceans rising 3 feet or the oceans rising 10 feet. Three feet, it's going to be expensive and inconvenient and disruptive. And we already see that—if you live in Miami right now—and I think, in fact, in your film, you reference this—there are sunny days where, at noon, suddenly, there's 2 feet of water in the middle of the streets. And the reason is because as the

oceans and the tides rise, Miami is on pretty porous rock, so it's not even sufficient to build, like, a wall because it's coming up through the ground.

And it's going to be really expensive for Miami with 3 feet of water—or 3 feet of higher ocean. But it's probably manageable. Once you start getting to 10 feet, then you don't have South Florida. There will still be Florida, but it will be the Florida that it looked like maybe a million years ago.

Ms. Hayhoe. Yes.

The President. And that's a lot of property value. South Beach and Coral Gables, and there are a lot of really nice spots. [*Laughter*]

My hometown of Hawaii—or Honolulu. Honolulu will still be there, but 3 feet just means you're moving houses a little bit back from the beach. Ten feet means the beach doesn't exist.

And so the ramifications of whether we work on this now, steadily, and make progress or we don't could mean the difference between huge disruptions versus adaptations that are expensive and inconvenient, but that don't fundamentally change the shape of our society or put us into potential conflict.

Now, I'm using examples here in the United States. Poor countries are obviously much more vulnerable. If you see a change in monsoon patterns in the Indian subcontinent, well, you've got potentially a billion people who are dependent on a certain pattern of rains, the Himalayas getting a certain amount of snowpack, et cetera, and those folks' margin of error is so thin that you might end up seeing migrations of hundreds of millions of people, which invariably will create significant conflict.

There's already some really interesting work—not definitive, but powerful—showing that the droughts that happened in Syria contributed to the unrest and the Syrian civil war. Well, if you start magnifying that across a lot of States, a lot of nation States that already contain a lot of poor people who are just right at the margins of survival, this becomes a national security issue.

And that's why, even as we have Members of Congress who scoff at climate change at the same time as they are saluting and wearing flag pins and extolling their patriotism, they're not paying attention to our Joint Chiefs of Staff and the Pentagon who are saying that this is one of the most significant national security threats that we face over the next 50 years.

And all of which is to say that as hard as it is for us to start acting now to solve a problem that has not fully manifested itself yet, this is going to be a really important test for humanity and our political system. And it's a test that requires everybody to do better. It requires me to do better, as somebody who's got a voice. It requires Katharine and scientists to communicate more effectively. Everybody should take a lesson from Katharine on how to explain this stuff in ways that people understand.

It requires us reaching out to the faith community in ways that Katharine has done a really good job of, because there are a lot of evangelicals who are actually generally on the conservative side of the spectrum, but care deeply about this planet that God made. It requires us to reach out to sportsmen and hunters and fishermen who may not agree at all on Second Amendment issues, but they sure like and understand the notion that they've got a forest where they can go out and—although they probably don't want to be mauled by a grizzly bear—[*laughter*]—that looks a little severe. [*Laughter*]

So all of us I think are going to have to do better than we're doing in elevating this issue. And as I said before, better is good. We can start with existing technologies. I'll just use one last example on this.

If we just had the energy efficiency of Japan, which is an island nation that doesn't have a lot of fossil fuels, and so, historically, in their development path have been much more conscious about energy efficiency, we could reduce our energy consumption by 20 percent without changing our standard of living. Simple stuff like when you leave a room the light automatically goes off instead of its still being on.

A lot of companies are doing some smart work because it affects their bottom line. Our ability to measure in houses sort of smartly how much energy we're using and minimizing waste of energy and heat can make a huge dif-

ference. Folks in Texas, you need—air conditioning is a great invention, but nothing gets me more frustrated than seeing somebody, and it's 100 degrees outside, and they're wearing a sweater indoors because the air conditioning is turned up too high.

Ms. Hayhoe. Yes, yes.

The President. But we do that everywhere—partly because of building design. You can't open the windows, and so, as a consequence, you can't use natural temperature regulators.

There's a bunch of stuff that seems kind of simple and stupid, but would make a big dent. All those things have to start getting factored in. But we've got to change our politics. And as Leo said, it's got to come from the bottom up. Until on a bipartisan basis, politicians feel that their failure to address this will cost them their seats, potentially, or will threaten their careers, then they're going to continue to operate in ways that I think are really unproductive.

Ms. Hayhoe. Yes. I began to study climate science over 20 years ago, and I have lived through the period where climate change has become one of the most politicized issues in the entire United States to where the number-one predictor of what our opinions are about climate change is nothing more than where we fall on the political spectrum.

The reality is, as my husband says, who is an evangelical pastor, a thermometer is not Democrat or Republican. It does not give us different numbers depending on how we vote. The science is what it is. If we say gravity isn't real, and we step off the cliff, we're going down anyways. But the solutions are political. Do we go with a cap-and-trade? Do we go with a carbon tax? Do we go with technological incentivizes? What do we do about other countries? How do we build States and businesses and communities? These are political, and they should be debated up and down the halls. But what should not be debated is the fact that we are all human, we share this amazing home that we live in, and it is in all of our best interests to make sure that we leave it a better place for our children.

The President. Good.

Environmental Conservation/Air Pollution/China

Mr. DiCaprio. This is my last question. President Obama, you used the Antiquities Act to preserve more acres of land and sea than any President since Teddy Roosevelt. [*Applause*] I was going to say, let's give him a round of applause, but they did that automatically. The great Teddy Roosevelt. How important is it to have a President who not only believes in the science of climate change—[*laughter*]—but one who understands that we must conserve these natural resources to create conditions that are conducive to a sustainable life for future generations?

The President. Well, this goes to the point Katharine made about values. And I mentioned I grew up in Hawaii. Those of you who have been there, it's a really pretty place. And the native Hawaiian traditions are so woven with nature and the sea and outdoors, and so that seeps into you when you grow up there.

But I tell you, I don't know any place in the country where there isn't someplace that evokes the same kind of sense of place and beauty. It may be a desert landscape. It may be a forest somewhere. It may be a mountain. And as my girls start getting older, I start thinking about grandkids—not soon. [*Laughter*] But it's natural, you start thinking about sort of the next stages of your life and the idea that my grandkids wouldn't see something I had seen, that—you can be a conservative Republican in Alabama, but you've got a memory of your dad taking you out hunting, and you being quiet and still, and you want to do that same thing with your kid. And it may be different than me taking my grandkid bodysurfing at Sandy Beach, but there's the same feeling of wanting to pass that on, of feeling deeply about it and caring deeply about it.

And I think one of the ways for us to tackle the climate change issue is also to lift up the power and the values that are embodied in conservation. It's kind of a twofer. When we went out to Midway Island, which is already a historic site because in part this was the turning point of World War II. There are people who revere this site because of its history in

World War II and the incredible courage and bravery of people who were outnumbered, but ultimately were able to turn back the—a Japanese fleet that was on its way to Hawaii.

But we were up there, and this is water that's just untouched. And you're seeing monk seals diving in and swimming next to you, and turtles that are climbing up on the beach just to sun themselves, and it used to be there were 60,000 birds, and now there are 3 million birds on this island—bunch of species that were about to go extinct. It all came back just in the span of one generation because of conservation. Well, not only is that creating incredible beauty, but it also means now that you have this huge preserve of ocean that is not contributing to climate change.

And so I think these two things go hand in hand. In the same way that the issue of air pollution and disease is, in some ways, a way to get at the climate change issue if people aren't directly concerned about climate change. In China, frankly, part of the reason that people are—that the government there was willing to work with us, they're number-one priority is political stability. And what they started noticing was the number-one Twitter feed in China was the air quality monitor that was put out each morning by the U.S. Embassy. It was the single thing that more Chinese looked at than anything because people couldn't breathe in Beijing.

And smog is not the same as carbon dioxide, but it is generated by the same energy pattern usages. So, if that's people—if that's where people are at right now and they want to be sure their kids are healthy, then let's go after that. If they're interested in conservation as a way to start thinking about climate change, let's go after that. There are so many entry points into this issue, and we've got to use all of them in order to convince people that this is something worth caring about.

But at the end of the day, the one thing I'm absolutely convinced about is, everybody cares about their kids, their grandkids, and the kind of world we pass on to them. And if we can speak to them about our responsibilities to the next generation, and we can give people realistic ways to deal with this so that they don't feel like they've got to sacrifice this generation to do it, they have to put hardship on their kids now in order to save their grandkids—then I tend to be a cautious optimist about our ability to make change. But events like this obviously make a big difference and really help.

Ms. Hayhoe. Yes.

Mr. DiCaprio. Mr. President, Katharine, thank you so much for your time. I'm truly honored to premier this film here on the White House lawn. This—like I said, this was a 3-year endeavor. I learned so much and I'm going to let the film speak for itself as far as everything that I experience on this journey.

Thank you so much for your time. Let's give them a round of applause. Thank you.

The President. Thank you, everybody. Appreciate you. Thank you.

Mr. DiCaprio. Thank you all for showing up.

The President. Have fun, everybody.

Mr. DiCaprio. Enjoy the film.

NOTE: The President spoke at 7:10 p.m. on the South Lawn at the White House. In her remarks, Ms. Hayhoe referred to her husband Andrew Farley, lead teaching pastor, Church Without Religion in Lubbock, TX. The transcript released by the Office of the Press Secretary included the complete remarks of Mr. DiCaprio and Ms. Hayhoe.

Remarks Following a Briefing on Hurricane Matthew Preparedness Efforts at the Federal Emergency Management Agency

October 5, 2016

Well, Administrator Fugate here at FEMA, as well as a number of other agencies, our Army Corps of Engineers, our National Guard, have just briefed me on preparations that we're making for the possibility of some serious effects from Hurricane Matthews.