Remarks by Judith Enck
Climate Change in the Caribbean 2011
San Juan, Puerto Rico
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Slide 1: EPA seal

- Good morning everyone. It's great to be here with you.
- The first thing I want to do is to thank the Inter-American University of Puerto Rico School of Law for hosting us today.
    - Thank you to Pedro Nieves, a great partner of EPA.
- And I want to thank all the people and groups who came together to make this event happen:
    - Agencies:
        - Puerto Rico Department of Natural & Environmental Resources
        - National Oceanic and Atmospheric Administration
        - US Forest Service
        - US Geological Survey
        - US Fish & Wildlife Service
    - People: Please stand as I say your name.
        - Carl Soderberg – Director of EPA's Caribbean Division
        - Paul Simon – EPA
        - Antares (An-tar-es) Ramos – National Oceanic & Atmospheric Administration
        - Marlon Hibbert – National Oceanic & Atmospheric Administration
        - Adrienne Antoine - National Oceanic & Atmospheric Administration
        - Lilibeth Serrano – U.S. Fish & Wildlife Service

- Sonya Jones – U.S. Geological Survey
- William Gould – U.S. Forest Service

Special recognition of:

- Kasey Jacobs – NOAA – the next generation of environmental leaders
- Hector Velez – EPA, my colleague and friend

- There really is an impressive collection of knowledge in this room.

Slide 2: polar bear

- I believe that climate change is the greatest environmental challenge of our time, and it requires the attention of the great economic and environmental minds of our time. So I'm glad to see you all here.
- If you've been studying climate change – if you've been looking at data and examining the facts – then you know there is an overwhelming scientific consensus on this issue.

Slide 3: heat map

- The evidence tells the story: climate change is here, and it's real.
  - The 15 hottest years on record all occurred after 1991.
  - The decade between 2000 and 2009 was the warmest decade ever recorded.
  - We've seen a warming trend for several decades now, and the effects on the environment are already measurable.

Slide 4: Arctic ice

- Arctic sea ice, as measured in 2009, was 24 percent below the average established between 1979 and 2000.
  - 2007 had the <u>least</u> Arctic ice of any year on record.

- The second least? 2008.
- The third least? 2009.

Slide 5: Sea level rise

- As ice melts, sea levels are rising around the world, and that is a big concern for all coastal areas, such as the Caribbean.
  - Since 1870, average sea level has increased at a rate of about six-tenths of an inch per decade. That doesn't sound like much, but understood in context, it's a huge change.
  - But in recent years, the rate is more than an inch per decade.
- We're observing other trends that are associated with climate change.

Slide 6: Warm water

- Warmer ocean surface temperatures
- More frequent heavy rainfall events
- Severe coral bleaching events
- And the ocean is more acidic.
- For those few climate change skeptics out there, the case that climate change is not real, is melting away.

- The effects of climate change on Puerto Rico and other Caribbean islands will be severe if we don't take action.
- Sessions later this morning will spell out in detail the consequences of climate change for Puerto Rico and the Caribbean.

- I encourage you to pay close attention to those sessions, because they'll contain information that is critical to the island's future.

Slide 7: Hurricane damage

  - I already mentioned the relationship between climate change and hurricanes.
    - Tropical storm systems are a very real threat to Puerto Rico's safety and livelihood, and as ocean temperatures rise we can expect more severe storms.
    - Six of the ten most active hurricane seasons have occurred since the mid 1990s.
  - As the composition of the atmosphere changes, the ocean will become more acidic, unbalancing the ecosystem.

Slide 8: Ocean acidity

  - The coral reefs that are such an important part of that ecosystem in the Caribbean will be threatened.
  - There will be adverse impacts on coastal infrastructure.
  - There will be coastal erosion and more frequent flooding.
  - Industries that depend on the environment – industries like fishing, agriculture, and tourism – will suffer.
  - There will also be immediate, negative effects on public health.
    - Heat waves will be more frequent and more severe.
    - This presents a serious public health threat to those with heart problems or asthma, as well as the homeless, and the elderly.
- Based on the information you will learn at this conference, you will have the information you need to take action.

Slide 9: You have the power to take action

- Most detailed discussion about climate change can get pretty darn depressing pretty darn quick.
- Temperature-wide, the earth is in for a rough ride.
- But the hopeful thing is that solutions abound.
- So let's hit pause on the enormity of the problem and fast-forward to solutions.
    - Solutions that are known, practical, and readily adaptable today.
- And many of these solutions are good for the economy.
- Some people present the dilemma as the economy versus the environment.
- But that's a false choice.
- We can reduce the impacts of climate change while strengthening our economy and building a more sustainable future.
- Carbon emissions generally come from two major sources: energy production and transportation.
- Let's start with energy production.

Slide 10: Solar panels

- Now is the time to develop new sources of clean, renewable energy.
- The indigenous energy sources in Puerto Rico are not oil, coal or plutonium. Puerto Rico's indigenous energy resources are: the sun, the wind and water.
    - For years, we have essentially been subsidizing the cost of dirty energy by allowing the public to bear the cost of the pollution caused old-fashioned, outmoded methods of energy production.

- We pay a heavy price in medical costs and lost productivity for this so-called “cheap” energy.

Slide 11: Wind farm

- By developing clean energy, we can have energy production that comes without these problems and reduces greenhouse gas emissions at the same time.
- It also creates jobs.
    - For every billion dollars you spend building a coal-fired power plant in the United States, you create 870 jobs.
    - For every billion dollars spent purchasing and installing solar photovoltaic cells, you create about 1800 jobs.
    - I spend a lot of time driving around New Jersey and most utility poles have solar panels connected to each pole. PREPA could be doing this. Puerto Rico is much sunnier than New Jersey.
    - For a billion dollars spent on wind power – if all parts of the wind turbine are made in the United States – you create 3300 jobs.
    - EPA is working with mayors in Puerto Rico to put solar projects at old closed landfills. Two weeks ago, we held a meeting on our solar project and over 130 people participated. Let us know if you want to help.

- The future lies in green energy.
- It’s a job creator.

- And that's one of the reasons to focus on President Obama's proposed American Jobs Act.
    - The Jobs Act contains money for clean energy development.
    - It provides money for the development of mass transit and energy efficiency in school buildings.
- We can get more energy from clean sources, and we can reduce the amount of energy we need to begin with.
    - More importantly, let's make energy conservation a priority.

Slide 12: Energy star

- Puerto Rico has extremely high energy costs. Why isn't there a massive island-wide effort to promote energy efficiency? Remember "Give a hoot, don't pollute"? "Save a watt, save a lot."
    - Let's make sure we only buy new appliances that have the EPA Energy Star label – fans, refrigerators, washers and dryers, microwaves.
    - Let's make the long-overdue switch to light bulbs that use less energy, especially in large commercial buildings.
    - Build LEED-certified green buildings like the new office EPA is moving into early next year.
    - Work with foresters and promote urban tree planting. New York City Mayor Michael Bloomberg has the goal of planting a million trees.
    - Promote sustainable cities where you can walk and bike to work.
    - Train thousands of young people to retrofit old buildings and get our best engineers working on more energy efficient products. We can all do this! It will create jobs.

- Along with energy, the other primary source of greenhouse gases is transportation, and there are a lot of improvements we can make in that area, as well.

Slide 13: mass transit

- We can invest in mass transit.
    - Puerto Rico has way too many cars.
    - There are three cars for every four people in Puerto Rico – one of the highest rates of car ownership in the world.
    - Perhaps not surprisingly, Puerto Rico also has the highest asthma rate in the nation.
    - And I don't have to tell you: traffic in San Juan can be atrocious.

Slide 14: light rail

    - Investments in buses, light rail, and other forms of mass transit would make Puerto Rico – and particularly San Juan – a more livable and more breathable city.
    - When we do drive, we can make the switch to hybrid and electric cars.

Slide 15: Lisa Jackson clean cars

    - Even non-hybrid cars can be more fuel efficient.
        - This is why EPA is working with auto companies, auto workers, and environmentalists to make American vehicles more efficient than ever.
        - Last year, EPA completed the first-ever national greenhouse gas emissions standards under the Clean Air Act, and launched new, tougher fuel-efficiency standards for cars and trucks.

Slide 16: Bike lanes

- But we don't have to be prisoners in our cars.
  - Bike to work. Walk to work. Bike or walk to the store on weekends. Talk to your kids along the way.
  - Make the island bike and pedestrian friendly by making bike lanes and sidewalks part of all communities.
  - Support local farms and reduce "food miles."
- There are endless opportunities.

- There are also opportunities to fight climate change by doing things that we know are good for the environment in other ways.

Slide 17: Recycling

- One big thing is that we need to recycle more.
  - Recycling is good for the environment in so many ways.
    - It saves energy, conserves raw materials, reduces the amount of waste that needs to be sent to landfills, and reduces pollution.
    - Waste that's sent to landfills decomposes, producing methane, a greenhouse gas that's 21 times more potent than carbon dioxide.

Slide 18: landfill

- The solid waste disposal situation in Puerto Rico is dismal. It is even worse in the Virgin Islands.
  - Puerto Ricans product five pounds of trash per day.
  - All of Puerto Rico's 29 landfills are out of compliance with environmental regulations, and many are running out of space.

- The recycling rate in Puerto Rico is estimated at 8-12 percent, and I think it's less than that.
- This must change. And it will change.
- Last year EPA helped launch the Puerto Rico Recycling Partnership.
- We have a sustainable solid waste plan, which is a blueprint for how to handle solid waste issues on the island.
- First, reduce. Then, recycle. Third, donate unused food and compost yard waste and food waste.
- Then, after you have done everything humanly possible to reduce, recycle, and compost, you put the small amount of municipal solid waste that is left in a lined landfill, one that is in full compliance with all environmental laws and regulations.

Slide 19: recycling worker

- This approach is not only the most environmentally protective, but it is cost-effective and it will create scores of new jobs.
- This afternoon there's a session about some of the terrific efforts underway in both Puerto Rico and the Virgin Islands to put robust recycling programs in place. I invite you to join us as we work with the recycling partnerships in Puerto Rico and the U.S. Virgin Islands. All are welcome.
- This is exactly the kind of initiative we need.
- Recycling is the low-hanging fruit. And a successful strategy to fight climate change must include strong recycling program.

Slide 20: wetlands

- We can also fight climate change by preserving our nation's wetlands.

    - Like recycling, this would be a good environmental practice even if climate change didn't exist.
    - Wetlands improve water quality and mitigate the effects of hurricanes and floods.
    - They also act as a carbon sink for greenhouse gases.
    - EPA's support for wetlands preservation stems from both our interest in preserving vital ecosystems and our determination to fight climate change.
- I know that a large part of this conference will be spent describing exactly where things stand on climate change.
- And that can get depressing. The threat is all too real.
- But I don't want you to get discouraged.
- The challenge is a big one, but solutions are out there.

Slide 21: Too big to fail

- We know what they are. We're working to make them happen. And new solutions will present themselves as science and technology provide us with better ways of doing things.
- My job as an EPA Regional Administrator is to stand alongside the people who are working to fight climate change.
- And I want <u>you</u> to stand with <u>me</u>.
- Know that the work you're doing is some of the most important work in the field today.
- Use this conference to learn, ask questions, and share what you know so that the knowledge of where we are and where we're headed can grow and take root in new places.

- Thank you for being here.
- And remember the wisdom shared with us from Margaret Mead: “When the people lead, the leaders will follow.”
- This conference will provide you with all the latest information you need to go lead.
- If banks are too big to fail, then our planed should be too big to fail, too.
- Have a terrific conference.