Hurricane Matthew: Messaging the Storm

Hurricane Matthew pummeled the Southeast Coast of the United States this last weekend, illustrating the amplification impact of climate change. The storm has left at least 20 dead, rivers in the Southeast are still rising, and flooding will likely continue to inflict significant damage. The hurricane made a catastrophic landing in Haiti where over 1,000 lives where lost.

When talking about the connections between Matthew (or any storm) and climate change, communicators should take care to make accurate statements about these connections. Here are some tips for talking about this historic storm:

- **Paint the big picture first**.

  - Global warming is changing the weather. The past few years have been marked by unusually severe extreme weather characteristic of climate change.

- **Say what we know about hurricanes and climate change**.

  - Climate change makes hurricanes more dangerous.
  - Sea level rise increases the reach of storm surge and amplifies flooding losses where hurricanes strike.
  - Global warming loads hurricanes with more rainfall, increasing the threat of flooding.

  Don't start with what we *don't* know, such as "We are not yet fully certain that hurricanes have been getting stronger due to climate change."

- **Use the language of "risk" whenever talking about uncertainty.**
  About the strength of Hurricane Matthew, note that:

  - The seas are getting warmer.
  - Hurricanes fuel off that warmth and have been growing stronger over recent decades.
  - Hurricane Matthew fits that trend. And there is a significant risk that global warming is driving that trend.

- **Explain how Matthew is part of the larger context of climate change.**

  Record atmospheric moisture, record rainfall, record flooding, and record storm tides riding on top of sea level rise, all witnessed during Matthew, are consistent with the direction of climate change.

- Seas are higher along the Southeastern US due to climate change, which results in higher storm surge that penetrates much further inland.

- Record storm tide during Matthew was recorded at three of the ten tide gauges with long-term records along the coasts of northern Florida, Georgia, the Carolinas, and Virginia.

- A small vertical increase in sea level can translate into a large increase in horizontal reach by storm surge in low-lying areas. Sea level rise extended the reach of Hurricane Sandy by 27 square miles, affecting 83,000 additional individuals living in New Jersey and New York City.

- Atmospheric moisture levels during Matthew were record high over the Southeast, helping to drive record rainfall and record flooding.

- Unusually warm coastal seas also helped to load moisture into the storm, fueling heavy rain.

- Sea surface and ocean temperatures in the Caribbean where Matthew formed were near record-high, which likely drove the storm's unprecedented explosive growth and duration.

- **Reiterate the climate connection**

  - Climate change has stacked the deck, making these kinds of event worse, and they will only continue to get worse unless we stop carbon pollution.

- **Explain that we can address the threat of climate change, and provide a concrete action to start.**

  [Provide a climate change or preparedness action that your organization supports or that your members/readers can take.]

For more information, please visit the Hurricane Matthew page on Climate Signals, an on-line database of climate change impacts hosted by Climate Nexus.