Sustainable Development in a Changing World

Peter deMenocal
Dept. of Earth and Environmental Sciences
Earth Institute, Columbia University
Why do we care about climate change?
A realization

Dec. 7, 2009
Understand how climate change impacts food, water, and shelter. Find energy solutions.
Climate change is changing access to water for drinking, agriculture, and power

Seager et al., 2007
For each degree of warming crop yields lower by 5-10%

Schlenker et al., 2013, 2009
Ocean acidification affects the base of the food chain.
Shelter • Sea level & extreme weather
Conflict

Climate and conflict are related.

US Dept of Defense (2010 QDR): “Climate change will have significant geopolitical impacts around the world, contributing to greater competition for more limited and critical life-sustaining resources like food and water”
“Climate change is, after all, a development issue.

Unchecked, climate change will undermine development gains and increase poverty and vulnerability.

Acknowledging climate change and setting in place policies to address it can make a positive contribution to long term, sustainable growth, job creation and prosperity.”
Climate change threatens the world we want

Climate shouldn’t be just an SDG theme.

Health
Education
Growth and employment
Environmental Sustainability
Governance
Conflict and fragility
Population dynamics
Hunger
Food and nutrition security
Energy
Water

… and climate change

Climate impacts most SDG themes

Climate Change impacts:

Health
Education
Growth and employment, Environmental Sustainability
Governance
Conflict and fragility
Population dynamics
Hunger
Food and nutrition security
Energy
Water
1. This isn’t going away. Climate and energy transitions are near – are these SDG opportunities?

2. How to work in such a polarized issue?

3. Science can inform future choices and priorities. How to fast-track needed knowledge?

4. Adaptation can lead to long term, sustainable growth, job creation and prosperity.

5. Domestic leadership, international partnerships. (Lessons from Montreal?)
Thank You.