



# America's Climate Choices: Synthesis Report

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**Statement of Task:** America's Climate Choices is a suite of studies developing in response to a Congress mandate to: "...investigate and study the serious and sweeping issues relating to global climate change and make recommendations regarding what steps must be taken and what strategies must be adopted in response to global climate change, including the science and technology challenges thereof."

**Committee Members:** Albert Carnesale (Chair), Bill Chameides (Vice-Chair), Donald Boesch, Marilyn Brown, Jonathan Cannon, Thomas Dietz, George Eads, Robert Fri, James Geringer, Dennis Hartmann, Charles Holliday, Diana Liverman, Pamela Matson, Peter Raven, Richard Schmalensee, Philip Sharp, Peggy Shepard, Robert Socolow, Susan Solomon, Bjorn Stigson, Thomas Wilbanks, Peter Zandan

*In the judgment of the Committee, the environmental, economic, and humanitarian risks posed by climate change indicate a pressing need for substantial action to limit the magnitude of climate change and to prepare for adapting to its impacts. There are many reasons why it is imprudent to delay such actions, including:*

➡ The sooner that serious efforts to reduce greenhouse gas emissions proceed, the lower the risks posed by climate change, and the less pressure there will be to make a larger, more rapid, and potentially expensive reductions later.

➡ Some climate change impacts, once manifested, will persist for hundreds of years, and will be difficult or impossible to "undo." In contrast, many actions taken to respond to climate change could be reversed or scaled back, in they somehow prove to be more stringent than actually needed.

➡ Every day around the world, major investments are being made in equipment and infrastructure that can "lock in" commitments to more greenhouse gas emissions for decades to come. Getting the relevant incentives and policies in place now will provide crucial guidance for these investment decisions.

➡ Many of the actions that could be taken to reduce vulnerability to climate change impacts are common sense investments that will offer protection against natural climate variations and extreme events.

We will always be facing uncertainties about climate risks, but uncertainty is not a reason for inaction; to the contrary, it can be an important reason for action. It argues for using iterative risk management, which emphasizes taking action to reduce risk while continuously incorporating new information and adjusting efforts accordingly.

*The different types of response actions discussed in this series are closely interlinked. Some of the ways in which these actions benefit one another are listed below:*

	Will strengthen this element because...			
	limiting	adapting	advancing science & technology	informing
limiting		There may be less stringent, disruptive requirements (and thus lower costs) for adapting to climate change impacts.	There may be less pressure to develop risky and/or expensive technologies for coping with impacts.	The decision environment may be less contentious if the severity of climate change can be limited.
adapting	Any given degree of climate change may be associated with less severe impacts and disruptions of human and natural systems.		There may be less pressure to develop risky and/or expensive technologies for limiting climate change (e.g., some forms of geoengineering).	The decision environment may be less contentious if communities and key sectors are prepared to deal with impacts.
advancing science & technology	R&D could help identify more and better options for limiting climate change.	R&D could help provide more adaptation options and more knowledge about their implications.		The knowledge base for informing decisions may be more complete, and the knowledge base about how to most effectively inform may allow better information flow.
informing	Effective options for limiting climate change may more widely deployed and used.	Effective options for adapting to climate change may be more widely deployed and used.	Science may be more attuned to decision needs, and public support for advances in science is likely to increase.	

Advancing this element...

The America's Climate Choices reports are available from National Academy Press (<http://www.nap.edu/>)

More information about the studies can be found at the project website.



<http://www.americasclimatechoices.org/>

## Recommendations

1. **Reduce greenhouse gas emissions** substantially over the coming decades. The magnitude and speed of emission reductions depends on societal judgments about how much risk is acceptable. But it is the committee's judgment that the most effective strategy is to begin ramping down emissions as soon as possible.

2. **Adaptation planning and implementation should be initiated** at all levels of society. The federal government, in collaboration with other levels of government and other stakeholders, should develop a national adaptation strategy and build the institutions needed to implement that strategy.

3. The federal government should **maintain an integrated portfolio of research programs**, with the dual aims of increasing understanding of climate change, and enhancing our ability to limit climate change and adapt to its impacts.

4. The federal government should lead in **developing and supporting the information systems needed** to inform and evaluate America's climate choices, to ensure legitimacy and access to climate services, greenhouse gas accounting systems, and educational information.

5. The nation's climate change response efforts should **include broad-based deliberative processes for assuring public and private sector engagement** with scientific analyses, and with the development of response policies.

6. The U.S. should actively **engage in international climate change response efforts** to reduce emissions, to enhance adaptive capacities, and to advance research and observations.

7. The federal government should **facilitate coordination of the many interrelated components** of America's response to climate change. This includes 'vertical' coordination among different levels of government, and 'horizontal' coordination among the different federal agencies and other types of stakeholder organizations.

