

(This post is co-authored with [Alejandro Camacho](#), Associate Professor of Law, University of Notre Dame, and cross-posted with permission from the [Center for Progressive Reform](#) blog.)

It's heartening that the recently released [Waxman-Markey climate change bill discussion draft](#) includes a lengthy subtitle on Adapting to Climate Change. No matter how rapidly the world acts to reduce future greenhouse gas emissions, significant changes to global temperatures, sea levels, precipitation patterns, and ocean acidity are already locked in. Human well-being and protection of natural resources require that we respond to those changes, and those steps are likely to be both more effective and more efficient if we identify and implement them now, while climate changes are in their early stages.

The adaptation provisions are exciting, though not perfect. The draft calls for assessment at the national and regional level of vulnerabilities to the impacts of climate change and identification of strategies for proactive response. It focuses special attention on impacts on natural resources, which might otherwise be easy to ignore. It would create a national clearinghouse for adaptation information and technical assistance. It would engage the White House directly, raising the political profile of adaptation issues within the executive branch. And it would dedicate funds, independent of the political swirl of the annual budgeting process, to support federal and state adaptation efforts.

The details still need work, however. We have two major concerns with the draft as it stands. First, it fails to come to grips with the problem of identifying clear goals for natural resource adaptation efforts. Second, it would create a confusing and to some extent repetitive array of planning processes and responsibilities, while failing to engage some important federal agencies in key aspects of the adaptation effort.

The most important flaw in the discussion draft is its lack of clarity on the goals of natural resource adaptation. Setting coherent goals for conservation in a changing world is difficult, yet essential for prioritizing adaptation efforts and evaluating progress over time. The draft would declare a national policy of assisting natural resources to "adapt to and withstand the impacts of climate change and ocean acidification." That's not specific enough to prioritize adaptation efforts, and it elides the key problem, which is that climate change may so quickly and thoroughly alter current conditions that it will be impossible for species, communities, and ecosystems to adapt.

People may need to intervene, actively moving species and reshaping communities, in order to conserve a substantial proportion of our current biodiversity. Because that would be expensive, and mark a radical departure from our traditional strategy of protecting nature

by leaving it alone, conservation agencies are unlikely to do it on their own without additional guidance.

The draft would establish an independent Science Advisory Board to help guide natural resource adaptation efforts. That group should be charged with recommending specific goals and priorities for adaptation, using the best available scientific information about the extent and pace of likely changes to climate and habitat conditions. The lead federal agency for adaptation should review and adopt or modify those recommendations. Once adopted, the goals should be used to guide funding decisions, replacing the detailed but essentially arbitrary formula in the draft bill for dividing funds among agencies. A more specific and detailed set of goals should also provide the basis for regular evaluation of the pace of progress and periodic adjustment of adaptation strategies.

Another shortcoming of the discussion draft is the confusing and needlessly complex structure it prescribes for adaptation planning. Planning should not be a goal unto itself, but a means to the end of effective and cost-effective adaptation actions. The draft calls for an array of new councils, panels, and agencies. New entities should be created only if existing institutions cannot or will not perform the new functions. Planning and study efforts also should not be carelessly multiplied; the planning mandated by this new bill should not duplicate efforts already under way or mandated by earlier legislation, and the natural resource adaptation planning it calls for should be integrated into the larger national vulnerability and adaptation assessment.

At the individual federal agency level, there are two problems with the draft's planning requirements. First, the draft seems to mandate a separate new natural resource adaptation planning program for resource management agencies. Planning is more likely to be put into action if it is integrated into existing planning and implementation structures. Integration makes perfect sense for climate change adaptation, which will pervasively affect natural resource management. The federal land management agencies (the Forest Service, Bureau of Land Management, Fish and Wildlife Service, and National Park Service) already have mandates for planning for the lands they manage, and mandates to ensure that management is consistent with those plans. A requirement that those agencies update their plans to take climate change and the need for adaptation into account (with appropriate deadlines) would be more useful than a completely new planning requirement, disconnected from the agency's existing management structure.

Second, the draft's mandate for natural resource adaptation planning applies only to the handful of agencies whose primary missions currently include natural resource management. That's a start, but plenty of other federal agencies routinely take actions that

compound the threats to natural resources or make adaptation more difficult. The Federal Emergency Management Agency, for example, operates the federal flood insurance program, which has a great deal of influence on the extent to which floodplains can be developed. FEMA should be required to examine the effect of climate change on its floodplain maps, and the extent to which new development in floodplains may interfere with efforts to conserve species and ecosystems. Because so many federal agencies carry out, fund, or authorize activities that increase threats to natural resources or could operate at cross-purposes with adaptation efforts, natural resource adaptation planning should be expressly required for the entire executive branch.

For these agencies, too, natural resource adaptation planning should be integrated into existing agency programs and decision-making structures. That probably can't be done effectively through a single set of prescriptive requirements, because agencies and their relevant actions are so diverse. A better approach might be to simply require (with appropriate deadlines) that every federal agency develop and implement a program to identify and address the impacts of their actions on natural resource adaptation. That should be done in consultation with, and subject to the approval of, the lead agency for natural resource adaptation.

In sum, the Waxman-Markey draft is an encouraging start. While it could be improved, it draws needed attention to the problem of climate change adaptation, and is a good launching pad for discussion.