



LABOR NETWORK
FOR SUSTAINABILITY

A briefing paper for unions

National Climate Assessment: An Opportunity for Labor

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If you saw some scary headlines about global warming recently, there is a good chance they came from a preliminary draft of the US government's third National Climate Assessment. The NCA is as close as there is to a definitive summary of what scientists tell us about the effects of climate change on the US and its diverse regions.

While the alarming scientific findings of the NCA have grabbed media attention, its unique stakeholder process has often been ignored. The NCA is not just a product of the scientific ivory tower; it is based on a conversation between scientists and community members across the country. That conversation has included farmers, indigenous people, rural residents, urban planners, resource managers, and many community-based experts and ordinary citizens.

The NCA is playing a significant role in how our society thinks about and responds to climate change. Unfortunately, so far organized labor has not been a part of that conversation. Fortunately, the door is still open. If unions want the concerns of working people to be included in the climate debate, the NCA represents a unique opportunity to raise them. This briefing paper tells how.

The NCA: What the heck is it?

In 1990, in response to mounting concern about global warming, Congress established the US Global Change Research Program (USGCRP). It required the government to develop an assessment of "global change" and to update it every four years. The assessment would present scientific findings about climate change; analyze its effects on the natural environment, agriculture, energy, land, water, transportation, human health and welfare, and biological diversity; and project future trends.¹

The first full-blown national impact assessment was a massive undertaking involving more than twenty regional and national teams between 1997-2000. Dr. Michael MacCracken, who coordinated the process, wrote,

"Each of a diverse set of activities has been led by a team comprised of experts drawn from universities and government, from the public and private sectors, and from the spectrum of stakeholder communities. Through workshops and assessments, a dialogue has been started about the significance of the scientific findings concerning climate change and the degree to which existing and future changes in climate will affect issues that people care about, both at present and in the future."²

As one environmental journalist described the process, it was "envisioned as the beginning stage of an ongoing experiment in engagement between scientists and the society they serve."³

The Assessment examined the implications of climate change for agriculture, forests, human health, water, and coastal areas and marine resources.⁴ And it examined what changes would mean for specific regions of the country. For example, impacts on water were important throughout the country, but in some regions the significant impact was on winter snowpack and reservoir systems, in others the impact of changes in precipitation on water quality, summer drought, and river and lake levels.⁵

The Assessment drew criticism from right-wing climate change deniers. When George W. Bush took over in early 2000, his administration completely stalled the production of the legally-mandated NCA on the impacts and significance of climate change. Assessment staff member Rick Piltz wrote, "A nationwide network of scientists and stakeholders who participated in the 2000 assessment was disbanded and largely disappeared, and this major study almost vanished from public consciousness." Myron Ebell of the right-wing Competitive Enterprise Institute said of the National Assessment, "To the extent that it has vanished, we have succeeded."⁶ Environmentalists eventually sued and a Federal judge ordered the Bush administration to produce the documents required by law, but the administration stalled right to the end.⁷

The Barack Obama administration revived the NCA -- and its participatory process. It not only involved hundreds of scientists; it revived the participatory process. In an introductory "Letter to the American People," the new draft National Climate Assessment says,

"This third National Climate Assessment effort has included extensive involvement of stakeholders in providing inputs to the structure and substance of the report. Teams of regional and sectoral experts, decision-makers, and stakeholders were formed to provide technical input and data to the Assessment process. Stakeholder and expert groups participated in more than 70 workshops and listening sessions. Participants included public and private decision-makers, resource and environmental managers, researchers, non-governmental organizations, and the general public. Stakeholders from various regions and sectors identified climate-change issues and information they asked to be considered in the assessment."⁸

The National Climate Assessment represents a unique participatory democratic model for public response to a shared problem. It represents the best available science, but it interprets the significance of that science through a collaboration of scientists with ordinary citizens and other stakeholders.

Labor's Stake in the National Climate Assessment

Climate change -- and of policies to address climate change -- will have an enormous impact on workers and worker organizations in the years ahead.⁹ Yet these impacts on labor have hardly been mentioned in most studies and public discussions of the effects of climate change. Unfortunately, this is true so far of the National Climate Assessment as well. A search of the 1000-plus page NCA draft finds only one reference to labor, and that is to labor markets, not organized labor. There are references to the Union of Concerned Scientists and the American Geophysical Union, but not a single mention of labor unions.

The NCA process presents a unique opportunity for unions and workers to make our voices heard about the climate crisis and how to address it. We can inject issues like:

- **Job destruction:** Climate change is causing significant economic destruction and consequent job loss through more extreme weather, sea level rise, fires, and other effects. These will directly affect all kinds of workers in all regions of the country. (For examples, see accompanying boxes.) Yet there has been little research on either current or future impacts of climate change on jobs. A labor voice can make scientists and decision makers pay attention to jobs.
- **Job creation:** Any serious effort at mitigation of and adaptation to climate change will require the creation of millions of new jobs. Organized labor and its allies have spoken up for "green jobs;" the NCA provides many opportunities to show how the response to climate change can help local communities and the country as a whole address its devastating shortage of good jobs.
- **Job quality:** When jobs issues are included in the climate change discussion, the focus rarely gets beyond the sheer number of jobs that might be lost or gained. Organized labor's concern goes beyond that, however, to consider the quality of jobs that may be created. Will they be safe and healthy jobs that allow families to have a decent standard of living, purchase homes, educate their children, and save for the future? Or will they continue the present trend toward insecure, health-threatening, poverty-level jobs with no benefits and no future? Will they provide basic labor rights that allow workers to organize, bargain collectively, and engage in concerted action? Or will they continue the present trend toward denial of human rights on the job?
- **Just transition:** Climate change is destroying jobs, but the transition to a climate-safe economy will also mean that some jobs -- for example in older,

high-carbon producing energy industries -- will be lost. It is a basic principle of fairness that the costs of changes that are necessary for society must not be shouldered off onto those who, through no fault of their own, are adversely affected by change. The NCA provides an opportunity for labor to put begin putting the question of a just transition to a climate-safe economy at the center of the climate debate.

- **Fairness:** Both climate change and protection against climate change and its effects raise many questions of fairness. As water becomes scarce and expensive, who will have access to it and who will pay for its increased cost? If producers and users of carbon are charged taxes or fees for the emissions they put into the atmosphere, who will end up paying higher electric rates or higher gasoline prices? How will this affect our society's growing division between a tiny segment of the ultra-rich and a growing majority living in poverty and deprivation? Such questions of fairness have been at the heart of organized labor's mandate for social justice. They belong at the heart of the climate debate.

If labor doesn't raise these issues, who will?

How Labor Can Join the Stakeholder Dialogue

There are two principal ways workers and unions can participate in the NCA process:

1. Join NCAnet

The NCA has established NCAnet, a national "network of networks" for "producers and users" of assessment information across the US. To learn more visit:

<http://ncanet.usgcrp.gov/home> Partners may join the network at any time. To begin the sign-up process visit:

<http://ncanet.usgcrp.gov/home/sign-up>

Two labor groups, the BlueGreen Alliance and the Labor Network for Sustainability, are NCAnet partners. NCAnet provides for affinity groups of partners with common interests, but so far there is no labor affinity group.

2. Prepare labor's own assessments

The third National Climate Assessment has been drafted and the final version will be released in March, 2014. The next assessment report is due in 2017; preparations for it have already started. Indeed, the NCA is now an on-going process. Anybody in any location can begin local and regional conversations to

feed into that process. [See box “How to do a climate assessment of your own” for some pointers on how to get started.]

Climate change isn’t just coming – it’s here. The NCA is a crucial part of how our society is preparing to respond. Labor needs its concerns to be included in that response.

How to Do a Climate Assessment of Your Own

Dr. Michael MacCracken, who coordinated the first climate assessment, provides some pointers for labor and other local groups who want to initiate their own climate assessment:

- Start by having a gathering/workshop/community meeting of scientists and stakeholders convened at some site in the area that is seen as a place where group discussions can be safely held—for example, a university, church hall, whatever—and have a few presentations covering the broader scale science issues, likely national level impacts, and then cover the types of possible local changes that are projected for climate/weather/extremes.
- Then go into breakout groups (or wisdom circles, as they were called by the Native American workshop I was at where the elders told stories about their recollections of change, etc.) There is tremendous knowledge and experience about how best to adjust to fluctuations in the weather among farmers, water suppliers, and lots of others, but these are likely too limited to be able to be adequate for adequately adjusting as climate change drives even greater weather extremes. For a range of regional topics (e.g., farming, forests, mining, water resources), discussion can help work toward identifying the key local issues that really need additional information and understanding.
- The first National Assessment structured the discussion by posing 4 questions:
 1. What are the important mid- to long-term environmental and resource issues facing the region—other than climate change, as climate change is only one cause of stress? So, is it pollution or water shortages or industrial job base or whatever?
 2. How might changes in climate make these issues worse or better, or introduce new stresses for a region or community? The rule was that, although there are often those with skeptical views about climate change, the discussion would proceed under an assumption that the IPCC projections were correct, thus fostering a “what if” type of discussion. To address the questions raised by those skeptical of the scientific projections, we did often have scientists sit at lunch with those who had questions; we just did not allow the workshop to get diverted off on whether climate change is real or not; for the purposes of the workshop, climate change was taken as a real issue.

3. What more information is needed to really get a better understanding of these issues and questions, and how can these needs best be met? The follow-up to the workshop was then typically to form a group (often based at a university) composed of those studying, experiencing, and interested in climate change that, interacting with an ongoing committee of citizens and local officials, would try to assemble what is known and what is not and figure out how best to get more information.
 4. What win-win solutions might there be--so what can be done to address an existing problem area in a way that will also help promote adaptation, increase resilience, and reduce vulnerability to the projected changes in climate? [As an example, the city of Toronto figured out a win-win-win-win strategy: By using existing pipes to pull in cold water from Lake Ontario and refrigeration equipment idle at night to make and store ice in tanks in the basements of office buildings that could be used to cool the buildings during hot, smoggy summer days, the peak afternoon energy from a coal-fired power plant on Lake Ontario could be reduced; this would lead to reduced use of coal (so reduced CO₂ emissions), reduced utility costs, reduced air pollutant emissions, and reduced heat injected into Lake Ontario, so reduced ecological impacts.]
- Explore solutions. In Appalachia, for example, a key issue might be that heavy rains are becoming more frequent (due both to thunderstorms and hurricanes), leading to more flooding, etc. Possible responses might include building replacement and new bridges with more clearance, building more energy efficient buildings as buildings are relocated from along streams that may reach higher flood levels, etc. In the business-development area, more windmills taking advantage of winds in the region might be a way to bring more jobs to the area as coal mining declines because of a carbon tax or fee making it more expensive. Other responses might be to provide more funds for retraining, helping local schools become examples of green energy technologies; and more. Making sure the discussion gets to this stage is critical--basically an opportunity for people to figure out how they can be part of the solution and take advantage of the opportunities.
 - A really important thing from our evaluation was that assessment is not just, or even not mainly, a report--it is really an ongoing process of interaction and discussion between the expert community and all of those experiencing and dealing with changes. Typical stakeholders are necessarily devoting their time to making a living and they really can't be involved in the same way as academics, they typically can't take more than a day or two off for workshops, etc. The time of stakeholders has to be recognized as valuable and used efficiently, finding ways to communicate in ways that suit their needs and generate useful information for them at times when they need it. There needs to be a way for stakeholders to keep asking questions their way--not having scientists say, in effect, here are our results and you figure out how to use them. Thus, there have to be people who can help to translate and communicate. For example, those in the Agricultural Extension Service typically do this well and there are others.
 - Be open to discussion of issues of equity and fairness, etc.--dealing with a changing world is hard enough without the climate also changing. What people need is help with how best to cope. For farmers and others working the land, it is typically more information/education so that they can

adjust planting types or crops as climate changes, can deal with more intense pressure from weeds and invasive species, etc. It needs to be made clear that, while global climate change starts at the global level and then focuses down to have regional and local effects, impacts and consequences of change start locally (and may already be starting to be evident) and then aggregate up, so one farmer notices crops growing differently, and may be impacted or finds a way to adjust, and then others in town and the region have similar experiences, and before long a whole region is succeeding in dealing with the change. Achieving success in such transitions can require planning and investment in building, for example, new storage silos, making sure they can be used for other than the current type of grain or crop, etc. Basically, those with the foreknowledge will be able to take necessary actions before they go broke as a result of experiencing multiple crop failures. Adaptation is a battle where the local people and government officials are the soldiers that have to win the battles--what science can provide is information to help provide a sense of what lies ahead and perhaps hints of how best to adapt. An effective assessment process, however, has to involve and empower local people to overcome what can sometimes seem like headlines of dread and hopelessness.¹⁰

Climate Change is Already Destroying American Jobs

What does climate change have to do with jobs? Consider superstorm Sandy. According to Mark Zandi, the Chief Economist of Moody's Analytics, "Superstorm Sandy wreaked havoc on the job market in November, slicing an estimated 86,000 jobs from payrolls." What kind of jobs? "The manufacturing, retailing, leisure and hospitality, and temporary help industries were hit particularly hard by the storm." Although the number of jobs was growing nationwide, there were 82,000 new applicants for unemployment in New York, New Jersey, and Pennsylvania.¹¹

But isn't that kind of job loss just temporary? Consider hurricane Katrina. In 2004 the New Orleans region had 671,000 jobs. Katrina wiped out 129,000 of them -- about twenty percent. While practically all sectors of the New Orleans economy lost jobs, the losses were centered in three sectors:

- Retail trade lost 12,000 jobs, 63 percent of its job base.
- Accommodation and food service lost 21,000 jobs, 59 percent of its job base.
- Health care and social assistance lost 14,000 jobs, 56 percent of its jobs base.

The public sector was hit particularly hard: 25,000 public sector jobs, 47 percent of all government jobs, were eliminated. The city workforce was reduced by 70 percent.

Four years later in 2008, 47,000 of the jobs lost in Katrina had returned -- but 82,000 had not, not to mention the tens of thousands of new jobs that would have been expected had there been no Katrina.

What about the long run? New Orleans' modest recovery stalled in the face of the Great Recession. In 2011, the region had 90,000 fewer jobs than on the eve of Katrina. While construction jobs did increase as a result of reconstruction efforts, the loss of other jobs was far greater. According to a 2012 report by Fitch Ratings, New

Orleans still faces major challenges remain regarding infrastructure, financial condition, education, and healthcare.¹²

The economic threat of climate change isn't limited to hurricanes. Heat waves increase energy costs and cause droughts, which kill crops and increase food prices. Floods destroy houses, businesses, and infrastructure. Closed businesses and lost earnings represent an economic loss that can never be recovered. The devastating health effects of extreme weather like heat waves and floods not only harm individuals but also represent a cost for the whole economy. Michael Livermore, Executive Director at [NYU's Institute for Policy Integrity](#) and research scholar at NYU Law School's Environmental Law Center estimates that a 2 degrees Celsius (3.6 degrees Fahrenheit) increase in the earth's temperature could permanently cut the US GDP by 2.5%.¹³ We're already well on the way there.

Coming Now to a Job Near You: Climate Change Threatens Union Jobs

Climate change is already affecting working people and their unions. For example, a report by the Labor Network for Sustainability found these job impacts of climate change are likely just in California:

Some Unions Affected:

Construction Workers

Massive disinvestment followed by long-term depression in the construction industry is likely. The impact on building trades jobs could be devastating. At the least, climate change is likely to lead to massive relocation of construction work, forcing building trades workers to migrate.

- International Union of Bricklayers and Allied Craft Workers
- International Brotherhood of Boilermakers
- International Brotherhood of Electrical Workers
- International Union of Elevator Construction
- International Union of Operating Engineers
- International Union of Painters and Allied Trades
- Iron Workers Laborers International Union of North America
- Operative Plasterers' and Cement Masons' International Association
- United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry
- United Union of Roofers, Waterproofers and Allied Workers
- Utility Workers Union of America

Health Care Workers

Hospitalizations and other results of climate-induced ozone and heat waves will cost \$24 billion a year. This will put huge stress on an already stressed healthcare system at the same time that the broader negative economic impacts of climate change are likely to put pressure on health care funding.

Some Unions Affected:

Service Employees International Union
National Union of Healthcare Workers
California Nurses Association

Farm and Agro-Processing Workers

Climate change will make water scarce and more costly, make conditions more suitable for pests like the Mediterranean fruit fly and the bollworm, increase plant-and-animal killing heat spells, reduce winter chilly spells many plants need, and raise the price of fuel and fertilizer. In one estimate, climate change will reduce California's agricultural profits by 15%. Both downsizing and crop change may lead to substantial reductions in farm worker employment. Heat waves and increased pollution will make farm labor jobs even healthier. Climate-caused disruption in other countries will increase immigration to California, increasing the number of farm workers competing for jobs and thereby driving down wages and making it even harder for farm workers to unionize.

Some Unions Affected:

United Farm Workers
International Brotherhood of Teamsters
Bakery, Confectionary, Tobacco and Grain Millers
International Union

Port and Airline Workers

Sea level rise, storms, and waves will threaten California's seaports and airports. Crippled seaports and airports unable to support normal traffic would mean fewer jobs for port and airline workers.

Some Unions Affected:

International Brotherhood of Teamsters
International Longshoremen's Association
International Longshore and Warehouse Union
Seafarers International Union

Tourism and Recreation Workers

Nearly a million Californians work in tourism and recreation, many in outdoor attractions like beaches, ski resorts, parks, and golf courses. All are affected by climate change. Hundreds of thousands of jobs are thereby being put at risk. One example: California's ski industry is projected to collapse, eliminating 15,000 jobs in the industry and at least as many in accommodation, dining, and other service industries.

Some Unions Affected:

Service Employees International Union
United Food and Commercial Workers
UNITE HERE

Public Sector Workers

Every cost of climate change in California, from fighting forest fires to providing summer drinking water, will increase budget pressures. So will every reduced source of tax revenue, from closed ski lodges to reduced real estate values. The impact of these budget pressures on workers in the public sector is likely to be massive layoffs, permanent downsizings, further pressure on wages and benefits, speed-up, and deteriorating working conditions.

Some Unions Affected:

Amalgamated Transit Union
American Federation of Government Employees
American Federation of State, County, and Municipal Workers
American Federation of Teachers
International Association of Fire Fighters
National Education Association
Service Employees International Union

Unions need to know about these effects of climate change and to be part of the discussion of what to do about them. The NCA provides a great way to do so.

For more, see "[Coming Now to a Job Near You! Why Climate Change Matters for California Workers](#)," by the Labor Network for Sustainability.

The National Climate Assessment's Findings

Workers, union members, and labor leaders have plenty to worry about these days besides climate change. But like it or not, climate change is coming at us like an advancing army -- and like an advancing army, it's something we ignore at our peril. It is something that is going to affect us whether we are ready or not. The new draft National Climate Assessment includes a "Letter to the American People" laying out, without scientific jargon, what the NCA has found:

Climate change, once considered an issue for a distant future, has moved firmly into the present.

Corn producers in Iowa, oyster growers in Washington State, and maple syrup producers in Vermont have observed changes in their local climate that are outside of their experience. So, too, have coastal planners from Florida to Maine, water managers in the arid Southwest and parts of the Southeast, and Native Americans on tribal lands across the nation.

Americans are noticing changes all around them. Summers are longer and hotter, and periods of extreme heat last longer than any living American has ever experienced. Winters are generally shorter and warmer. Rain comes in heavier downpours, though in many regions there are longer dry spells in between.

Other changes are even more dramatic. Residents of some coastal cities see their streets flood more regularly during storms and high tides. Inland cities near large rivers also experience more flooding, especially in the Midwest and Northeast. Hotter and drier weather and earlier snow melt mean that wildfires in the West start earlier in the year, last later into the fall, threaten more homes, cause more evacuations, and burn more acreage. In Alaska, the summer sea ice that once protected the coasts has receded, and fall storms now cause more erosion and damage that is severe enough that some communities are already facing relocation.

Scientists studying climate change confirm that these observations are consistent with Earth's climatic trends. Long-term, independent records from weather stations, satellites, ocean buoys, tide gauges, and many other data sources all confirm the fact that our nation, like the rest of the world, is warming, precipitation patterns are changing, sea level is rising, and some types of extreme weather events are increasing. These and other observed climatic changes are having wide-ranging impacts in every region of our country and most sectors of our economy.¹⁴

-- Excerpted from draft of third National Climate Assessment

1. Michael C. MacCracken, "National Assessment of the Consequences of Climate Variability and Change for the United States," <http://climate.dot.gov/documents/workshop1002/maccracken.pdf> Michael MacCracken served as executive director of the National Assessment Coordination Office from 1997 to 2001.
2. MacCracken, *ibid*.
3. Chris Mooney, "An Inconvenient Assessment," *Bulletin of the Atomic Scientists*, November/December 2007.
4. MacCracken, *op. cit*.
5. MacCracken, *op. cit*.
6. Mooney, *op. cit*.
7. In 2009 the Bush administration produced a study called *Global Climate Change Impacts in the United States* but did not release it. The Obama administration released that study in April, 2009. As a result, the current 2013 National Climate Assessment is generally referred to as the third.
8. "Draft for Public Comment," Chapter 1 – Executive Summary (v. 11 Jan 2013) <http://ncadac.globalchange.gov/download/NCAJan11-2013-publicreviewdraft-chap1-execsum.pdf> For the stakeholder participation process in the third NCC, see also J. Greg Dobson, Jim Fox, Karin Lichtenstein, and Matt Hutchins, "Engaging Stakeholders for Conducting Regional Climate Assessments," *Science and Technology Infusion Climate Bulletin* NOAA's National Weather Service, http://www1.nemac.unca.edu/NEMAC_Staff2/Greg_Dobson/Publications/Engaging%20Stakeholders%20for%20Conducting%20Regional%20Climate%20Assessments.pdf
- ⁹ For more on the impact of climate change on labor, see "What Does 400 PPM Mean for American Labor" by Joe Uehlein and Jeremy Brecher, <http://www.labor4sustainability.org/post/what-does-400-ppm-mean-for-american-labor/>
10. Personal communication from Michael MacCracken to Jeremy Brecher, May 8, 2009 revised by Dr. MacCracken February 16, 2013.
11. <http://themoneyupdate.com/tag/how-many-jobs-did-hurricane-sandy-affect/>
12. <http://finance.yahoo.com/news/fitch-significant-challenges-remain-orleans-192900707.html>
13. Judy Weiss, "Climate Change: A Bill of Billions," January 14, 2013, <http://njtoday.net/2013/01/14/opinion-climate-change-a-bill-of-billions/>
14. "Draft for Public Comment" (v. 11 Jan 2013), *op. cit*.