



# Mitigating the Impact of Climate Change and Securing Environmental Justice through Safety and Health Training

## NIEHS Worker Training Program

### Protecting Workers from Climate Change Hazards

The National Institute of Environmental Health Sciences (NIEHS) Worker Training Program (WTP) proactively trains underserved workers to identify, prepare for, and avoid climate-related health and safety hazards. Climate change impacts human health and can intensify existing vulnerabilities that affect people's daily lives, such as increasing the risk of asthma attacks, heat exhaustion, and mosquito and tick-borne diseases.<sup>1</sup> Natural disasters such as severe weather, droughts, flooding, and wildfires are the short-term consequences of the longer-term climate change crisis.

The climate disaster requires an informed and educated workforce trained to identify such health threats in order to work safely in an increasingly complex environment. Occupations predicted to bear a disproportionate burden of these changes include agriculture, construction, transportation, food service, outdoor services, and health care. For example, agriculture workers experience heat-related deaths at 35 times the rate of workers in other occupations.<sup>2</sup>

Executive Order 14008, of January 27, 2021, pledges the U.S. will move quickly to build resilience against the impacts of climate change that are already manifest and will continue to intensify. The order creates a government-wide Justice40 Initiative with the goal of delivering 40%

of the overall benefits of relevant federal investments to disadvantaged communities.

WTP addresses environmental and climate justice and prepares workers for climate change impacts through a variety of activities supporting the Justice40 initiative. The activities identify worker- and occupation-specific gaps and vulnerabilities, advance worker climate justice, and develop tailored training curricula for specific climate-related hazards such as hurricanes, floods, and wildfires.

### Advancing Environmental Justice through Job Training

The Environmental Career Worker Training Program (ECWTP) advances environmental justice by preparing low income, underserved, and un- or underemployed individuals for jobs in environmental remediation and construction and providing them the knowledge and skills to participate in addressing the environmental concerns in their community. Since 1995, ECWTP has equipped workers with the training they need to attain well-paying jobs, while limiting their exposure to dangerous chemicals and pesticides and improving public health by protecting their communities from environmental hazards.

ECWTP offers opportunities for residents of communities historically impacted by environmental contamination, persistent pollution, economic disinvestment, and health disparities. The program provides job training for occupations in environmental remediation and restoration, construction, asbestos removal, mold removal, lead



**Grantee Spotlight:** NIEHS grantee New Jersey/New York Hazardous Materials Worker Training Center implements ECWTP for residents of the New York City boroughs, in collaboration with the New York City District Council of Carpenters.

Since 1996, the council has trained more than 1,000 at-risk individuals through a pre-apprenticeship training program called BuildingWorks. The program has a graduation and job placement rate of more than 80%. A recent cohort of students increased their average annual earnings from less than \$10,000 to \$50,000 upon program completion.

<sup>1</sup> U.S. Environmental Protection Agency

<sup>2</sup> U.S. Global Change Research Program

**Grantee Spotlight:** Multiple NIEHS grantees have supported and led critical training initiatives for natural disaster preparedness, response, and recovery. Within the first two weeks after Hurricane Harvey hit in 2017, grantees began providing disaster cleanup and response training.

The International Chemical Workers Union Council Center for Worker Health and Safety Education delivered a three-day bilingual Disaster Train-the-Trainer course in Houston, in collaboration with a local worker center, Fe y Justicia. The course trained day laborers, faith groups, volunteer groups, and residents. The United Steelworkers Tony Mazzocchi Center for Health, Safety, and Environmental Education's bilingual Specialized Emergency Response Trainers also partnered with Fe y Justicia to deliver Train-the-Trainer courses on mold awareness.

abatement, hazardous materials and waste handling, sustainability, and natural disaster and emergency response. Such green jobs are critical in building new infrastructure and a clean energy economy to advance environmental justice communities' resilience to climate change effects and natural disasters.

An **economic analysis** of the program showed an annual federal investment of \$3.5 million in ECWTP generates a \$100 million return.

## NIEHS WTP Climate Change Vulnerability Assessment

WTP's National Clearinghouse for Worker Safety and Health Training published the Climate Change Vulnerability Assessment in 2015, a **report** assessing how climate change will impact worker health and how to prepare for these impacts.

To develop this report, NIEHS assessed climate change vulnerabilities that may affect WTP, its grantees, and its partner worker sectors. The study team concluded that the consequences of climate change are already having severe impacts on workers and identified training priorities that will prepare workers to deal with present and emerging challenges related to the impacts of climate change. These priorities include: better understanding of extreme temperature exposure, the relationship between increased temperature and air quality, health effects

of ultraviolet light, effects of climate change on stress, and recognition of disease carrying vectors.

## Preparing Workers to Respond to Natural Disasters

Since 1987, WTP has supported the training of more than 4 million emergency responders and hazardous waste workers across the country.

WTP has responded to numerous disasters in its 30-year history. The disaster preparedness and response training has played a critical role in recovery from a variety of natural disasters, human-made disasters, and public health emergencies that are occurring more frequently or made more prevalent by climate change.

The WTP **network** has thousands of trainers across the country who provide safety and health training to the workers who will be called upon in the aftermath of a disaster, whether it is local, regional, or national in scope.

WTP-funded trainers provide site specific awareness-level training targeted to the cleanup efforts and affected populations. Through Train-the-Trainer courses, they build local capacity for underserved workers and communities to provide disaster training in the future, bolstering community resilience in places prone to disaster and experiencing environmental injustice.



## Disaster and Public Health Emergency Resources

Available WTP resources for workers on the Clearinghouse **website** include:

- A disaster preparedness mobile app that puts a full suite of training courses at the fingertips of workers exposed to hazards.
- An online catalog of hazardous waste and emergency response training curricula produced by WTP awardees.
- Awareness-level training tools and pocket booklets that address a variety of disasters and public health emergencies (e.g., chemical incidents, earthquakes, hurricanes, infectious diseases, wildfires).
- Links to federal, state, and other disaster-related resources.
- Reports, guidance documents, and research articles on disaster-related topics.

**FOR MORE  
INFORMATION**

**NIEHS Worker Training Program**—[www.niehs.nih.gov/wtp](http://www.niehs.nih.gov/wtp)

**NIEHS Environmental Career Worker Training Program 25th Anniversary**—[https://www.niehs.nih.gov/careers/hazmat/training\\_program\\_areas/ecwtp/index.cfm](https://www.niehs.nih.gov/careers/hazmat/training_program_areas/ecwtp/index.cfm)