

Community and Climate Resilience Advisor - San Diego and Imperial Counties

Developed and proposed by: Chandra Richards, UCCE Area Director, San Diego and Imperial Counties, and Lais Costa, Assistant Cooperative Extension Specialist and Disaster Preparedness and Response Program Team Co-Chair, with input from UCCE resilience advisors and CE environmental health specialists, who provided iterative feedback on the scope and priorities of the position and proposal.

Headquarters and Coverage Area: The proposed position will have programmatic responsibilities in the Counties of San Diego and Imperial due to the shared binational context and overlapping disaster resilience challenges. The position will be headquartered at the UCCE San Diego County in San Diego, CA, or at the UCCE Imperial County office in Holtville, CA. San Diego County is a strong candidate given its larger population and infrastructure, while Imperial County presents more rural and seasonal needs. By focusing on community safety and worker health, this position would address major region-specific needs and leverage the current expertise to incorporate public health, safety, and disaster preparedness and strengthen interdisciplinary connections into extension efforts.

Position: The Community and Climate Resilience Advisor for San Diego & Imperial Counties will develop a program centered around three themes: 1) Community resilience around environmental health issues in vulnerable communities; 2) Applied environmental health research on climate-related and agricultural workplace exposures affecting agricultural workers and rural residents; and 3) Public health infrastructure and emergency coordination. Specific focus areas include air quality and health impacts; heat exposure and broader climate vulnerability; occupational health risks; access to protective equipment and safety training; and persistent health disparities. The role will emphasize strengthening emergency coordination and communication systems for food distribution and advance community-based preparedness, resilience planning, and recovery efforts in response to climate-related disasters (i.e. extreme heat, wildfires, flooding, and drought) and public health emergencies.

These focus areas respond directly to documented regional priorities and critical gaps, leveraging the position to connect agricultural systems, public health, and climate resilience, particularly in underserved, bilingual, binational, and native communities. The position will be a significant asset to UC ANR by addressing a key gap in CE's direct engagement with agricultural workers and other vulnerable communities on health, safety, and resilience, thereby expanding the reach and impact of local programs.

The Advisor should have a minimum of a master's degree in environmental health, public health, climate science, occupational health and safety, disaster preparedness, and/or community development. The Advisor will collaborate with community members, specialists, researchers, and local groups to develop workshops, meaningful trainings, locally-relevant resources, and applied research specific to climate resilience for diverse and underserved communities within San Diego and Imperial Counties.

Justification: San Diego and Imperial Counties present a complex intersection of demographic vulnerability, environmental exposure, and limited public health infrastructure, clearly demonstrating the need for a dedicated Community and Climate Resilience Advisor. San Diego County, with a population exceeding 3.2 million residents, has a poverty rate of about 10%, yet significant geographic disparities persist. San Diego is experiencing child poverty rates over 20% and also deep poverty affecting over 160,000 residents. Imperial County, with a population of 181,000, is largely rural, agricultural, and

predominantly Latino (over 85%) with a high linguistic isolation and faces significant structural challenges, including poverty rates nearing 28%, lower median household income (~\$60,000), and high unemployment that recently exceeds 20%. These socioeconomic conditions are coupled with environmental stressors (i.e. extreme climatic events) and health crises, particularly around the US-Mexico Border and Salton Sea, where ongoing air and water pollution pose serious respiratory and public health risks to nearby communities already burdened by chronic disease burden, high asthma and diabetes rates, and limited healthcare access.

Local needs assessments further underscore critical and systemic gaps in environmental health, agricultural worker wellbeing, and community-level climate resilience, as climatic conditions intensify at unprecedented rates. A recent binational agricultural worker health assessment identified persistent barriers including limited healthcare access, occupational exposure risks, language barriers, and elevated vulnerability during emergencies, reflecting broader systemic inequities affecting agricultural workers. Studies also show up to 14.6% increase in hospitalizations during hot weather events for communities lacking adaptive resources like air conditioning, highlighting stark disparities tied to income and housing conditions. Similarly, climatic processes near the Salton Sea and US-Mexico border identify urgent needs for public health interventions, environmental monitoring, and stronger community engagement and coordination.

The position will strengthen binational and cross-sector collaboration, aligning agricultural, public health and emergency management stakeholders to address shared risks in the border region. Other measurable impacts include expanded and equitable extension reach; improved community resilience systems; and improved environmental conditions and mitigation capacities. The position will provide critical capacity, coordination, and momentum towards California's disaster problems and support programmatic gaps in building community adaptation and resilience.

This position will support the following UC ANR Public Values to: (1) Build climate-resilient communities and ecosystems through increased preparedness and resilience to extreme weather and climate change; (2) Safeguard abundant and healthy food for all Californians through improved food security and safety; (3) Develop an inclusive and equitable society through improved living and working conditions for California's food system and farm workers; and (4) Promote healthy people and communities through improved health for all.

Extension: The Advisor will serve primarily residents, agricultural workers, and binational or underserved communities, as well as vulnerable populations disproportionately affected by environmental exposures, public health disparities, and climate-related risks. While the program would be accessible to the full regional population, outreach and impact may concentrate on high-priority individuals, particularly low-income households and Spanish-speaking communities.

Research: A needs assessment is a crucial step identifying unique needs, priorities, and lived experiences of community members. Improving data collection on underserved populations, including agricultural workers and Indigenous communities, ensuring that the extension programming reflects real-time community needs and environmental conditions, which are often underrepresented and not well characterized in traditional datasets. Some topics of interest include understanding the: health impacts of cumulative exposure to dust, smoke, and pesticides; binational food and water security limitations; effectiveness of outreach and mitigation approaches in rural and isolated communities; early warning and

emergency communication systems and coordination networks for rural, migrant, and multilingual populations, to center priorities, concerns, and capacities; and cross-border climate adaptation and equitable resilience policy.

UC ANR network: This Advisor position fills a high priority gap identified by the UC ANR Disaster Preparedness and Response PT and Systemic Inequities PT, as it addresses the gaps for agricultural workers, priority populations, and bilingual, linguistically isolated, and vulnerable communities. The Advisor position will not duplicate any other positions in the region, and instead will complement advisor positions on: Urban Community Resilience (Los Angeles, Orange Counties), Disaster Resilience and Policy (San Luis Obispo, Santa Barbara, Ventura Counties), Indigenous Food Systems and Food Sovereignty (San Diego, Riverside Counties), and Indigenous Disaster Resilience (Central Sierra). The Advisor can collaborate with CE specialists focusing on: Urban Water Quality, Health, and Justice (UC Irvine), Water Equity and Adaptation Policy (UCLA), and Environmental Health Sciences (UC Berkeley).

This position would significantly augment the capacity of UC SAREP, CIWR, Environmental Stewards, Climate Stewards, and multiple climate, policy, and community program teams by addressing the needs and gaps of agricultural workers and vulnerable groups. As such, the Advisor could contribute to research projects on public health risks and health mitigation for agricultural workers and vulnerable communities, wildfire and heat research, water pollution, pesticide training, and environmental management strategies.

Network external to UC ANR: The goals for the Advisor position align with multiple local, regional, state, and federal stakeholders. These include the Extension Disaster Education Network (EDEN), California Department of Pesticide Regulations (CDPR), UC Disaster Resilience Network and Western Center for Agricultural Health and Safety (WCAHS); county public service departments (including Agricultural Commissioner, and Public Health); regional and local community-based organizations such as Comit  Civico del Valle, Imperial-Mexicali Binational Alliance, Listos California, BOOST Imperial Valley, and San Diego Foundation’s Binational Resilience Initiative. UC San Diego, San Diego State University, and Autonomous University of Baja California also host non-AES scientists who broadly focus on health, climate, and environmental risks, challenges, and impacts on agricultural workers. These organizations are dedicated to inform, educate, and train community members in three overarching themes: climate-related health issues; environmental justice; environmental health, exposures, safety, and public health issues affecting agricultural workers and residents.

Support: The Advisor will have office space at UCCE San Diego and access to office space at UCCE Imperial. The Advisor will also have access to the Desert REC and South Coast REC for research trials, and UC and county cars for use in San Diego and Imperial Counties, respectively.

Other support: This Advisor can pursue funding from both federal and state agencies with a focus on community resilience, public health, and disaster preparedness. The USDA NIFA, Rural Development, CDC, FEMA, and NIH grant opportunities offer alignment to agricultural safety and focus areas. Additionally, the state-level funding through California Department of Public Health, CalFire, and Cal Office of Emergency Services (OES) will support community mitigation efforts as important resilience funding pipelines: CalFire offers their Wildfire Prevention Grant program to support community planning and education for local resilience projects, and OES offers funding for planning and climate hazard mitigation and flood mitigation. EDEN offers targeted funding on disaster education, pilot projects, and resilience programs, and WCAHS provides small grants for proposals on agricultural health and safety.