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# Executive Summary

## Community Impacts at the Crossroads of Nuclear and Climate Injustices in the South

This is a report written by Georgia WAND and the Nuclear Information and Resource Service (NIRS) with support from the Bevier Public Health intern from Agnes Scott College.

Georgia WAND is an independent, grassroots, women-led organization deeply rooted in community and working for systemic change. Its mission is to educate the public and opinion leaders about the need to reduce violence and militarism in society and redirect excessive military spending to unmet human and environmental needs.

NIRS is a national non-profit organization devoted to a nuclear-free, carbon-free world. It has served as the information and networking hub for people and organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy issues since 1978.

### Mission

This report educates the public about how climate change intersects with the nuclear energy and weapons industry, and how both effect rural communities in the U.S. South. It outlines the problems caused by nuclear facilities in a world with a changing climate, and provides recommendations for creating a safer and more equitable future.

### Climate, Nuclear, and the People Affected

- The earth's changing climate is causing extremes in temperature and weather as well as sea level rise, and these effects of climate instability will be especially intense in the southeast U.S.
- Intense weather events often result in energy grids going offline and could result in nuclear disaster if backup generators fail
- Nuclear power plants are sited on water bodies for cooling purposes. Sea level rise threatens nuclear facilities with flooding. This could lead to a major reactor accident.
- Nuclear reactors' immense use of water for cooling results in significant impacts on local ecology and poses a problem in a world experiencing drought and increasing water temperatures.
- The U.S. South is a nuclear hub of the U.S. and is the only region currently increasing its reactor fleet.
- Nuclear is an extractive energy source relies on mining for fuel and its processes require massive energy inputs, plus it requires the disposal of radioactive waste.
- Poor emergency preparedness procedures in towns near nuclear power plants creates life-threatening situations for communities
- The creation of nuclear weapons sites historically has displaced entire towns and resulted in contamination of environments where people lived, as well as exposed workers to unsafe radiation.
- Tritium, which is a key component in nuclear warheads, poses major risks to public health including embryo malformation, genetic mutation, and cancer.

- As climate change increases ambient humidity and precipitation, tritium will disperse faster and farther.
- Burke County, GA is an area particularly affected by nuclear plants. It is directly downwind and downstream from the Savannah River Site and is home to nuclear energy Plant Vogtle.
- The proposal to reuse nuclear waste to create nuclear energy is promoted as a solution for climate change but it creates huge security issues and is ultimately does not reduce nuclear waste.
- Mixed-Oxide Fuel (MOX) has been proposed as a recycling model for plutonium but is difficult to control and very harmful to the public.

## Recommendations

The report recommends:

- The creation of a Just economic transition for communities dependent on the nuclear industry.
- The development of harm reduction approaches at nuclear plants.
- The development of community-led health studies.
- The termination of public funding for construction at Plant Vogtle.
- The education of the public and officials about the need for energy equity.
- Shifting to local ownership of electrical generation.
- Prioritizing workers' needs in the transition from a nuclear economy to a sustainable economy.
- Creating community-led emergency preparedness plans.
- Increasing civic engagement regarding issues related to the nuclear industry.
- Furthering and developing coalitions that work for climate, environmental, energy, economic, and reproductive justice collaboratively.
- Bringing together communities facing similar environmental, social, and economic harm.
- Ending production of nuclear weapons materials and re-invest billions of dollars into environmental cleanup.
- Educating the public and opinion leaders about the need to invest in diplomacy, conflict resolution, cultural competency, and participatory democracy.
- Improving nuclear safety and conducting further research on intersections between climate change and nuclear weapons.

## Conclusions

Engaging voices across sector, party, race, generation, language, and geography in creating and implementing these recommended solutions is crucial. Focusing on creating sustainable and safe economies and developing long-term public health studies near nuclear sites, while focusing on harm reduction in the present, is a way forward to make responsible and equitable decisions in an increasingly dangerous world.