SIGRA Strengthening Investments in Gender-Responsive Climate Adaptation

Information Brief

CLIMATE CHANGE ADAPTATION

The brief provides an introduction to the impacts of climate change on different sectors and vulnerable groups in Ghana. It also provides a snapshot of climate change adaptation solutions to deal with these impacts.

EXAMPLES OF CLIMATE CHANGE IMPACT IN GHANA

- **Agriculture:** Unpredictable rainfall and increased temperatures lead to crop failures, threatening food security.
- **Health:** Rising temperatures increase the spread of diseases such as malaria and cholera.
- **Coastal Erosion:** Rising sea levels and increased storm surges are eroding Ghana's coastline, affecting communities and livelihoods.
- **Water:** Erratic rainfall patterns and extreme events such as drought and flood incidences impact the availability and quality of wate

THE IMPACTS OF CLIMATE CHANGE ARE NOT EQUAL

Women, who make up a large portion of the agricultural workforce, are more affected by crop failures and food insecurity. They face higher health risks due to increased workloads and reduced access to healthcare during climate-induced crises. Women also have less access to financial resources, making it harder for them to recover from climate-related shocks.

Elderly and persons with disability face significantly greater challenges in adapting to extreme weather conditions and accessing emergency services.

Low-income communities often live in high-risk areas with less resilient infrastructure, making them more vulnerable to floods, droughts, and other climate-related disasters.

Climate change refers to long-term changes in temperature, precipitation, and other atmospheric conditions primarily due to human activities like burning fossil fuels and deforestation. In Ghana, climate change manifests in increased temperatures, unpredictable rainfall patterns, and more frequent extreme weather events such as floods and droughts.

Climate adaptation refers to adjusting policies, practices, and infrastructure to minimize the negative impacts of climate change and exploit any potential benefits. Unlike mitigation, which focuses on reducing the causes of climate change (e.g., cutting greenhouse gas emissions), adaptation focuses on managing the impacts of climate change that are already happening or are likely to happen. In Ghana, this involves strategies like building climate-resilient infrastructure, adopting climate-smart agricultural practices, and improving water management systems, for example:

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Agriculture and Food Security

- Climate-smart agriculture: Adopt farming techniques that are resilient to changes in temperature and precipitation. This includes introducing drought-resistant and heat-tolerant crop varieties, efficient irrigation systems, conservation agriculture, agroforestry, and integrated pest management to help maintain soil health, conserve water, and ensure stable food production.
- Diversification of livelihoods: Encourage farmers to diversify their income sources (e.g., combining farming with other economic activities like small-scale trading or livestock rearing) to reduce vulnerability to crop failures.

Water Resource Management

- Improved water storage: Construction of small dams, reservoirs, and rainwater harvesting systems can help store water during periods of heavy rainfall and provide a steady supply during droughts. Efficient irrigation techniques, like drip irrigation supports water conservation.
- Watershed management: Protecting and restoring watersheds is vital to maintaining water quality and availability. This includes reforestation and sustainable land management practices to prevent erosion and degradation of water sources.

Government Role and Public Sector Strategies

- Policy development: Integrate gender and social considerations into national climate policies and action plans, integrating inclusive adaptation strategies that address the needs of women and vulnerable groups.
- Capacity building: Strengthen the capacity of public sector institutions to plan and implement climate adaptation measures that consider gender and social equity. Promote community-based adaptation initiatives that empower women and vulnerable groups to take action against climate change
- Funding and resources: Prioritize funding for projects that address the needs of women and vulnerable communities. Leverage international climate finance opportunities to support gender-sensitive and socially inclusive adaptation projects.

Health Sector Adaptation:

- Disease surveillance and control: Climate change is expected to increase the prevalence of diseases like malaria and cholera. Strengthening health systems to monitor and respond to these changes is crucial. This includes expanding healthcare facilities, improving sanitation, and increasing public awareness of climate-related health risks.
- Emergency preparedness: Enhancing disaster response and emergency preparedness systems to deal with climate-induced events such as heatwaves, floods, and droughts. Improving early warning systems and community-based disaster risk management.

Coastal Zone Management:

- Protection against sea-level rise: Ghana's coastal areas are particularly vulnerable to rising sea levels and coastal erosion. Building sea defenses, such as seawalls and mangrove restoration, helps protect communities and infrastructure along the coast.
- Sustainable fisheries management: Ensuring that fish stocks are managed sustainably and that coastal ecosystems are protected is vital to supporting the livelihoods of those who depend on fishing and maintaining biodiversity.

Infrastructure and Urban Planning:

- Climate-resilient gender-responsive infrastructure: Investing in gender-responsive infrastructure that can withstand extreme weather events, such as floods and storms. This includes building flood defenses, improving drainage systems, and constructing roads and buildings that can endure higher temperatures and heavy rains.
- Urban planning: Incorporate gender-responsive climate adaptation into planning processes by developing green spaces, improving waste management, and ensuring that new developments are not in high-risk areas like floodplains.