

Day 5 Greener

Consider where you live on this planet and the impacts of climate change on the people around you. What is one issue of concern that you would like to learn more about?

Sea level rise and sea water intrusion in the coastal areas of Bangladesh are critical issues exacerbated by climate change. Here's a more detailed answer:

Issue of Concern: Sea Level Rise and Sea Water Intrusion in Coastal Bangladesh

Sea Level Rise: Bangladesh is one of the most vulnerable countries to sea level rise due to its low-lying geography. Rising sea levels, largely driven by climate change, threaten the livelihoods and homes of millions of people living along the coast. This phenomenon can lead to inundation of agricultural lands and displacement of coastal communities.

Saltwater Intrusion: As sea levels rise, saline water from the Bay of Bengal infiltrates freshwater sources, such as rivers and groundwater. This intrusion adversely affects agriculture, making it difficult for farmers to cultivate crops and sustain their livelihoods.



Figure 1: Sea Water Intrusion in Boalkhali Upazilla, Barishal, Bangladesh

Image Credit: <https://u4d2z7k9.rocketcdn.me/wp-content/uploads/2022/07/Untitled-1024-%C3%97-683px-40.jpg>

Description of the Issue

Living in the coastal areas of Bangladesh, I am deeply concerned about the issue of sea level rise and sea water intrusion. This problem arises because of climate change, particularly the melting of polar ice caps and thermal expansion of seawater. As a result, sea levels are rising, posing significant threats to our coastal regions.

The most prominent consequence of this issue is the intrusion of saltwater into our freshwater sources. As seawater encroaches inland, it contaminates our rivers, ponds, and underground aquifers. This intrusion has far-reaching implications, impacting various aspects of our daily lives.

Who is it impacting most?

The people living in the coastal areas of Bangladesh are disproportionately affected by this issue. Coastal communities, especially those in low-lying regions, are particularly vulnerable. These communities primarily depend on agriculture and fisheries for their livelihoods, and the salinity of the soil and water has a devastating impact on crop yields and fish populations.

Moreover, the intrusion of saltwater has dire consequences for drinking water sources. Many of us are forced to consume brackish or saline water, which poses health risks and exacerbates existing water scarcity issues.

How close to where you live is this injustice occurring?

I live in the city part at Barisal, Bangladesh. The saltwater intrusion problem occurs mostly in the countryside of the region. The problem is getting worse year after year and if this goes like this some day this problem might reach our city part which is that much affected till now.

Is any local government or organization working to intervene?

The issue of sea level rise and sea water intrusion in the coastal areas of Bangladesh has prompted various governmental, non-governmental, and local organizations to act in recent years. Here is a detailed analysis of their roles:

Governmental Initiatives:

Bangladesh Delta Plan 2100: The Bangladesh government has formulated the Bangladesh Delta Plan 2100, which addresses sea level rise and salinity intrusion as prominent issues. It outlines strategies for sustainable delta management, including measures to combat the impacts of sea level rise, such as constructing embankments and tidal river management systems.

National Adaptation Programme of Action (NAPA): The NAPA program focuses on adaptation to climate change, including addressing salinity due to sea level rise. It aims to provide drinking water to coastal communities to combat enhanced salinity.

Non-Governmental Organizations (NGOs):

Nature-based Solutions: NGOs like Nature-based Solutions in Bangladesh have been actively involved in protection, restoration, and participatory management of mangroves, terrestrial forests, and wetlands. These efforts help mitigate the impacts of sea level rise and salinity intrusion by preserving natural barriers.

Salinity-Induced Livelihood Stress Mitigation: NGOs in coastal regions have undertaken projects to alleviate livelihood stress caused by salinity. They work on alternative livelihoods and supporting affected communities through various programs.

Local Organizations:

Many local organizations and community groups are engaged in community-based adaptation efforts. These include initiatives like raising embankments, managing tidal rivers, and implementing water purification projects to provide fresh drinking water in affected areas.

Local research institutions and advocacy groups play a crucial role in raising awareness about sea level rise and salinity intrusion. They conduct research, publish reports, and advocate for policies that address these challenges at the local and national levels.

Several local organizations in Bangladesh are actively engaged in mitigating the impacts of sea level rise and saltwater intrusion in the coastal zone. Here are specific organizations along with their roles and activities:

Coastal Association for Social Transformation Trust (COAST Trust): COAST Trust focuses on climate-resilient livelihoods and disaster risk reduction in coastal areas. They work on raising community awareness, constructing cyclone shelters, and promoting sustainable agriculture to combat saltwater intrusion.

Center for Coastal Environmental Conservation (CCEC): CCEC is dedicated to coastal ecosystem conservation and adaptation. They engage in mangrove afforestation, community-based aquaculture, and water purification projects to address salinity issues.

Bangladesh Center for Advanced Studies (BCAS): BCAS conducts research and advocacy on climate change adaptation. They work with coastal communities to develop resilient agriculture practices, raise awareness, and influence policy changes for sustainable coastal development.

Coastal Development Partnership (CDP): CDP focuses on community-based adaptation and disaster risk reduction. They facilitate local adaptation planning, build embankments, and promote saline-tolerant crop varieties.

Light of Hope Ltd.: This organization is involved in providing innovative solutions to address water quality issues caused by salinity. They develop affordable and effective water purification technologies suitable for coastal communities.

Barguna Coastal Development Association (BCDA): BCDA is engaged in livelihood improvement and climate resilience projects in Barguna district. They support alternative income-generating activities for affected communities and promote sustainable farming practices.

Center for Natural Resource Studies (CNRS): CNRS conducts research on saltwater intrusion impacts and adaptation measures. They provide technical expertise to local communities and organizations working on water resource management.

Bangladesh Environmental Lawyers Association (BELA): BELA advocates for legal rights related to environmental issues, including saltwater intrusion. They play a role in raising awareness, supporting legal actions, and ensuring environmental justice for affected communities.

These organizations, among others, play crucial roles in addressing the challenges posed by sea level rise and saltwater intrusion in the coastal areas of Bangladesh. Their efforts encompass a range of activities, from community-based adaptation to policy advocacy, with the goal of improving the resilience and well-being of coastal communities.

If the solution were up to you, how would you approach it?

As a 23-year-old student studying Environmental Sciences at Jahangirnagar University in Barisal District, Bangladesh, I recognize the urgent need to address the issues of sea level rise and saltwater intrusion caused by global climate change. To tackle these challenges effectively, I would adopt a comprehensive approach rooted in environmental justice principles, supported by relevant statistical data and community engagement.

Assessing Vulnerability and Impact:

I would start by conducting a detailed assessment of the vulnerability of coastal areas in Barisal District to sea level rise and saltwater intrusion. This assessment would include data on the rate of sea level rise, historical trends, and the impact on local ecosystems, agriculture, and communities.

Community Engagement:

Environmental justice principles emphasize the inclusion of marginalized communities in decision-making processes. I would engage with local communities, particularly those most affected by these issues, to understand their concerns, needs, and traditional knowledge related to coastal resilience.

Education and Awareness:

Raising awareness about the causes and consequences of sea level rise and saltwater intrusion is crucial. I would organize workshops, seminars, and awareness campaigns in local schools and communities to educate people about climate change and adaptation strategies.

Promoting Sustainable Agriculture:

Given the importance of agriculture in Barisal District, I would promote sustainable farming practices that are resilient to salinity. This includes introducing salt-tolerant crop varieties, improving irrigation systems, and providing training to farmers.

Mangrove Restoration:

Mangroves are natural buffers against coastal erosion and saltwater intrusion. I would advocate for and participate in mangrove restoration projects along the coast, engaging local communities in planting and maintaining these vital ecosystems.

Advocacy for Policy Change:

To address these challenges effectively, policy change at the local and national levels is essential. I would collaborate with environmental organizations and research institutions to advocate for policies that prioritize climate resilience and equity.

Monitoring and Data Collection:

Continuous monitoring of sea level rise and salinity levels is critical. I would support the establishment of monitoring stations and the collection of real-time data to inform adaptation strategies.

International Collaboration:

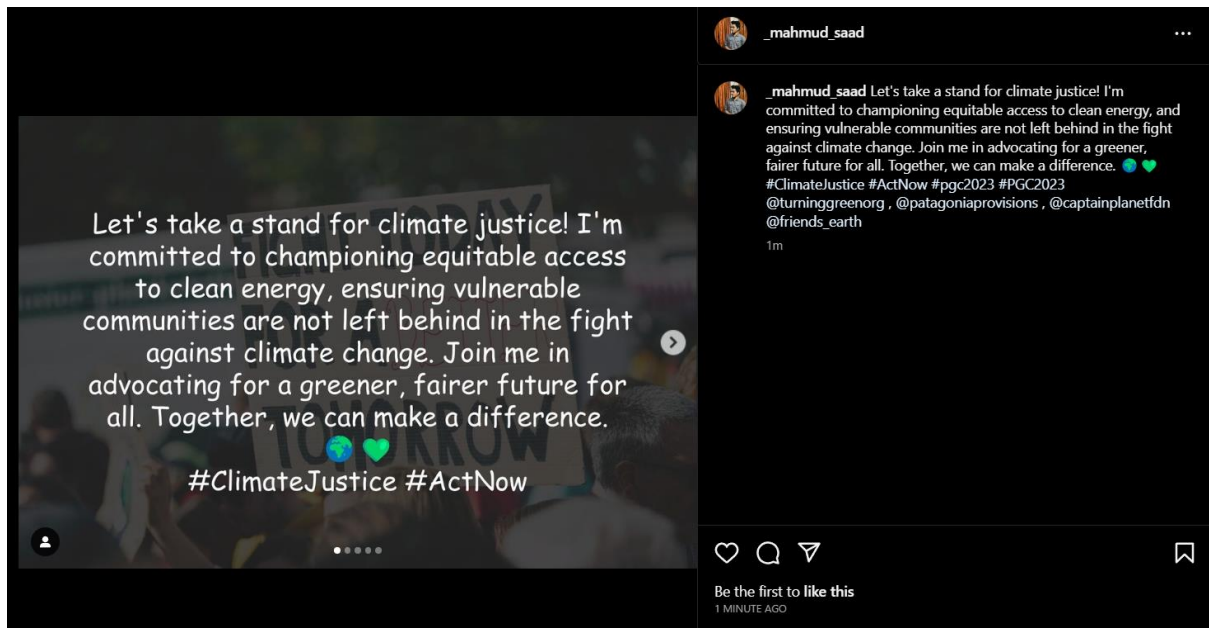
Climate change is a global issue, and I would actively seek international collaboration and funding opportunities to support mitigation and adaptation efforts in Barisal District.

By taking these steps, I would strive to mitigate the impacts of sea level rise and saltwater intrusion in my community, aligning my actions with environmental justice principles to ensure that vulnerable populations are not disproportionately affected by the consequences of climate change.

Find my Instagram Post here:

https://www.instagram.com/p/CyBT0jtR8mr/?utm_source=ig_web_copy_link&igshid=MzRlODBiNWFiZA==

Screenshot of my Post:



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