The Statesman- 04- July-2022

Sea level rise will affect coastal communities

PRASHANT KUMAR, DIVYA SARDANA AND ARMIN ROSENCRANZ

Climate change has stamped its signature on the world's oceans and atmosphere. A primary contributor to climate change is global warming, which modulates the wind and wave field patterns, sea surface temperature, and sea level pressure anomalies.

These changes may result in oceanic warming and hasten the melting of ice caps, ice sheets, and glaciers, leading to accelerated sea-level rise (SLR) globally and regionally. Rising sea levels pose a potential threat to the habitat of coastal and offshore communities by intensifying the impacts of coastal hazards such as floods, storm surges, tsunamis, high tides, extreme waves, and erosion in the low-lying areas.

The Paris Agreement of 2015 (UNFCCC 2015) proposed to restrict the increases in global warming to well below 2.0°C above the pre-industrial level, preferably to 1.5°C.

The amount by which sea levels rise as a result of ice sheet melting might be nearly halved if global warming is kept to 1.5°C. However, a recent report from the Intergovernmental Panel on Climate Change (IPCC) portrays a rather gloomy picture of the challenges we confront due to SLR. On a global scale, the sea level is continuously rising and "accelerating" at the rate of 3.6 mm per year.

The IPCC's sixth assessment report (AR6, 2022) also notes that human imprints have enhanced greenhouse gas emissions, contributing to fast-rising sea levels.

Over the course of the twenty-first century, the risk along the coastlines will increase by at least one order of magnitude. These hazards are primarily focused in and around coastal towns and settlements. They will intensify beyond 2050, and will continue to worsen well through 2100, even if global warming ceases. By 2100, historically catastrophic and extreme sea-level rises will happen every year, endangering the lives of millions of people who live near the coast.

In the coming decades, increased exposure to SLR will be caused mainly by rapid urbanization and population expansion in low-lying coastal zones. In Africa, 108–116 million people will be exposed to SLR by 2030 (compared to 54 million in 2000), and the number will rise to 190–245 million by 2060. According to the IPCC's AR6, by 2050, a billion people living in low-lying cities and towns will be at risk from climate hazards.

If the global mean sea level rises by 0.15 m relative to current levels, the population in coastal towns and communities at risk of a catastrophic coastal flood will grow by about 20 per cent. By the end of the twenty-first century, coastal flood damage in Europe is expected to spike least tenfold with existing adaptation and mitigation measures.

As curated by IPCC, it is anticipated that as many as 510 million people and as much as US$12,739 billion in assets will be exposed by 2100 in several coastal regions across the globe.

Overall, the damage is projected to reach far beyond coastal towns and cities. Severe damage to ports is likely to endanger global supply chains and maritime trade, with broad geopolitical and economic repercussions.

If nations enhance their collective mitigation targets and move towards adaptation, there is some optimism amid these concerns. Hoesung Lee, the head of the IPCC, urged the fostering of resilience as a part of adaptation efforts. He observed, "If we reduce emissions sharply, the consequences for people and their livelihoods will still be challenging, but potentially more manageable for .... the most vulnerable." The only solution is to adapt, plan and build infrastructure that is climate resilient.

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The Statesman- 04- July-2022

Miseries that unite

The floods in Assam and Bangladesh caused by the Brahmputra highlight the need for coordinated responses.

NAVA THAKURIA

As the devastating flood embraces vast areas of Assam (in northeast India) and Bangladesh, the mighty Brahmaputra comes into focus again as the lone river that after originating in Tibet (now under China) flows through both the countries before culminating in the Bay of Bengal. Incessant rains for many days in the third week of June had caused all the tributaries of the Brahmaputra to swell and the river ended up inundating over one million hectares of land affecting millions of people in both the south Asian countries.

The monsoon rains in the region usually start by the end of May. This time heavy downpours affected the vast cultivable land by June where at least 5 million people (including one million children) in northeast India and over 6 million (including 1.50 million children) in the lower riparian areas of northern Bangladesh got severely affected.

According to government agencies, nearly 2.5 million people in Assam were rendered homeless whereas over 3 million Bangladeshi people had to take shelter in makeshift camps.

About 125 people have lost their lives due to the floods and landslides in the hilly areas of Assam and its neighbouring state of Meghalaya.

Bangladesh witnessed the death of over 50 people in flood-related incidents. Remote villagers in both countries are struggling to survive with the crisis of adequate food items, drinking water and medicines for the elder and children. The government and armed forces in both the countries have been engaged to rescue the stranded families and also supply essential commodities to affected villages.

According to the Assam State disaster management authority, over 3,000 revenue villages got submerged by the flood waters. The floods have affected over 100,000 hectares of crops as well as washed away a large number of domestic animals. The world famous abode of the precious one-horned rhinoceros, the Kaziranga National Park also witnessed flooding in its northern part on the banks of the Brahmaputra.

In Bangladesh, over one million hectares of farmland are under water. Even the civil air-services in Sylhet region faced repeated disruptions for many days.

Identified as one of the world's climate-vulnerable countries, Bangladesh receives rain-fed river water from India where the Brahmaputra and the Barak contribute a large volume of water in every monsoon season.

Annual floods affect the populous country's agriculture, related infrastructure and thus its economy. Bangladesh Prime Minister Sheikh Hasina recently took aerial surveys of flood affected north and northeast localities of the densely populated country. She commented that different agencies were engaged in rescuing the trapped people and were supporting them with relief.

On the other hand, Assam chief minister Himanta Biswa Sarma continues visiting the flood affected areas to take stock of the situation where thousands of families are still in the administration-run relief camps. The flood situation in the Barak valley continues to be grim; the power supply has been interrupted and so have mobile telephony services. The road-connectivity to Silchar has been disturbed and even many trains connecting the southern valley have been cancelled or rescheduled. The authority has started fixed (reasonable) price air-services between Guwahati and Silchar.

The Brahmaputra, which originates at Manasarovar of the Kailash range inside Tibet at an elevation of over 5,000 meters, runs over 3,900 kilometers till its culmination. The third largest river in the world has over 50 tributaries in the region and it carries a high level of sedimentation. During the monsoon season (usually June to October), the river water from the Himalayas receives an extra volume of sediment-ladeb water from the rain-fed tributaries that adds to the intensity of floods in both countries. Huge areas of fertile agricultural lands in India and Bangladesh are damaged by floods, causing massive annual economic losses.

The river, which is omnipresent in Assamese (also Bengali) literature, cultural items and various Hindu rituals, helps the people with transportation too. The Inland Water Transport authority runs a number of vessels helping people to cross the river at various points and also offers a long-distance river journey at a low price.

Now the adventure cruise tourism on Brahmaputra has also been developed in Guwahati. On the other hand, Bangladesh uses the river more efficiently for water transportation available for thousands of Bangladeshis in day-to-day life.

There was a time when the farmers eagerly waited for the flood water that inundated the paddy field to make it more fertile. It used to increase the annual crop productivity and also helped in the breeding of large species of indigenous fish. So, the rural economy was directly influenced by annual floods with low intensy.

But since 1960, the government started emphasizing on erecting earthen embankments on both sides of the river to confine the flow of water.

It was then termed as a flood control measure, but these embankments often failed to protect the villagers and made the situation worse.

After six decades, the people have witnessed the devastation caused due to regular breaches in embankments. Human encroachments in environmentally sensitive areas, destruction of natural wetlands and other water bodies, massive deforestation, etc. have only worsened the flood situation.

Assam government sources claim that the State loses nearly 8,000 hectares of land every year due to river erosion by Brahmaputra and its tributaries. Since 1955, the State has witnessed the loss of over 3,800 square kilometers of farmland because of the natural disaster.

Realizing the gravity of the flood-situation, the European Union has offered €2 million (1 Euro = 83 Indian Rupee) in emergency aid to the affected families of Bangladesh and India. In a 26 June message, the EU termed the current wave of floods as worse than those of 1998 and 2004 and released €1.2 million for the affected people in Bangladesh and €800,000 for India focusing on Assam.

The money is expected to be channelized through the EU's humanitarian aid partners on the ground, so that the affected and displaced families can get relief.

Prime Minister Narendra Modi has assured the Assam government of all necessary support from the Union government in New Delhi.

Meanwhile, Reliance Industries Limited's head Mukesh Ambani and his son Anant Ambani donated Rs 250 million to the CM's relief fund with an aim to help the people reeling under the devastating floods.

Government-run Oil India Limited extended Rs 50 million to the relief fund and the Eknath Shinde (before he became Maharshtra CM) led Shiv Sena camp donated Rs 5.1 million. While Mumbai-based actor-producer Aamir Khan donated Rs 2.5 million, Bhushan Kumar offered Rs 1.1 million.

Filmmaker Rohit Shetty, actor Arjun Kapoor and singer Sonu Nigam also extended Rs 5,00,000 each to the government.

Most significantly, the Tibetan spiritual leader Dalai Lama, who escaped Communist China in 1959 to take refuge finally in Dharamshala of northern India, also came forward extending monetary support to Assam. Addressing the State government chief on 21 June, the 14th Dalai Lama expressed his 'sadness about the hardship caused to so many people of Assam' due to the recent floods. Offering his deep condolence to the families, who have lost loved ones and everyone affected by the flooding, the Nobel Peace laureate donated Rs one million from the Gaden Phodrang Trust of the Dalai Lama to support the efforts of concerned agencies engaged in rescue and relief missions in the State.

The pro-Tibetan activists across northeast India expect a responsible regime in Lhasa to look after the environmentally sensitive Tibetan region, which they believe cannot be possible for the Beijing administration as it is interested only in the natural resources of the Tibetan plateau.

Beijing hardly bothers for the lower riparian countries, which has already been proved by its large hydroelectricity dams on the Brahmaputra inside Tibet. Maybe it is time New Delhi redesigned its policy towards China for the interest of India, and made the river a key element of this policy.

The writer is *The Statesman*'s Guwahati-based Special Representative.

The Tribune- 04- July-2022

Highest village Tashigang gets tap water

SHIMLA, JULY 3

Tashigang village in Spiti, the highest village in the country, got the domestic tap connection as Himachal achieved 93.05 per cent target of providing functional household connections under the Jal Jeevan Mission. Functional domestic tap connections have been provided to Tashigang, a small village at an altitude of 15,256 feet in the Spiti Valley, a spokesperson of the state government said here today. The government had achieved a 100 per cent target of providing tap connections in four districts, Una, Chamba, Kinnaur and Lahaul-Spiti, he added.

During the last over two years, 8.44 lakh households have been given tap connections while during the last 72 years, only 7.63 lakh were provided these. Under the mission, Rs 4,418.37 crore has been allocated to the state, including an incentive amount of Rs 1,028.43 crore.

The water supply has been provided to 411 habitations having 22,763 houses in Kinnaur and 364 habitations having 7,284 houses in Lahaul and Spiti. In Chamba, the target of 100 per cent coverage has been achieved by providing tap connections to all 1,21,752 households. — TNS

The Economics Times- 04- July-2022

PPP MODE LIKELY

Desalination Plants Across the Coastline in the Works to Fight Water Crisis

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New Delhi: The government is drawing up a roadmap for setting up commercially viable desalination plants to make sea water usable across the country's coastline in line with its target of supplying clean piped water to every household by 2024.

The initial plan is to set up plants in the islands of Daman & Diu and Dadra & Nagar Haveli, a senior government official said, adding that it would be replicated across the entire 7,500 km of the country's coastline.

The initial plan is to set up plants in islands of Daman & Diu and Dadra & Nagar Haveli

Research and development on the multi-stage flash vaporisation technology to upscale it and commercialise its usage is going on with the help of official think tank Niti Aayog.

"The Aayog will soon come up with a roadmap for the Jal Shakti ministry to help set up commercially viable desalination plants using the above technology," the official told ET.

The plants are expected to be set up in public-private partnership mode with the government providing technological and fiscal support.

As per the plan, which is under conceptualisation phase, floating desalination plants will be set up in marine waters within India's territory along the country's coastline.

Rashtriya Sahara- 04- July-2022

असम में बाढ़ के लिए जलवायु परिवर्तन, खराब नीतियां जिम्मेदार

■ गुवाहाटी (भाषा)।

असम में हर साल इस समय के आसपास जनजीवन पूरी तरह से ठप हो जाता है। लोग लगातार बारिश, भूस्खलन और बाढ़ से बुरी तरह से प्रभावित होते हैं। इन आपदाओं की तीव्रता लगातार बढ़ रही है, जिससे जानमाल के नुकसान में भी वृद्धि हो रही है।

विशेषज्ञों के मुताबिक, ब्रह्मपुत्र और बराक नदी घाटी में बाढ़ पहले से ही आती रही है, लेकिन हाल के वर्षों में हुए अभूतपूर्व विनाश के लिए मुख्य रूप से दोषपूर्ण बाढ़ नियंत्रण उपायों, जनसंख्या दबाव, जलाशयों के सिकुड़ने, अनियंत्रित निर्माण और विकास रणनीतियों को जिम्मेदार ठहराया जा सकता है। पर्यावरण वैज्ञानिक डा. पार्थ ज्योति दास ने बताया, मई और जून में आई विनाशकारी बाढ़ ने पिछले कुछ वर्षों की तुलना में इस बार बड़े भूभाग को अपनी चपेट में लिया है और मानसून से पहले आई बाढ़ में मौतें भी कम ही हुई हैं। उन्होंने कहा, बढ़ती आबादी और बाढ़ के प्रति संवेदनशील क्षेत्रों में निर्माण असम में भारी नुकसान के

■ हाल के वर्षों में राज्य में हुए अभूतपूर्व विनाश के लिए मुख्य रूप से दोषपूर्ण बाढ़ नियंत्रण उपाय, जनसंख्या दबाव, जलाशयों के सिकुड़ने, अनियंत्रित निर्माण और विकास रणनीतियां जिम्मेदार : विशेषज्ञ

पीछे के कुछ कारण हैं। कई जगहों पर तटबंधों के टूटने से भारी तबाही हुई है। इसके अलावा, बार-बार अचानक आने वाली बाढ़ के कारण लोगों के पास जानमाल की रक्षा करने के लिए बहुत कम समय बचता है।

डा. दास के मुताबिक, बाढ़ का पूर्वानुमान और चेतावनी कई बार संवेदनशील आबादी तक नहीं पहुंच पाती, ऐसे में उनके पास तैयारी की कोई गुंजाइश नहीं रहती। असम राज्य आपदा प्रबंधन प्राधिकरण के अनुसार, बाढ़ की मौजूदा लहर, जो पूर्वोत्तर राज्य अब भी झेल रहा है, ने 2,35,845.74 हेक्टेयर में फसलों को नुकसान पहुंचाने के अलावा 174 लोगों की जान ली है और 90 लाख लोगों को संकट में डाल दिया है।

जल संसाधन विभाग ने बताया, ब्रह्मपुत्र घाटी दुनिया के सबसे अधिक बाढ़ संभावित क्षेत्रों में से एक है, जिसके बाद बराक घाटी का स्थान आता है। लगभग 100 सहायक नदियों और उपसहायक नदियों का पानी बह्मपुत्र और बराक में जाता है तथा दोनों नदियों का असम को बाढ़ की चपेट में लाने में 40 प्रतिशत योगदान है। प्राकृतिक और मानवजनित, दोनों तरह के कारकों की शृंखला संकट को और बढाती है।

नदी विशेषज्ञ प्रदीप पुजारी ने बताया, जल निकासी के लिए संकुचित स्थान और स्थानीय जलाशयों का खत्म होना, जो पहले बाढ़ के पानी के भरने का स्त्रोत हुआ करते थे, शहरी बाढ़ के लिए काफी हद तक जिम्मेदार है। असम विश्वविद्यालय के पर्यावरण विज्ञान के पूर्व प्रोफेसर डा. अभिक गुप्ता ने कहा, जलवायु परिवर्तन के साथ-साथ पहाड़ और वनों की कटाई बाढ़ के बढ़ते खतरे के लिए जिम्मेदार है।

Punjab Kesari- 04- July-2022

हिमाचल में 93.05 प्रतिशत परिवारों को जल कनेक्शन

शिमला, (विक्रांत सूद): हर घर नल से जल उपलब्ध करवाने के उद्देश्य से आरम्भ किए गए जल जीवन मिशन (जेजेएम) के अन्तर्गत हिमाचल प्रदेश के चार जिलों ऊना, चंबा, किन्नौर और लाहौल स्पीति के हर परिवार को क्रियाशील नल कनेक्शन प्रदान करने का शत-प्रतिशत लक्ष्य हासिल करने के साथ ही राज्य में अब तक 93.05 प्रतिशत परिवारों को इस मिशन के तहत क्रियाशील घरेलू कनेक्शन (एफएचटीसी) प्रदान किए जा चुके हैं।

क्रियाशील नल कनेक्शन प्रदान करने का शत प्रतिशत लक्ष्य हासिल करने वाले राज्य के चार जिलों में लाहौल स्पीति, ऊना, किन्नौर और चंबा शामिल हैं। प्रदेश के 24 खंडों, 2331 ग्राम पंचायतों और 14,661 गांवों को जल जीवन मिशन के तहत अब तक पूरी तरह से कवर किया जा चुका है। राज्य में पिछले अढ़ाई वर्षों के दौरान 8.44 लाख घरों को नल कनेक्शन प्रदान किए गए हैं जबकि पिछले 72 वर्षों के दौरान केवल 7.63 लाख घरों में ही नल कनेक्शन प्रदान किए गए थे। मिशन के अन्तर्गत भारत सरकार की ओर से राज्य को अब तक 1,028.43 करोड़ रुपये की प्रोत्साहन राशि सहित कुल 4418.37 करोड़ रुपये आवंटित किए गए हैं।

Punjab Kesari- 04- July-2022

गंदे पानी को साफ कर विद्युत संयंत्रों को बेचेगी सरकार

- नदी के 50 किलोमीटर के दायरे में स्थित विद्युत संयंत्रों को शोधित जल बेचने के लिये बातचीत
- विद्युत मंत्रालय को प्रस्ताव भेजा गया

नई दिल्ली, (पंजाब केसरी): सरकार गंगा नदी के किनारे स्थित शहरों से निकलने वाले गंदे जल को शोधित करके विद्युत संयंत्रों को बेचेगी और इसके लिये अगले एक-दो सप्ताह में राष्ट्रीय स्वच्छ गंगा मिशन और विद्युत मंत्रालय के बीच समझौता ज्ञापन (एमओयू) किया जा सकता है। एक अधिकारी ने यह जानकारी दी। राष्ट्रीय स्वच्छ गंगा मिशन (एनएमसीजी) के महानिदेशक जी. अशोक कुमार ने कहा, ''हम गंदे जल को शोधित करके उसका पुन: उपयोग करने की एक योजना पर काम कर रहे हैं। इसके लिये अभी मथुरा स्थित इंडियन ऑयल कॉरपोरेशन लिमिटेड के साथ सहमति बनी है और अगले महीने एमओयू पर हस्ताक्षर किया जायेगा।''उन्होंने कहा कि हमने नदी के 50 किलोमीटर के दायरे में स्थित विद्युत संयंत्रों को शोधित जल बेचने के लिये बातचीत की है। शोधित जल की बिक्री के लिये विद्युत मंत्रालय को प्रस्ताव भेजा गया है और मंत्रालय ने इसे विचारार्थ केंद्रीय विद्युत प्राधिकार (सीईए) को भेजा है। एनएमसीजी के महानिदेशक ने बताया, ''अगले एक दो हफ्ते में एमओयू की प्रक्रिया को अंतिम रूप देने के बाद हस्ताक्षर होने की उम्मीद है।'' उन्होंने कहा कि इसके लिये 30 बिजली परियोजनाओं एवं संयंत्रों को चिन्हित किया गया था और इसके बाद एनएमसीजी एवं केंद्रीय विद्युत मंत्रालय की टीम ने एक महीने तक इन संयंत्रों का दौरा किया। कुमार ने कहा कि इन चिन्हित संयंत्रों में से कुछ काफी पुराने थे और कुछ में तकनीकी समस्याएं सामने आईं। उन्होंने कहा, ''जांच परख करने के बाद 11 संयंत्रों को छांटा गया है।