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Regional Workshop on Framework and Toolkit Development

GEDSI INTEGRATION IN TEMPERATURE-RELATED IBF

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OVERVIEW

01 Introduction

02 Disproportionate Impacts of Temperature-related Hazards

03 GEDSI Principles

04 Approaches for GEDSI Integration in Temperature-related IBF

05 Plenary Discussions

Gender and other Social Inequalities Drive Vulnerabilities to Climate Change

- 330 million women and girls live on less than 1.9 USD per day (4.4 million more than men)
- In 2/3 of countries, women are more likely to report food insecurity than men
- Globally, 15 million girls will never get a chance to read or write (compared to 10 million boys
- Women and children are 14 times more likely than men to die during a disaster

Gender and other Social Inequalities Drive Vulnerabilities to Climate Change

Majority of urban women live in conditions where they lack access to clean water, improved sanitation facilities, durable housing, or sufficient living space

Social characteristics such as disability, socio-economic, migration and displacement status, ethnicity, age, religion, sexual orientation and gender identity combine to influence who can access resources and jobs, who makes decisions, and who loses out.

Gender and Social Inequalities in South Asia

- Women and girls often face challenges in health, nutrition, education, and employment, and are at high risk of early and forced marriage and gender-based violence.
- Women generally bear the responsibility of the family's food and water needs. They also shoulder a disproportionate burden of unpaid care and domestic work.
- Outmigration of men due to extreme events and limited livelihood options further increases the challenges and workload of for women.
- Women farmers have limited or no access to productive resources such as land and credit and even quality services and timely information.
- Other jobs women often engage with are low-paying and informal.
- People with disabilities, the elderly, and other marginalized communities (e.g., specific caste or ethnic minorities) face greater challenges in accessing early warning systems, evacuation shelters, and recovery assistance.

Temperature-related Hazards

- Heat-related hazards negatively affect the health and well-being of people, increasing the risk of morbidity and mortality. They also have negative effects on air quality, infrastructure, energy supply, water supply, transport system, and agricultural production.

- Cold waves also present significant challenges in public health. The impacts often include delayed effects, particularly respiratory and cardiovascular outcomes. They may also cause damage to crops and lower livestock productivity

Heat Wave Events across South Asian Countries

Location	Study Period	Impacts of Heatwaves	Reference
Pakistan	2015 heatwaves	The 2015 heatwaves in Pakistan resulted in the death toll of 1233 due to hyperthermia. Around 65,000 people were treated for heatstroke.	[56]
Pakistan	2000–2019	All-cause mortality increased by 27% with a temperature range between 35–40 °C, while by 11% with a temperature range between 30–35 °C.	[60]
Karachi, Pakistan	2015 heatwaves	Heat-related causes of death during June 2015 heatwaves were 18% higher than the reference period of June 2014 [95% CI: 13.87–22.53].	[55]
Nepal	2009–2014	Hospitalization/death increased by 2.1% to 7.3% per 1 °C rise in temperature. All-cause deaths rose by 0.9% to 8.2% per 1 °C change in temperature below or above 20 °C.	[57]
Bhutan	1961–1990	Heat-related deaths in people above 65 years could increase to 49 deaths per 100,000 by the 2080s.	[29]
Ahmedabad, India	May 2010 heatwave	Around 4462 all-cause deaths occurred, comprising 1344 excess all-cause deaths, an estimated 43.1% increase compared to 2009 and 2011 (3118 deaths).	[36]
India	2000–2012	Across communities, total mortality increased by 18.1% during heatwave days compared to non-heatwave days [95% CI: −5.3, 47.3].	[49]
India	1992–2016	Across India, in the 24 years between 1992 and 2016, 25,716 heat-related deaths were reported, with 1111 and 2040 deaths reported in 2015 and 2016, respectively.	[51]
India	1972, 1988, 1998, and 2003	During the 1972, 1988, 1998, and 2003 heatwaves, with over ten heatwave days on average across India, heat-related mass mortality ranged between 650 and 1500 people.	[52]
Bangladesh	1989–2011	Mortality increased by 22% during heatwave days [95% CI: 8–38].	[39]
Bangladesh	2003–2007	Heat effects increased the all-cause mortality by 1–3%.	[61]
Sri Lanka	2019	The outbreak of diseases caused by heatwaves was identified as a serious concern.	[62]
Maldives	2015–2016	Severe heat stress resulted in high coral mortality on Maldivian Reefs following the 2015–2016 El Niño event.	[63]

Source: Sharma et al., 2022

Cold Wave Events across South Asian Countries

Location	Year	Impact
Nepal	2007	The cold waves caused 48 mortality
India and Bangladesh	January 2010	A major cold wave resulted in over 500 deaths across North India, with flight and train schedules significantly disrupted by heavy fog. Bangladesh was also affected.
India	January 2016	Caused numerous deaths and significant disruptions in transport an in daily life
India	2020	A cold wave claimed approximately 150 lives in a single day, mainly in Uttar Pradesh, Bihar, and
India and Pakistan	January 2023	Northern India experienced a near-record chill, and Nokkundi in Pakistan's Balochistan province recorded an all-time low of -10°C (14°F)
India	2024	A significant cold wave event in India lasted for six consecutive days from January 21-26, characterized by persistent below-normal minimum temperatures across the northern region. In December of the same year, northern states of India faced severe conditions, with predictions for cold waves in Himachal Pradesh, Rajasthan, Jammu and Kashmir, Punjab, and Ladakh.

Disproportionate Impacts of Temperature-Related Hazards

Vulnerability to extreme temperature is shaped by both physiological factors, such as age and health status, and exposure factors such as occupation and socio-economic conditions (WHO, 2024).

- The elderly (usually 65 and above) are more vulnerable to heat illnesses than younger people
- People engaged in heavy labor or those who live in the inner city and/or low-income areas that are crowded are more at risk of high temperature-related deaths
- 60% of home-based women reported an increase in unpaid caregiving labor during heatwaves as they care for sick children and the elderly

Disproportionate Impacts of Temperature-Related Hazards

- Heat exposure is linked to pre-term births, miscarriages, and stillbirths
- Cultural norms may restrict women's mobility, access to healthcare, or ability to use public cooling spaces, while traditional clothing can hinder evaporative cooling.
- Heat stress significantly impact livelihoods, especially for outdoor workers in agriculture and construction. Outdoor workers can experience midday productivity losses of up to 30% for heavy work during heatwaves.
- Extreme heat has forced thousands of schools to close, widening the education gap for children, particularly those from low-income families.

Disproportionate Impacts of Temperature-Related Hazards

- Increased risk of hypothermia, frostbite, pneumonia, asthma, and other respiratory infections, especially among children and the elderly.
- Low temperatures were associated with an increased mortality risk among females
- Women generally face a higher risk of severe diseases associated with extreme weather events in general compared to men, largely due to pre-existing socioeconomic and cultural vulnerabilities.
- Significant losses in the agricultural sector due to the effect of frost on crops and livestock; disruption on working hours; increase demands for heating

GEDSI Principles

Gender Equity

Being fair to different genders, ages and ability, social economic constraints, or marginalised groups – creating an **equal level playing field** by redressing the balance.

Disability Inclusion

Involves recognizing and addressing the barriers that hinder people with disabilities from participating fully and effectively in society, particularly in CIEWS and climate action

Social Inclusion

Entails recognizing and addressing the processes and structures of social, economic, and political exclusion that prevent certain groups from participating equally in society.

GEDSI Principles

Leave No One Behind

Commitment by all UN Member States to eradicate poverty, end discrimination and exclusion, and reduce the inequalities and vulnerabilities that cause people to be marginalized.

Do No Harm

Recognizing that the actions we take in a particular context are not neutral. Our actions will affect the relationships within that context, either for better or worse.

GEDSI INTEGRATION IN IBF and EWS

GEDSI Context Analysis

- Collect and analyze data (vulnerability, exposure, hazard impact) disaggregated by sex, age, disability, ethnicity and other social markers to identify GEDSI-specific needs and vulnerabilities

Inclusive Planning and Design

- *Participatory Planning:* Engaging diverse stakeholders, including women's groups, organizations of persons with disabilities (DPOs), and other community representatives, in the design and implementation of IBF systems and anticipatory actions.

GEDSI INTEGRATION IN IBF and EWS

Inclusive Planning and Design

- *Accessibility and Accommodation:* Designing warning systems, tailored information products, infrastructure projects, and services with reasonable accommodation and physical accessibility for all, such as providing information in local languages and accessible formats.

Communication and Dissemination

- Ensure that IBF and warning information is clear, actionable, and tailored to the specific needs and contexts of different population groups, particularly the marginalized ones.
- Using a variety of communication methods in partnership with local organizations to ensure warnings reach ALL those at risk, regardless of their location or access to technology.

GEDSI INTEGRATION IN IBF and EWS

Implementation and Resource Allocation

- Allocating specific and adequate budgets and resources for GEDSI-related work within programs to ensure an equitable response.
- Providing training and opportunities for women and marginalized individuals to be involved in technical aspects of forecasting and data management.
- Collaborating with national and subnational governments and other international development agencies to build synergies, avoid duplication, and ensure a cohesive approach.

Monitoring, Evaluation, and Learning

- Incorporating GEDSI considerations into monitoring and evaluation processes to assess not only project outcomes but also who benefits and who might bear the costs of interventions.
- Using data and feedback from M&E to continuously review, verify, and improve the IBF systems and related action plans.

PLENARY DISCUSSION (20 min)

What are the most persistent barriers to gender equity, disability inclusion, and broader social inclusion in your country? How are these barriers currently being addressed?

What strategies and mechanisms are being implemented in your country to advance gender equity, disability inclusion, and social inclusion, in IBF and in climate information and early warning system? Where do gaps remain?

Thank you for your attention!

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