

# Summer Internship Report

AT



## Sphere India

*National Coalition of Humanitarian Agencies in India*

(April 22nd to June 21st, 2024)

A Report

By

**Dr. Deepanshi Rajput (PT)**

PGDM (Hospital and Health Management)

2023-2025



International Institute of Health Management Research,

New Delhi

**PREPARED FOR:**

SPHERE INDIA

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## Acknowledgement

The past two months has been incredibly intense and full of experience, and reflecting on this I would like to express my gratitude to the people who have guided me to end up with this result day. This internship would not have been possible without the contribution of the following people.

First, I would like to express my gratitude towards IIHMR DELHI for providing me with the opportunity to work with SPHERE INDIA and my mentor **Dr. Altaf Yousuf Mir** for incessantly guiding me.

I extend my sincere thanks to **Mr. Vikrant Mahajan**, the Chief Executive Officer of Sphere India, for emphasizing on the 2 – months internship program and giving me platform to interact with experienced professionals.

I would also like to thank **Mr. Saikhom Kennedy** – senior manager – operations, Sphere India, **Mrs. Nupur Tyagi, Manager** – Knowledge & capacity sharing, Sphere India and **Ms. Mishel Mohan** – Deputy manager – Knowledge & capacity sharing, Sphere India, and team whose unwavering guidance and support throughout the internship have been instrumental in shaping my understanding of the development and humanitarian endeavors during disasters. Their expertise and encouragement not only facilitated my learning but also helped me contribute meaningfully to the ongoing projects and have been instrumental in my development as a budding professional.

Their collaborative spirit, patience, and willingness to involve me in meaningful projects have truly made a difference in my learning experience. Furthermore, I am grateful for the opportunity to explore the intersection between Disaster and Public Health and various other sectors that are involved in the same that has been enlightening and has broadened my horizons, making me more aware of the global healthcare challenges and the potential of technology to address them.

I cannot forget to mention the support and encouragement from my fellow intern, friends and family during this internship. I look forward to utilizing this experience as a foundation for my future endeavors in the field of disaster health and public health.

Thank you

## **Executive Summary**

This report outlines the results and achievements of a 2 – month summer internship at Sphere India, which forms an essential part of the two-year PGDHM course. The program is particularly valuable for students who lack prior work experience, as it enhances their CVs by providing extensive learning opportunities. My participation in the internship was facilitated through the college internship placement cycle organized by IIHMR-Delhi.

The primary objective of the internship was to offer practical exposure and learning opportunities in the field of sustainable development and social impact. Over the course of the program, I worked on several projects that involved community engagement, program evaluation, and policy analysis. These projects required me to create detailed meeting minutes for webinars, collect and analyze data, and collaborate with multidisciplinary teams.

The internship enabled me to gain significant insights into the challenges and prospects within the sustainable development sector. It also allowed me to develop essential skills such as effective communication, organization, attention to detail, data management and analysis, training and facilitation abilities, adaptability and flexibility.

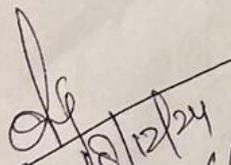
The report's primary aim is to present the internship's findings and recommendations, which aim to support Sphere India's ongoing efforts to drive positive social change and sustainable development.

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## CERTIFICATE OF APPROVAL

The Summer Internship Project of titled **INTERSECTION OF GENDER AND CLIMATE CHANGE RESILIENCE** at "**Sphere India**" is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of Post Graduate Diploma in Health and Hospital Management for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the report only for the purpose it is submitted.

  
18/12/24  
**Dr Altaf Yousuf** / Associate Professor &  
[ Associate Dean Placement and Alumni Relation ]

**IIHMR Delhi**

## FEEDBACK FORM (IIHMR MENTOR)

**Name of the Student:** Deepanshi Rajput

**Summer Internship Institution:** Sphere India Pvt. Ltd

**Area of Summer Internship:** Disaster Management and Climate Resilience with specific focus on Water and Sanitation Hygiene in Disasters

**Attendance:** 100%

### Objectives met:

1. Prepared comprehensive meeting minutes and session reports for several webinars including heatwave preparedness: awareness and safety for schools and children; what would the world with 8 billion look like with changing climate: for world population day.
2. Attended and participated in the Young Leaders Conclave 2024 under the theme "Circular economy & resource efficiency (including waste management)" on the topic "Menstrual Hygiene Management in emergency settings in developing countries"
3. Analyzed the Sphere India academy feedback session.
4. Mass mailed to all the participants for attending the webinar sessions.

### Deliverables:

1. Handbook revision on Health sector – worked on the detailed list of roles and responsibilities of each of the stakeholders for Health Coordination.
2. Sessions Reports for the following sessions:
  - 2.1 Heatwave Preparedness: Mitigating heatwave impacts: Infrastructure, Environment, and Technological Solutions.
  - 2.2 Heatwave Awareness: Strategies, Impacts, and Solutions: A holistic perspective.
  - 2.3 Heatwave preparedness: Awareness and safety for schools and children
  - 2.4 Report on the "One day dissemination workshop on district level heat threshold and heat assessment in India"
  - 2.5 Prepared presentation on the "Mainstreaming Disaster Risk Reduction and Climate Change Adaptation" for the brainstorming workshop: Strengthening Disaster Relief and Resilience Systems.
  - 2.6 Use of Canva for designing the flyers and IEC materials of the Sphere India academy sessions.
  - 2.7 Prepared the narrative literature review on the topic "Menstrual hygiene management in emergency settings in developing countries"
  - 2.8 Prepared the presentation on stress management and delivered it.

2.9 Prepared presentation and the detailed document on the "Intersection of climate change and gender"

**Strengths:** Strong documentation skills. Eager to learn and work on relatively new topics. Clear communication and presentation skills. Strong subject knowledge and practical experience.

**Suggestions for Improvement:** Continuous learning for building professional experience including developing technical writing skills further to synthesize information in a concise and precise manner

  
18/12/2024

**DR. ALTAF YOUSUF**

**Signature of the Officer-in-Charge**

**Date:** 21.06.2024

**Place:** Noida, Uttar Pradesh

## **Completion of summer internship from Sphere India**

The certificate is awarded to

**Ms. Deepanshi Rajput**

In recognition of having successfully completed his/her internship in the department of

**Knowledge and Capacity Sharing**

and has successfully completed her Project on

**Menstrual Hygiene and Waste Management during Emergencies in Developing Countries**

**21<sup>st</sup> June 2024**

**Sphere India**

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning.

We wish her all the best for future endeavors



Ms. Mishel Mohan  
Manager- Knowledge and Capacity Sharing  
**Organization Supervisor**



Ms. Nupur Tyagi  
Manager- Program Implementation  
**Head-HR/Department Head**

**Name of the Student:** Ms. Deepanshi Rajput

**Summer Internship Institution:** Sphere India

**Area of Summer Internship:** Disaster Management and Climate Resilience with specific focus on Water and Sanitation Hygiene in Disasters

**Attendance:** 100%

**Objectives met:**

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MISHEL MOHAN

**Signature of the Officer-in-Charge (Internship)**

**Date:** 21.06.2024

**Place:** Noida, Uttar Pradesh

## About The Organization

Sphere India is a distinguished national coalition of humanitarian agencies, established in 2003 as a pioneering pilot initiative of the Sphere Project in India. Initially focused on advancing the adoption of Sphere principles, processes, and standards, the coalition has since evolved into a dynamic platform fostering collaboration among a broad spectrum of stakeholders. It serves as a critical nexus for actors engaged in humanitarian assistance, disaster risk reduction (DRR), climate risk management, sustainable development, and peacebuilding efforts.

With a steadfast commitment to promoting quality and accountability, Sphere India facilitates inter-agency processes and strategic coordination. Its diverse constituency includes representatives from government bodies, the private sector, United Nations agencies, international and national non-governmental organizations (NGOs), local NGOs, community-based organizations (CBOs), professional associations, academic and research institutions, media entities, and individual experts. This diversity strengthens its capacity to drive collective action and contribute meaningfully to India's humanitarian and development landscape.

1. **Mission** – Enhance the collaborative accountability of humanitarian and DRR actors in India to affected populations by developing systems for effective and efficient humanitarian and DRR coordination, predictable humanitarian finance, appropriate policy, knowledge and capacity sharing.
2. **Vision** – Enhance the collaborative accountability of humanitarian and DRR actors in India to affected populations by developing systems for effective and efficient humanitarian and DRR coordination, predictable humanitarian finance, appropriate policy, knowledge and capacity sharing.

## INTERSECTION OF GENDER AND CLIMATE CHANGE RESILIENCE



### **INTRODUCTION**

The World Health Organization (WHO) has issued a grave warning about Natural disasters having significantly increased since 1960 resulting in the increased deaths that is predicted to increase more by the year 2030. The impact on the very essentials of life – the air we breathe, the water we drink, the food we consume, and our ability to seek shelter – poses an existential threat to global health. (Giudice et al., 2021)

Within the next ten years, swift and extensive climate change measures are needed to reduce loss and damage and keep global warming below the risk threshold of 2°C and, if feasible, below 1.5°C. For both adaptation and mitigation of climate change, the current pace of development toward these objectives is insufficient. There is little proof that the adaptation-related responses that have been shown are lowering the hazards that climate change poses, and there is rising concern that the wrong answers are making people more vulnerable and causing maladaptation. Only the effects of compound climatic events, which are the result of the interaction of several factors and/or hazards that raise the risk to society or the environment, can exacerbate this issue (Simpson et al., 2023). This further grows concerns for all the living beings, and moreover, for the underestimated sections of the society such as women, children, elderly, and the often-neglected LGBTQ+ community.

A staggering 70% of the 1.3 billion people living below the poverty line in low-resource countries are women, placing this group in the most precarious position. (Giudice et al., 2021) and they are prone to experience the adverse effects of the climate change on the much more expensive side. As they possess unique mental, social, racial, and reproductive health needs that intersect with the existing social, racial, and economic disparities. It was the first time in the “Fifth National Climate Assessment” that the women’s health acknowledged as being at the increased risk

Ageing and climate change are two pressing global issues, according to a United Nations (UN) report. According to alarming research, the number of older persons (those 65 and above) dying from heat-related causes has increased by an astounding 53.7% in the last few decades. This concerning figure highlights how the elderly are disproportionately affected by rising temperatures.

The least talked about community LGBTQ+ faces the greatest number of hardships during climate change. Due to social, economic, and structural factors that limit their economic opportunities they are helpless and have no way but to reside in the disaster-prone areas.

India has been rapidly industrializing and urbanizing during the 1990s. The nation's constantly increasing GDP is proof of the amazing economic benefits that have resulted from this, but it has also doubled carbon dioxide emissions and not all segments of the population have benefited equally from industrialization. According to the Intergovernmental Panel on Climate Change (IPCC), rainfall outside of the monsoon season would decline but extreme precipitation events will increase during the monsoon season. This implies that a number of locations that frequently experience heavy rainfall would be vulnerable to monsoon floods and dry season droughts. Although the strength of cyclones is expected to rise, the IPCC also projects a decrease in cyclone frequency. Because of this, India's coastal areas with dense populations and inadequate infrastructure are particularly susceptible to cyclones and flooding.

## **GENDER DIMENSIONS OF CLIMATE CHANGE IMPACTS**

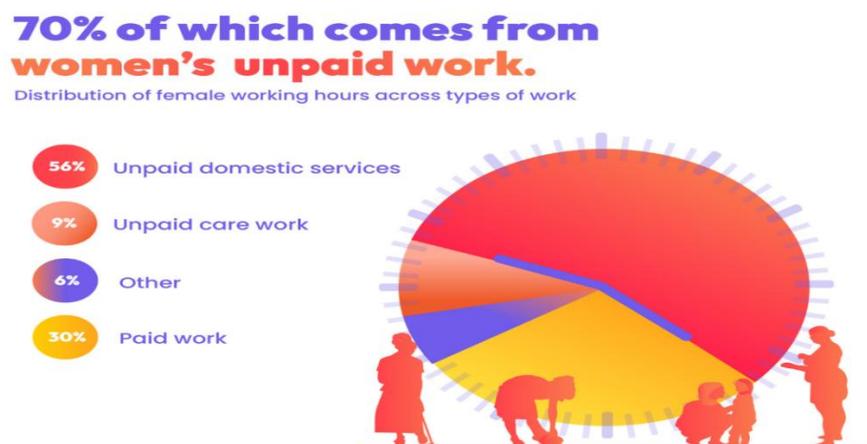
Climate disasters wreak havoc on mental and reproductive health. Survivors often suffer from post-traumatic stress, increased suicide rates, and adverse pregnancy outcomes. Access to vital reproductive services like contraception, abortion, pre/prenatal care, and maternity care is already lacking, with disasters further limiting access and compounding poor outcomes.

The health consequences are far-reaching and multifaceted. Direct effects relate to physiological impacts of heat, cold, pollution, water contaminants, and disruption of services. Indirect impacts stem from increased prevalence and distribution of vectors and pathogens driven by climate change. There is strong evidence that climate change has a negative influence on survival, mental health, sexual health, fertility, perinatal outcomes, and reproductive rights. Communities have post-traumatic stress disorder, suicides, and unfavorable pregnancy outcomes after a tragedy. There is already a paucity of access to critical reproductive health care, and disasters make matters worse by restricting access even more.

There are serious health concerns associated with both air pollution and climate change. Ozone, carbon monoxide, sulfur dioxide, and fine particulate matter (PM<sub>2.5</sub>/PM<sub>10</sub>) are major pollutants. These toxins have the ability to irritate the airways and reach the bloodstream, where they can harm the heart, lungs, and placenta, among other essential organs. Women are more likely to experience cardiovascular problems and carry a heavier weight. According to estimates, PM<sub>2.5</sub> from fossil fuels killed 10.2 million people worldwide in 2012, with China and India accounting for 62% of those fatalities.(Giudice et al., 2021) The mean PM<sub>2.5</sub> in India rose from 60 µg/m<sup>3</sup> in 1990 to 76 µg/m<sup>3</sup> in 2015. This was accompanied by a 150% increase in mortality from air pollution and a rise in mean ambient ozone exposure from 62 to 76 ppb.2018's MAPS Working Group. Older adults with cardiovascular conditions made worse by poor air quality account for around 25% of the 6.7 million fatalities caused by air pollution. Although the long-term effects are still unclear, there is growing evidence that temperature changes are linked to the development or advancement of neurological conditions like Alzheimer's. Additionally, pregnant women and other susceptible populations are more likely to develop hypertensive disorders as a result of air pollution. According to one study, the incidence of low birthweight increased by 25% within 1 km and by 25% within 3 km of fracking sites. Seasonal air quality declines when wildfires are fueled by climate change, increasing the risk of perinatal complications. (Giudice and others, 2021). Changes in regional pollution have an effect on subsequent pregnancies, with increased exposures increasing the likelihood of unfavorable outcomes. Around 1.6 billion people in India, according to the World Bank's 2018 energy database, have extremely limited access to electricity and must rely on other resources, like biomass, to carry out their daily tasks. Because of this, this role is perceived as gender specific, with women bearing the costs. Almost 24% of ambient air pollution is caused by biomass. Additionally, it has been linked to

intrauterine growth restriction, stillbirths, and congenital birth abnormalities. The 2018 MAPS Working Group Additionally, the LGBTQ+ population has fewer resources and medical facilities to recover from the negative effects of climate-related disasters, making them more vulnerable to their negative repercussions.

**Extreme heat:** is another deadly climate threat, causing more U.S. weather fatalities than any other hazard. In utero heat is linked to prematurity, low birthweight, stillbirths, congenital defects like heart issues and cataracts. Maternal risks include hypertensive disorders and placental abruption. (Kuehn & McCormick, 2017). Women from all the developing countries like India, Nigeria help earn the income for the household. Along with the daily activities involving cooking, cleaning, and looking after the entire house by herself (i.e. unpaid chores) she also leaves for searching job that would provide for her (paid chores) which are usually the construction site workers. It is seen that women are paid less than their counterparts. If evaluated formally their contribution could help the country's economy grow by 60 percent by 2025. Many women when asked described the symptoms of nose bleeding, and heat stroke. Heat affects pregnant individuals due to altered thermoregulation.



(adapted from **Adrienne** Arsht-Rockefeller Foundation Resilience Center. (2023, July 26). *The scorching divide: How extreme heat inflames gender inequalities in health and income.* <https://onebillionresilient.org/extreme-heat-inflames-gender-inequalities/>)

**Synergistic risks of air pollution and heat:** A Massachusetts study found every 5µg/m<sup>3</sup> rise in third trimester PM<sub>2.5</sub> associated with 1.7-10-week gestational age reductions in populations with high (≥21°C) or low (≤-0.59°C) third trimester temperatures, highlighting temperature extreme dangers. (Kwag et al., 2021) (Wang et al., 2020)

**Floods, Hurricanes and Wildfires:** Flooding from rising rivers, lakes, and sea levels compounds climate impacts. Oceans rose 8 inches last century - faster than any 2000-year period - due to ice melt and heavier storms. Floods seriously threaten women's physical/mental health through pollution exposure, unsanitary conditions, stress, depression, gender norms hindering survival, and food insecurity. (Mallett & Etzel, 2018). Observed impacts include menstrual issues, UTIs, pregnancy complications, and malnutrition. In low-income regions, food insecurity driven by sociocultural, political, and economic factors elevates risks like maternal depression, anemia, pre-eclampsia, preterm birth, and low birthweight. (Wang et al., 2020). Women in densely populated, poorly developed coastal areas of India are particularly susceptible to climate-related calamities like floods and cyclones. They are more likely to die or experience violence, mental health problems, and financial difficulty during and after such disasters due to social injustices, cultural gender stereotypes, and biological causes. Their vulnerability is further increased by their inability to access resources, information, and support networks. These women, particularly those from lower socioeconomic backgrounds, may not be able to take the necessary actions to protect their lives and well-being if public warnings and relief initiatives fail to take into account the unique difficulties they encounter. Reducing the disproportionate impact that disasters have on this group of women requires addressing the underlying imbalances.

**Water Scarcity and Vector-Borne Diseases** – like malaria, dengue, schistosomiasis, Zika, and Chagas kill over 1 million annually. The survival and spread of vectors are influenced by temperature and precipitation. One million people die from malaria each year, and pregnant women are particularly susceptible to complications like anemia, miscarriage, stillbirth, premature delivery, growth restriction, and maternal or newborn death. Pregnancy concerns associated with Zika include serious birth abnormalities, such as microcephaly. According to modeling, 1.3 billion more individuals, including those in North America and Europe, may be at risk of contracting Zika by 2050 as a result of societal and climatic changes. Water scarcity is a significant issue globally, with shifting rainfall patterns and population growth exacerbating the problem. In India, a large portion of the population lacks access to improved sanitation, leading to water-borne diseases. Women bear a disproportionate burden, as they are traditionally responsible for providing water for households. They risk contracting diseases, expending substantial energy for water harvesting, and facing safety concerns while traveling long distances. Water scarcity also poses health challenges during menstruation and pregnancy due to inadequate hygiene. Poverty further intensifies the impact, with poorer

individuals paying higher prices for water in urban areas and lacking access being linked to higher mortality rates for women. Addressing water scarcity and improving access to clean water and sanitation is crucial for alleviating the disproportionate effects on women.

## **GAPS AND CHALLENGES**

Few challenges are listed below.

1. Women's specific needs, including sexual/reproductive health and gender-based violence, are rarely prioritized in disaster risk reduction due to inadequate representation of women in leadership and decision-making roles.
2. Lack of sex, age, and disability-disaggregated data, as well as limited understanding of the gendered nature of disaster risk, hinders evidence-based decision-making and formulation of gender-responsive DRR programs.
3. Absence of robust gender analysis in disaster and climate risk management strategies can unintentionally exacerbate gender inequalities, such as increasing unpaid care burdens for women.
4. Investments in risk-informed development often fail to reach women and other marginalized groups effectively. Women's assets, which are more vulnerable to disaster losses, are often sold to fund recovery, further entrenching their economic disadvantage, and reducing resilience.

Some more gender disparities and challenges in Disaster Risk Reduction in India are as follows: (Barman & Bormudoi, n.d.)

1. **Cultural and societal barriers:** Deeply ingrained patriarchal norms, rigid gender roles, and limited opportunities for women to participate in decision-making forums pose significant obstacles to their involvement in DRR processes.
2. **Lack of representation:** Women, particularly from marginalized groups, often face exclusion from decision-making processes in disaster risk management due to socio-cultural norms and unequal power relations.
3. **Limited access to education and training:** Low literacy rates, high dropout rates, and restricted access to specialized DRR training programs hinder women's ability to acquire the necessary knowledge and skills for effective participation and leadership in DRR efforts.

**4. Inadequate institutional support:** A lack of resources, inadequate training programs, and limited networking and mentoring opportunities for women in disaster management restrict their meaningful contributions to decision-making processes and influence over policies and funding allocation.

**5. Gender-based discrimination and violence:** Persistent gender-based discrimination, violence, and deeply rooted cultural attitudes that support such practices discourage women from actively participating in public forums, meetings, and decision-making processes related to DRR.

## OPPORTUNITIES

It should be mentioned that because the extent of climate change's effects differs from country to country and region to region, place-based unique conditions can be crucial if one wishes to anchor educational efforts locally to support adaptation processes. (Forth Mbah & Ajaps, 2022). According to (Mbah et al., 2022), a number of policy adjustments were undertaken in response to climate change; these are listed below, along with a table.

**Table 1** CCE policies in South Asia

Country	Climate change policy	Overarching references to CCE	Main targets for CCE practices
Afghanistan	Disaster Management Strategy, 2014 National Environment Strategy (NES), 2007	Environmental education and building capacity and resilience at a local level	<ul style="list-style-type: none"> <li>• Institutional mainstreaming of environmental issues through development programs</li> <li>• Curriculum designed to train rural communities on capacity building</li> </ul>
Bangladesh	National Plan for Disaster Management, 2017 Climate Change Strategy and Action Plan, 2008	Research and development, capacity building, and institutional strengthening	<ul style="list-style-type: none"> <li>• Incorporating disaster risk knowledge in formal and informal education</li> <li>• Supporting and promoting disaster risk research in academics</li> </ul>
Bhutan	National Environment Strategy, 2020 Climate Change Policy of the Kingdom of Bhutan, 2020	Research, awareness, and education to support climate change adaptation, capacity building	<ul style="list-style-type: none"> <li>• Curriculum includes environment and climate change for different levels of education</li> <li>• Supporting research and disseminating knowledge for informed decision-making on climate change</li> </ul>
India	NDC, 2016 National Action Plan on Climate Change (NAPCC), 2009	Research and communication-based actions Knowledge systems that engage research and development on climate science	<ul style="list-style-type: none"> <li>• Creation of knowledge systems that support research</li> <li>• Developing human resource for adaptation by reforming school and college curricula</li> </ul>
Maldives	Maldives Climate Change Policy Framework (MCCPF), 2015	Research, capacity building, and institutional strengthening Promoting sustainable practices through awareness, education, and training	<ul style="list-style-type: none"> <li>• Mobilizing youth to engage in climate change understanding</li> <li>• Implement knowledge within secondary and tertiary schools, as well as vocational education</li> <li>• Encourage research on climate change issues</li> </ul>
Nepal	National Climate Change Policy, 2020	Involves governmental and non-governmental organizations to promote academic research and sustainable practices for the local communities	<ul style="list-style-type: none"> <li>• Knowledge on climate change adaptation to be incorporated in formal and non-formal curricula</li> <li>• Farmers' schools to guide farmers on sustainable crop production</li> </ul>
Pakistan	National Climate Change Policy (NCCP), 2021 Pakistan's 2025 Vision, 2014	Promotes sustainable adaptation, capacity building, and institutional strengthening	<ul style="list-style-type: none"> <li>• CCE in secondary and tertiary schools by 2030</li> <li>• Develop climate change adaptation planning within formal education systems at all levels</li> <li>• Public awareness on sustainable management practices</li> </ul>
Sri Lanka	National Action Plan for Hariitha Lanka Programme, 2009 Climate Change Policy, 2012	Promotes climate education and sustainable development knowledge, awareness, capacity building, research, and development	<ul style="list-style-type: none"> <li>• To integrate CCE and sustainable development in school and universities</li> <li>• Promote behavioral changes in schools and encourage climate change research at academic levels</li> </ul>

Few of the opportunities can be seen as:

1. Empowering Women as Change Agents – Women are disproportionately impacted by climate change but can also be powerful agents of change. Providing women with education,

resources, and decision-making power can unlock their potential to lead sustainable adaptation and mitigation efforts tailored to local contexts.

2. Integrating Gender Perspectives in Policy – Mainstreaming gender considerations into climate policies, programs and financing can help ensure gender-responsive adaptation planning and implementation. This includes gender analysis, sex-disaggregated data, and meaningful participation of women.

3. Promoting Gender-Transformative Approaches – Going beyond just including women, transformative approaches seek to address underlying social norms, power relations and structural barriers that produce gender inequalities. This can reshape environments to be more conducive for women's resilience.

4. Supporting Women's Livelihoods and Economic Empowerment – Climate impacts disproportionately threaten women's livelihoods, especially in agriculture and informal sectors. Initiatives focusing on alternative livelihoods, entrepreneurship, access to resources and markets can enhance women's economic resilience.

5. Advancing Sexual and Reproductive Health in Emergencies – Ensuring access to family planning, maternal health services, and protection from gender-based violence in climate-related disasters is crucial for women's well-being and building community resilience. Prioritizing gender equality and women's empowerment multiplies the effectiveness of climate action by tapping into the unique knowledge, perspectives, and leadership potential of half the world's population.

### **Case studies of local solutions**

Local action is the cornerstone of any significant intervention, even while national and international policy frameworks are required to facilitate large-scale action. Women hold numerous significant positions in society, such as main food producers, protectors of natural resources, water harvesters, teachers, and child rearers, senior caretakers, community leaders, technical and professional leaders, and political leaders. Lessons acquired from developing and implementing climate-resilient health solutions at the local and regional levels in India are highlighted in the case study series that follows.

#### **1. Water and Sanitation Improvement in Nanded, Maharashtra**

The Clean India initiative aimed to eliminate open defecation by building toilets in rural areas, involving local communities as active stakeholders. In Nanded district, Maharashtra, officials engaged with female-headed local councils (panchayats) to tailor the program to

residents' needs. This led to innovative solutions like adding bathing areas, sewage pits, and reverse osmosis drinking water plants. Engaging women as stakeholders was key, as they oversee household hygiene and sanitation. Community participation fostered ownership and addressed long-standing issues like poor water access and mosquito-breeding sites. The initiative's success highlights the importance of beneficiary involvement and addressing cultural acceptability to create sustainable health assets effectively.

## **2. Building Nutritional Security in Palghar, Maharashtra**

In Palghar district, Maharashtra, a significant portion of women and children suffer from undernutrition and anemia. The Energy Research Institute (TERI) has initiated interventions to address food insecurity by reintroducing locally available, nutrient-dense wild edibles into tribal communities' diets. Through community engagement, nutrition programs in schools, and government partnerships, social acceptance of these food sources is growing. Women are empowered through training on cultivating, procuring, and preparing nutrient-rich local foods, promoting food security, climate resilience, and independence. This approach reduces reliance on industrial food production, encourages biodiversity, preserves the local environment, and fosters sustainable food sources adaptable to climate change impacts.

## **3. Climate Resilient Farming in Marathwada, Maharashtra**

The drought prone Marathwada district in India faces agricultural distress and health issues like anemia and malnutrition. Local women farmers engaged by Swayam Shikshan Prayog (SSP) revealed concerns about male-centric decision-making favoring cash crops over food crops and chemical inputs impacting health. To build climate resilience, SSP initiated a women-centered farming model repositioning them as decision-makers. Women were trained in resilient practices like using bio-fertilizers, preserving local seeds, increasing crop diversity and drought-resistant varieties, and water conservation. Adopting this model improved household food and nutrition security, reduced cultivation costs, boosted productivity, and provided social, economic, and environmental benefits. Empowering women in climate-resilient agriculture addresses interconnected challenges.

## **4. Affordable Clean Cooking Solutions**

The use of biomass fuels for cooking and heating in India contributes to adverse health impacts and environmental pollution, disproportionately affecting women and children. Improved cookstoves aim to reduce these risks, but their adoption has been slow due to financial and behavioral barriers. Project Surya pilots' strategies to overcome these barriers,

providing women with loans for stoves and compensating them based on monitored stove usage and carbon mitigation. Women are trained to repair stoves, promoting entrepreneurship. This approach has led to high clean technology adoption, reduced emissions, and decreased respiratory and cardiovascular diseases in pilot areas. Addressing financial, technical, and gender-related barriers is crucial for effective dissemination of improved cookstoves.

## Internship Report:

Work Done	Details
<p><b>A. Power Point Presentation and Word document on Intersection of climate change and gender:</b></p>	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Impact of disasters on children, women, LGBTQ+ community and the vulnerable</li> <li>• WASH and Disaster Risk Management for Resilience Building</li> <li>• Gaps and challenges</li> <li>• Opportunities for development</li> </ul>
<p><b>B. Creating Comprehensive meeting minutes for webinars:</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Awareness and safety for schools and children:</b> <ul style="list-style-type: none"> <li>• Understood the anatomical structure of the children that is under – developed and leads to the major impact of their health.</li> <li>• How schools can become vulnerable places if they are properly ventilated and not sufficiently cooled down.</li> <li>• Prevention methods as in the alternatives that can be used instead to protect them.</li> <li>• Various methods for the green building initiatives that would help in keeping the building a much cooler place.</li> </ul> </li> <li>➤ <b>What would the world with 8 billion look like:</b> <ul style="list-style-type: none"> <li>• The world population is growing at the fastest pace possible and expected to be growing much more than that.</li> <li>• With the climate changing conditions at hand how can the world become the better place to live in.</li> <li>• Importance of the sustainable development.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>➤ <b>Heatwave preparedness: Mitigating heatwave impacts: infrastructure, environment, and technological solutions.</b> <ul style="list-style-type: none"> <li>• Understood how the use of traditional methods helps fight back the ill – effects of the heat.</li> <li>• Explored the impact of heatwave on critical infrastructure.</li> <li>• Understood the effects of heatwaves on urban ecosystems and biodiversity, emphasizing the need for sustainable practices.</li> <li>• Understood various technological innovations that can help manage and mitigate heatwave impacts.</li> </ul> </li>   <li>➤ <b>Heatwave awareness: Strategies, Impacts, and solutions.</b> <ul style="list-style-type: none"> <li>• Understood the causes, characteristics, and impacts of heatwaves on health, agriculture, and infrastructure.</li> <li>• Gained the knowledge about strategies for heatwave preparedness, response, and mitigation focusing on community – based approaches.</li> <li>• Gained the valuable insights with the practical tools and resources to build resilience against heatwaves, including early warning systems and heat action plans.</li> </ul> </li>   <li>➤ <b>Awareness and safety for schools and children.</b> <ul style="list-style-type: none"> <li>• Various strategies for school</li> </ul> </li> </ul>
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	<p>administrators, teachers, and parents about the risks associated with heatwaves and ways to prevent and protect from them.</p> <ul style="list-style-type: none"> <li>• Gained the practical guidance on adapting school infrastructure and routines to mitigate heatwave impacts and ensure a safe learning environment.</li> <li>• Understood comprehensive safety measures that can be implemented both at home and in school to protect children from heat – related health issues.</li> </ul>
<p><b>C. Attended and documented “One day dissemination workshop on district level heat threshold and heat assessment in India” – held at Jamia Milia Islamia University:</b></p>	<ul style="list-style-type: none"> <li>• Understood the factors responsible for the increasing temperature leading to the heatwave.</li> <li>• Understood the need of more research on the topic for the detailed experiences of the people facing them</li> <li>• Effects of the heatwave on the informal section of the society</li> <li>• Different methods of combating the heatwave</li> <li>• Different effects based on the geographical location as the coastal zones remain the hottest places of the earth.</li> </ul>

<p><b>D. Helped in the handbook revision on health sector:</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Worked on the Stakeholder roles and responsibilities for health coordination in disaster.</b></li> <li>• Described health emergency and disaster risk management framework.</li> <li>• Described the role of WHO</li> <li>• Described the role of the whole government.</li> <li>• Ministry of health</li> <li>• Described various roles mentioned in the National disaster management plan 2019.</li> <li>• Role of OCHA (United Nations Office for coordination of humanitarian affairs).</li> <li>• State – wise disaster management authorities’ involvement.</li> <li>• Various NGOs and IAG groups for the coordination and intersectoral efforts pre, during, and after disaster management.</li> </ul>
<p><b>E. Developed flyers using Canva for designing the flyer for the Sphere India academy sessions.</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Developed various flyers for the webinar sessions for the invitation purposes.</b></li> <li>• Awareness and safety for schools and children:</li> <li>• Heatwave preparedness: Mitigating heatwave impacts: infrastructure, environment, and technological solutions.</li> <li>• Heatwave awareness: Strategies, Impacts, and solutions.</li> <li>• Awareness and safety for schools and children.</li> </ul>

<p><b>F. Developed IEC materials for prevention from heatwave.</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Helped in the development of heatwave survival guide for informal workers</b> <ul style="list-style-type: none"> <li>• What is heatwave</li> <li>• How to know about it</li> <li>• What are the symptoms</li> <li>• Dos and don'ts about the same.</li> </ul> </li> </ul>
<p><b>G. Attended and participated in the Young Leaders Conclave.</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Prepared the narrative review and the presentation on the topic “Menstrual hygiene management in emergency settings in developing countries”</b> <ul style="list-style-type: none"> <li>• Developed the paper under the theme “Circular economy and resource efficiency (including waste management)”</li> </ul> </li> </ul>
<p><b>H. Presentation on the following</b></p>	<ul style="list-style-type: none"> <li>➤ <b>“Mainstreaming disaster risk reduction and climate change adaptation”.</b> <ul style="list-style-type: none"> <li>• Risk reduction journey through time and space.</li> <li>• Mainstreaming by governments (national, state, and local).</li> <li>• Mainstreaming by NGOs and CSOs</li> <li>• Mainstreaming by CSR organizations</li> <li>• Strategies for integrating DRR and climate resilience approaches</li> <li>• Priority areas for resilient development</li> <li>• Challenges and barriers</li> <li>• Conclusions and take away.</li> </ul> </li> <li>➤ <b>Significance of earth day in climate change</b> <ul style="list-style-type: none"> <li>• Introduction to the history of the world earth day.</li> <li>• The present scenario of the present – day climate change crisis</li> <li>• Influences from which awareness can be</li> </ul> </li> </ul>

	<p>brought through earth day.</p> <ul style="list-style-type: none"><li>• Individual actions to combat climate change</li><li>• Sustainable practices for businesses</li><li>• Government policies and earth day.</li><li>• Call to action</li></ul> <p>➤ <b>Stress management</b></p> <ul style="list-style-type: none"><li>• Uncover the power of stress management</li><li>• Understanding stress</li><li>• Steps to improve individual stress level</li><li>• Effective coping mechanisms</li><li>• Time management and prioritization</li></ul> <p>➤ <b>Practical session on progressive muscle relaxation.</b></p> <ul style="list-style-type: none"><li>• Common responses to stress.</li><li>• Aggregation of symptoms if ignored</li><li>• Coping strategies – mindfulness, progressive muscle relaxation technique, time management, and prioritizing self – care.</li><li>• Followed by the conclusion.</li></ul>
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## Opportunities

1. Prepared comprehensive meeting minutes and session reports for several webinars including heatwave preparedness: awareness and safety for schools and children; what would the world with 8 billion look like with changing climate: for world population day.
2. Attended and participated in the Young Leaders Conclave 2024 under the theme “Circular economy & resource efficiency (including waste management)” on the topic “Menstrual Hygiene Management in emergency settings in developing countries”
3. Analyzed the Sphere India academy feedback session.
4. Mass mailed to all the participants for attending the webinar sessions.

### Deliverables:

1. Handbook revision on Health sector – worked on the detailed list of roles and responsibilities of each of the stakeholders for Health Coordination.
2. Sessions Reports for the following sessions:
  - 2.1 Heatwave Preparedness: Mitigating heatwave impacts: Infrastructure, Environment, and Technological Solutions.
  - 2.2 Heatwave Awareness: Strategies, Impacts, and Solutions: A holistic perspective.
  - 2.3 Heatwave preparedness: Awareness and safety for schools and children
  - 2.4 Report on the “One day dissemination workshop on district level heat threshold and heat assessment in India”
  - 2.5 Prepared presentation on the “Mainstreaming Disaster Risk Reduction and Climate Change Adaptation” for the brainstorming workshop: Strengthening Disaster Relief and Resilience Systems.
  - 2.6 Use of Canva for designing the flyers and IEC materials of the Sphere India academy sessions.
  - 2.7 Prepared the narrative literature review on the topic “Menstrual hygiene management in emergency settings in developing countries”
  - 2.8 Prepared the presentation on stress management and delivered it.
  - 2.9** Prepared presentation and the detailed document on the “Intersection of climate change and gender”.

## Learnings

During the 2 months internship, the key learnings include:

- Disasters have significant impacts on everyone, especially women who tends to work extra hard to make the things smoother for everyone in the family necessitating appropriate interventions.
- Schools play a vital role in providing support to children and communities during heatwave.
- Integrating gender - specific interventions and WASH (Water, Sanitation, and Hygiene) practices into existing disaster risk management frameworks is essential.
- DRM (Disaster Risk Management) and resilience building can be effectively integrated through schools.
- Promote gender equality and social inclusion throughout the disaster management process.
- Develop skills in data analysis and management to analyze the post webinar responses.
- Recognize the importance of post webinar documentation and response collection updates.
- Gain proficiency in organizing and presenting Stress management at workplace using Microsoft PowerPoint.
- Develop strategies for addressing and mitigating traumatic stress in children, informal sectors during heatwave.
- Highlight the importance of psychosocial interventions for children in emergencies.
- Enhance collaboration and communication among key stakeholders in heatwave preparedness and mitigation.
- Improve stress management and prevent burnout among office staff.
- Gained the valuable knowledge about the intersection of the gender with the climate change.

## **Challenges Faced**

- Addressing the diverse climate change impacts experienced by women, adolescent girls, LGBTQ+ community, including their age, cultural backgrounds, and individual needs.
- Accessing sufficient resources and funding to sustain long-term support programs for women affected by disasters.
- Addressing psychosocial needs of vulnerable groups during disasters, including individuals with disabilities and unique challenges, women, and children.
- Addressing the overall inclusive approach for the different sections of the society including all the vulnerable groups, marginalized groups and the persons with disability.

## **Conclusion**

Overall, the internship provided valuable opportunities to contribute to gender support in disaster management. The diverse range of tasks, including creating presentations and reports, participating in webinars, and developing training modules, enhanced knowledge and skills in addressing the climate change impacts experienced by women during emergencies. Integrating gender – specific interventions with disaster risk management frameworks and emphasizing the role of different stakeholders emerged as effective approaches. However, challenges such as resource limitations, ongoing training needs, and data management complexities required careful attention.

The internship fostered important learnings, recognizing the significant climate change induced impacts of disasters on vulnerable section of the society and the need for tailored interventions. Integration of WASH practices, promoting gender equality, and social inclusion were highlighted. Skills in data analysis, reporting, addressing stress, and conducting heatwave awareness, preparedness and mitigation sessions were gained. Despite challenges, the internship built a foundation for heatwave support by addressing diverse impacts, securing resources, providing ongoing training, and acknowledging the needs of vulnerable groups. Overall, it equipped participants to make a positive impact, fostering resilience and promoting well-being in communities affected by disasters.

## Deepanshi Rajput ST report

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