1. Background

Global warming will surpass 1.5°C above pre-industrial levels during the next decade, due to greenhouse gas emissions. The constant rise in temperatures and related impacts combine with other pressures, thus increasing risk and undermining resilience. The increasing interconnectedness of people and human systems increases the risk of compound and cascading crises.

Given the imperative to transition to a carbon neutral development model, understanding where resilience-building can create positive feedback loops and co-benefits is particularly important now. The impacts of climate change are causing existing hazard events to become more intense and occur with greater frequency. These impacts combine with other risks and threats such as conflict, epidemics or inflation, creating compound crises, a phenomenon increasingly referred to as a polycrisis.

According to the Global Climate Risk Index 2021, India is the seventh most vulnerable country to climate change impact. The World Meteorological Organization in its State of the Climate in Asia Report 2020 estimated an average annual economic loss of $87 billion in India due to nine extreme weather events triggered by climate change. Apart from affecting livelihoods, these extreme weather events are uprooting lives and leading to displacements. A recent Global Report on Internal Displacement by the Geneva-based Internal Displacement Monitoring Centre (IDMC) finds that natural disasters, heavy floods and cyclones have internally displaced 2.5 million people in India in 2022.

All children have the right to safety and survival, protection, development, and participation, and every child should be able to realise these rights in school. Yet natural and technological threats, climate change, epidemics and pandemics, violence, conflict, and everyday threats put children and school staff at risk. When these threats are realised, they can cause permanent, compound impacts on the development of children and societies, and these impacts are felt differently due to gender, disability, and social and economic inequalities, leaving the most marginalised children unacceptably vulnerable

To reverse this downward spiral, School communities, Policy makers and stakeholders need to build systems that can prevent or better manage risk. This can include taking action such as investing in resilient School infrastructure that can withstand disaster impacts, energy efficiency and green & clean infrastructure to reduce climate risk, and improving economic and social opportunities that can reduce underlying vulnerability to hazards. This ability to withstand risk, and recover from disasters, in a manner that is transformative and bounces forward, is at the root of resilience.

Urgent action to reduce risk is fundamental to simultaneously achieving the SDGs of the 2030 Agenda (United Nations, 2015), the targets of the Paris Agreement (United Nations, 2015) and the Sendai Framework for Disaster Risk Reduction 2015–2030. (United Nations, 2015). The pathways to achievement are inextricably linked, and positive action towards one needs to accelerate achievement of the others.

2. Resilient Schools

The word Resilience has been defined as "The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner." (UNDRR, 2017)

The resilient schools initiative aligns with various national and international guidelines, policies, and acts, including the Nationally Determined Contribution (NDC), PM's 10 point agenda, Guideline on School Safety and Security – 2021 by the Ministry of Education, National Education Policy - 2020, Guidelines on School Safety Policy- 2016 by NDMA, Juvenile Justice (Care and Protection) Act 2015, National Policy on Children 2013, Protection of Children from Sexual Offenses Act 2012 (POCSO 2012), RTE Act 2009, National Commission for Protection of Child Rights 2005 (NCPCR), Atal Mission for Rejuvenation and Urban Transformation 2.0, Swachh Bharat Mission 2.0 – Urban and Rural, Swachh Bharat Swachh Vidyalaya (by the MHRD, Government of India), and other relevant central and state government policies and guidelines.

The National Education Policy (Government of India) emphasizes the need to develop schools as places for holistic development and social change, and highlights the integration of climate change curriculum, including environmental awareness, as crucial for students to become successful and productive in today's rapidly changing world. Recent research shows that nearly 19 gigaton reduction of carbon dioxide would be achieved by 2050 in high and middle income countries if 16 percent of high school students received climate change education. This indicates that leveraging the power of education is potentially more powerful.

Resilience can be seen as a key connector between climate change, disaster risk reduction and sustainable development action. A Resilient School will focus on reducing the risk of natural and human induced hazard thereby incorporating the measures to reduce climate risk.

The broad categories are listed below:

Disaster Risk Reduction	Climate Change	Sustainable Development
• Safe learning environment	• Air • Water • Waste • Bio-diversity • Energy	• Mainstreaming climate actions and DRR in Education • Disabled friendly school • Gender equality • Sustainable lifestyle

The interventions required are listed below:

Disaster Risk Reduction
Safe Learning Environment • Structural measures – Strengthening and retrofitting of Schools and make them hazard resistant • Non-structural Measures – Securing movable items inside school buildings against the threat of falling
Climate Change
Air • Zero emission **Climate resilient infrastructure** • Retrofitting buildings with climate-friendly cooling or heating techniques • Provision of lighting in classrooms as per the standardized recommended level **Water** • Rainwater harvesting system • conservation and recycling **Waste** • Bio-Urinals • Waste segregation, management and creation of zero waste campus • Grey water recycling • Zero plastic zone **Bio-diversity** • Significant increase of green cover in the school premises **Energy** • Solar energy providing uninterrupted electricity

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सौ भणे, सौ आगण वधे

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BUILDING RESILIENCE

unicef

• Green building or Net Zero Carbon certification by recognized Certification agencies

Sustainable development
• Mainstreaming climate actions and DRR in Education – Integrating Climate actions and DRR in school curriculum • Disabled friendly school – accessibility and inclusivity in schools • Gender equality – Reducing gender disparity in schools • Sustainable lifestyle - Climate friendly school bag, pencil, pen, pencil box and other consumables

Fostering resilience requires governments, the private sector and civil society to better understand how choices or inaction to promote societal well-being (people), ecological or biosphere well-being (planet) and socio- economic well-being (prosperity) interact to build or undermine resilience. The increasing interdependence of ecosystems and humanity reinforces the need to maintain the resilience of all systems. This is why the people, planet and prosperity paradigm is integral to forging sustainable development pathways, and why actions to promote peace and partnerships are so essential.

3. Objectives of the Programme

The programme has following objectives:
- To develop an understanding on Resilient Schools (focusing structural and non-structural measures)
- To build resilience of educational institutes as 'learning and demonstration centers'
- To identify action plan to build climate resilient schools in Gujarat
- To create participatory approaches and intergenerational dialogues for climate adaptation, DRR and other components of clean and green schools
- To demonstrate on climate change risk and adaptation in Education Infrastructure
- To promote development of resilient infrastructure in Schools
- To build guidance resources and capacity building initiatives targeting Architect, Engineers, and Teachers for resilient schools

4. Schedule

The tentative schedule of the workshop is mentioned below:

7th Oct 2023			
9.30 – 9.45	**Registration**	• Online registration of participants • kit distribution	
9.45- 9.55	Welcome Address	• Welcome address by GIDM	GIDM
9.55- 10.10	Key Note address	• Key Note address by UNICEF	UNICEF
10.10-10-20	Special address	• Special address by Samagra Shiksha	Samagra Shiksha
10.20- 10.40	Hi TEA BREAK		
10.40- 10.50	Resilient School-Initiative	• Objective of the program • Proposed Initiatives • Stakeholders involved • Expected outcome	GIDM
10.50- 11.15	Green Building	• Components of Green Building Certification	Savvy Greens
11.15- 11.35	Energy efficient schools	• Components of Energy efficient schools	Germi
11.35- 12.00	Air and WASH component	• Components of Air and WASH component	CEE
12.00- 12.25	Climate resilient infrastructure	• Components of Climate resilient infrastructure	CEPT
12.25-13.00	Resilient School Infrastructure-Structural component	• Seismic safety • Cyclone & flood safe and heat proofing	IIT Gandhinagar
13.00-13.15	Resilient School Framework	• Components of resilient school [Air, Land, WASH, Energy, Safe (Climate, Disaster and Child Protection) and Inclusive]	Samagra Shiksha UNICEF
13.15-13.35	Discussion on interventions required	• Open discussion on components • Roll out strategy • Way ahead Wrap-up	GIDM & UNICEF
13.35 – 14.30	LUNCH BREAK		

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