CLIMATE RESILIENT PROGRAMING IN EDUCATION (CRPE) TOOL FOR SAVE THE CHILDREN

Final Draft, November 29, 2022

"We want every child to grow up and fulfil their potential, to learn, survive and be protected. To do this, we recognize that we must tackle the mutually reinforcing issues of climate change and environmental degradation, chronic poverty and inequality. We cannot achieve the vision we have for children without seeking climate justice and child rights including the right to a healthy environment for current and future generations." - Save the Children

Acknowledgements

The CRPE tool and report was developed by Unbounded Associates and Save the Children US. Natalia Villalpando Paez, Anna Pettee, and Christina Kwauk of Unbounded Associates provided equal contributions to the authoring of the report and development of the tool. Jeanne Long from Save the Children US provided critical technical inputs into the work, and a number of other Save the Children staff members provided valuable feedback during the revision process: Sara Dang (SC US), Montira Pongsiri (SC US), Nick Ireland (SC Australia), Nicole Nikolaidis (SC International), and Tom Brown (SC US).

Unbounded Associates also consulted Save the Children staff during the development of the CRPE tool and report, and their insights were integral to the development process: Abeer Sneineh (SC Syria Response Office), Noura Awwad (SC Syria Response Office), Rex Abrigo (SC Philippines), Dunstan Egar (SC Philippines), Sine Christensen (SC Norway), Miguel Cabrera (SCI Guatemala), Heidy Orozco (SCI Guatemala), Miguel Orozco (SCI Guatemala), Nick Ireland (SC Australia), Bishnu Kharel (SC Nepal), Sara Dang (SC US), Susan O'Halloran (SC US Fundraising), and Laura Schwantes (SC US Fundraising). Finally, the SC US Department of Education and Child Protection and the SC International Climate Change and Education Task Team also provided key feedback which supported the development of the CRPE tool.

TABLE OF CONTENTS

Climate Resilient Programing in Education (CRPE) Tool for Save the Children 1

Acknowledgements 2

Table of Contents 3

Glossary 5

What is the CRPE tool? 6

Layer 1: Education Action Areas 7

Layer 2: Climate Resilience Pathways 7

Layer 3: Climate Justice Scale 8

Layer 4: Programming Stages 9

Who is the CRPE tool for? 10

How do you use the CRPE tool? 10

CRPE tool template 11

Why is the CRPE tool needed? 13

Climate change threatens children directly and indirectly 13

Climate exacerbates existing vulnerabilities 15

What are the four layers of the CRPE tool? 16

Layer I: Education Action Areas 16

Places: infrastructure and facilities. 17

People: organizational structure and agents of change. 18

Policies and Practices: operations and governance. 19

Programs: content and assessment. 20

Layer 2: Climate Resilience Pathways 21

Layer 3: Climate Justice Scale 24

Layer 4: Programming Stages 25

Using the CRPE tool to assess past programming: example from a rapid analysis of SC subsector documents and programs 27

Introduction 27

The Process 27

Applying the CRPE tool to the Early Childhood Care and Development subsector 28

Policies and Practices action area 29

People action area 30
Examples from the literature for action areas we did not review in SC documents 31
Applying the CRPE tool to the Education in Emergencies subsector 33
Policies and Practices action area 33
People action area 34
Programs action area 35
Places action area 36
Applying the CRPE tool to the Basic Education subsector 37
Programs action area 37
People action area 38
Examples from the literature for action areas we did not review in SC documents 38
Applying the CRPE tool to the School Health and Nutrition subsector 40
Places action area 40
Policies and Practices action area 40
Programs Action Area 42
Examples from the literature for action areas we did not review in SC documents 43
Learning from this exercise in applying the CRPE tool to assess SC subsector activities 43
Conclusion 44
References 45
Annexes 49
Annex 1: Methodological note on the development of the CRPE tool 49
Annex 2: Step-by-step guidance on using the CRPE tool 50
Annex 3: How can the CRPE tool be used in conjunction with existing SC tools? 55
Annex 4: List of SC's documents reviewed 56

GLOSSARY

- **Child-centered, community-driven:** An approach focusing on the specific risks faced by children in a changing climate, ensuring children's needs and capacities are central to climate resilience planning and implementation, and increasing the voice and agency of children in climate decision-making processes. Children, however, do not form one homogenous group. Their needs and capacities differ across age, gender, geography and socio-economic status. Child-centered climate resilience efforts ensure that all children can meaningfully participate in the process, and no one is left behind.

- **Climate exposure** – the proximity and presence of people, livelihoods, ecosystems, infrastructure or economic, social, or cultural assets in places and settings that could be adversely affected by a climate hazard, e.g., a community in an arid or drought-prone location of the country.
- **Climate hazard** – the potential occurrence of a natural physical event or a threat, e.g., a drought.

- **Climate impact** – the consequences of climate change on natural and human systems, e.g., damage to crops due to drought conditions, livelihoods compromised, next season's seeds lost, food insecurity.
- **Climate justice –** the prioritization, protection, upliftment, and amplification of historically marginalized and minoritized groups (who have contributed the least to climate change and often experience the worst impacts of climate change) in all efforts to address climate change at the local, regional, national, and international levels.
- **Climate Resilience:** the ability of individuals, communities, and societies to prepare for, recover from, and adapt to climate changes' impacts in ways that promote their rights to life, health, and decent work. To be climate resilient, climate risks need to be well understood, including both the threats and vulnerabilities that underpin them.[1]
- **Climate risk** – the potential for climate change to negatively impact something where the outcome is uncertain, e.g., risk of reduced coffee production due to heat stress and risk of new pests and diseases.
- **Climate vulnerability** – sensitivity to climate variability or change and a lack of capacity, e.g., a farming community reliant on rainfed agriculture, with a high number of female-headed households who have not participated in any climate resilience training.

[1] Center for Climate and Energy Solutions. (2019). What is Climate Resilience and Why Does it Matter? https://www.c2es.org/wp-content/uploads/2019/04/what-is-climate-resilience.pdf

WHAT IS THE CRPE TOOL?

The Climate Resilient Programming in Education (CRPE) tool provides education stakeholders with a practical process for making their education programming more climate resilient. The tool entails the application of four distinct but interconnected layers of analysis to the process of assessing or designing climate resilient education programming, with the goal of promoting education programming that is more comprehensive, holistic, and collaborative in identifying, preparing for, and adapting to climate threats, and recovering from climate impacts. The tool was developed to support Save the Children (SC) in transforming their ways of working to be more climate resilient and to continue achieving their goal of providing all children with safe, quality education amidst the increasingly serious global climate crisis.

The CRPE tool can be used as an analytical guide to organize information about the education system while considering the potential climate risks that education programs face. The tool makes it easier to embed climate considerations throughout education programming and the program life cycle, while also highlighting climate vulnerabilities within the education system that must be addressed. It also draws attention to the interlinkages and relationships between education and climate action, and how mitigative and adaptive actions in education programming can build climate resilience while also promoting the goals of equity, inclusion, and justice.

BOX 1. WHAT WILL THE CRPE TOOL ALLOW YOU TO DO?

- Consider pathways to climate resilience both within and outside SC that include mitigative and adaptive climate actions at the school, program/initiative, or sub-sector/department levels.
- Better understand how well key program activities are responding to climate and centering climate justice and equity in their approaches and highlight gaps and opportunities for action in existing and new programs.
- Pursue a systems-wide, cross-sectoral approach to education program design and implementation that responds holistically to the interconnected effects of the climate crisis.
- Design/assess education programs that address climate risks, reduce climate vulnerability, protect educational continuity, enhance educational outcomes, and strengthen the resilience of education systems and communities.

The CRPE tool consists of the following four interconnected and mutually reinforcing layers. The application of the CRPE tool is described later in the section *How do you use the CRPE tool?* and in Annex 2, which provides step-by-step guidance on applying the tool. A more in-depth explanation of each layer is provided in the section *What are the four layers of the CRPE tool?*

Layer 1: Education Action Areas

Layer 2: Climate Resilience Pathways

Layer 3: Climate Justice Scale

Layer 4: Programming Stages

LAYER 1: EDUCATION ACTION AREAS

Layer 1 of the CRPE tool identifies four interrelated **education action areas** that contribute to the healthy functioning of an education system—People, Places, Policies and Practices, and Programs. These four action areas include dimensions of the education system that may not be traditionally considered but could become the "Achilles heel" if not planned for in the context of the climate crisis. By critically considering these four action areas, how they interrelate, and how they are impacted by climate change—including the specific climate risks that each area faces—education stakeholders can create practical plans for making their education programming more climate resilient.

The four education action areas:

- **Places** (*where* education programs take place)
- **People** (*who* are engaged in and by education programs)
- **Policies and Practices** (*how* education programming is structured, organized, and executed, including by the existence of frameworks, guidance documents, approaches, and strategies)
- **Programs** (*what* education programming is being delivered, including program content, materials, and pedagogy)

LAYER 2: CLIMATE RESILIENCE PATHWAYS

Layer 2 of the CRPE tool prompts stakeholders to consider **how climate mitigation or adaptation strategies can be employed** for each education action area to promote climate resilient programming. This layer ensures that an explicit and intentional climate lens is being applied early on to the process of assessing or designing education programming. For each education action area in Layer 1, education stakeholders should consider how the primary climate resilience pathways of mitigation and adaptation can be integrated into their plans.

TABLE 1. EXAMPLE OF HOW LAYERS 1 AND 2 WORK TOGETHER TO CREATE MORE CLIMATE RESILIENT EDUCATION PROGRAMMING

Layer 1 Layer 2	Places	People	Policies and Practices	Programs
Mitigation	Classrooms outfitted with solar panels to generate renewable energy	School administrators are trained in how to reduce their school's carbon footprint	School meal policies include guidelines for reducing food waste and procuring food from local sources	Programming includes competitions for reducing waste or energy usage
Adaptation	School buildings updated to include wastewater management systems for heavy rainfall	Teachers and students are trained in how to prepare for and respond to imminent climate risks in their community	School safety policies include annual mappings of climate risks and vulnerabilities	Programming includes curricula that targets developing students' collaborative, systems thinking, and problem-solving skills for climate adaptation

LAYER 3: CLIMATE JUSTICE SCALE

Layer 3 of the CRPE tool adds a **climate justice lens** by considering how the actions and activities identified in Layers 1 and 2 can more actively address underlying systems of inequity that worsen and are exacerbated by the effects of climate change. Layer 3 is a scale that includes four benchmarks at which a program (or another unit of focus) can reach in terms of how comprehensively it addresses climate justice. The climate justice scale starts at *Nonexistent*, referring to programming that has no climate justice considerations. It then moves to *Conformative*, programming that includes efforts to make existing activities, practices, policies, etc., better—in this case, "greener" or more sustainable. After Conformative is *Reformative*, which entails programming that seeks to empower historically excluded populations by either adding new components or replacing old ones to address barriers to access. Finally, the scale ends at *Transformative*, where all programs should aspire to be. Transformative education programming entails tackling underlying systems of inequity and inequality in order to promote new ways of living, working, and learning that actively and explicitly create more just and equitable paradigms. Transformative education programming requires more systemic and holistic thinking around education that functions to break down silos.

TABLE 2. EXAMPLE OF A PROGRAM AT EACH BENCHMARK IN THE CLIMATE JUSTICE SCALE			
Nonexistent	Conformative	Reformative	Transformative
School WASH and nutrition programs that do not take into consideration any WASH-related or nutrition-related climate risks that could impact the school population, or how their program operations could hasten or worsen drivers of climate risk.	School WASH and nutrition programs that "green" their operations by implementing water-saving technologies, or by increasing the incorporation of plant-based proteins in school meals.	School WASH and nutrition programs that seek to address the burden that girls face in collecting water by providing them with access to the school well before and after school hours or seek to address the impact of the agricultural sector on climate change by sourcing school meal ingredients from local smallholder farmers.	School WASH and nutrition programs that seek to address gender roles around water collection by providing apprenticeships for female hydrogeologists to develop more inclusive groundwater management systems, or to address gendered barriers to climate-resilient agriculture technologies and practices by supporting demonstration farms for female smallholder farmers.

LAYER 4: PROGRAMMING STAGES

Layer 4 of the CRPE tool aligns the process of assessing or designing education programming with SC's **program life cycle**. This layer includes the three main programming stages of Planning, Implementation, and Monitoring, Evaluation, Accountability, and Learning (MEAL). For each education action area, education stakeholders should consider how to make their activities more climate resilient and equitable across the life cycle of their programs, from when a program starts to when lessons learned from a program are shared to inform future activities. This includes making decisions at each stage of education programming that are informed by and responsive to the most relevant and contextualized climate information regarding risks and vulnerabilities.

WHO IS THE CRPE TOOL FOR?

The CRPE tool can be used to **support education stakeholders at all levels of the formal and non-formal education system** and is designed to support assessment and design processes both within and across education subsectors. Through the guided, iterative process that the tool facilitates, individuals and groups at every level of an education system—from teachers to school administrators, government officials, civil society actors, and international development program staff—can work to more intentionally embed climate resilience into their education programming. While the tool can be used by a wide range of stakeholders, it was designed specifically with SC staff in mind. This means that the tool is tailored to complement SC's existing program design processes while also supplementing these processes to fill in gaps where climate change considerations are missing or could be more explicit.

HOW DO YOU USE THE CRPE TOOL?

The CRPE tool can be used both **to assess programming and to design programming**. As an assessment tool, the CRPE can help facilitate reflection and learning about past or existing programming and practices. As a design tool, it can support the fuller integration of a climate lens into the design and implementation of current and future education programming.

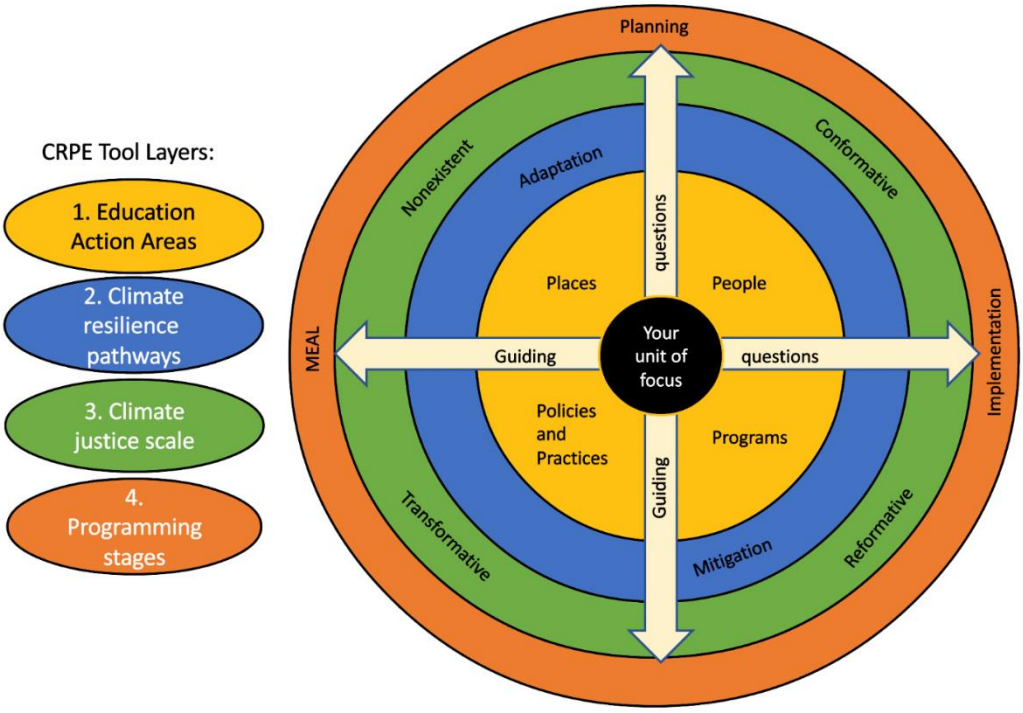


FIGURE 1. CRPE TOOL VISUALIZATION. *The four layers of the CRPE Tool are displayed as concentric circles, revolving around the chosen unit of focus to which the tool is being applied. Prompted by guiding*

questions that accompany each layer of the tool, education stakeholders can move through each layer of the tool in a structured yet iterative way, moving outwards and inwards from their unit of focus to the subsequent layers as it makes sense for their process.

The tool can also be applied both internally and externally. Externally, the tool can be used to assess or design education programs for communities around the world, while internally the tool can be used to assess or design SC operations to make the organization's practices and processes more climate resilient. Whatever way the tool is being used, the CRPE can help analyze programming and/or operations at the school, initiative, program, organization, institution, or even systems level.

TABLE 3. HOW THE CRPE TOOL CAN BE USED

	Assess	Design
Internally	To assess past and/or present operations, practices, and/or policies at SC that influence programming design, implementation, and/or evaluation.	To design new operations, practices, and/or policies at SC that can help make the organization's ways of working more climate resilient.
Externally	To assess past and/or present SC education programming at any level, such as the school, initiative, program, organization, institution, or even systems level.	To design new education programming at any level, such as the school, initiative, program, organization, institution, or even systems level, that is more climate resilient.

CRPE TOOL TEMPLATE

The CRPE tool template can help guide education stakeholders, including SC partners and donors (see Annex 6 and Annex 7 for potential partners and donors, respectively) through the process of applying the CRPE tool to their programming. Figure 2 below displays the template, color coded to help indicate how each layer of the CRPE is represented in the template. The template is organized by Layer 1 (columns) and Layer 4 (rows). Where Layers 1 and 4 meet within the table there are two boxes that can be filled out, one for Layer 2 (blue) and one for Layer 3 (green). This is to provide space for those using the template to connect all four layers of the tool together. A step-by-step guide on how to use the CRPE tool and template is provided in Annex 2, along with a blank CRPE tool to be used as a worksheet. A list of existing SC frameworks (like the Comprehensive School Safety Framework) and tools (like the Save the Children Gender Equality Markers) that can be used in conjunction with the CRPE tool is also provided in Annex 3.

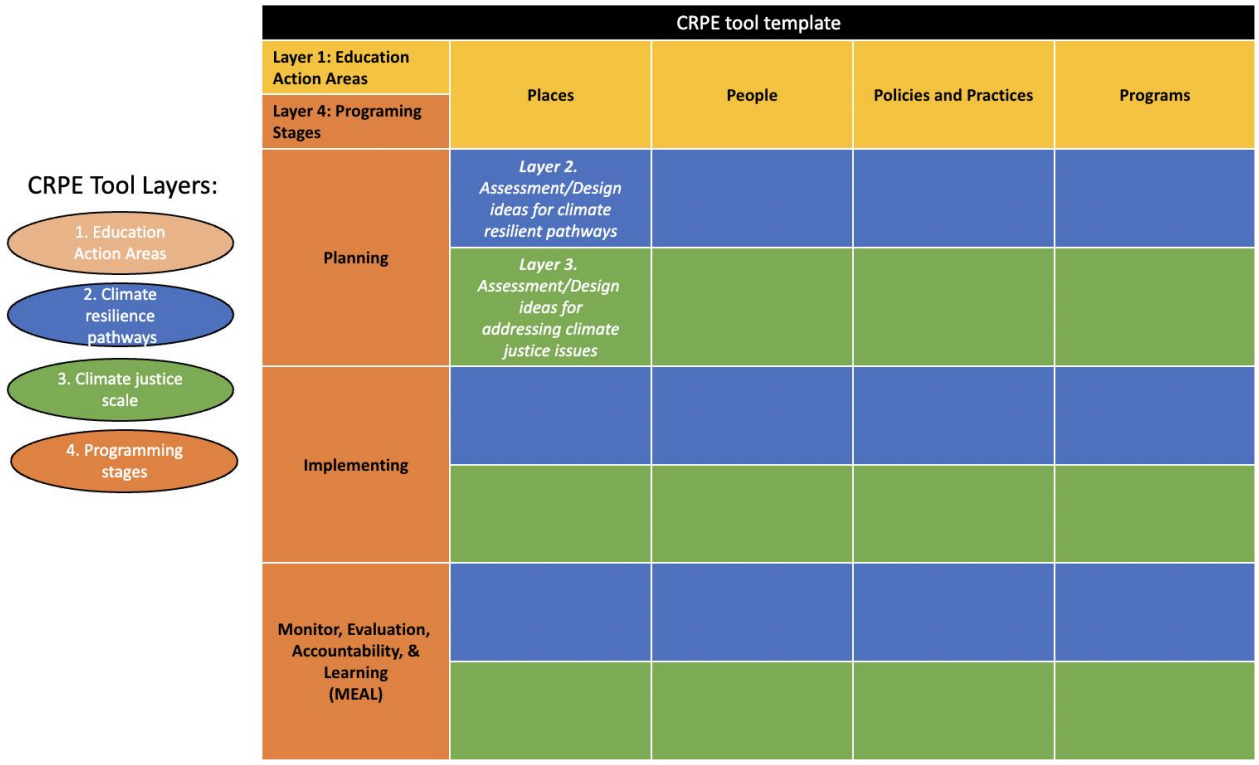


FIGURE 2. CRPE TOOL TEMPLATE. *This template illustrates how each layer of the CRPE tool can be operationalized in the process of assessing or designing education programming for climate resilience. Layers 1 and 4 organize the template by defining the rows and columns. Where layers 1 and 4 meet within the table, Layers 2 and 3 are then applied to the process of filling out each box with a climate lens.*

WHY IS THE CRPE TOOL NEEDED?

The CRPE tool is designed to support SC's mandate of ensuring all children have access to safe and quality education. Achieving SC's goals in education cannot be done without addressing climate change and the risks it poses to individuals, groups, and education systems. Today, more than 175 million children[2] are out of school due to climate disasters, and more than 1 billion children live in countries facing extreme climate risks.[3] Climate change affects education delivery and quality through climate hazards like floods and storms that damage schools and endanger students and teachers, as well as through indirect impacts like droughts and ecosystem changes that create food insecurity, conflict, and an increased burden of communicable and infectious disease in communities.

By using the CRPE tool to assess past programs and design new ones, SC can deliver education programming that holistically and systemically addresses climate risks and vulnerabilities that children, families, teachers, communities, and education systems face. The CRPE tool not only activates pathways to climate resilience but also necessitates considerations on justice, equity, and equality. Ensuring that efforts to make education programming more climate resilient through adaptation and mitigation do not perpetuate or worsen existing inequalities is imperative to uphold SC's principles of protecting and uplifting the rights of children and their communities. Moreover, the CRPE tool encourages education stakeholders to not only address injustices but to actively seek out opportunities for expanding and promoting justice through addressing systemic drivers of inequality that interact with climate change.

CLIMATE CHANGE THREATENS CHILDREN DIRECTLY AND INDIRECTLY

Climate change directly affects children's physical, cognitive, and socioemotional development through exposure to environmental hazards such as extreme heat, as well as through exposure to trauma like the death of loved ones, displacement, and loss and damage to familiar places and cultural practices. Children's mental health is directly impacted by climate change as climate-induced weather events expose children to traumatic experiences, and as the existential presence of climate change impacts children's overall sense of safety, security, and hope for the future (what some term "eco-anxiety").[4]

---

[2] UNICEF. (2011). DRR In Education: An Imperative for Policymakers. https://inee.org/sites/default/files/resources/DRR_in_Education_Brochure.pdf

[3] UNICEF. 2021. The climate crisis is a child rights crisis. https://www.unicef.org/reports/climate-crisis-child-rights-crisis

[4] Lawrance, E., Thompson, R., Fontana, G., and Jennings, N. (2021). The impact of climate change on mental health and emotional wellbeing: current evidence and implications for policy and practice. Imperial College London, Graham Institute.

Climate change also affects children's families, caregivers, and support networks (including teachers), adding stressors that complicate and limit the ability of the adults in their lives to provide them supportive, stable, and responsive caregiving and mentorship. As parents, families, and communities cope with climate change's threats to their lives and livelihoods, their capacity to attend to the physical and social-emotional needs of their children is diminished. This makes it more difficult for children to learn, and to receive the nutrition, physical activity, health, hygiene, and mental health and psychological supports they need for healthy development. This can directly affect children's ability to thrive. Supporting the resilience of children's caregiving networks is therefore crucial for promoting climate resilience.

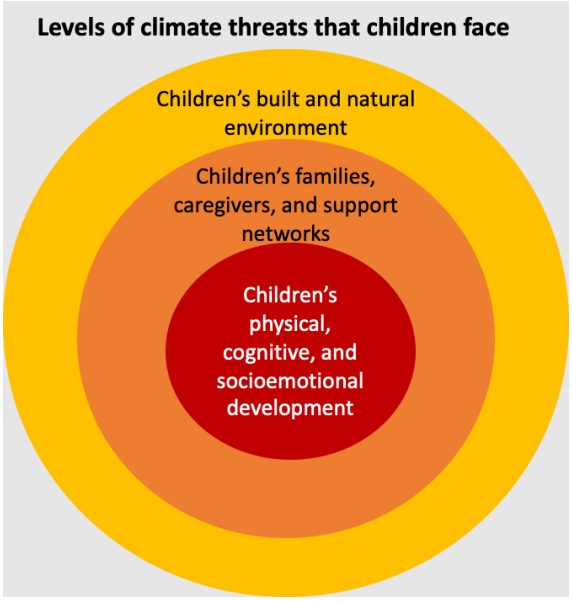


FIGURE 3. LEVELS OF CLIMATE THREATS THAT CHILDREN FACE. *Child face direct and indirect climate threats, affecting their individual development and the quality of their supportive environments.*

Climate change also indirectly affects children's development by exposing their built and natural environments, including their schools, homes, and communities, to environmental shocks.

For instance, climate change affects the delivery of quality education when school facilities and resources are physically damaged, and when teachers, school staff, and families suffer from loss of livelihoods or from health risks driven by climate change.[5] The damage done to infrastructure from climate-related weather events can especially impact children with disabilities, who may have less access to assistive technologies or accessibility infrastructure. Extreme weather events

[5] Kagawa, F. (2022). The Heat is On! Towards Climate Resilient Education Systems in South Asia. Kathmandu: UNICEF Regional Office for South Asia. https://www.unicef.org/rosa/media/17996/file/The%20Heat%20is%20On!%20.pdf

such as cyclones, floods, storms surges, torrential rains, and extreme temperatures can not only damage school facilities but also surrounding infrastructure and systems that support the education ecosystem, such as roads, health systems, food production and delivery, water, hygiene and sanitation (WASH) systems, and electrical grids. Slower-onset climate change, such as sea level rise, erosion, loss of biodiversity, and changes in vectors of disease[6] can also weaken education systems and communities over time, creating additional vulnerabilities that can increase the climate risks of a school community in the event of a rapid-onset climate disaster. Climate change can also affect food and income security, impacting children's nutrition and opportunities to attend school.

CLIMATE EXACERBATES EXISTING VULNERABILITIES

The direct and indirect effects of climate change compound children's existing vulnerabilities created by poverty, inequality, and discrimination. This interaction places an increased burden of climate risk on some groups more than others, especially women and girls, children with disabilities, and Indigenous or other minoritized groups. The CRPE tool can help ensure that considerations of equity and justice are embedded in the process of delivering climate resilient education, lest efforts to address climate change worsen underlying inequalities or create new ones. Layer 3 of the CRPE tool specifically seeks to encourage education stakeholders to go beyond one-time or surface-level approaches to addressing climate change, by encouraging a deeper examination of how education programming can contribute to systems change through the Climate Justice Scale.

BOX 2. CLIMATE CHANGE'S COMPOUNDING EFFECTS ON GENDER INEQUALITY

Climate change has been shown to exacerbate gender inequality, especially in already resource-constrained contexts. Applying a climate lens to the assessment or development of education programming can help uncover and more fully address the underlying drivers of gender inequality and gender-based violence. Some examples of climate change's impact on gender inequality are:

[6] Pye, L., Seeger, A., and Claude Ndabananiye, J. (2021). Understanding the climate change-displacement-education nexus for building resilient and equitable education systems. Internal Displacement Monitoring Centre (iDMC).

- Child marriage often increases in crisis contexts, such as chronic droughts and recurring crop failures. In Bangladesh, frequent floods, droughts and tropical cyclones are compounding a pre-existing crisis where 52% of Bangladeshi girls are married before they reach 18.[7]
- Research has found that the early marriage of daughters can become a negative coping response for households managing property damage-related expenses by tapping into bride price or dowries, or for those households managing the risk of social stigma and reputational loss if unmarried daughters become victims of sexual violence during or after a crisis, especially in temporary shelters.[8]
- Research in Somalia by IDMC also reveals the gendered impacts of displacement on education. When forced to make a choice between sending their boys or girls to school due to limited resources, drought-displaced families sent mostly boys.[9]
- Water scarcity tends to overburden women and girls more than men and boys due to gendered divisions of labor at the household level.[10] As women and girls must walk farther distances to collect water, they are exposed to increased threats of violence while taking time away that could be used for productive activities such as education or income generation.[11]

WHAT ARE THE FOUR LAYERS OF THE CRPE TOOL?

The CRPE tool is designed to equip education stakeholders with a practical process to help them create pathways to climate resilience in education. The four layers of the CRPE tool work together to provide a guided process for SC staff in assessing or designing education programming with a climate lens, prompting reflection on how education programming can address both the direct and indirect effects of climate change on children's safety, security, and wellbeing. In this section we will go into further detail on each of the four layers of the CRPE tool.

LAYER I: EDUCATION ACTION AREAS

As discussed earlier, climate change can affect children's right to education in several ways. For example, extreme floods not only damage school infrastructure and supporting systems (Places), but also halt the delivery of education and other essential social services (Programs). Climate

[7] Pereznieto, P., Rivett, J., and le Masson, V., with George, R., and Marcus, R. (2020). Ending violence against children while addressing the global climate crisis. World Vision.
[8] Ahmed, K.J., Haq, S.M.A. & Bartiaux, F. (2019). The nexus between extreme weather events, sexual violence, and early marriage: a study of vulnerable populations in Bangladesh. Popul Environ 40, 303–324. https://doi.org/10.1007/s11111-019-0312-3
[9] Pye, L., Seeger, A., and Claude Ndabananiye, J. (2021). Understanding the climate change-displacement-education nexus for building resilient and equitable education systems. Internal Displacement Monitoring Centre (iDMC).
[10] Graham J.P., Hirai M., Kim S. (2016). An Analysis of Water Collection Labor among Women and Children in 24 Sub-Saharan African Countries. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4889070/
[11] Pereznieto, P., Rivett, J., and le Masson, V., with George, R., and Marcus, R. (2020). Ending violence against children while addressing the global climate crisis. World Vision.
https://cdn.odi.org/media/documents/ending_violence_against_children_odi_wp_final.pdf

emergencies can impact the mental health and physical wellbeing of students, teachers, and community members (People), and often require targeted management approaches and processes to be addressed comprehensively (Policies and Practices). Layer 1 of the CRPE tool addresses these threats and vulnerabilities by conceptualizing the education system into four action areas:[12]

- **Places: infrastructure and facilities** (*where* education programs take place)
- **People: organizational structures and agents of change** (*who* are engaged in and by education programs)
- **Policies and Practices: operations and governance** (*how* education programming is structured, organized and executed, including by or through the existence of frameworks, guidance documents, approaches, and strategies)
- **Programs: content and assessment** (*what* education programs are delivering, including program content, materials, and pedagogy)

PLACES: INFRASTRUCTURE AND FACILITIES. This action area considers all the physical, material, and digital structures that support the delivery of inclusive education services. This includes classroom buildings, WASH facilities, heating and cooling systems, power grids, roads, Information and Communications Technology (ICT) systems (including online learning platforms), water management systems, and food and waste management systems. For example, this action area would be concerned with whether water management systems are prepared to support school systems amidst drought or saltwater intrusion, as water insecurity has been associated with children, especially menstruating students and teachers, missing more days of school.[13]

Guiding questions for the Places action area include:

- How might education infrastructure and facilities be affected by both sudden- and slow-onset climate impacts and thus disrupt education services?
- What barriers or risks in the built (or digital) environment are created or exacerbated by climate change that can impede children's access to quality education or threaten their safety and wellbeing?

[12] Kwauk, C. (2022). Transforming Education for Climate Action: Report to Commonwealth Ministers of Education. Commonwealth of Learning (COL). https://oasis.col.org/items/bf61e5a6-9d8d-474b-86a6-0085fdfeea51

[13] Cooper-Vince CE, Kakuhikire B, Vorechovska D, McDonough AQ, Perkins J, Venkataramani AS, Mushavi RC, Baguma C, Ashaba S, Bangsberg DR, Tsai AC. (2017). Household water insecurity, missed schooling, and the mediating role of caregiver depression in rural Uganda. Glob Ment Health (Camb). https://pubmed.ncbi.nlm.nih.gov/29230311/

- How can climate-resilient infrastructure and facilities help to mitigate against climate risks and hazards and help school systems and the people within them adapt to the effects of climate change?
- How can climate-resilient infrastructure and facilities protect children from the harmful impacts of climate change and help promote justice and equity in education?

Potential climate threats, risks, and vulnerabilities for Places in the education system

- Physical damage or destruction to school buildings and/or facilities (including digital) that support learning
- Weather-affected access to learning spaces (e.g., flooded roads, damaged bridges, or destroyed transportation fleet)
- Disruptions to basic services that meet children's, educators', and other education stakeholders' physiological and safety needs for receiving or delivering quality education services (e.g., electricity, drinking water, clean air, shelter from the elements)

PEOPLE: ORGANIZATIONAL STRUCTURE AND AGENTS OF CHANGE. This action area refers to the people (including but not limited to children) and groups of people who impact and/or are impacted by climate change through their activities in education programming, education services, education settings, or through education (i.e., teaching and learning). This could include education ministries, student body governments, youth networks, sectoral working groups, teacher unions, parent associations, public-private partnerships, and community-based organizations serving education systems. This action area envisions people as agents of change, and rests on the assumption that change is most successful and sustainable when driven by local demand. By extension, this action area is concerned with people's knowledge, skills, attitudes, capacities, and behaviors toward climate change, climate action, and climate justice. It considers how to increase the climate resilience of all stakeholders by increasing their awareness of how climate change impacts or is impacted by their daily activities and how they can mitigate against and/or adapt to climate risks. For example, training and preparing teachers to adapt their roles and practices in times of climate emergency, or training school administrators or education office procurement specialists to see how climate change is relevant and related to every decision they make.

Guiding questions for the People action area include:

- How do climate change risks and hazards impact different stakeholders within the education system (e.g., students, teachers, families, caregivers, school administration,

maintenance workers, groundskeepers, bus drivers, and health, protection and mental health professionals)?
- What climate risks and vulnerabilities do people across education-adjacent systems face (e.g., textbook publishers, food suppliers, supply distributors, nurses and social workers, etc.)?
- How can groups of people (e.g. task forces, departmental units, school leadership, etc.) within the education system be (re)organized to support climate disaster and risk reduction?
- What capacities (e.g., knowledge, skills, and attitudes) do people within the education system need in order to adapt to and mitigate climate change?
- What justice and equity issues exist within or between groups of stakeholders in the education system and how can these issues be addressed through climate resilient programs?

Potential climate threats, risks, and vulnerabilities for People in the education system

- Increased risk of mortality, bodily harm, and cognitive impairment due to extreme weather events or environmental conditions
- Increased risk of vector-borne disease due to changing climate
- Increased risk of malnutrition due to climate-induced food insecurity
- Loss of livelihoods and/or forced migration or displacement due to changing environmental conditions or extreme weather events and their aftereffects
- Poor mental health from exposure to climate-related trauma, loss, and damage
- Increased risk of gender-based violence
- Increased conflict over resources
- Constrained and/or limited mobility due to heightened safety risks

POLICIES AND PRACTICES: OPERATIONS AND GOVERNANCE. This action area encompasses the policies, plans, processes, and procedures of the education system that support the operations and delivery of education. This action area encompasses the intangible but integral aspects of the education sector that guide how education services are delivered and monitored, especially in preparation for or in response to climate emergencies. This includes disaster-readiness plans, theories of change, fundraising strategies, ground or air transportation and travel policies, procurement policies and budgets, food sourcing and meal distribution plans, social inclusion guides, and data collection and record keeping. For example, this action area might be concerned with an education in climate emergency response plan that provides continuity of education services using scenarios that the most vulnerable children might experience (e.g., girls, children with disabilities, and refugee children). Depending on the level of climate emergency, the plan might trigger certain actions to be taken and/or decisions to be made to ensure education services are minimally disrupted. This action area could also focus on policies guiding how school textbooks and materials are sourced, used, and disposed of to minimize waste, environmentally friendly or fuel-efficient processes for maintaining facilities and infrastructure, or communication plans between national and local education officials when critical infrastructure is disrupted.

Guiding questions for the Policies and Practices action area include:

- How can climate risks and hazards make policies and practices within the education system ineffective, irrelevant, or obsolete?
- How can policies and practices be updated/developed to address both the immediate and long-term threats that climate change poses to the education system?
- How can policies and practices help education governance and operations better adapt to climate realities while transforming underlying drivers of climate vulnerability and inequality?

Potential climate threats, risks, and vulnerabilities to Policies and Practices in the education system

- Disruptions to daily operations, supply chains, distribution networks, and decision-making processes
- Weakened and/or ineffective policies and practices due to rapidly changing environmental conditions
- Weakened and/or disrupted coordination, communication, and/or collaboration mechanisms between education decisionmakers, mobilizers, and other stakeholders

PROGRAMS: CONTENT AND ASSESSMENT. The fourth and final action area of Layer 1 of the CRPE tool concerns the actual education programming at the heart of education systems. The Programs action area is concerned with whether education programs function to build knowledge, skills, attitudes, and behaviors that empower climate action and strengthen the climate resilience of people and systems. In addition to being concerned with whether education curriculum includes attention to climate change, it also considers how education programming is carried out, including the use of student-centered pedagogies, gender transformative approaches, and inclusive and participatory methodologies. Such attention ensures that education programming addresses harmful norms and forms of exclusion that heighten the exposure and vulnerabilities of some populations to climate risks and climate threats more than others.

Guiding questions for the Programs action area include:

- What is the environmental impact of the resources needed to deliver education programs (e.g., school supplies, curriculum, paper-based classroom materials, digital textbooks)?
- How is the content of education equipping children, learners, and other program beneficiaries and stakeholders with empowering knowledge and capacities to reduce climate vulnerabilities, address climate risks, increase climate resilience, and promote climate justice?

- Do program learning materials integrate place-based, contextualized, and culturally specific and sensitive content to exemplify local approaches to climate resilience and climate justice?
- Are environmental impacts and climate resilience outcomes integrated into the monitoring, evaluation, and assessment of education programming?

Potential climate threats, risks, and vulnerabilities to Programs in the education system

- Disruptions to program delivery due to climate-related loss, damage or stress to supporting infrastructure, facilities, and material resources
- Disruptions to program delivery due to disruptions in basic needs like electricity, water, food, shelter, healthcare, etc.
- Disruptions to program delivery and/or increased absenteeism due to program personnel or beneficiaries experiencing physical harm, psychological stress, loss of property, health, mobility, or livelihood, etc. from climate change
- Disruptions to program delivery due to supply chain disruptions and/or increased financial or environmental cost of program supplies and resources
- Ineffective programming due to changing environmental conditions, outdated assumptions, and/or misaligned priorities in the context of climate change

Climate threats to any of the first three action areas result in threats to the successful implementation and outcomes of Programs, as the ability for programs to be implemented effectively relies on the healthy functioning and climate resilience of the whole education system. To be delivered effectively, programs promoting climate resilience in education require climate resilient and inclusive facilities and infrastructure where learning and the delivery of other education services can take place (Places). Climate resilient programming also requires well-trained and climate-aware educators as well as broader climate-conscious networks of stakeholders to engage in empowering and transformative climate action (People). Climate responsive operations and governance is also needed to guide inclusive and equitable implementation (Policies and Practices), as well as program activities themselves that are planned with climate risks in mind and the intention to address underlying drivers of climate vulnerability (Programs).

Altogether, the four action areas of Layer 1 of the CRPE tool imply a whole-of-system and child-centered approach to integrating climate into every aspect of education programming. Layer 1 recognizes that no single activity—nor any single action area—can achieve climate resilient education by itself, and that coordination across action areas, by multiple stakeholders, is needed.

LAYER 2: CLIMATE RESILIENCE PATHWAYS

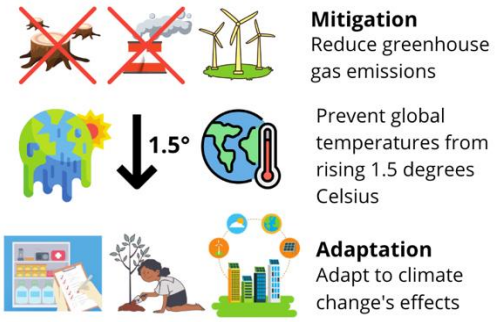
While Layer 1 considers the climate risks and hazards that directly and indirectly threaten education systems in each action area, Layer 2 goes a step further to consider what actions (mitigative or adaptive) can address these hazards and strengthen the climate resilience of each education action area.

There are two primary pathways to climate resilient education: adaptation and mitigation. Adaptation is adjusting the ways the education sector delivers education to better respond to and cope with the impacts of climate change. This includes addressing climate risks and hazards to the education system, creating plans and policies that minimize educational disruption when climate-related disasters occur, raising awareness among children, teachers, families, and education officials about local climate risks and methods for reducing vulnerabilities, establishing coordination mechanisms to enhance response to climate threats, and adapting infrastructure to withstand extreme weather events.

Mitigation is reducing the actions and/or activities that contribute to the emission of greenhouse gases (GHG) and/or promoting the capture of emissions already in the atmosphere through activities that promote carbon sinks. This includes promoting renewable energy to fuel school buildings and education-related transportation, using renewable materials to build school facilities, planting native trees and plant species on schoolgrounds, promoting school feeding programs that are sourced by regenerative agriculture or farms that practice agroecology, and reducing the purchase and use of plastics and single-use or disposable materials in education settings.

BOX 3. EXAMPLES OF MITIGATION AND ADAPTATION ACTIONS FOR CLIMATE RESILIENT EDUCATION

Layer 2 of the CRPE tool allows us to consider mitigative and adaptative actions as they apply to each education action area outlined in Layer 1. For example, to reduce disruptions to education programming during times of prolonged drought, adaptive measures may need to be taken throughout the program life cycle to ensure a consistent source of water is available for the community. Or, to respond to the increased likelihood of more frequent coastal flooding around a school zone, mitigation and adaptation measures may be needed to restore or enhance natural barriers like mangrove forests, which also serve to store carbon. Mitigation and adaptation actions can also help promote local and Indigenous autonomy and agency. For example, local seed banks can help to strengthen land ownership and Indigenous land practices, protect local biodiversity, and build climate resilience in times of drought



through crop diversification. This has the added adaptation benefit of creating more sustainable, more equitable and healthier food systems from which school nutrition and feeding programs can benefit.[14]

Both mitigation and adaptation pathways should aim to achieve climate justice by addressing the underlying inequalities that contribute to the unequal climate change burden placed on children. Children, especially those living in low-income countries who have contributed the very least to climate change, do not bear the responsibility of solving the climate crisis. This is also the case for the broader communities and countries in which SC works—many of which contributed little to causing the climate crisis. While adaptation activities often take precedence in many of the low-emitting contexts in which SC works, mitigation activities should also be considered. For example, implementing better waste management practices not only reduces GHG emissions, but also enhances the adaptive capacity of individuals and communities to live and work better in a changing climate. Furthermore, mitigation pathways also create opportunities to prioritize Indigenous knowledge—which has long centered a respect for and mutuality with nature—and to center community ownership over contextually-specific and culturally-sensitive low-carbon solutions. Thus, mitigation in these contexts is about prioritizing local climate strategies that strengthen community autonomy and ownership, which can enhance climate resilience. Indeed, adaptation and mitigation pathways are closely related, and the application of Layer 2 of the CRPE

[14] Global Alliance for the Future of Food. 2016. The Future of Food: Seeds of Resilience, A Compendium of Perspectives on Agricultural Biodiversity from Around the World.

tool entails considering how either or both can make education programming more climate resilient.

LAYER 3: CLIMATE JUSTICE SCALE

Any attempt to promote climate resilient education must actively promote justice and equity, including all children's right to a quality education. Thus, activities identified for each education action area (Layer 1) to help achieve climate resilience (Layer 2) must be accompanied by intentional efforts to address underlying structures and systems of inequality in education that climate change perpetuates and exacerbates. Layer 3 of the CRPE tool is designed to help education stakeholders reflect on the extent to which climate actions in their programming and/or advocacy are addressing these issues.

BOX 4. CLIMATE JUSTICE AND THE NEED FOR EDUCATION SYSTEMS CHANGE

Climate resilient education programing entails more than a technical response to climate risks. It also requires a systemic shift in the way we design education programs to transition to a more just and equitable way of ensuring education for all children. This includes recognizing the local agency and ownership of individuals and communities in identifying their climate risks and devising solutions. To achieve climate justice education programming, education stakeholders must also consider the underlying climate-related causes of inequities, including gender inequality and the historical exclusion and erasure of Indigenous knowledge and sovereignty. Climate justice in education means not only addressing the direct impacts that climate change has on education systems, but also critically considering how long-existing inequalities in the education system are exacerbated by climate change and how measures to address the effects of climate change can also achieve a more socially just and equitable education system for all children.

The Climate Justice Scale for climate resilient education is designed to help stakeholders critically consider the extent to which justice and equity considerations are being embedded into climate resilient education programming. Based on the four benchmarks of the scale, education programming can function to maintain the status quo (climate action is ***nonexistent***), adapt to climate threats without addressing underlying issues of inequity (climate action is ***conformative***), address underlying issues in their approach directly (climate action is ***reformative***), or present new ways of doing things that address the root causes of climate injustice (climate action is ***transformative***).

Non-existent	Conformative	Reformative	Transformative
Actions do not address climate change or related environmental dynamics, including social behaviors, practices, or systems that might contribute to climate change and/or to climate risks and vulnerability.	Actions addresses climate science and/or sustainability but ignores the social structures and the economic systems that differentially shape people's experiences of the climate crisis. Can be considered as "doing things better," or greening existing behaviors and practices without questioning whether these should be the practices pursued in the first place. Actions pursued maintain the same systems and structures that necessitated climate action, and may acknowledge but do not necessarily address the structures and systems that shape for some the capacity to act (or not act) in ways that others cannot.	Actions acknowledge that social structures differentially shape the capacity to act and in turn seeks to address these barriers by opening access to those previously disenfranchised or by building capacity among those historically disadvantaged by the system. Can be considered as "doing better things," or making sustainability practices and systems more equitable and inclusive. Despite seeking to empower the vulnerable, actions pursued still function within and perpetuate existing systems.	Actions address the underlying social, political, and economic drivers of the climate crisis and work to transform harmful relations of power, structures of oppression, and systems of discrimination. Can be considered as "seeing things differently," or recognizing that foundational issues within the system must be addressed before new practices or behavioral change can have meaningful impact. Actions pursued function to tackle a system's underlying purpose and/or its values with the goal of creating a distinctly new system.

FIGURE 3. CLIMATE JUSTICE SCALE DEFINITIONS.

LAYER 4: PROGRAMMING STAGES

To strengthen the ability of children and their communities to identify, prepare for, and respond to climate threats in their area, the insights gained from Layers 1, 2, and 3 of the CRPE tool need channels through which to facilitate their practical application in education programming. To facilitate this, Layer 4 of the CRPE tool allows us to integrate a climate lens into each stage of the program life cycle, from Planning to Implementation, and finally to Monitoring, Evaluation, Accountability, and Learning (MEAL). We draw our conceptualization of each of these stages from SC's approach to the program life cycle.[15]

[15] Save the Children International. (2022). Sponsorship Program Guide Rails.

TABLE 4. LAYER 4 PROGRAMMING STAGES DEFINITIONS

Planning	Implementation	MEAL
This includes the activities and actions taken to identify, define, and understand the situation or problem, and to identify, define, and design the solution(s) which a program or initiative delivers. This stage includes mapping stakeholders and community priorities, relationship building with community stakeholders, and understanding barriers to solution implementation. This stage also considers what program success looks like, what outcomes and indicators should be monitored and measured, and how program feedback mechanisms will operate.	This stage includes the activities and actions taken to implement the program, and the actors identified to carry them out.	This includes the activities, tools, and resources (including indicators, metrics, and data) used to monitor and evaluate the program and/or to hold SC accountable to all program stakeholders.

USING THE CRPE TOOL TO ASSESS PAST PROGRAMMING: EXAMPLE FROM A RAPID ANALYSIS OF SC SUBSECTOR DOCUMENTS AND PROGRAMS

INTRODUCTION

In this section, the CRPE tool has been applied to assess a sample of documents and programs taken from SC's four education subsectors—ECCD, EIE, BE, and SHN. For each subsector, Unbounded Associates (UA) reviewed documents related to SC's climate programming from SC US, SC International, and SC Denmark, as well as case studies, program proposals, and draft concept notes and strategies that are not yet in the public domain. It is important to note that this section is not intended to be a definitive assessment of SC's current climate resilient education programming but is a non-exhaustive review of SC's work to illustrate how the CRPE tool can be used to assess past and current programming.

THE PROCESS

In addition to reviewing SC documents, UA also conducted a rapid literature review of gray and academic literature that discuss practices for integrating climate change into education subsectors such as nutrition and early childhood. We mapped our findings from the literature review onto our findings from the SC document review to show alignments and complementarities, and to provide additional examples of climate resilient education programming. For both the SC document review and literature review, we organized our findings according to the four layers of the CRPE tool, using the proposed step by step process outlined in Annex 2. For example, when reviewing the *Comprehensive School Safety Framework 2022-2030* from the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES), we categorized the excerpts from the framework according to their referenced action area of the education system (Layer 1), climate resilience pathway (Layer 2), benchmark on the Climate Justice Scale (Layer 3), and programming stage (Layer 4).

From this illustrative exercise, documents from the ECCD, SHN, and EIE subsectors provided the most examples of climate resilient programming, while the content we reviewed for the BE subsector had fewer explicit mentions of climate-integrated programming. Across all subsectors the MEAL programming stage was the most underrepresented among the documents we reviewed in terms of climate integration. For the education action areas (Layer 1) and/or programming stages (Layer 4) where we did not review examples of climate resilient education, we provided examples from the literature review.

TABLE 5. SUMMARY OF THE EDUCATION ACTION AREAS (LAYER 1) OF WHICH EXAMPLES WERE IDENTIFIED IN THE SC SUBSECTOR DOCUMENTS REVIEWED				
	ECCD	**EIE**	**BE**	**SHN**
Planning	Policies and Practices *(Conformative)*	Policies and Practices *(Conformative)*	Programs *(Conformative)*	Places *(Conformative)* Policies and Practices *(Reformative)*
Implement ation	Policies and Practices *(Conformative)* People *(Reformative)*	People *(Reformative)* Programs *(Reformative)* Places *(Conformative)*	Programs *(Conformative)* People *(Conformative)*	Places *(Conformative)* Policies and Practices *(Conformative)* Programs *(Reformative)*
MEAL	People *(Conformative)*	Places *(Reformative)*		

APPLYING THE CRPE TOOL TO THE EARLY CHILDHOOD CARE AND DEVELOPMENT SUBSECTOR

Of the documents from the Early Childhood Care and Development (ECCD) subsector that we reviewed, we found more discussion on climate for the action areas of Policies and Practices and People compared to the Places and Programs action areas. For the Places and Programs action areas, for which we did not review many SC documents, we include some examples from the literature review to supplement our analysis.

The documents we reviewed from SC's current ECCD programing represent a strong starting point for SC to continue developing a comprehensive climate resilient ECCD portfolio. Given that our review of ECCD documents was limited, it is likely that many activities and programs are already taking place that satisfy many layers of the CRPE tool.

POLICIES AND PRACTICES ACTION AREA

For Policies and Practices, the SC documents we reviewed included activities such as outlining specific investment allocations within climate budgets for different ECCD age groups and creating targeted policies for ECCD investment during the project planning stage.[16] Activities at the implementation stage included improving existing practices such as the implementation of disaster risk reduction frameworks in ECCD centers, leveraging the five aspects of the Nurturing Care Framework to conceptualize the different impact areas of climate change on ECCD, and ensuring that any approach to ECCD and climate recognizes how climate change's impacts on young children changes at different developmental stages. While these planning and implementation activities are important steps in making ECCD programming more climate resilient, they are still *conformative* at this point as they focus on improving ("greening") current systems and ways of working (e.g. traditional financing mechanisms, and the implementation of DRR frameworks and the Nurturing care framework) without explicitly including any critical review of whether these mechanisms, policies, or frameworks should be changed more fundamentally to become more inclusive or equitable. Of the documents we reviewed, we did not find content for the MEAL stage for Policies and Practices, though our sample was not exhaustive. We provide some examples of MEAL activities from the literature review below.

Literature review examples for Policies and Practice action area in ECCD	
MEAL	Developing metrics to track children's climate resilience, such as the ways in which stable, healthy relationships early in life can act as a buffer against climate shocks.[17]
	More actively and precisely tracking air quality in neighborhoods, linking instances of poor air quality with children's likelihood of exposure to better mitigate against pollution-related respiratory illnesses like asthma. Such measures could include installing air quality monitors in spaces where children play and developing methods for better tracking how caregivers and children move throughout a neighborhood.[18]

[16] University of Wollongong. (2022). Putting children at the heart of climate change and environmental degradation (CC&ED) responding and planning.
[17] Water, J., and Prince, K. (2021). "Climate change is threatening childhood as we know it." Capita. https://www.capita.org/capita-ideas/2021/11/26/climate-change-is-threatening-childhood-as-we-know-it
[18] Bernard van Leer Foundation. (2021). Early Childhood Matters: The Climate Issue. No. 130. https://earlychildhoodmatters.online/issues/early-childhood-matters-2021/

PEOPLE ACTION AREA

The SC documents we reviewed included activities for the People action area at the implementation and MEAL stages. In terms of implementation, activities included training health workers on the linkages between climate and health and building their capacity to integrate climate change data into health information systems given, their influential role in raising awareness among caregivers of the potential threats that climate change poses for ECCD.[19] SC, in partnership with ARNEC and UNICEF EAPRO, has also launched a Community of Practice (CoP) for sharing and co-creating ECCD and climate approaches. The goal of CoP is to connect stakeholders from the national and sub-national levels to learn and produce solutions together. This work can be considered *reformative* as it seeks to develop new strategies and more equitable ways of working to improve ECCD and climate programming, rather than simply improving or greening existing strategies or structures. At the MEAL stage, SC activities we reviewed included gathering data at the child, caregiver, community, and provider level, using both qualitative and quantitative approaches to capture systems change as climate adaptive programming in ECCD evolves,[20] an important *conformative* approach for outfitting existing MEAL practices with a climate lens. From our limited sample of documents, we did not find activities at the planning stage of the People action area for ECCD and have included some examples from the literature review below.

Literature review examples for People action area in ECCD	
Planning	Partnering with the ECCD and non-ECCD community, including both the public and private sectors, to help generate more evidence on the linkages between climate change and ECCD, including how climate change impacts children at the developmental, caregiver, and environmental levels, as well the impact of disasters and environmental degradation on pregnant mothers, young children and their families. Such partnerships can help build the capacity of regional and in-country ECD focal points to communicate with stakeholders on the importance of considering the impact of climate change

[19] Save the Children. Project Brief: Inclusive Education.
[20] International Food Policy Research Institute, Save the Children, and Chancellor College, University of Malawi. (2018). Improving child nutrition and development through preschools in Malawi. https://www.ifpri.org/publication/improving-child-nutrition-and-development-through-preschools-malawi

	on children's cognitive, social-emotional, physical and linguistic development.[21] For example, in the Jundiai municipality of Brazil, the administration formed a dedicated ECD task team of experts from different sectors, including Education, Culture, Urban Planning and Environment, to develop ECD focused climate policies.[22] Additionally, local administrations in four metro areas around the world (Miami-Dade County; Athens, Greece; Freetown, Sierra Leone; and Santiago, Chile) have established heat officers whose responsibility is to remove bureaucratic silos that can prevent the effective coordination of government responses to extreme heat for vulnerable populations like young children.[23]

EXAMPLES FROM THE LITERATURE FOR ACTION AREAS WE DID NOT REVIEW IN SC DOCUMENTS

Literature review examples for Places action area in ECCD	
Planning	Israel's Ministry of Education hired an urban planning firm to develop national guidelines for urban planners. Before this, the Ministry's guidelines focused on the planning of schools and kindergartens. Seeking to expand this scope, the Ministry now calls on urban planners to include considerations for infants, toddlers and caregivers outside of classrooms, including streets, libraries, parks, housing developments, open spaces and mobility infrastructure as well.[24]
Implementation	Case studies from Nairobi, Kenya and Lima, Peru both exemplified the value of creating child-friendly, safe, green spaces for children and caregivers to connect through nature while also promoting the growth of native plants, reducing the impact of heatwaves, and enabling low-carbon modes of transportation with spaces for biking and walking.[25]

[21] UNICEF. (2021). Growing Steady and Strong: Early childhood development regional guidance in East Asia and the Pacific. Bangkok: United Nations Children's Fund. https://www.unicef.org/eap/media/10121/file/Growing%20Steady%20and%20Strong%20report%20.pdf

[22] Bernard van Leer Foundation. (2021).

[23] Waters, J. (2022). The Need to Create Child-Centered Climate Policies. Aspen Institute. https://www.aspeninstitute.org/blog-posts/the-need-to-create-child-centered-climate-policies/

[24] Bernard van Leer Foundation. (2021).

[25] University of Wollongong. (2022).

	Greening schoolyards by planting native flowers and vegetation to create lively ecosystems of bees, butterflies, and birds, providing teachers with an outdoor classroom and whole communities with a "green living room" for gathering and connecting.[26]

Literature review examples for Programs action area in ECCD	
Planning	In Vietnam, UNICEF has been working to develop ECD and climate change as a cross-cutting priority, including in sectors such as disaster risk reduction, protection, and nutrition at national and subnational levels. At the national level, Vietnam has developed a national framework for climate-responsive and climate-smart education systems. At the subnational provincial level, teacher capacity-building initiatives and advocacy campaigns on green habitats are being planned for.[27]
Implementation	The One UN Climate Change Learning Partnership's UN:CC course has been adapted to Vietnam's context with support from the United Nations Institute for Training and Research to benefit 1 million teachers in Vietnam, including preschool teachers, to further work with parents and communities.[28]
Implementation	Implementing early childhood education programs using pedagogies and curricula that promote children's sense of wonder for the natural world, encouraging an appreciation and respect for nature that also promote curiosity and problem solving.[29] Ensuring that these efforts go beyond the promotion of pro-environmental behaviors in ECCD, such as recycling and reusing, to position children's relationship to the environment in a more holistic and transformational way.[30]

[26] Bernard van Leer Foundation. (2021).
[27] UNICEF (2021). Growing steady and strong: Early childhood development regional guidance in East Asia and the Pacific.
[28] Ibid.
[29] North American Association for Environmental Education. (2010). Guidelines for Excellence Early Childhood Environmental Education Programs. HYPERLINK "https://cdn.naaee.org/sites/default/files/final_ecee_guidelines_from_chromographics_lo_res.pdf"https://cdn.naaee.org/sites/default/files/final_ecee_guidelines_from_chromographics_lo_res.pdf
[30] Ginsburg, J.L., and Audley, S. (2020). "You Don't Wanna Teach Little Kids about Climate Change": Beliefs and Barriers to Sustainability Education in Early Childhood. International Journal of Early Childhood Environmental Education. https://eric.ed.gov/?id=EJ1264526

	Multiple UNICEF ECE initiatives have promoted climate change adaptation from preschool age, such as implementing surveys on plastic waste and air pollution, holding online workshops on the impact of climate change and air pollution for children with disabilities in partnership with Wakayama University in Japan and Hanoi National University of Education, and establishing social innovation clubs and student-led initiatives.[31]

APPLYING THE CRPE TOOL TO THE EDUCATION IN EMERGENCIES SUBSECTOR

The sample of SC's education in emergencies (EIE) documents that we reviewed uncovered all four action areas. We found that mentions of climate are often closely linked to SC's DRR guidance, such as the *Save the Children Safe Schools Common Approach* and the GADRRRES *Comprehensive School Safety Framework 2022-2030 (CSSF), to* which SC contributed.

The existence of comprehensive DRR guidance within SC provides a strong foundation to support the fortification of climate resilient programming in the EiE sector. Given the overlap between DRR and climate change mitigation and adaptation, SC can build off their robust DRR guidance to more explicitly, holistically, *reformatively* and *transformatively* integrate climate change into their EIE programming.

POLICIES AND PRACTICES ACTION AREA

SC Denmark's *Education in Emergencies and Climate Change Scoping Study*, conducted in January 2022 provides some helpful examples of climate resilient integration in the Policies and Practices action area. Regarding the planning stage, this document includes activities such as adding climate change to the Terms of Reference (ToR) for rapid response plans, providing climate-related technical inputs into needs assessment tools, and integrating climate change into the *Safe Schools Common Approach* through the development of a "Safe Back to School Stakeholders Guide" for climate change advocacy and programming and a course through SC's Humanitarian Leadership Academy that focuses on climate change.[32] Additional activities at the planning stage include conducting child-centered community vulnerability and capacity analyses (CVCAs) in parallel with wider community CVCA's to create a

[31] UNICEF. (2021).
[32] Save the Children Denmark. (2022). Education Emergencies and Climate Change Scoping Study January 2022.

climate adaptation plan that includes the perspectives of both children and adults.[33] The CSSF also provides planning activities such as integrating and harmonizing school safety management and local community development, disaster risk management, climate change adaptation, and child protection plans to promote cross-cutting collaboration on climate and DRR.[34] The guidance from SC Denmark's study and the CSSF is collectively *conformative*, as it addresses the impacts of climate change on EIE and seeks to further integrate climate into existing ways of working but does not yet explicitly include critical considerations around equity or justice.

Literature review examples for Policies and Practices action area in EIE	
Planning	Mainstreaming DRR and climate change into Education Sector Development Plans at the planning stage[35] and developing strategies at the school, community, and systems level to prevent, prepare for, and mitigate crises.[36] This can help support education systems in protracted crisis and emergency settings to cope with ongoing instability as well as climate change.
Implementation	Encouraging cross-sectoral coordination to address climate change and displacement by involving relevant government agencies such as the ministries of environment, health, and education, national emergency management authorities, and other national and sub-national stakeholders.[37]
MEAL	Leveraging data collection to provide evidence of the impact that DRR and climate adaptive programs have on preventing and reducing violence against children. This can also help build a basis of good practices for climate, DRR, and child protection.[38]

PEOPLE ACTION AREA

People-focused organizational structures can help SC stakeholders move work forward on climate and EIE. Our review found that, at the implementation stage, this includes the

[33] Children in a Changing Climate Coalition. (2015). Child-Centred Adaptation: Realising children's rights in a changing climate. https://resourcecentre.savethechildren.net/document/child-centred-adaptation-realising-childrens-rights-changing-climate/
[34] GADRRRES. (2022)
[35] UNICEF. (2011).
[36] Pye et al. (2021).
[37] Ibid.
[38] Pereznieto et al. (2020).

SC Humanitarian Climate Crisis Unit that supports research on climate impacts and the development of tools to predict climate shocks and build community climate resilience.[39] We also reviewed documents that mentioned the SC Child Protection Global Climate Task Force, another organizing unit that brings together SC member states and country offices to convene around the multi-sectoral *Safe Schools Common Approach* with a focus on climate.[40] These organizational structures reflect a *reformative* approach to People-related action on climate and EIE, as the emphasis is placed on creating new structures and systems for addressing climate change in this sub-sector, and prioritizing, protecting, and uplifting the rights of all children to quality education. The CSSF also supports activities to train children to conduct their own school safety monitoring assessments, increasing their awareness of climate risks and supporting peer-peer awareness building, leadership skill development, and psychosocial support.[41] This activity is also *reformative* in nature as it introduces a new approach to DRR that promotes equity by uplifting children's participation in climate adaptation.

PROGRAMS ACTION AREA

The CSSF and SC Denmark study that we reviewed provided example activities for the implementation stage of the Programs action area. *Conformative* activity examples included establishing DRR and Climate Resilience clubs in schools that engage children in building their climate resilience,[42] as well as providing teachers and students with quality teaching and learning materials related to life skills, risk reduction, safety, climate change action, health and hygiene, and social cohesion.[43] While these activities can help promote peer-to-peer awareness-building of risks reduction strategies, foster student leadership and cultural expression, and build teachers and students' capacity to provide psychosocial support, they are still *conformative* in nature as they don't explicitly address underlying causes of inequity. An example of a *reformative* activity is the creation of mobile libraries for children in pastoralist communities that might need to travel greater distances to access education due to climate change and employing pedagogies/curricula that include social and emotional learning objectives for addressing students' eco-anxiety.[44] This activity addresses the underlying issue of inequitable access to schooling for children in pastoralist communities and addresses the often-invisible mental health component of climate change, making it *reformative.*

[39] Save the Children Denmark. (2022).
[40] Ibid.
[41] GADRRRES. (2022).
[42] Save the Children Denmark. (2022).
[43] GADRRRES. (2022).
[44] Save the Children Denmark. (2022).

Literature review examples for People action area in EIE	
Planning	Positioning parents and community members as important project stakeholders, with activities planned to help prepare them to act as nonformal education providers in the event of a climate-related disruption to formal schooling. Integrating teachers into the program design stage to facilitate their learning about how to carry out evacuation and climate hazard drills.[45]
Implementation	Centering children's needs in order to empower them as active agents of change on the path to climate resilience, such as providing mental health services for those who have experienced climate-related trauma. The latter also promotes the development of important green skills that help teach children to become analyzers of climate risks, solutions designers, implementers of adaptation initiatives, communicators and mobilizers for community climate action, and builders of social networks.[46]

PLACES ACTION AREA

We reviewed activities for the Places action area at the implementation and MEAL programming stages. At the implementation stage, activities included "greening" schools through environmentally sustainable and carbon neutral initiatives such as installing solar panels for electricity generation or rainwater management systems to promote water collection and reuse. Adopting mitigation and adaptation strategies such as using recycled building materials, designing new sites with consideration for climate risks and vulnerabilities, and maintaining infrastructure in eco-friendly ways was also mentioned.[47] These activities are *conformative* in nature as they seek to "green" existing processes. Activities at the MEAL stage that we reviewed included developing minimum performance standards and indicators for physical assets in the context of climate change and including these in legislative frameworks for national and subnational education plans. These standards should address safety, gender responsive water and sanitation facilities, heating, cooling, and ventilation systems, and should provide a healthy learning environment fit for climate impacts. In general, safety considerations should be integral to all infrastructure investments and facility design, including DRR and climate change adaptation

[45] UNICEF. (2019). Guidance Note: Risk-informed Education Programming for Resilience. HYPERLINK "https://www.unicef.org/media/65436/file/Risk-informed%20education%20programming%20for%20resilience:%20Guidance%20note.pdf"https://www.unicef.org/media/65436/file/Risk-informed%20education%20programming%20for%20resilience:%20Guidance%20note.pdf

[46] Pereznieto et al. (2020).

[47] Save the Children Denmark. (2022).

priorities.[48] These MEAL-related activities are *reformative* in nature as they entail developing new standards that include gender equity considerations in the context of DRR and climate.

Literature review examples for Places action area in EIE	
Planning	Taking a risk-informed approach to selecting sites for education facilities and fostering community ownership over the restoration, reconstruction, and retrofitting of learning spaces to make them more hazard resilient.[49]

APPLYING THE CRPE TOOL TO THE BASIC EDUCATION SUBSECTOR

Of the documents we reviewed for SC's BE subsector, we found little content for the action areas of Places and Policies and Practices. We did review examples from SC that aligned with the Programs and People action areas, which provide indication that the subsector is moving towards greater integration of climate resilience into education programming. Examples from the literature review also offer additional ideas for building up the BE climate resilient portfolio.

PROGRAMS ACTION AREA

For the Programs action area, we reviewed a 2022 SC proposal for Indonesia on "Community-led Climate Change Adaptation in Bandung Barat District in West Java Province," which included *conformative* actions at the planning stage of the Programs action area. The program plans include capacity development interventions for students and teachers on climate change; developing school-based climate adaptation plans; promoting water harvesting, waste management, renewable energy, and tree planting practices; and establishing climate risk information systems like early warning systems, rainfall monitoring, and predetermining evacuation routes to support hazard preparedness. The proposal also intends to link schools with

[48] Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector. (2022). Comprehensive School Safety Framework 2022-2030 for Child Rights and Resilience in the Education Sector. HYPERLINK "https://inee.org/sites/default/files/resources/The-Comprehensive-School-Safety-Framework-2022-2030-for-Child-Rights-and-Resilience-in-the-Education-Sector.pdf"https://inee.org/sites/default/files/resources/The-Comprehensive-School-Safety-Framework-2022-2030-for-Child-Rights-and-Resilience-in-the-Education-Sector.pdf

[49] UNICEF. (2019).

community strategies and practices on climate change adaptation.[50] While these plans directly address climate risks and vulnerabilities in targeted communities, they are *conformative* because they do not mention specifically addressing issues of inequity or injustice within these communities that might exacerbate climate vulnerabilities for some groups.

At the implementation stage, we also reviewed the SC Norway-supported Green Generation (GG) pilot in Cambodia, which offers examples of *conformative* programming. The GG pilot includes extracurricular environmental education activities implemented in school settings for children and youth to develop skills and personal agency in addressing climate change.[51] The program includes six units of curriculum and at present can be considered *conformative*, as it represents the "greening" of education initiatives but does not yet demonstrate a focus on addressing underlying sources of inequity or exclusion. The literature does not offer examples of more *transformative* approaches for Programs in basic education at the implementation stage, stopping at environment and sustainability education that develops students' pro-environmental behaviors.[52]

PEOPLE ACTION AREA

The Green Generation pilot program that we reviewed also provides a basis for People-focused activities at the implementation stage. Based on an interview with a SC Norway staff member, the Green Generations program provides guidance to facilitators for after-school programming on how to lead the curriculum activities, including training on the knowledge content that might be new to them. The Green Generations program also includes activities for raising awareness on climate change among parents, community leaders, and local government officials to create an enabling environment for programs to succeed. These activities are currently *conformative* but could become *reformative* if additional considerations were made to increase the equity and accessibility of these programs, given the different climate-related barriers that various groups of children and adults face.

EXAMPLES FROM THE LITERATURE FOR ACTION AREAS WE DID NOT REVIEW IN SC DOCUMENTS

[50] Save the Children. (2022). Concept Note: Community-led Climate Change Adaptation in Bandung Barat District in West Java Province.
[51] Details regarding the Green Generation pilot program in Cambodia were gathered from an interview with Save Norway Special Education Advisor Sine Christensen.
[52] Ginsburg & Audley. (2020).

Literature review examples for Places action area in BE	
Planning	Linking children's wellbeing with relevant infrastructure and urban planning activities in national policies and plans, such as walkability, transport and housing.[53] *(Applicable to all education subsectors)*
Implementation	Designing child-friendly spaces to provide cross-sectoral services, including play, recreation, education, health and psychosocial support, rather than establishing siloed facilities or infrastructure for only one or two uses.[54]
MEAL	A case study from the Philippines on the use of schools as evacuation shelters during climate emergencies found that assessment criteria for schools should include both the physical safety of the building (the hazard at the location and the physical vulnerability of the space) as well as the social-based criteria that affects the experience of people using the shelter (accessibility, communications, living or working environment and access to supplies). These two constructs should be given relatively equal weighting in the assessment of school safety, as schools must not only provide safety to those seeking refuge from climate disasters but also offer dignified and socially acceptable means of shelter.[55]

Literature review examples for Policies and Practices action area in BE	
Planning	Incorporating climate change into adaptation and mitigation considerations in key education sector policies, plans and strategy documents, and aligning these education documents with national climate change policy, planning, and strategy documents. Clearly defining the needs and contributions of the education sector.[56]
MEAL	Developing monitoring and assessment mechanisms and tools to systematically gather climate change impact data on the education sector to support evidence-based planning and policymaking.[57]

[53] Bernard van Leer Foundation. (2021).
[54] UNICEF. (2021).
[55] Tsioulou, A., Walker, J.F., Sumaylo Lo, D., and Yore, R. (2020). A method for determining the suitability of schools as evacuation shelters and aid distribution hubs following disasters: case study from Cagayan de Oro, Philippines. Natural Hazards (2021) 105:1835–1859. HYPERLINK "https://doi.org/10.1007/s11069-020-04380-3"https://doi.org/10.1007/s11069-020-04380-3
[56] Kagawa. (2022).
[57] Kagawa. (2022).

APPLYING THE CRPE TOOL TO THE SCHOOL HEALTH AND NUTRITION SUBSECTOR

For the action areas of Places, Policies and Practices, and Programs, the SHN documents we reviewed included a mixture of *conformative* and *reformative* examples. While we found examples of climate resilient programming in SHN among the documents we reviewed, there is still room for further integration of climate considerations across SHN's education action areas. Also, even more can be done to explicitly tackle underlying issues of justice and equity in the design, implementation, and evaluation of climate resilient SHN programming.

PLACES ACTION AREA

For the Places action area, the SHN documents we reviewed included activities for the planning and implementation stages that are *conformative*. At the planning stage, this included preparing schools to serve as evacuation centers during emergencies and ensuring safe, accessible, adequate, and user-friendly water, sanitation, and hygiene (WASH) facilities for both women and men.[58] Activities at this stage also included equipping schools with safe and healthy infrastructure that protects children's health while promoting sustainability by using natural and local construction materials,[59] as well as the "green" construction of learning facilities, integrating sustainability measures such as ecological waste management, natural fences, rainwater harvesting, water conservation, and renewable energy usage. SHN activities that we reviewed for the Places action area at the implementation stage included the construction of school gardens, farms, fishponds, or livestock pens that can teach children about healthy food and nutrition.[60] While these activities are *conformative* at present, they have the potential to become *reformative* by thinking beyond the greening of existing practices and facilities and promoting the development of new systems that more directly address underlying issues of vulnerability and exclusion related to SHN and climate.

POLICIES AND PRACTICES ACTION AREA

[58] Save the Children. (2016). The CASP School Health and Nutrition Module: The Common Approach to Sponsorship-Funded Programming.
[59] Save the Children. (2022). The case for SHN in Climate Resilience in Education.
[60] Save the Children. (2016).

We found that the activities we reviewed for the Policies and Practices action area in SHN were *reformative* at the planning stage and *conformative* at the implementation stage. At the planning stage, activities included integrating data related to the cost of household diets, household economy analyses, climate change, and population malnutrition into the Family Early Warning Systems Network to support the identification and management of vulnerable situations related to climate change and food insecurity.[61] The SHN subsector also plans to assess technology options for designing climate and disaster resilient WASH facilities, and will work with education and health officials, parent teacher associations, and school administrations to ensure that WASH is included in DRR school plans.[62] These activities are *reformative* as they seek to undertake new ways of working to more equitably and holistically address climate change's impact on SHN. At the implementation level, the example activities we reviewed for the Policies and Practices action area are *conformative* and included integrating WASH with nature-based solutions to promote nutrition, livelihoods, and climate adaptation,[63] employing grey water usage strategies such as reusing handwashing and dishwashing water for yard cleaning and using locally or home grown produce for school meals to promote culturally appropriate eating practices and support to local farmers.[64] While these activities are useful to promote environmental sustainability, they do not address underlying issues of equity or access related to SHN and climate change and are therefore *conformative*.

Literature review examples for Policies and Practices action area in SHN	
Implementation	Providing dietary guidance and nutrition counselling at key points of care to promote healthy food environments,[65] and leveraging government incentives, for example by making healthy food more readily available or affordable, to help consumers make dietary shifts that promote health and sustainability.[66]
MEAL	Developing measures that integrate health indicators with climate change's impacts, exposures, and vulnerabilities to better align activities across climate, health, and education systems. This could include measures on health and heat, health and extreme weather, climate sensitive infectious diseases, vulnerability to mosquito borne diseases, and food security and

[61] Save the Children. (2022). Climate and Health Strategy: Accelerating Action on Climate with Health Benefits.
[62] Save the Children. (2021). Concept Note: USDA McGovern-Dole Limited Merit Based NOFO for Guatemala /Guatemala, USDA-FAS-0700-10.608-D.
[63] Save the Children. (2022). The Climate Crisis: A Child-Centred Framework for Action.
[64] Save the Children. (2016).
[65] Fanzo, J.C., Downs, S.M. (2021). Climate change and nutrition-associated diseases. Nat Rev Dis Primers 7, 90. https://doi.org/10.1038/s41572-021-00329-3
[66] Watts et al. (2019). The 2020 report of the Lancet Countdown on health and climate change: responding to converging crises. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32290-X/fulltext

	undernutrition.[67] A community's accessibility to water, the prevalence of water collection by children, and the gender ratios for water collection should also be key indicators for measuring progress in the WASH sector.[68]

PROGRAMS ACTION AREA

We found that the documents we reviewed included examples for the Programs action area that are *reformative* at the implementation stage due to the ways they target nutrition as an underlying factor in exacerbating inequalities caused by climate change. For example, activities included providing integrated health, nutrition, and climate change education that provides skills-based and practical knowledge for children and communities to learn about health and the environment, as well as developing climate adaptive health and nutrition services in which the health and education sectors collaborate to respond to the shifting health risks that children face amidst the climate crisis.[69] Another example from SC's ECD programming in Malawi used community based ECD centers as a platform for improving caregiver knowledge and practices on infant and young children feeding (IYCF). This nutrition intervention increased the dietary diversity and nutrient intake of preschool children, while also improving their younger siblings' health for age and reducing stunting, despite the year in which this study was conducted coinciding with a drought in the area.[70]

Literature review examples for Programs action area in SHN	
Implementation	Using locally produced food for school meals to help increase market predictability for smallholder farmers, who are especially sensitive to climate shocks, while also benefiting child nutrition and food security.[71]
	The resilience of a community should be seen as strongly related to the resilience of its WASH services. Water management strategies should assess and diversify water resources, work with local markets and the private sector to ensure water and sanitation services are constructed with the consideration of climate risks, increase water storage facilities at the household level, promote multiple-use water schemes for both domestic and livelihood needs, and promote the comprehensive management, protection and monitoring of water resources at the national and subnational levels.[72]
MEAL	Scaling up efforts to research the impact of climate change and food insecurity on school children's health and nutrition.[73]

EXAMPLES FROM THE LITERATURE FOR ACTION AREAS WE DID NOT REVIEW IN SC DOCUMENTS

Literature review examples for People action area in SHN	
Planning	Support health adaptation planning by connecting cross-sectoral stakeholders from different practice areas. For example, 86 countries have already established connections between their meteorological experts and health sector stakeholders.[74]
Implementation	Engage policy makers, advocates, program leaders, and researchers from both nutrition and environmental sectors to support reform across all aspects of the food system, from how food is grown to the production, transportation, purchase, distribution, consumption, and waste of food.[75]
	Address the mental health needs of caregivers experiencing water insecurity by offering parenting and counselling interventions that support caregivers' adaptive parenting behaviors in the face of climate stress and shocks.[76]
MEAL	Develop measures of climate change impacts specific to the distance and time children spend collecting water. Such measures can serve as an important indicator of WASH quality, risk of gender-based violence, gender equality, and menstrual health as water shortages become more prevalent with climate change (Q).[77]

LEARNING FROM THIS EXERCISE IN APPLYING THE CRPE TOOL TO ASSESS SAVE THE CHILDREN SUBSECTOR ACTIVITIES

[67] Ibid.
[68] Graham et al. (2016).
[69] Save the Children. (2022).
[70] Ibid.
[71] Nilsson M., Emilsson C., Jonsson A., Tomson G., Meijer S., Ã–stman, L. et al. (2022). Stronger efforts are needed to safeguard the nutrition of school aged children BMJ 2022; 376 :o623 doi:10.1136/bmj.o623
[72] UNICEF. (2021).
[73] Nilsson et al. (2022).
[74] Watts et al. (2019).
[75] Poole, M.K., Musicus, A.A., Kenney, E.L. (2020). Alignment Of US School Lunches With The EAT-Lancet Healthy Reference Diet's Standards For Planetary Health. Health Aff (Millwood). https://pubmed.ncbi.nlm.nih.gov/33284707/
[76] Cooper-Vince et al. (2017).
[77] Graham et al. (2016).

While conclusions from this illustrative exercise are limited to the documents we reviewed, the results of applying the CRPE tool to SC's current education subsector activities and guidance show that climate resilient activities are already taking place within each education subsector. Additionally, clear opportunities exist for each subsector to further pursue climate resilient education programming across the education action areas (Layer 1) and programming stages (Layer 4) in ways that strengthen attention to climate resilience (Layer 2) and climate justice (Layer 3). This exercise demonstrates how the CRPE tool can provide a formative assessment for SC to learn from and build upon their existing approaches to climate resilience. Looking ahead, the same process can also be used to conduct a generative exercise in which SC colleagues within or across subsectors come together to brainstorm future education activities according to all four layers of the CRPE tool.

CONCLUSION

The CRPE tool is malleable; its units of focus are not fixed but dependent upon the needs of those who are using it at any given time. It can be used to assess, design, or revise an initiative or program according to climate resilience and climate justice principles at the level of a school, organization, or even a whole system. Or it can be used to critically reflect upon and adjust SC's own internal ways of working as a unit, whether at the level of a team, office, department, or whole subsector. The CRPE tool has been designed to provoke critical considerations, conversations, and creativity at the intersection of climate and education. With the CRPE tool in hand, SC staff can continue pursuing climate integration in their work, contributing to the broader movement across the international education sector to promote climate resilience and justice at every level and stage of programming.

REFERENCES

Ahmed, K.J., Haq, S.M.A. & Bartiaux, F. (2019). The nexus between extreme weather events, sexual violence, and early marriage: a study of vulnerable populations in Bangladesh. Popul Environ 40, 303–324. https://doi.org/10.1007/s11111-019-0312-3

ARNEC. (2022). Putting Young Children at the Center of Environmental and Climate Change Actions. Webinar. https://arnec.dataforall.org/resources/arnec-resources/putting-young-children-center-environmental-and-climate-change-actions

Bernard van Leer Foundation. (2021). Early Childhood Matters: The Climate Issue. No. 130. https://earlychildhoodmatters.online/issues/early-childhood-matters-2021/

Center for Climate and Energy Solutions. (2019). What is Climate Resilience and Why Does it Matter? https://www.c2es.org/wp-content/uploads/2019/04/what-is-climate-resilience.pdf

Children in a Changing Climate Coalition. (2015). Child-Centred Adaptation: Realising children's rights in a changing climate. https://resourcecentre.savethechildren.net/document/child-centred-adaptation-realising-childrens-rights-changing-climate/

Cooper-Vince C.E., Kakuhikire B., Vorechovska D., McDonough A.Q., Perkins J., Venkataramani A.S., Mushavi R.C., Baguma C., Ashaba S., Bangsberg D.R., Tsai A.C. (2017). Household water insecurity, missed schooling, and the mediating role of caregiver depression in rural Uganda. Glob Ment Health (Camb). https://pubmed.ncbi.nlm.nih.gov/29230311/

CPI. (2019). Global Landscape of Climate Finance 2019 [Barbara Buchner, Alex Clark, Angela Falconer, Rob Macquarie, Chavi Meattle, Rowena Tolentino, Cooper Wetherbee]. Climate Policy Initiative, London. https://climatepolicyinitiative.org/publication/global-climate-finance-2019/

Fanzo, J.C., Downs, S.M. (2021). Climate change and nutrition-associated diseases. Nat Rev Dis Primers 7, 90. https://doi.org/10.1038/s41572-021-00329-3

GADRRRES (2022) Comprehensive School Safety Framework 2022-2030 for Child Rights and Resilience in the Education Sector

Ginsburg, J.L., and Audley, S. (2020). "You Don't Wanna Teach Little Kids about Climate Change": Beliefs and Barriers to Sustainability Education in Early Childhood. International Journal of Early Childhood Environmental Education. https://eric.ed.gov/?id=EJ1264526

Global Alliance for Disaster Risk Reduction & Resilience in the Education Sector. (2022). Comprehensive School Safety Framework 2022-2030 for Child Rights and Resilience in the Education

Sector. https://inee.org/sites/default/files/resources/The-Comprehensive-School-Safety-Framework-2022-2030-for-Child-Rights-and-Resilience-in-the-Education-Sector.pdf

Global Alliance for the Future of Food. 2016. The Future of Food: Seeds of Resilience, A Compendium of Perspectives on Agricultural Biodiversity from Around the World. https://futureoffood.org/wp-content/uploads/2021/02/Seeds-of-Resilience_Full-Compendium.pdf

Graham J.P., Hirai M., Kim S. (2016). An Analysis of Water Collection Labor among Women and Children in 24 Sub-Saharan African Countries. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4889070/

International Food Policy Research Institute, Save the Children, and Chancellor College, University of Malawi. (2018). Improving child nutrition and development through preschools in Malawi. https://www.ifpri.org/publication/improving-child-nutrition-and-development-through-preschools-malawi

Just Transition Alliance. "What is Just Transition?" Accessed September 29, 2022. https://jtalliance.org/what-is-just-transition/

Kagawa, F. (2022). The Heat is On! Towards Climate Resilient Education Systems in South Asia. Kathmandu: UNICEF Regional Office for South Asia.

Kwauk, C. (2022). Transforming Education for Climate Action: Report to Commonwealth Ministers of Education. Commonwealth of Learning (COL). https://oasis.col.org/items/bf61e5a6-9d8d-474b-86a6-0085fdfeea51

Kwauk, C., & Wyss, N. (2022). Gender equality and climate justice programming for youth in low- and middle-income countries: an analysis of gaps and opportunities, Environmental Education Research.

Lawrance, E., Thompson, R., Fontana, G., and Jennings, N. (2021). The impact of climate change on mental health and emotional wellbeing: current evidence and implications for policy and practice. Imperial College London, Graham Institute.

Nilsson M., Emilsson C., Jonsson A., Tomson G., Meijer S., Ã–stman, L. et al. (2022). Stronger efforts are needed to safeguard the nutrition of school aged children BMJ 2022; 376 :o623 doi:10.1136/bmj.o623

North American Association for Environmental Education. (2010). Guidelines for Excellence Early Childhood Environmental Education Programs. https://cdn.naaee.org/sites/default/files/final_ecee_guidelines_from_chromographics_lo_res.pdf

Pereznieto, P., Rivett, J., and le Masson, V., with George, R., and Marcus, R. (2020). Ending violence against children while addressing the global climate crisis. World Vision.

Poole, M.K., Musicus, A.A., Kenney, E.L. (2020). Alignment Of US School Lunches With The EAT-Lancet Healthy Reference Diet's Standards For Planetary Health. Health Aff (Millwood). https://pubmed.ncbi.nlm.nih.gov/33284707/

Pye, L., Seeger, A., and Claude Ndabananiye, J. (2021). Understanding the climate change-displacement-education nexus for building resilient and equitable education systems. Internal Displacement Monitoring Centre (iDMC).

Save the Children Denmark. (2022). Education Emergencies and Climate Change Scoping Study January 2022.

Save the Children International. (2022). Sponsorship Program Guide Rails.

Save the Children. (2016). The CASP School Health and Nutrition Module: The Common Approach to Sponsorship-Funded Programming.

Save the Children. (2021). Concept Note: USDA McGovern-Dole Limited Merit Based NOFO for Guatemala /Guatemala, USDA-FAS-0700-10.608-D.

Save the Children. (2021). How to write an effective GCF climate rationale in seven steps: For Save the Children staff and partners.

Save the Children. (2022). Climate and Health Strategy: Accelerating Action on Climate with Health Benefits.

Save the Children. (2022). Concept Note: Community-led Climate Change Adaptation in Bandung Barat District in West Java Province.

Save the Children. (2022). The case for SHN in Climate Resilience in Education.

Save the Children. (2022). The Climate Crisis: A Child-Centred Framework for Action.
Save the Children. Project Brief: Inclusive Education.

Tsioulou, A., Walker, J.F., Sumaylo Lo, D., and Yore, R. (2020). A method for determining the suitability of schools as evacuation shelters and aid distribution hubs following disasters: case study from Cagayan de Oro, Philippines. Natural Hazards (2021) 105:1835–1859. https://doi.org/10.1007/s11069-020-04380-3

UNICEF. (2011). DRR In Education: An Imperative for Policymakers. https://inee.org/sites/default/files/resources/DRR_in_Education_Brochure.pdf

UNICEF. (2021). Growing Steady and Strong: Early childhood development regional guidance in East Asia and the Pacific. Bangkok: United Nations Children's Fund.

https://www.unicef.org/eap/media/10121/file/Growing%20Steady%20and%20Strong%20report%20.pdf

UNICEF. (2021). The climate crisis is a child rights crisis. https://www.unicef.org/reports/climate-crisis-child-rights-crisis

University of Wollongong. (2022). Putting children at the heart of climate change and environmental degradation (CC&ED) responding and planning.

Water, J., and Prince, K. (2021). "Climate change is threatening childhood as we know it." Capita. https://www.capita.org/capita-ideas/2021/11/26/climate-change-is-threatening-childhood-as-we-know-it

Waters, J. (2022). The Need to Create Child-Centered Climate Policies. Aspen Institute. https://www.aspeninstitute.org/blog-posts/the-need-to-create-child-centered-climate-policies/

Watts et al. (2019). The 2020 report of the Lancet Countdown on health and climate change: responding to converging crises. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32290-X/fulltext

World Health Organization. (2019). Clean, safe and secure environments to support early childhood development. https://cdn.who.int/media/docs/default-source/mca-documents/child/early-child-development/clean-safe-and-secure-environments-to-support-ecd.pdf?sfvrsn=d09abfca_6&download=true

ANNEXES

ANNEX 1: METHODOLOGICAL NOTE ON THE DEVELOPMENT OF THE CRPE TOOL

Several interrelated steps went into the development of the CRPE tool. First, a review of a sample of SC's education subsector documents was undertaken to gauge the extent to which climate resilient programming is already included in SC's existing policies, practices, and programs. This included a review of 59 documents for the subsectors of early childhood care and education (ECCD), education in emergencies (EIE), basic education (BE), and school health and nutrition (SHN) (see Annex 4). This review, albeit not exhaustive, provided a useful perspective on the opportunities and gaps that exist in SC's current education programming for making their work more climate resilient. Accompanying the document review was a literature review of academic and gray literature regarding current practices across each of SC's education sub-sectors for integrating climate change into education programming.

Concurrent with the literature review and following the internal document review, key stakeholders from across SC's member and implementing countries were consulted via remote interviews (See Annex 5). These stakeholders represented country offices across Asia, Latin America, and the Middle East, as well as SC member offices in Norway and Australia.

A preliminary version of the CRPE tool was shared with a small group of SC staff representing experts from several of SC's education subsectors. This touchpoint provided a chance to "stress test" the framework with SC experts to understand how it aligns with SC's current ways of working.

Following this opportunity for feedback, the tool was further refined and then applied to SC's education subsectors to illustrate how it can be used to assess the level of climate integration in education programming. This final step, combined with the findings from the literature review mentioned above, supported the identification of opportunities in each of SC's subsectors for becoming more climate resilient, according to each layer of the CRPE tool.

ANNEX 2: STEP-BY-STEP GUIDANCE ON USING THE CRPE TOOL

CRPE Tool Template

Unit of Analysis: _____

Type of tool application: Assess / Design

Layer 1: Education Action Areas / Layer 4: Programing Stages	Places	People	Policies and Practices	Programs
Planning	Layer 2 ideas			
	Layer 3 ideas			
Implementation				
MEAL				

Step 1. Start by identifying your unit of focus (e.g., a specific program, a school, an operational unit within Save the Children) and what type of process you will be using the CRPE tool for (e.g., retrospectively to assess the degree to which programming is climate resilient, or prospectively to design new programming). Be as specific as possible to help create a clear scope for your use of the CRPE tool. For example, if you are looking to *design* a *SHN afterschool initiative* in 35 schools in one region of an East African country, write this down at the top of the template.

Step 2. Given your unit of focus and the process for which you are using the CRPE tool, consider the guiding questions for each education action area (Layer 1). These guiding questions include

some references to climate resilience pathways and climate justice (Layers 2 and 3), which can help you start integrating these considerations into your thought process early on. For each set of guiding questions, you can start writing down your activity ideas inside the CRPE tool template.

Guiding questions for the Places action area include:

- How might education infrastructure and facilities be affected by both sudden- and slow-onset climate impacts and thus disrupt education services?
- What barriers or risks in the built (or digital) environment are created or exacerbated by climate change that can impede children's access to quality education or threaten their safety and wellbeing?
- How can climate-resilient infrastructure and facilities help to mitigate against climate risks and hazards and help school systems and the people within them adapt to the effects of climate change?
- How can climate-resilient infrastructure and facilities protect children from the harmful impacts of climate change and help promote justice and equity in education?

Guiding questions for the People action area include:

- How do climate change risks and hazards impact different stakeholders within the education system (e.g., students, teachers, families, caregivers, school administration, maintenance workers, groundskeepers, bus drivers, and health, protection and mental health professionals)?
- What climate risks and vulnerabilities do people across education-adjacent systems face (e.g., textbook publishers, food suppliers, supply distributors, nurses and social workers)?
- How can groups of people (e.g., task forces, departmental units, school leadership) within the education system be (re)organized to support climate disaster and risk reduction?
- What capacities (e.g., knowledge, skills, and attitudes) do people within the education system need in order to adapt to and mitigate climate change?
- What justice and equity issues exist within or between groups of stakeholders in the education system and how can these issues be addressed through climate resilient programs?

Guiding questions for the Policies and Practices action area include:

- How can climate risks and hazards make policies and practices within the education system ineffective, irrelevant, or obsolete?
- How can policies and practices be updated/developed to address both the immediate and long-term threats that climate change poses to the education system?
- How can policies and practices help education governance and operations better adapt to climate realities while transforming underlying drivers of climate vulnerability and inequality?

Guiding questions for the Programs action area include:

- What is the environmental impact of the resources needed to deliver education programs (e.g., school supplies, curriculum, paper-based classroom materials, digital textbooks)?
- How is the content of education equipping children, learners, and other program beneficiaries and stakeholders with empowering knowledge and capacities to reduce climate vulnerabilities, address climate risks, increase climate resilience, and promote climate justice?
- Do program learning materials integrate place-based, contextualized, and culturally specific and sensitive content to exemplify local approaches to climate resilience and climate justice?

- Are environmental impacts and climate resilience outcomes integrated into the monitoring, evaluation, and assessment of education programming?

Step 3. After considering the guiding questions for each education action area (Layer 1), you can now turn to directly integrating Layer 2 into your brainstorming process. This means considering how the activities you came up with in Step 2 create pathways to climate resilience through adaptation, mitigation, or both. If there are activities that you came up with during Step 2 that do not yet address climate resilience, consider possible adaptation and mitigation pathways that you could integrate into these activities. The following guiding questions can help you prioritize activities based on the extent to which they address not only climate mitigation and adaptation but also justice, equity, and inclusion.

Layer 2 Guiding Questions

1. How are/can the activities lessen the impact of or adapt to the negative effects of climate change, especially for the most vulnerable?
2. How are/can the activities address key drivers and/or root causes of climate change and/or climate vulnerability?
3. What version of the activities would be the most contextually relevant, culturally sensitive, gender empowering, child-centered, and/or community-driven, while also adapting to or mitigating the effects or climate change and/or reducing the activities' contribution to emissions, environmental harm, or risk of exposure to climate hazards?

Step 4. You have finished thinking through how the education program you are designing or assessing addresses each education action area (Layer 1) through specific climate resilience pathways (Layer 2). It is now time to apply a climate justice lens (Layer 3) to your brainstorming process. By using Layer 3 of the CRPE tool—the Climate Justice Scale—you can critically consider how the work you've done so far is addressing underlying systems of injustice and inequity. Taking the time during Step 4 to consider how the activities you're designing or assessing address climate justice ensures that the activities identified in Steps 1 through 3 help to promote inclusion and contribute to systems change by removing barriers in the built environment, in policies and practices, in organizational structures, and in programming that may impede children's access to quality education, especially amongst the most vulnerable. You can apply the climate justice scale to your work by moving through the following guiding questions and examples:

Layer 3 Guiding Questions

1. Do the activities you are designing or assessing include climate considerations at all?
    a. *If not*, label these activities as *nonexistent* and consider how they could integrate climate more explicitly.

b. Also consider: Do the activities have the potential to cause additional damage (e.g., create more waste, contribute to air pollution, contaminate land, further marginalize groups/individuals already challenged by climate change)? How can this damage be avoided?

2. Are the activities focused on doing things better than before (i.e., "greener" or more sustainably)?
    a. *If yes*, label these activities as *conformative*.
    b. *Example of a conformative program:* an early childhood program aims to reduce waste by purchasing sustainably sourced program materials and reusing them as much as possible.

3. Are the activities focused on doing *better things* with a more explicit equity lens (i.e., removing barriers to climate action for girls, refugees, or children with disabilities)?
    a. *If yes*, label these activities as *reformative*.
    b. Also consider: Do the activities have any co-benefits for gender equality or inclusion? Do they increase access to education for marginalized groups?
    c. *Example of a reformative program:* an education in emergencies program aims to create access to green skills education for children, especially girls who have typically been discouraged from participating due to gender norms.

4. Do the activities aim to transform underlying harmful systems and to create new ways of living and working that promote justice, equity, and sustainability in or through the education sector?
    a. *If yes*, label these activities as *transformative*.
    b. Also consider: Are the activities implemented in coordination with stakeholders outside the education sector? Do they change the way SC has traditionally worked? Can they be maintained without SC?
    c. *Example of a transformative program:* a basic education program partners with a green tech company to install solar powered water pumps on schoolgrounds to address the lack of water during drought and teaches girls and boys the underlying science behind the pump so both girls and boys can take turns maintaining it, improving gender stereotypes about girls' leadership and girls in STEM.

Step 5. Moving into Layer 4 of the CRPE tool, you can now categorize the activities you have been designing or assessing based on the three programming stages (Planning, Implementation, and MEAL). This is also an opportunity to identify where activities might be missing connections to specific stages of the program cycle (e.g. MEAL), and where you can add details to create more comprehensive programming. For each activity of a program that fits into an education action area (Layer 1), consider if the activity includes clear actions at each programming stage. For instance,

are there People (Layer 1) that could be consulted during the Planning (Layer 4) stage to help identify climate risks and vulnerabilities in the local context? Are there new aspects of the Programs (Layer 1) that could be evaluated using MEAL (Layer 4) approaches to track growth in climate resilience by program beneficiaries? While it is not required for every action area to be fully fleshed out for every program stage, thinking through whether it is needed or necessary to have actions for each program stage is useful to ensure you are being thorough in your process.

Layer 4 Guiding Questions

1. Are there stages of programming where your activities could be more fully fleshed out to create more comprehensive programming?

2. How can you integrate a child-centered, participatory, and rights-based approach into the planning, implementation, and MEAL stages of your activities?

Step 6. In this final step of applying the CRPE tool, you can now take a step back from the work you have done in the previous five steps and consider what layer(s) might need more thinking throughout, and which colleagues, community members, additional resources, etc. you should involve in the next iteration of your work. The CRPE tool provides a structured yet iterative approach to the process of designing or assessing education programming in terms of climate resilience integration. Therefore, upon arriving at Step 6 of the CRPE tool process, you are not "done" with the tool but instead have only just begun the journey of continuously iterating and improving upon efforts to further integrate climate resilience into your work. With each iteration, you will grow more familiar with the tool and its component layers, and more adept and confident in considering how to integrate climate considerations into each decision you make regarding education programming.

ANNEX 3: HOW CAN THE CRPE TOOL BE USED IN CONJUNCTION WITH EXISTING SC TOOLS?

The CRPE tool was designed to complement and supplement existing tools and processes at SC. Below is the start of a table that aligned identified tools that SC already uses with the four layers of the CRPE tool. SC staff can continue to add to this table, based on existing practice and new tools that may be identified after applying the CRPE tool to their work portfolio.

No.	Name	CRPE layer that it connects to			
		Layer 1 Action Areas	Layer 2 Climate Resilience Pathways	Layer 3 Climate Justice Scale	Layer 4 Programming Stages
1	Save the Children Gender Equality Marker	x		x	x
2	GADRRRES Comprehensive School Safety Targets and Indicators	x			x
3	Quality Learning Framework	x			x
4	Inclusive Education Handbook	x		x	x
5	The Minimum Standards for Education	x			
6	Sponsorship Program Guide Rails (Internal access only)	x			x
7	Comprehensive School Safety Framework 2022-2030	x	x		x

ANNEX 4: LIST OF SC'S DOCUMENTS REVIEWED

Number	Sector	Name
1	Global	SCIs Global Results Framework
2	Global	THE CLIMATE CRISIS: A CHILD-CENTRED FRAMEWORK FOR ACTION
3	Global	Quality Learning Framework Technical Document
4	Global	ToR- SB2SL Program Offer
5	SHN	Common Approach to Sponsorship Programming: SHN
6	Cross-sector	Safe Schools Master Slide Deck
7	Cross-sector	Safe Schools Common Approach Proposal
8	BE	Inclusive Education Handbook
9	EiE	SC Denmark Report: EiE and Climate Change
10	EiE	The Minimum Standards for Education
11	ECCD	UKM re-adjusted outputs
12	Global	SCI Construction Strategy
13	BE	Literacy Boost 2-pager
14	BE	Numeracy Boost 2 Pager
15	Cross-sector	Gender Equality Call to Action
16	Cross-sector	Safe Schools Action pack 4 Module 9
17	SHN	SHN Climate Change_draft

18	Cross-sector	School Age Learning and Wellbeing Strategy 2022
19	Partnerships & Fundraising	WWF and Save the Children Partnership webinar presentation
20	Partnerships & Fundraising	SCB Futuremakers ToC P06
21	Partnerships & Fundraising	STC_ECW_climate recommendations paper_04.04.22
22	Partnerships & Fundraising	The Global Energy Alliance Strategy Q4 2021
23	Partnerships & Fundraising	USAID-~1 (USAID's Climate Strategy 2022)
24	Partnerships & Fundraising	20220211_CN Draft for TESA-final (1)
25	Partnerships & Fundraising	How to write an effective GCF climate rationale v1
26	Partnerships & Fundraising	Lego - WoP application
27	Partnerships & Fundraising	Prudential Pitch_GCF
28	EiE	SC One Page Brief 2020-6-34-EN
29	Global	SponsorshipProgramGuideRails
30	Global	SponsorshipProgramGuideRails - mural
31	Global	SCUS 2020 ERC Initial Submission Form
32	ECCD	10 things you know know about ECCD and Climate Change

33	ECCD	Draft ECCD and climate change strategy - concept note
34	ECCD	Climate change desk review
35	Case study	Field Exchange Adolescent Nutrition
36	Case study	IMPROVING CHILD NUTRITION AND DEVELOPMENT THROUGH PRESCHOOLS IN MALAWI
37	Case study	INCLUSIVE EDUCATION - Project briefs
38	Case study	Building Brains case study v1.5
39	Case study	Numeracy Boost case study v1.3
40	Case study	Support for Program Innovation in Bolivia
41	Global	Executive Summary: Gender Equality Program Guidance Toolkit
42	Cross sector	SCI Climate and Health Strategy
43	Global	Child Centered Climate Adaptation
44	Global	The Nine Basic Requirements for Meaningful and Ethical Children's Participation
45	Global	MYANMAR CHILD-CENTRED RISK ASSESSMENT
46	EiE	Comprehensive School Safety Framework 2022-2030
47	Fundraising	VAN GCF Factsheet
48	Fundraising	GCF VAN overview
49	Fundraising	VCCRP Project Briefing Note
50	Global	Child Protection CC programme offer narrative

51	Global	ToR- SB2SL Program Offers_FINAL
52	Cross-sector	Guatemala LENS 2021 Concept Note Red Team Draft
53	Fundraising	Green Generation Cambodia
54	EiE	The Comprehensive School Safety Framework For Child Rights and Resilience in the Education Sector in a nutshell
55	CC Strategy	The Climate Crisis Save the Children's internal child-centered framework for Action
56	Fundraising	Climate Pathways Report - fundraising pipeline
57	Fundraising	Climate Crisis Impact Statement
58	Fundraising	A 2 pager on climate and health
59	Fundraising	A 2 pager on climate and education