



THE BILLION MINDS PROJECT + COP2 NETWORK

# A Roadmap for Care+Change

PEOPLE'S RESILIENCE IN **CLIMATE RESILIENCE**

# Acknowledgements

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## ROADMAP BRIEFS:

*HOW NURTURE EFFECTS CAN CONTRIBUTE TO RESILIENCE IN COMMUNITIES* BY ANTHONY BIGLAN

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## GLOSSARY

# Mission

CARE+CHANGE

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COP<sup>2</sup> is a rapidly growing global network of more than 450 organizations managed by the **Billion Minds Project at Columbia University**. These groups reflect diverse perspectives at the intersection of social change and environmental change. It takes resilient *people* to steward a resilient planet.

**Our mission is to ensure that billions of people facing the climate crisis have the psychological resources to spark great change and to care humanely for each other and the planet.**

This effort is aligned with the overarching goal of the Sharm-El-Sheikh Adaptation Agenda (SAA) and the Race to Resilience Campaign to mobilize Non-Party Stakeholders to increase the resilience of 4 billion people across the SAA Priority Systems (Fig 1) and drive radical collaboration for a more just and resilient future.

**“By COP28, they [Billion Minds-COP<sup>2</sup>] will complete a Roadmap that details how to achieve this goal, with early adopters identified to progress this work.”**

— Sharm-El-Sheikh Adaptation Agenda, p. 25.

# Mission

## THE CONTEXT FOR OUR MISSION

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### WHAT'S AT STAKE AND WHY RESILIENT PEOPLE MATTER

The tasks of “climate adaptation” and “resilience” take on the full urgency of the climate crisis: its injustice, violence, and encompassing force, and how it heralds profound challenge and change. Efforts to address the direct causes of the crisis, greenhouse gas emissions, and fossil fuel use also disrupt familiar ways of living, working, and organizing societies. But adaptation and resilience describe grappling with those disruptions and consequences and their daunting, if not terrifying, realities head-on. Those realities are already here, and others are sure to come for generations, irrespective of shifts in emission levels.

Less explored is the emotional weight of this work of adaptation and resilience, which draws heavily on people’s capacity to mourn, endure, make sense, stay connected, and transform as ways of living and familiar places are re-made. Taking on that weight should not be reduced to accepting and bearing it. It’s not just psychological hurt that needs tending to, but psychological strength and those “emotional relations between humans and nonhumans... that form a basis for action.”<sup>1</sup>

The storehouse of human knowledge and practice for psychological strengthening can offer more than much-needed help for emotionally coping. It can enable action and respect how people’s sanity, dignity, and agency are essential to do that, especially in areas where climate impacts are greatest. It can highlight how mindset and emotional shifts also matter for those areas most benefiting from and responsible

for greenhouse emissions: to apprehend and come into active relationship with the urgent imperative of transitioning from fossil-fuel-based energy and lifestyles.<sup>2</sup>

Some well-tested tools can help to get all these possibilities going. But the challenge is how to build space globally that can also move in step locally on these wide-ranging purposes for which psychological strengths are increasingly sought and needed.

The Race to Resilience campaign and its collaborators are mobilizing an unprecedented global effort to accelerate climate adaptation across all seven SAA Priority Systems (Fig 1). These systems capture a wide range of actions.<sup>3</sup> Protecting, re-imagining, and reconstructing all these systems, let alone responding to the threats and damage directly caused by a changing environment, is hard enough. But it will be impossible without people enabled to emotionally cope and act, adapt behavior, find meaning, to trust and cooperate, and to absorb trauma, loss, and distress.

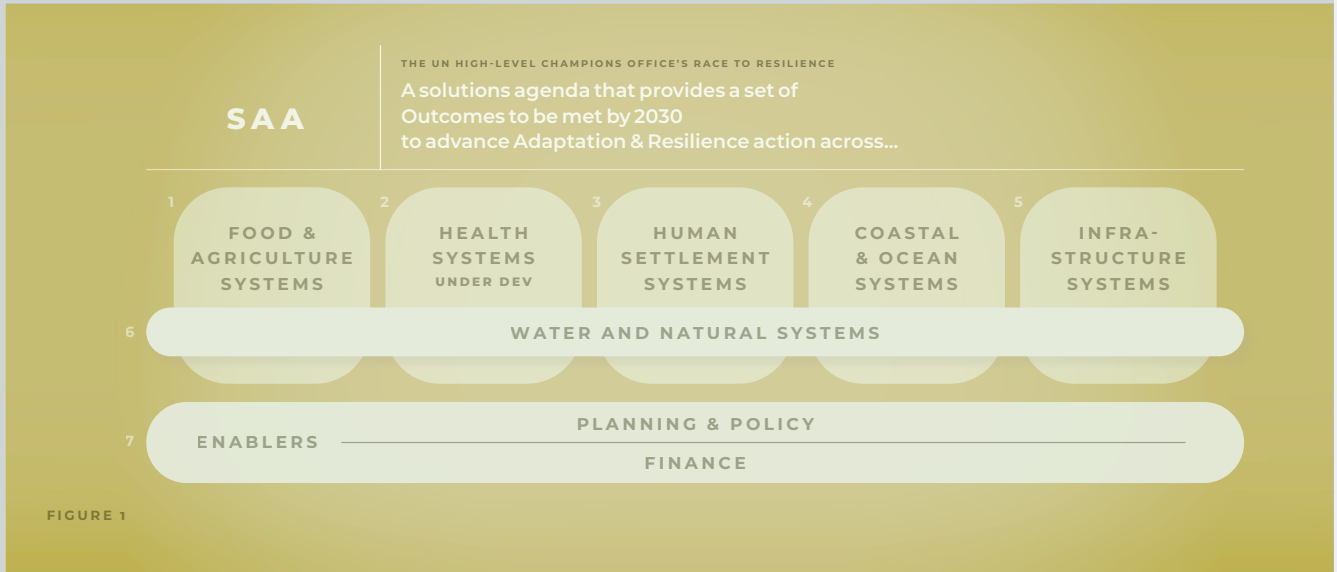
When announced at COP27, the SAA included the intent for us to establish a path and process for psychological resilience to help Race to Resilience partners and other relevant efforts to accelerate climate adaptation, with the first steps to be the launch of this Roadmap at COP28 along with a first wave of “Early Adopter” initiatives that put it to work.

A critical aspect of including psychological resilience is to think humanely and socially about “resilience.” The demands on people, communities, and societies are tremendous. It takes resilient people to sustain and commit to resilient places. People are struggling.

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CONTEXT: EMPOWERING HUMAN ADAPTION AND RESILIENCE

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Massive migrations are in motion. Livelihoods and places are being destroyed or transformed. Changes to economies and ways of life are formidable and threatening. Globally, a majority of surveyed youth are experiencing impairing distress on a daily basis and no longer trust governments and institutions.<sup>4 5</sup>

Climate change is a formidable force multiplier of social and economic inequity, injustice, social fragmentation, and elevated mental illness, suicide, despair, and depression that come with, and in turn, further worsen, those things. These altogether form a mutually reinforcing recipe that erodes the capacity for collective action and trust to respond.<sup>6</sup>

### ADAPTATION AND RESILIENCE CAN PLAY DEFENSE OR OFFENSE

The terms “adaptation” and “resilience” can suggest defense or offense, i.e., mitigating the most terrible or imagining and realizing

the best possible circumstances; being reactive or transformative.<sup>7</sup> The window for the latter is closing in growing parts of the world. “Adaptation” and “resilience” are also richly explored psychological terms. Reading them in this way lends added power and meaning to the phrases “climate adaptation” and “climate resilience.” It elevates shared humanity and dignity through the critical role that emotional and mental well-being and strength plays in coping with what is horrible while also making imaginable and possible more humane, just, hopeful, and regenerative ways of sustainably living together.

Local, and social capabilities and empowerment are increasingly touted as critical for transformational change and innovation.<sup>8</sup> A version of climate adaptation and resilience that accounts for these psychological elements and meanings spotlights how those very capabilities depend on other already strained reservoirs of emotional, behavioral,

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and mental strengths that are also locally and culturally rooted and nourished.

Elevating these strengths as a thread throughout climate adaptation can secure communal space for people to voice the weight of trauma, anxiety, loss, betrayal, violence, uncertainty, or delayed justice. It can also create space where solidarity can gain footing and become habit. Where social trust, reciprocity, and empowered mindsets can flourish and foster conditions to tackle problems and make change.<sup>9</sup>

### PSYCHOLOGICAL RESILIENCE

The social fabric and collective efficacy of whole communities are at stake in the work of psychological resilience. Addressing these outcomes, diminishing suffering, enriching social dynamics, and shaping tangible tools for shaping new realities and solidarity, substantially enlarges the scope of what might conventionally be expected from mental health systems or public policy in general.

This Roadmap defines a path for realizing that scope, “psychological resilience,” to reflect these more expansive purposes. To do so requires understanding psychological resilience as a pragmatic process rather than a static concept or prescribed end state.

So, the Roadmap defines psychological resilience as a *process that reinforces the behavioral, psychological, and emotional elements that make it more possible for people to respond in solidarity to climate change and environmental crises.*

### HOW THIS WILL HAPPEN

This Roadmap breaks down the process through a five-step implementation cycle. Each of the segments of this Roadmap illustrates a step. During initial planning with select Race to Resilience partners, we applied and refined this cycle to provide a consistent and replicable process that remains responsive and iterative.

While this strategy surveys a broad range of practices ripe to do this work, it does not choose the “best” ones. It instead notes how, across this diversity of clinical, cultural, and traditional tools, the cycle essentially enables two types of tasks: tasks of care and tasks of change. The ongoing balance or relative priority of these tasks is a form of triage to respond to shifting aims and contexts.

### ACHIEVING AND EMPOWERING “OTHER’S ENDS”

The cycle starts with how partners define what’s needed to help respond to climate challenges. In this way, mental health and well-being serve as a means of achieving and empowering other’s ends or aims rather than only as ends in and of themselves. This pragmatic perspective is sorely overdue, especially as a lot is known about how to act on it. The closer the work of psychological resilience begins within the realities and aims of people affected by and problem-solving through the challenges of climate change and environmental loss, the more it becomes used, credible, and empowering.

However, this approach stretches the usual expectations of mental health systems, policy, and care. It gets closer to using psychological care and knowledge as critical elements



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of a societal commitment to humanely and equitably nurture human development and dignity in ways that can anchor the connectedness, care, and related shifts in global priorities required to nurture the planet. It gets closer to paying the social and emotional costs of the climate crisis incurred by so much of humanity that already knows too well the weight of marginalization and existential threat. It gets closer to not just “scale” more tools into more hands, but to have habits of psychological resilience and collective nurture become cultural values.

### THE SOCIAL FLOOR

These expectations indirectly surface in plans to shift societies towards sustainability. They need to be more explicit and actionable. For example, many plans are based on the need to live within planetary boundaries that cannot be exceeded and “social shortfall” floors that cannot be broken.

Some see that floor as an overdue corrective to the extractive costs on people from an extractive attitude toward the planet. Others see it as *necessary* to undo those extractions: If we do not acculturate nurture for each other, we will not commit to nurturing life on this planet.

So, is a strong social floor then an ethical choice or an existential necessity?

The relevance of psychological resilience to the work of climate adaptation globally points to its *necessity*.

Psychological resilience, as described in this Roadmap, offers a concrete path and operational specificity to build the social floor needed to advance those other aims.

The social floor represents not only a minimum set of public goods for human well-being, such as access to education, health care, and subsistence. It also represents a baseline quality of social experience critical for that which falls more in this orbit of psychological resilience, such as trust, inclusion, support, well-being, mental health, hope, and agency.

It has taken decades to develop rigorous, actionable science and consensus on what is required for Earth’s climate, economy, and other built systems and ecosystems to work sustainably. Progress on transforming these systems has been hobbled by a lack of equal seriousness and sophistication in helping the *social* climate function well.

### GLOBAL MENTAL HEALTH, WELL-BEING SCIENCE, AND SENSE-MAKING

Three fields of knowledge and practice, Global Mental Health, Well-being science, and Sense-making, can be starting points to fill the gap and anchor the work of psychological resilience. This ensemble is not exhaustive but can set in motion directions for the process of psychological resilience to take root. It will further evolve as the work engages more of society, so more aims, applications, and types of knowledge take part.

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## TASKS OF CARE AND CHANGE

That wide-ranging, dynamic, evolving ensemble can be summarized as adding crucial fuel for people to do two critical, *mutually reinforcing* tasks: care and change.

These tasks of care and change add to what adapting to climate adaptation can do and mean for people, including resisting the notion that adaptation only means acceptance. Multiplying acts of care at individual and mass levels multiplies agency and momentum not only to incorporate but to create change.

These tasks can be undertaken by any number of people, in any number of places, at any scale, from a village to a nation.

Care and change overlap. That mutual reinforcement is intentional and necessary. It is a crucial part of what psychological resilience should set in motion: linking care with each other with care for the planet as shared sentiments, commitments, and communal experiences. Linking change to commitments and ties to each other, and enlarging the will that helps force change. They are sought where both coping and resolve are under pressure. So while picking up tasks of care may often lead, tasks of change are not far behind

*Altogether, a working process of psychological resilience expansively enables tasks of care and change to catalyze responses to climate and environmental change.* Through widely distributing this process and matching it to multiple purposes, psychological resilience is not a separate lane for increasing the

resilience of people; it is necessarily interwoven throughout it to be a means to realize other ends or aims. All seven systems of the SAA can be channels for accelerating and applying the capacity for psychological resilience. Care and change do their part when tied to those aims.

## ANCHORS: CARE AND CHANGE IN ACTION

The potential storehouse of psychological, behavioral, and mental health tools and methods to draw on for tasks of care and change for any given aim is broad and described further in this Roadmap. Also described is how that breadth can be systematically applied in patterned ways for purposes of spread, yet also be uniquely customized and responsive each time.

This is where “Anchors” come in. This term refers to the range of existing organizations that can provide a definable set of functions shared across specific contexts to translate that breadth into the use and scope of specific tasks of care and change that fit the initial aims. Anchoring turns out to be something with considerable potential for cultural-sized impact and transformational potential.

## IMPROVING

Applying these wide-ranging and diverse kinds of knowledge to other aims in standard ways needs ongoing “checking-in” that keeps the process on target and reflects the reality that the target moves, evolves, and potentially multiplies.

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The work and process of psychological resilience are more like ongoing learning, perspective sharing, and adjusting than they are steering definitive interventions to clear-cut outcomes. This process invites use of tools like quality improvement and attention to participatory, co-creating, and multi-sourcing practices, particularly bolstering existing local, traditional ones. This step in the cycle of “improving and measuring” signals that it’s time to take regular pauses to see how things align or need to be reconsidered in the face of the others’ aims and challenges that set them in motion.

## PROGRESSING TO SCALE

Aims-setting, tasks of care and change, anchors, and improvement-based implementing and learning are the building blocks to re-engineer more of government, civil society, and health and other social support systems to do the work of psychological resilience. The overall strategy and specific Early Adopter initiatives described in this Roadmap open a path for global reach through mobilizing and growing global networks of anchors.

## PSYCHOLOGICAL TIPPING POINTS

Along with climatic tipping points, where global heating effects trigger further emission releases in a reinforcing spiral that eludes human ability to manage, there are mass psychological tipping points.

At these tipping points, hope can give way to hopelessness, empathy to enmity, agency to apathy, solidarity to schism, and responsibility to retreat. Avoiding these tipping points is no less critical to the human future.

There is much catching up to do. The social fabric is not easily reconstituted once unraveled. Investing in it will be a critical challenge of the Anthropocene.

# 5 Steps for Psychological Resilience

## THE PROCESS OF CARE AND CHANGE

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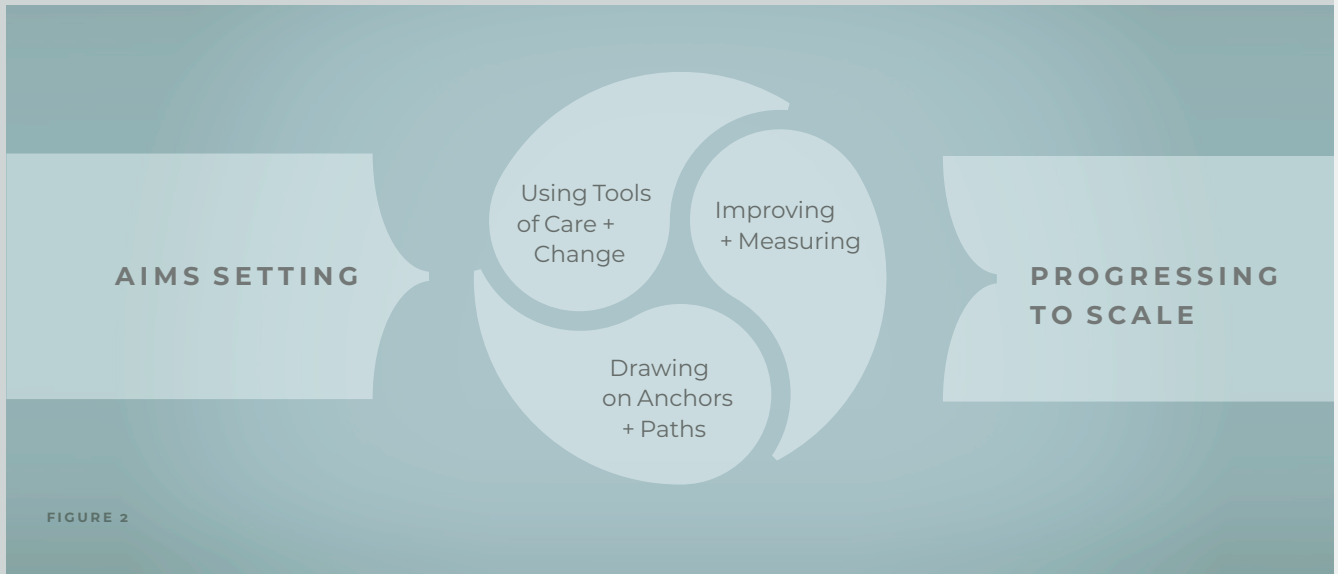


FIGURE 2

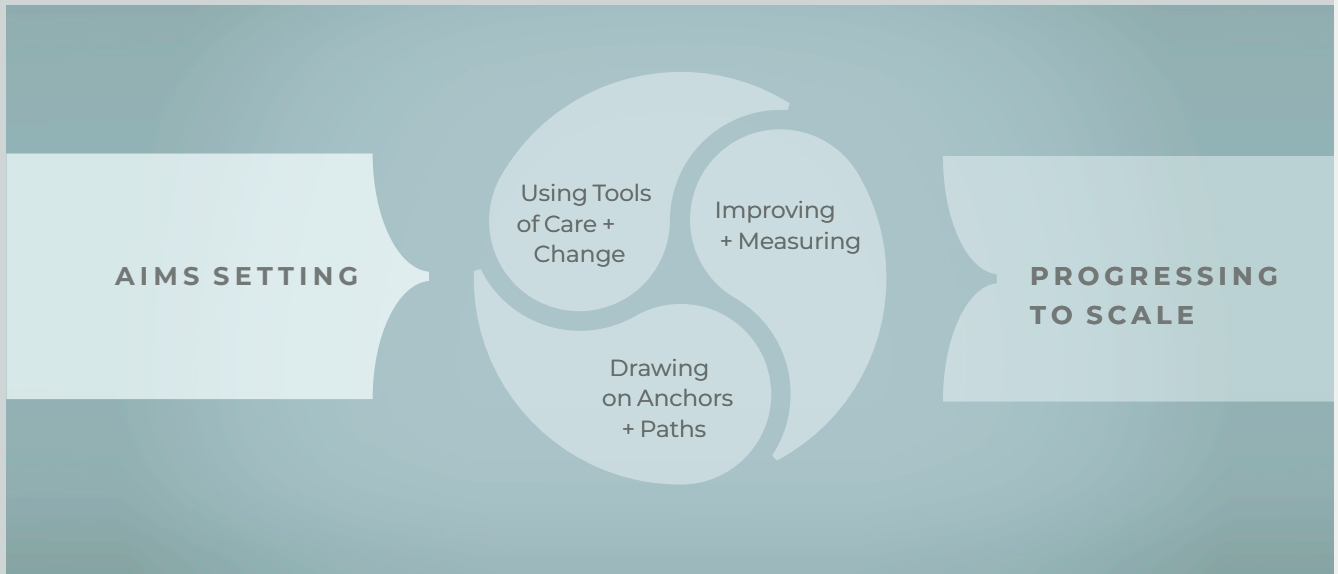
This Roadmap presents the Five-Step implementation cycle applied and refined during initial planning with multiple Race to Resilience partners, and other collaborating and aligned efforts. That work resulted in a consistent and replicable process that is at the same time pragmatic and iterative. One that is responsive to and originates from responding to what those tackling climate realities saw in the psychological resilience toolbox that might help them.

This perspective that mental health and well-being can be critical means towards achieving and empowering other vital aims rather than only as an end unto themselves is central to thriving human development on any account and essential to meaningful and effective climate resilience.

# 1. Aims Setting

A COLLABORATIVE METHOD USED TO ARTICULATE HOW PSYCHOLOGICAL RESILIENCE CAN HELP GROUPS ACHIEVE THEIR OBJECTIVES

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This Step is grounded in what's at stake in grasping the full relevance of the psychological toll of climate and environmental change and why that's critical to the success of climate responses globally. Those realities point to psychological resilience not as an end in itself but as an ongoing process of bolstering social-emotional foundations needed to do other things: to steward climate adaptation in a particular place or context with humanity and solidarity. The first step in that process is Aim Setting, which makes that connection.

## MACRO-AIMS SETTING: ADDRESSING WHAT'S AT STAKE

The wide-ranging scope and relevance of psychological resilience for taking on the many consequences of climate change and sustainable transitions begin with evidence of their mental health and emotional impacts and relevance.

# 1. Aims Setting

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Climate change is associated with marked elevations in impairing depression, anxiety, suicide, substance misuse, and traumatic stress. These result from direct experiences of material loss and adverse weather events (e.g., floods, storms, and heat waves). Compounding this are similar elevations due to longer-term effects of ongoing climatic impacts, such as drought and prolonged excessive heat, food and water disruptions, economic and livelihood precarity, displacement and migration, conflict, and violence.<sup>10 11 12 13 14 15 16</sup> We know, for example, from decades of experience in implementing mental health and psychosocial services in humanitarian settings how all these disruptions multiply rates of mental illness.<sup>17 18</sup>

Adding to those impacts are more diffuse, persistent, emotional, and cultural distress, especially in more climate-threatened and affected areas. This gives rise to new terminology and measures to capture ecological anxiety, grief, loss, guilt, and experience of a diminished and dying environment. The emotional fallout from a newly fraught relationship with the planet is proving common, disruptive, and painful. It is a signal of growing awareness and struggles to make sense and move forward, not readily or usefully reduced to conventional mental illness labels and the primacy of diagnosis-based and professional-based care.<sup>19 20</sup>

People are contending with this new struggle in the Global North and South, among indigenous and non-indigenous communities, and in urban and rural settings alike, in overlapping yet at the same time quite different ways that mirror disparate exposures to environmental threats and access to the resources

and position to respond to them. Youth seem to carry this distress and experience a vacuum of responsibility for the climate crisis, especially acutely. However, everyone else increasingly does so, too. The ramifications of this spreading distress in its manifold forms are still materializing, but what is already known and discussed further below calls for the expansive understanding of psychological resilience that this Roadmap puts to use.

Taken together, these impacts on people mean that the sheer capacity and range of hands-on care needed for mental illness and other impairing distress has to be expanded and re-designed. Not only to have more capacity to reach individuals but also to take seriously how climate change's psychological and emotional effects have cumulative, corrosive impacts on whole communities and societies. [See Clayton in Extended Reading]

And this affects prospects for adaptive change itself. It is clear from too many other well-studied contexts, such as humanitarian and natural disasters, political and economic impoverishment and inequality, and disruptive and threatening social and technological transitions, how the compounding forces of distress, trauma, depression, suicidality, and despair degrade the collective efficacy, agency, social ties, and trust that communities need to absorb and enact great change.<sup>21</sup>

These forces and effects will only be further magnified in the wake of ongoing climate and environmental change. Just as broadened stewardship is increasingly recognized as critical to climate resilience, so should their behavioral and emotional underpinnings.<sup>22</sup>

# 1. Aims Setting

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**Glasswing Intl** a Global South organization, transforms the lives of children and youth facing adversity in Latin America and the Caribbean. They empower communities, engage volunteers, and address the roots of violence and poverty. With an emphasis on connecting mental health to social health, they build trauma-informed ecosystems with a wide range of youth-serving allies to deliver sustainable positive change.

EXAMPLE OF WELL-BEING

So, understandings of “climate and mental health” must incorporate much more, and with much higher, collective stakes than is captured by reference only to formal treatment, mental illness, and impairing distress. It also has to help people do other things, such as strengthen communities and solve problems. These understandings must contend with three broad challenges. The challenge of scale is to address far more and wider-ranging needs. The challenge of scope is to reinforce social and emotional inclusion and strengths mutually. And the challenge of change is to undo root causes and enable the work of change.

These challenges have long been blind spots for mental health policies and systems in the context of other pervasive adversity. The climate context forces facing these blind spots and filling them in. It adds urgency to promoting population-level mental health and strengthening mental health systems. It expands on who can do this work and what the work seeks to accomplish. Fortunately,

these expanded purposes can draw on considerable knowledge across the three fields that recur in this Roadmap: Global Mental Health, Well-being Science, and what is described here as Sense-making.

## GLOBAL MENTAL HEALTH AND TASK SHARING

The scope of mental health care must extend beyond the conventional framework of discrete episodes or illnesses. The reach of care must be universal and capable of addressing pervasive, fluctuating, and context-dependent needs and forms of distress.

In the last two decades, the field of Global Mental Health has generated new building blocks for achieving this reach and breadth. These include what is often described as “task sharing,” which captures how much of the work of mental health care for illness, prevention, and promotion can be done in varying ways by anyone, often with collaborative support



# 1. Aims Setting

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and coaching from specialists when needed.

This approach markedly changes the accessibility, proximity, familiarity, credibility, and available capacity of all kinds of help, and it builds on and elevates existing cultural practices of emotional support. It can help multiply the sources and places where emotional support can be found, which is a realistic, communal response to distress that is ongoing, pervasive, and seeks connection with others.

## KERNELS

This kind of breaking down of methods of psychological care and treatment into parts taken up and used by a wide range of people in more familiar ways can be powered through “kernels.” Referring here to common elements or characteristics shared by a wide array of often otherwise distinctly nuanced psychological interventions and outcomes.<sup>23</sup> When possible, condensing psychological or mental health skills and approaches this way makes spread easier than dividing methods of care along hyper-specialized distinctions. The right set of kernels can go far, just as a few letters enable writing any sentence. Having more hands to work with, and having transposable and overlapping interventions and outcomes to put in them can substantially expand the psychological toolbox’s versatility, flexibility, and reach.

## WELL-BEING AND NURTURE

This versatile reach can also bring a broader scope to what “care” means, extending it to include strengthening the societal civic muscle for better coping and stronger foundations

for coming together for change. Adverse social and environmental conditions drive poor mental health outcomes, which in turn degrade those conditions. Well-being science explores the prospects of transforming this destructive cycle into a virtuous one, in which sound mental health reinforces more thriving social conditions and vice versa. While the pursuit of Well-being in policy has accrued many, sometimes vague, meanings, this field of study has nonetheless traced robust and actionable features of the psychosocial glue that helps places and people thrive.

[See Graham and Hey, in Further Reading](#)

It turns out that when people are asked how generally satisfying they see their lives, responses predict and reinforce everything from physical and mental health to social trust, efficacy, and perceived vulnerability and opportunity where they live. Answers from millions of people across dozens of country-level population surveys indicate where and how mental health and subjective well-being are not just ends in themselves but essential and mutually reinforcing means to other valued aims.

Despair, pessimism, diminished agency, and loneliness not only result from conditions of poor health and education, violence, and poverty, but they fuel those conditions.

Hope, emotional support, social solidarity, and trust, in turn, reduce risks of premature death, violence, intergenerational poverty, educational success, and civic conflict<sup>24 25 26</sup> and, by extension, underlie shared action and prosocial behavior that is often fundamental to solving community problems.



# 1. Aims Setting

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**Act na Sociedade** has ongoing projects in São Paulo, Rio Grande do Sul, and Belém. In Parnamirim, state school teachers received training and intervention in psychological flexibility skills and then applied the protocol with 300 high school students to address concerning escalation of violence and suicide. Suicidal ideation fell from approximately 25% to 0% 6-months later.

EXAMPLE OF TASK SHARING

Mental health and illness mediate many of these relationships and emerge as much more than they tend to be treated as.

“The global assault on mental well-being,” noted a recent UNDP Human Development Report, impairs the ability of humanity to meet the “demands of shaping our future in a transforming world.”<sup>27</sup> Multiple policy areas, from urban design to economic support to national budgeting, have been reshaped when intentionally tasked to contribute to more virtuous cycles by including well-being as an aim.

Well-being aims, methods, and measures point to how and where trade-offs in the flow of resources of society maximize people’s appraisals that their basic needs for a meaningful life are met or minimize appraisals that they are not. Well-being outcomes can then become essentially a cooperation indicator

and a scorecard for other social and economic policies.<sup>28</sup> They signal the kind and quality of commitment to be mindful of such trade-offs and indicate whether a country (or a natural ecosystem) is a regenerative one.

“Nurture effects” is a term sometimes used to describe a kernel set of mental health promotion and prevention outcomes such as perspective taking, prosociality, empathy, and psychological flexibility that advance other critical social outcomes such as violence reduction, inclusion, and healthy early childhood attachment

These nurture effects and similar outcomes can be proactively cultivated through a wide range of methods and activities, even in the face of great adversity, across cultures, and in multiple contexts, from households to workplaces. These can add to the power of families, faith communities, schools, civic and voluntary associations, and cultural and local traditions to nurture those they serve

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and love.<sup>29</sup> [See Biglan in Further Reading](#)

Combining elements of both task-sharing and promoting well-being multiplies hands-on care for mental illness and distress *and* for wider spread of kernels like nurture effects. There are innumerable examples of embedding such adaptable psychological toolboxes to meet wide-ranging communal aims.

Extending nurture effects, whether hands-on or through macro-policy change, and more dispersed and embedded forms of support and care to buffer these harms can help shift societies' energy towards nurture. And nurture reinforces more nurture, not only toward people but then radiating toward the planet. Magnifying this dynamic is itself a means of provoking broader societal change, by stacking the deck in favor of pervasive habits and norms of care in society, the lack of which are among the root causes of the climate crisis, especially as generated by those economies most responsible.<sup>30</sup>

## SENSE-MAKING

Realizing such change and making new realities also draws on a wider mix of elements that add to the foundations of mental health, nurture, and well-being. A less formalized third knowledge area described as “Sense-making” captures this mix. It includes attitudes, skills, critical consciousness, and mindsets sometimes described as the inner development or transformations needed for realizing a sustainable, flourishing, and just “outer” world.

These descriptions of inner mindsets tend to reflect Global North concerns with transition from consumptive, extractive, unsustainable

lives.<sup>31</sup> Yet the overall notion that certain kinds of psychological agility and sense-making are key to enact such transitions is more widely shared, but evolving and varied. Several Early Adopters will be opportunities to learn and further diversify what it means and can do.

Sense-making also includes technical or instrumental tools and methods like collaborative decision-making, collective impact, implementation science, quality improvement, participatory design, movement-building, communal problem-solving and cooperation practices, and aspects of leadership. What these soft and hard skills have in common is a premium on “Sense-making.” The challenge of making sense of the realities, consequences, disorientations, and next steps at stake is emotionally and cognitively demanding yet necessary for absorbing or enacting change. These tools and methods for change are instrumental and rest on or reinforce the essential active ingredients of psychological strengthening, care, and nurture.

Another path toward shared sense-making that is also emotion-sharing comes together in emerging and varied types of workshops, support groups, and activism, responding to diffuse, fluctuating, but pervasive distress and unease in the face of climate and environmental change. The Roadmap refers to these forms of Sense-making as “sense-making solidarity.”

They reflect a combination of eco-aware sensibilities and identities, eclectically derived and often reinvented task-shared and well-being strategies, as well as other

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**Climate Conversations** created to ask “What happens if climate-concerned youth and elders developed meaningful relationships in their communities?” Participants felt concerned, distressed, and hopeless about climate change, and some self-reported post-traumatic stress from prior disasters. Following community-facilitated conversations in London, New Orleans and Lagos most wanted to be more engaged.

EXAMPLE OF SENSE-MAKING SOLIDARITY

cultural and indigenous traditions and place-specific ways of coming together. These elements are put to work to allow space and opportunity for emotion sharing and for reconciling distress with resolve as an ongoing, individual, collective, and shifting task to grapple with the widening impacts and responsibilities in the wake of climate and environmental change.

Sense-making captures a lot. Through it are laboratories and assets for the cultural spread and mixing of care and change. These may vary across place and circumstance, but they need to proliferate and succeed.

## THE WORK OF PSYCHOLOGICAL RESILIENCE: CARE AND CHANGE

Together, these three fields of Global Mental Health, Well-being, and Sense-making span an ambitious set of psychological, mental, and emotional raw materials (methods, measures,

skills, aims, traditions) with which to take on the challenges of scale, scope, and change required. Each covers much ground. They are revisited in the next chapter to describe more about how this sprawling array of tools, methods, evidence, and practice enables people to do one of two tasks: to care for each other and to drive and absorb change with each other.

These tasks mutually reinforce and overlap through the kernels of psychological strengthening they share. Indeed, this synergy is a familiar one, an essential ingredient for thriving human development that must become universal and optimized.

Psychological resilience emerges, then, less as a static end state than as a pragmatic, dynamic, catalytic, ongoing process that marshals a range of tools for individuals and societies to face immense challenges.

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*Climate* resilience is defined as a capacity for adaptation, or “the process of adjustment to actual or expected climate and its effects, to moderate harm or exploit beneficial opportunities.”<sup>32</sup>

This Roadmap similarly defines and uses the term *psychological* resilience pragmatically in terms of what it is being asked to do:

*Psychological resilience is a process that reinforces the behavioral, emotional, and psychological elements that make it more possible for people and communities to respond in solidarity to climate change and environmental crisis through catalyzing tasks of care and change.*

Prominent models for sustainable transformation hint at the importance of this operational aspect of psychological resilience;<sup>33 34 35 36 37</sup> these models tend to follow some version of this logic:

- (i) We have to avoid “overshoot” past a ceiling of planetary limits to support thriving conditions for life;
- (ii) at the same time, we must avoid social shortfalls — that is, falling below a basic floor of conditions for human thriving; and
- (iii) a planet of largely consumptive and extractive political economies based on blind growth cannot remain within these boundaries, and so must be transformed.

Most climate adaptation and mitigation focuses on ending the overshoot and minimizing its consequences. What, then, is the purpose of the social floor?

Descriptions of that floor tend to reflect well-being fundamentals. These include material

conditions that facilitate well-being, such as equitable access to healthy subsistence, education, public services, housing, adequate economic security, political participation, and environmental justice. They also include qualities of socio-emotional experience, mind-sets and relationships, physical and mental health, social cohesion, collective efficacy, emotional support, and inclusion. However, the role of this social floor in sustainable transformation, particularly the socio-emotional aspects of this floor lacks clarity.

And yet, these socio-emotional aspects may be vital to determining if climate adaptation can wield transformative power, if that floor is just a potential side benefit of sustainable stewardship of the planet or an essential component of that stewardship. A growing global community of practice believes the latter to be the case. That “the search for alternatives to GDP requires not just new metrics but a new way of thinking about human nature, social relations,” and how economies interact with the natural world.<sup>38</sup>

In this view, a big part of the slow traction of meeting global sustainability goals is tied to ambivalence about taking seriously “how to merge planetary boundaries with personal and societal well-being.”<sup>39</sup> To gain traction, psychological, behavioral, and emotional bottlenecks to embracing sustainability need to be cleared.<sup>40</sup>

Given that subjective meaningfulness is at the core of well-being, prevailing meanings matter. Symmetry between interpersonal norms and habits of nurture and norms for nurturing the planet is more than rhetorical. Recognition of this alignment can be

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a precondition of transformation.<sup>41</sup> But as expectations of “transformation” grow, so does the need to interrogate what is meant by the term. Whose expertise defines “transformative change,” and for whom? The contours of this transformation can often seem to be a response to the anxieties of the most powerful and least endangered. Its enactment often falls on the shoulders of the least empowered. Grappling with transformations, psychological or otherwise, may, in general, be common, but in specifics, quite different.

All the more reason to both tend to the solidarity of the social floor and to approach change and “transformation” as accountable and relevant to locally embedded, “other-ends” goals of emotional and psychological strengthening, nurture, and care. For example, expecting well-being benefits to come from climate responses could make the social vulnerabilities, inequities, and aspirations shaping which transformations make sense, and to whom, more obvious.<sup>42</sup>

## TRANSFORMATION THROUGH SPREAD AND CHANGE

The most recent IPCC report on adaptation also emphasized a definition of resilient communities as those with the capacity to drive transformative change, not just to play defense in buffering damage but offense in re-engineering the foundations of unsustainable economies, politics, and cultures.<sup>43</sup>

Driving transformation and playing offense is hard. Asking it of the world’s most climate-affected and poorest global citizens is an empty

request without also empowering them. It is also hard to fulfill without addressing the psychological, interpersonal, and emotional shifts that need tending to for coping with and absorbing, let alone initiating, such change.

While poor, marginalized, and unjustly burdened people and places face greater compounding effects of material loss, trauma, displacement, and disrupted social capital due to environmental change and destruction, they also generate and rely on traditions of adaptive expertise and knowledge to be both bolstered and learned from.

Global Mental Health, Well-being, and Sense-making each have advanced coming to grips with the possibilities of strengthening the social floor through the psychological one. But the prospect of global-scale collaboration on psychological resilience can accelerate South-to-South and South-to-North learning to renovate and make truly global those possibilities.<sup>44 45</sup>

“South” and “North” phrased ways of describing geographical asymmetries in wealth, race, and historical violence also describe asymmetries in psychological traumas and challenges and ways of reacting to them. Mobilization around climate resilience made possible by efforts such as the Race to Resilience and related campaigns bring to the fore these differences.

They also multiply opportunities for putting out there a transformative density of tasks of care and change in ways that both diminish them to mutual benefit across the global-sized social floor, and to proliferate ways of “[f]eeling, embodying, and experiencing

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**WorldBeing** spreads mental health promotion and prevention skills to improve well-being and to amplify other development outcomes. Their programs support youth and women in low and middle-income countries to improve their mental health as part of knowing their rights, changing their own lives, and cultivating their power as change agents in their families, schools, and communities.

EXAMPLE OF WELL-BEING

the heaviness of climate coloniality [as] an essential component to confronting it and pursuing decolonial futures.”<sup>46</sup>

In these ways enabling the most climate-affected citizens is not disconnected from also impacting those less-affected, but often those wielding more influence over the pace of dismantling fossil fuel-based economies and lifestyles.

Mass spread and acculturation of the tasks of care and change, though, don't require the context of climate change adaptation to take root. Existential threats are neither new to much of the world nor reserved for the realities of climate change. There are many compelling reasons besides mobilizing for climate adaptation to reach out to youth, impoverished communities, smallholder farmers, fishermen, women, families, microfinance recipients, and city planners about emotional well-being and resilience. Irrespective of climate change,

schools, women's health advocacy, economic and other empowerment circles and services, faith communities, occupational networks, youth groups, and many other formal and informal organizations are taking on this work.

Such redundancy is not a distraction nor duplication; rather, it is an essential source of learning and change. Growing and mainstreaming approaches to strengthening psychological resilience outlined in this Roadmap will require an all-hands-on-deck mass adoption. All mental health leaders, professionals, and other stakeholders will need to jump in to advance these connections.

And the climate crisis is an exclamation point among other signs that strengthening mental health systems, let alone collective survival, requires a ubiquitous strategy. One embedded in the work and aims communities define. Climate and environmental change already in motion will make every social determinant of mental health and well-being more



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toxic and overwhelming. Responding to it will also put a premium on local knowledge and tools less likely in studies and papers.

So, together, Race to Resilience partners and other aligned campaigns and collaborators can be a force multiplier, converging widely diverse systems, settings, resources, and levels of governance needed to realize such long overdue mental health system strengthening directly relevant to social strengthening. It is hard to see how a ubiquitous mental health strategy can take root *except* in concert with other outcome-aligned, planetary-sized priorities for global action.

As much as climate adaptation stretches notions of mental health as a critical community resource and task, so, too, does adding psychological resilience to climate resilience and adaptation, in turn, stretch expectations of responses to climate change. It forces attention to the human dimensions and dignity at stake in the prospects for coping with and shaping the course and consequences of the Anthropocene. It strengthens an overdue commitment to community well-being as a fundamental purpose of governance. It prioritizes the care and love needed to grow and harness human capital to build better futures.

This Roadmap, therefore, is intended as an antidote to implying that attention to psychological resilience is an analgesic to make living with environmental injustice tolerable or to make the burden of a mess not of their making a little more endurable, for a little longer, to those most affected.

Rather, it gives actionable form to the notion that a robust social floor is essential to living within planetary limits and accomplishing and living through transformational change humanely and equitably through psychologically rich communal care and change. Norms of nurture flow in all directions, to each other and to the planet. Commitment to a process of psychological resilience that accelerates that flow should disrupt power rooted in toxic, extractive, and opportunistic behavior that is a stubborn engine of climate change and other obstacles to global human development goals.<sup>47</sup>

## MICRO-AIMS SETTING: THESE IDEAS IN ACTION

The aims of this process sound lofty but are relevant to smallholder farmers in Uganda, youth in informal settlements in Nairobi, insurance companies everywhere, and low-income, climate-threatened households in Jamaica. Each of these examples is among the Early Adopters putting this Roadmap and its catalytic understanding of psychological resilience to work.

Each Early Adopter initiative began by listening to select Race to Resilience partners and other key actors within each of the seven systems of the SAA when asked if psychological resilience would help what they do. For example, the Global Evergreening Alliance is spreading regenerative farming and sustainable land management to millions of African farmers and their families. It aims to enable smallholder farmers to absorb and lead change to sustain new ecologies to better their lives.

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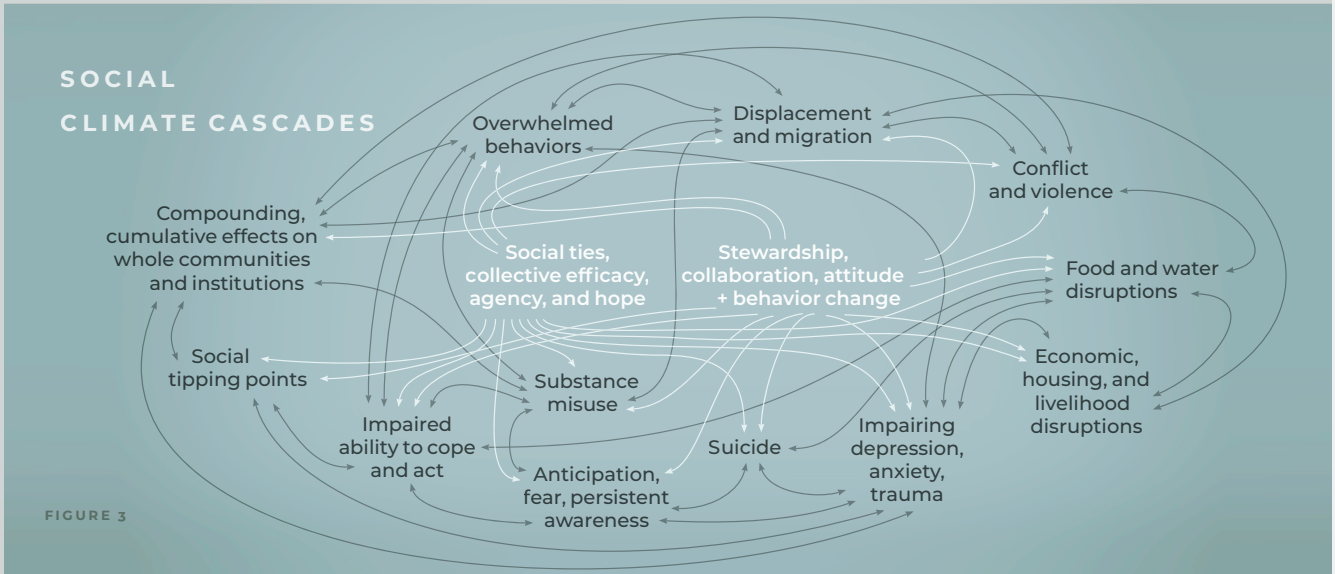


FIGURE 3

A critical part of this aim is not only to help farmers better cope with the ongoing uncertainties and challenges of their livelihoods but also to identify where shifting mindsets and skills might play a role for them to lead change.

Slum Dwellers International (SDI), another Early Adopter, is a federation with global reach that empowers and equips national grassroots networks of residents of informal settlements to design, implement, and advocate for improvements. Starting with its Kenya Federation, the initial aim is to start with amplifying tasks of care, working through the “Mukuru model” of Locally Led Adaptation to design and spread peer-led emotional support groups and skills to help address a youth mental health crisis reflected in concerns about more common suicidality, depression, substance use, and anxiety. SDI-Kenya and its local partners, though, also see these care tasks as part of

change tasks, of responding and relating to environmental challenges and realities and further enabling youth to act as the neighborhood problem solvers, advocates, and experts for the challenges that they are.

Some of these Early Adopter organizations were already looking for ways to incorporate psychological resilience. Others recognized how the need for psychological resilience affected their work but were unsure how or if they could make an impact. For most, these initial aims were a prelude to brainstorming sessions or facilitated exercises in developing systematic theories of change and design.

## THE NEXT QUESTIONS

These initial aims, however simply stated, proved to be robust starting points across this wide range of initiatives that, from the outset, understood psychological resilience as a means



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FIGURE 4

to their other ends. The aims from Step 1 set the boundaries. They provoked the questions that needed to be considered through the subsequent steps of the implementation cycle:

Is there a flexible pool of tools and methods to draw on to achieve our aims?

Step 2: Using Tools and Methods for Care and Change describes the overarching tasks of care and change that organize these tools and methods.

How do we adopt and distribute these tasks?

Step 3: Drawing on Anchors and Paths, describes a framework for adopting and distributing tasks that can be scaled and applied across different contexts to enable adaptive and iterative use.

With those in place, how do we iterate these tasks to dynamic, local, and evolving ends? Step 4: Improving and Measuring describes a paradigm of ongoing adjustment rather than end-result evaluation. It is an approach that requires genuine participation in and ownership of hypothesis testing, aim-setting, and defining and gathering relevant data and measurements by all stakeholders, including, most critically, community members.

Can we propagate and scale this aim?

Step 5: Progressing to Scale outlines a path for widespread shifts in capabilities and culture by focusing on cultivating and propagating networks of anchors with global reach and pools of local anchors tapped into global networks.

## 2. Using Tools and Methods for Care+Change

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This Step explores an essential working part of psychological resilience: **growing capacity for people to take on tasks of care and change.** It describes how care and change can draw on established knowledge and practices but re-think and connect them in new ways to reinforce each other for broader impact.

After **setting aims** for the process of psychological resilience, what are the tools and methods for reaching those aims? This segment offers a sampling of such tools grouped by the primary tasks they enable: care and change. These tasks rely on tools and methods that share overlapping purposes and outcomes, or **kernels**, which allow for flexibility and adaptability in performing tasks. **This range of overlapping tools and methods can mutually reinforce and support the widespread reach of these tasks on a scale that can shift culture.**

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### TASK OF CARE

The task of care is to diminish and prevent distress, illness, and their symptoms, as well as promote overall emotional well-being. Care tasks can take the form of hands-on personal contact, but other actions (e.g., policies, mass communication, and public services) can yield similar effects. The breadth of needs and challenges requires a commensurate breadth of accessible tools and knowledge to draw on. The Global Mental Health, Well-being, and Sense-making fields introduced in Step 1, Setting Aims, provide a robust starting point for assembling that array.

### GLOBAL MENTAL HEALTH

Distress and emotional suffering are more fluid and pervasive than categories of illness capture, and at the same time, just relying on clinical care by mental health specialists will not have adequate capacity for population-wide impact or to promote mental health as a social driver and resource. Diversifying the toolbox of mental healthcare is long overdue, irrespective of climate change, but all the more so in the face of its all-encompassing impacts and urgency.

The field of Global Mental Health shows the degree to which conventional hands-on treatment steps and pathways could be broken down into tasks and skills that almost anybody could adapt and use, especially with the right match of support or coaching. Over the last few decades, a menu of well-studied, manual-driven, “task-shared” methods whereby laypeople pick up skills to deliver basic elements of priority diagnostic treatment pathways in a wide range of settings has emerged

and been adopted across several international bodies, governments, and NGOs.<sup>48 49</sup>

These methods enable a wide range of community members to help and counsel people to recover from acute mental illness, as well as to diminish the severity or prevent illness and distress and to promote mental health. This range is captured, for example, in the WHO/UNICEF EQUIP platform of competencies and Helping Adolescents Thrive (HAT) packages, in consensus guidance for incorporation of mental health and psychosocial support within humanitarian organizations globally, and in review of potential interventions to meet increased treatment demand in the context of climate change specifically.<sup>50 51 52 53 54</sup> Digital learning apps and platforms have increased accessibility to coaching on these skills in wide-ranging settings, from rural Pakistan and India to urban United States.<sup>55 56</sup>

There are limits, however, to what this body of work can accomplish. Its implementation has tended to reflect its historic positioning as an adjunct to or extension of primary medical care.<sup>57</sup> While a common and often trusted source of local health care, primary care’s focus on reducing specific symptoms and illnesses tends to keep it at a distance from the day-to-day circumstances of people’s lives that drive these conditions or can help address them. A medical perspective, more generally, does not necessarily aim to reach people as readily as possible, and its aims do not always closely align with those of nurture and change. Several lines of critique have taken issue with the whole Global Mental Health enterprise as imposing and further insinuating Western understandings of illness and

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notions of “normal” psychological health in contexts where other frameworks prevail.

But Global Mental Health has also emphasized antidotes to these limitations that can be further built on. Forms of community inquiry, like rapid ethnographic assessment and similar methods of participatory design and mapping,<sup>58 59</sup> used in implementing task-shared interventions, can be strengthened and integrated from the start.

Such situational or cultural customizing of “standard package” interventions and care skills via experimental trials in various settings, while also usually derived from Western clinical premises, have yielded marked expansion and increased portability of effective care globally. But as with any encounter between standardization and local understandings and priorities, they should be seen as a tension for learning. Both ways of knowing, global and local, are essential only to the degree they interrogate and inform each other freely and respectfully.

### WELL-BEING AND NURTURE

That dynamism between the global and the local is reinforced by tools and methods that extend the scope of care to include, if not prioritize, well-being and nurture. For task-shared care, this means moving even further towards enabling the community more than just the clinic. Examples of this kind of reverse engineering, where re-packaged tasks and care tools can be initiated from any number of non-clinical sites, which then lean on the clinic for support rather than vice versa, demonstrate how this can work.<sup>60 61 62</sup>

Doing that, originating within the fabric and aspirations of neighborhoods, multiplies points of access to care and care responses that are more intelligible to and part of everyday life. Task-shared care then becomes a social innovation, not just a clinical one, and one far better able to locally integrate the full well-being toolbox: prevention and promotion strategies, opportunities for nurture effects, and enhanced communal well-being.

The toolbox for promoting well-being is even more wide-ranging in extending conventional purposes of care. As briefly introduced in Step 1, Well-being connects elements for a social floor for sustainability. Well-being captures a sum of multiple, varying clusters of interactions between neighborhood, societal, and individual economic, cultural, political, health, and other factors and connections, all of which generally seem to track with self-ratings of life satisfaction.

“Well-being” can also be an overused word, and place-based and definitional nuances exist across all the interactions and factors well-being measures explore. But increasingly routine gathering of this information and deepening attention to this ultimate outcome across many countries and localities has found recurring patterns. In particular, a key role for mental health, both as a buffer to threats to well-being and as a casualty of them. Characteristics like “hope” are gaining more empirical specificity about connections between mental health, social trust, and agency in stabilizing lives in the face of adversity.<sup>23</sup>

There are many ways to intentionally grow more of these connections, starting with

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**FORCE OF NATURE** created in 2019, empowers a global community of young individuals as climate leaders equipping the youth to challenge conventional business practices through workshops, consulting, and advisory boards. Transforming climate anxiety into action. The Speakers Agency, amplifies voices of 16-35 year-old change-makers, thought leaders, and activists.

EXAMPLE OF CHANGE-MAKING

many hands-on and task-shared mental health promotion tools and methods that yield nurture effects. These include everything from coaching new mothers to reinforce infant emotional attachment, to adults in peer-led groups rehearsing psychological flexibility and prosociality.<sup>63</sup>

These kinds of interventions show potential “ground-up” change impacts as well. Hands-on effort in supporting parent skills for bolstering family-based acceleration of nurture effects for children not only have lifelong mental health and social health effects. They also potentially enhance pro-environmental attitudes and action, again reflecting the notion that nurture across human relationships begets change towards nurture across non-human ones.<sup>64 65</sup>

These kinds of interventions can also be “whole of society”-owned as they readily cross over a range of social floor building blocks. Embedding psychological resilience within other SAA systems and goals can accelerate

and multiply opportunities because the clusters of social vulnerabilities that explain poorer well-being are also the targets of adaptation efforts, such as meeting basic needs, providing food and income security, and resilient housing. These conditions are both determinants of mental health, and distinct climate adaptation aims.

As an example of pushing further on how wide-ranging those intersections can be, one Early Adopter initiative will be a consortium-led workshop including the Billion Minds Project at Columbia University and the Pan- African Collective for Evidence to examine potential and actionable tools and methods to shift resources to psychological resilience through insurance, development investment, and other climate resilience finance and policy mechanisms. Those industries will participate in stages of evidence mapping and synthesis to arrive at i) credible methods to incorporate psychological strengths and recovery for psychological

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and losses, as part of the costs of climate adaptation ii) priority use cases to apply them.

### SENSE-MAKING

The task of care stretches even further to include what Step 1, Setting Aims, described as the tools and methods of Sense-making. Of those tools and methods, sense-making solidarity especially enlarges the task of care.

As discussed earlier, sense-making solidarity describes a range of emerging, largely grass-roots groups and spaces for working through and sharing people's emotions about climate change in ways that inform and promote action. One review of research on the emotional and psychological impacts of climate change underscores the fluidity and mix of emotions and how "emotions move."<sup>66</sup> The range of emotional movement around climate change suggests the dynamic and ongoing work of emotional coping underway. One review of studies of the emotional impacts of climate change found impacts on no less than 60 specified emotions, from anger to despair.<sup>67</sup>

Framings of mental illness tend to describe suffering and despair in terms of symptoms that are "stuck" and that require focused help depending on the magnitude of their severity, persistence, or difficulty to manage. While the need for this focused and specialized help markedly escalates in the face of climate and related impacts, so does the need for care that engages more diffuse emotions and distress, attends to their fluctuations, and seeks to clarify and attach meaning to, rather than "treat," the disturbing realities that people are trying to comprehend and manage through.<sup>18</sup>

Sense-making solidarity represents a potentially culture-wide movement to find relief and solace, to continually come to terms with moving but regularly present and often impairing emotional challenges and disorientation in the face of climate change. Sense and meaning-making are psychologically powerful and mental health-promoting and reinforce communal well-being and its effects.<sup>68</sup>

The process of making sense of such emotional turmoil serves as an engine of solidarity in areas far afield from climate change. It is how various "12-step" models and much of psychotherapy work. It echoes and can mutually reinforce and further a longer movement of mental health peer and user-led forms of mental illness recovery and voice. It is also how many political and social movements function and innumerable indigenous, cultural, religious, and other local practices of affiliating and forms of social coming together work.

There is much to gain from these proliferating practices and movements. Sense-making solidarity around climate and environmental crises intertwines forms of critical consciousness and eco-awareness with emotion-sharing and support, including critiques of the root causes of climate change and environmental injustice in a search for ways to counteract them in daily life and forms of collective and pro-environmental action. The psychological turmoil and potential transformation of encompassing challenges like environmental change compel attention and care. Sharing the experience of this turmoil in these ways is also a highly customized one. It can fit but also capture the different conditions of risk, exposure, loss, and power that shape what's



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needed, from strengthened connections with others to the emotional agility to find one's way. [See Hamilton et al. in Further Reading](#)

An Early Adopter effort with the World Economic Forum (WEF) Global Shaper Community plans to coach and equip interested Global Shaper Hubs to be "COP<sup>2</sup> Ambassadors," which, at a minimum, will include access to coaching and support to launch a climate cafe informal group support model developed especially for youth by the NGO Force of Nature, so far used in 45 countries.

### PUTTING CARE TO WORK

This initial sketch of care skills from Global Mental Health, Well-being, and Sense-making range from skills for lay-led care and counseling to care for people with acute and painful distress and mental illness across the spectrum to broader well-being and social cohesion promotion. This is not an exhaustive review, and details need to be filled in through the experience and learning to come from their application, especially through the diversity of Early Adopters. But these categories proved themselves as pragmatic starting points for designing initiatives, to have a shortlist of category options, with enough detail and generality to make initial choices, and then hone through engaging anchor partners, described further in Step 3.

An Early Adopter initiative led by the Society for Promotion of Area Resource Centers saw value across those options. Several women-led initiatives of the Society as well as the Asia Institute in northwestern India pursuing efforts on everything from climate adaptation to poverty

reduction, and based in highly climate change affected areas, have come together with the regional NGO Atmiyata with the intent to adopt task-shared, emotional support counseling, sense-making reflection, and consciousness-raising skills, for peer support, but also to use and be coached to act as community counselors. A pilot for being eligible for social capital credits to (SOCCs) for doing so is also intended.

### TASK OF CHANGE

The task of change is to achieve substantive, transformative climate adaptation and transitions to sustainability. Given the working definition of psychological resilience, how does that task work via reinforcing the behavioral, psychological, and emotional elements of responding to the challenges of climate and environmental change?

For the task of care, the connection seems clear. The work of care eases behavioral, psychological, and emotional distress. Care promotes well-being, and thus its social impacts, and helps people engage their emotions in solidarity with others. But tasks of change do this, too, and that shared social and humanizing glue of care is intentional. A range of tools and models enable people to design, influence, test, and directly implement and manage Sense-making solutions. They, at the same time, tend to rely on and so also strengthen the active ingredients of psychological well-being and care.

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**SustyVibes** based in Lagos is a community of young people working to make sustainability relatable and actionable throughout Africa. They do this through arts, pop culture, advocacy, youth-led projects, and research. They create community-oriented projects that create space for passion, knowledge, a sense of ownership, and participatory climate action.



EXAMPLE OF SENSE-MAKING SOLIDARITY

### GLOBAL MENTAL HEALTH AND WELL-BEING

Participatory methods, such as rapid ethnographic assessment and similar approaches of Global Mental Health, bring people together to create solutions and give voice to the realities of their lives. At the same time, communities' collective efficacy and agency track with indicators of mental health, well-being, and related social determinants of mental health. So, churning out a lot more care can potentially energize the work of inverting power and changing priorities through governments and other institutions, elevating and growing well-being and its building blocks of reciprocity, mutual interdependency, and stewardship as valued aims.

Substantive policy change can result in prioritizing public expenditures that promote well-being. This essentially means addressing related social determinants of mental health and bolstering nurture

effects, e.g., funding public goods such as equitable social safety nets, stable housing, poverty protection, health care, and education access, healthy childhood emotional and cognitive development, and mitigating climate and environmental hazards.<sup>69</sup>

Psychological resilience adds further substance and weight to the reasons for meeting other sustainability goals, realizing transformational change, and nurturing societies. This overlap of care and change is also true of the range of change-accelerating tools and methods from Sense-making knowledge areas, instrumental change management, inner development, and sense-making solidarity.

### SENSE-MAKING: INSTRUMENTAL CHANGE MANAGEMENT

Participatory and collaborative decision-making and communal problem-solving can be made more doable, effective, and accessible. Numerous



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organizations and institutions across civil society can bring inclusive planning, design, and implementation tools to any range of communally pursued social, economic, and policy change.<sup>70</sup>

Some of these tools and methods may seem unrelated and often technocratic. But in process and often by design, they reinforce or even explicitly rely on psychological, behavioral, and mental health strengths to enable change. And if not mindfully crafted, they risk conflict, disaffection, or distress that forms of “engagement” can sometimes otherwise aggravate.<sup>71</sup>

Examples of such psychologically-minded change levers include learning collaboratives and applied quality improvement tools,<sup>72 73 74</sup> collective impact methods<sup>75</sup> shared decision-making and (empowered) participatory policymaking,<sup>76</sup> collective management of pooled resources,<sup>77</sup> action circles,<sup>78</sup> conflict management and sustainable peace,<sup>79 80 81</sup> and countless local, cultural, indigenous, and other traditional and local forums and norms that sharpen civic action and collective efficacy.

Overall, experience from several global contexts shows meaningful opportunities for participation in change built on nurture effect foundations can move into expanding circles of agency that yield community-wide change, from violence reduction to public health improvement.<sup>82</sup>

An Early Adopter effort under development and led by the Urban Sustainability Directors Network, which supports a network of over 200 Resilience Hubs across the US, plans to use quality improvement tools and methods applied to accelerate various purposes by

marginalized or under-resourced communities to drive Well-being-based change. In collaboration with We in the World, these tools will be part of the network’s effort to more systematically engage and partner with health and mental health systems and agencies of government to further fuel the potential for and their neighborhoods to be engines of psychological and emotional resilience and wellbeing.

And several other Early Adopter efforts present opportunities for large-scale use of the full range of these psychological resilience-fueled change. Accelerators can be deployed as those initiatives progress and so become part of the standard suite of anchoring roles taken to scale as further described in Step 5.

### INNER DEVELOPMENT

“Inner development” or “inner transformation” are terms that have mushroomed in use among some sustainability and adaptation science and policy circles to capture a growing set of perspectives that understand inner changes in mindset, behavior, and values as prerequisites for achieving outer, transformational, changes in politics, economics, technology, culture, etc., necessary for leading and enacting sustainability and climate resilience.

These inner changes tend toward interconnecting approaches like mindfulness and nature-connectedness; interdependent and regenerative ways of relating to others (including non-human others); well-being and future generation-oriented behaviors, as well as specific cognitive, behavioral, and inter-relational skills and habits. They are posited as antidotes to materialist,

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growth-centered, extractive, commodified identities and relationships as well. <sup>31 36 83 84</sup>

An Early Adopter initiative with the International Union for the Conservation of Nature's Friends of Ecological Based Adaptation (FEBA) network will establish a FEBA Working Group on Psychological Resilience. Nature-based solutions are a hands-on, real-world context where these interconnections may be especially resonant but have not been intentionally asserted and sought out as integral to climate adaptation projects, especially in the Global South. The Working Group, managed with the support of COP<sup>2</sup> and local Inner Development Goals Foundation hubs, will explore how to change that.

Inner development can also include adopting psychological habits of perspective-taking and complex thinking that presumably help people more sustainably respond to and shape how societies instill these identities and norms. The Inner Development Goals, first released in 2021, is an ambitious attempt to systematize and measure these kinds of inner features by anchoring them to five core capabilities: being, thinking, relating, collaborating, and acting. A turn to inner being has deeper roots as well. Indigenous and other adaptive cultures and traditions also value regenerative, interdependent, and eco-embedded mindsets and attitudes. <sup>85 86</sup>

**See Kira Cooper, et al., in Further Reading**

Wide-ranging attention to inner states across schools of psychology as well as cultural histories suggests that they widely matter. But how, and which ones? How do they actually drive change? And are they indeed drivers, or instead

consequences, of other social and economic conditions, interests, and power? Is their relevance at the mass level or that of leaders?

How does their value vary and work across global differences in vulnerabilities to and responsibilities for climate and environmental change? Can prescribing universal norms of experience and the very focus on inner, atomized selves risk minimizing the degree to which mindsets and behaviors are shared and communal, perpetuating what inner-views claim to remedy? That is, replicate the very mindset of expert essentialized solutions to manage and oversimplify (and abuse) relational, cultural, and experiential complexity.

This compelling aim but diversity of sources and uses reinforce why the Roadmap lands on understanding psychological resilience as a pragmatic process. The utility of any psychologically active ingredient lies in how it enables tasks of care and change for specific places, peoples, and purposes.

People are raising and working through these questions around the world, including as part of several Early Adopter initiatives, which, in their diversity, are an opportunity to hone a process to gain that utility.

For example, the Global Evergreening Alliance mentioned earlier, in its early planning, identified the goal of better understanding experienced attitudes, mindsets, and self-efficacy as an essential piece to their effort to drive change: to move millions of smallholder farmers and their families to more sustainable agriculture methods across Africa. So, a planned first phase of surveying and engaging with a subset of these rural communities

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## CARE TOOLS AND CAPABILITIES

Communally accessible "task-shared" exogenous MHPSS skills and knowledge, and indigenous, local, and cultural skills and knowledge, for:

- Naming, treating, and preventing mental illness, and distress.
- Mental health promotion and nurture effects
- Transformational resilience
- Social care and solidarity care

FIGURE 5

## CHANGE TOOLS AND CAPABILITIES

Communally accessible exogenously designed skills and knowledge, and indigenous, local, cultural skills and knowledge, for:

- Eco-awareness
- Inner development
- Conflict resolution / prevention
- Collective impact and deliberative decision making
- Critical sensemaking and change management

through local expertise and experience will have available a very wide range of thinking and inputs about this notion of an inner mindset. This potential input ranges from the regional NGO StrongMinds focusing on task-shared depression care, to Inner Development Goal Foundation Uganda Hubs, with social club approaches developed by the UN Food and Agricultural Organization, to behavioral, psychological approaches used with small-holder farmers globally using a branch of psychology sometimes less prominent in inner development descriptions.<sup>87 88 89 90</sup>

As these initial efforts unfold, similarities and differences will emerge in how an inner framing makes sense or is useful in one place compared to another and in efforts that span places. For example, between wealthier, high-emitter regions and poorer regions, usually more highly climate-affected and historically colonized regions. For the former, the shift to a culture of sustainability mindset

may carry tensions between guilt and fears of losing material comforts; for the latter, sustaining agency and identity in the face of added adversity imposed by others.

Inclusion of psychological resilience and well-being as a part of climate resilience and adaptation adds space and opportunity to name and engage these differences, the inequities, violence, and trauma behind them, and how they inform the broader evolution of routinizing the process of psychological resilience in responsive and valued ways.

### SENSE-MAKING SOLIDARITY

Sense-making solidarity captures a growing and essential source for connecting emotional support to building solidarity for changing the course of climate change as well.

That connection can be explicit and intentional. The inclusion of techniques of "inner transitions" as part of the Transition Network movement

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reflects that.<sup>91</sup> Starting as “Transition Towns” in 2006, it equips self-forming neighborhood groups with guidance, tools, and training to make where they live more environmentally sustainable and carbon-neutral.

Open-source support and tools help youth groups globally host “climate cafe” emotion-sharing in the form of guidance and tools through the Force of Nature platform, which is part of an ensemble of supports that includes leadership and activism training.<sup>92</sup> And while not environmentally focused, Integrated Community Therapy (ICT) is a widely adoptable format and an example of powerful ways to bring emotional support effects within (and so also reinforcing) community-group problem-solving and solution-sharing. ICT is described as a form of “solidarity care”<sup>93</sup> that has spread globally, well beyond the favelas and villages of Brazil where it originated.

### **KERNELS, MASS EFFECTS, AND SUBSTANTIVE CHANGE**

This sampling of tools and methods for the tasks of care and change is not exhaustive, but it does illustrate the breadth of possibilities. The versatility and potential power of that range of possibilities lies not only in having options that span across tasks of care and change, but in how at the same time this diversity of skills and methods also overlap and share many elements, or “kernels.” As mentioned earlier, the term kernel is meant to describe overlapping beneficial psychological outcomes and skills that can result or be used across multiple kinds of group or individual interactions, whether intentionally or not.

Nurture effects, including empathy, psychological flexibility, perspective-taking, reciprocity, and prosociality, form the backbone for many tasks of care. These explain how several mental health interventions are effective and promote well-being outcomes. For example, one nurture effect mentioned earlier is psychological flexibility, which refers to “the ability to maintain focus on the current situation and employ values-based behavior even during difficult and stressful events.”<sup>94</sup> It may be the dominant mediating factor in any type of psychotherapy’s effectiveness across time, global region, and culture.<sup>95</sup>

For example, studies of a form of counseling called self-help plus (SH+) indicate its effectiveness is attributable to psychological flexibility in multiple global contexts, from conventional clinical settings to camps for South Sudanese refugees in Uganda.<sup>96</sup> Similarly, many widely deployed counseling methods bundle other common approaches. For example, problem management plus (PM+) combines common elements of therapeutic counseling like mindfulness, problem-solving, behavioral activation, and interpersonal reflecting and connecting.

The learning here is not to require a fixed, limited set of methods for providing psychological care to be used universally. Instead, it’s about recognizing how different methods can achieve similar objectives as they share similar elements. Paying closer attention to these elements (or ‘kernels’) can enable tasks of care and change along multiple paths and contexts.

That is because kernels are already present and revisited everywhere, enriched with local meanings. Nurture effects, for example, spread

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FIGURE 6

far outside of formal interventions. They are shaped every day through social conditions, parenting, and schooling across cultural, local, and communal practices and wisdom traditions, and even biological and cultural evolution, which has been used intentionally to drive change towards nurture.<sup>97 98</sup>

They appear across otherwise disparate sources of care and change. They can smooth the adoption of mental health strategies within other mutually reinforcing purposes, especially, as mentioned, with youth and so through psychologically-minded teacher skills in government schools around the world.<sup>99 100</sup>

They are reinforced and rehearsed by most of the “technical” change management methods mentioned earlier and appear in the epidemiology of the impact of hope, the workings of trauma-informed practices, and successful ways to enhance early childhood attachment and socio-emotional strengths.

So there are many opportunities in plain sight for these kernels to do their work to yield community-level benefits, such as diminished violence, elevated collective and individual agency, school success, strengthened social trust, collective efficacy and agency, and mental and emotional well-being.<sup>101 102</sup> Securing people’s “capabilities” has been a focus of human development policy and investments for decades. Like visions for the “social floor,” that notion of investing in and elevating people’s capabilities and social capital gets added traction by being specifically grounded in psychological, emotional, behavioral, and relational well-being and care.<sup>103 104 105</sup>

These uncanny overlaps of kernels hold the prospect for cumulative spread in intersectional ways, or the “mass effects” of nurture across people and towards the planet, and away from overly extractive, non-generative, commodified ones.

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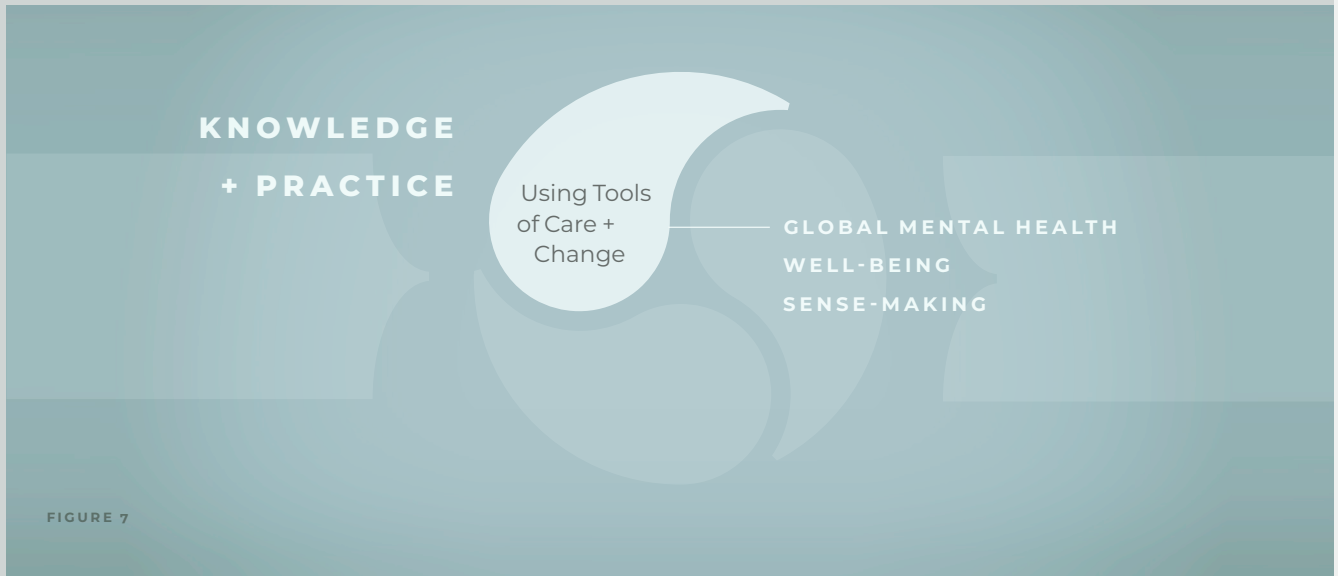


FIGURE 7

The potential for psychological resilience to power and right-size the social climate necessary to tackle the climate crisis can work through many paths to reinforcing social cohesion, trust, emotional connectedness, psychological equality and well-being, mental health, and shared mindsets around agency, interdependency, and reciprocity. In this sense, “care” is a part of change, living up to care as a prefix to forms of care such as care-justice, care-ethics, or care-economics. Each of these share habits of reciprocity and regard toward others as a backbone for humane, eco-committed societies.<sup>106 107</sup>

Overlaps and patterns in the tasks of care and change are not homogenization. On the contrary. It’s what allows for more options, particularity, and ownership. It’s what allows for ongoing adjustment and triage of what tasks are needed, when, and where.

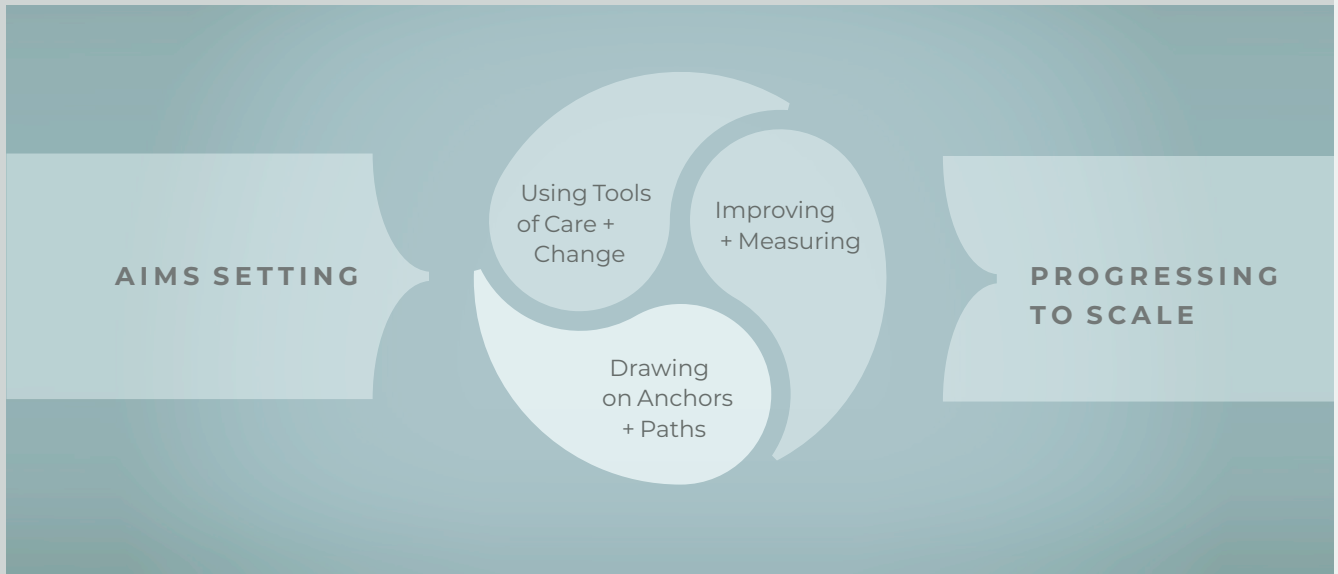
Any large-scale process for deploying these tasks of care and change in these versatile ways must be equipped to do that.

Step 3, Drawing on Anchors and Paths, describes a key element of this orchestration: networks of “anchors and paths” that propagate mass effects for psychological resilience globally.

# 3. Drawing on Anchors+Paths

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This step describes innovation in what constitutes a “mental health system” in order to widely embed the process of psychological resilience. **This innovation is termed Anchors+Paths** throughout the Roadmap. Anchors+Paths combine to create an ecosystem of enablers for the tasks of care and change. Mass effects can be realized through their global replication.

The Roadmap has so far described how psychological resilience draws flexibly and iteratively on tools and methods found across multiple areas and traditions of knowledge to enable tasks of care and change. **This step illustrates how these tools and methods can be put to use in a standard way that also allows for tremendous flexibility of purpose and context.**

Tasks of care and change build on tools and methods with established track records, but the choreography of when to use which tools is underdeveloped. The rigor of these tools’ source knowledge varies



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widely, as does the correspondence between typical prior or “global use” of a particular tool and a specific new or local one.

In a broad sense, this describes a common challenge of health systems: how to get the right care at the right time to the right person. But that aspiration tends to conjure up ideas of precisely matching a unique solution to a particular-defined problem or diagnosis.

The widened diversity of users and use cases, fluctuating realities, and the sheer scale of the undertaking of enabling climate transitions call less for point-to-point precision than for flexibility, redundancy, and interoperability. Similar to versions of “stepped care” but with many more potential decision-makers and caregivers. That means the capability for testing hypotheses and establishing rapid learning loops between general and local-sourced knowledge to help steer toward signals of impact. It needs a definable but lean set of common triage functions across efforts that allow for customization and iteration within them.

### ANCHOR INSTITUTIONS AND PSYCHOLOGICAL RESILIENCE

The idea of anchor institutions initially emerged in urban contexts to enlarge the role of non-governmental, public-service-oriented institutions in local economic and social development. Anchors have significant social and economic connections and impact on their communities. They are typically place-based, so their relative physical permanence further invests them in local conditions and improvements. Universities,

healthcare systems, and hospitals have especially been understood this way.

In North America and Europe, in particular, recent decades have seen a proliferation of anchor-institution-based projects, research, learning, and practice, including a massive healthcare system like the UK National Health Service (NHS) identifying its potential impact on climate adaptation and mitigation.<sup>108 109</sup> These potential impacts mainly focus on economic development and opportunity, based on these institutions as large employers, purchasers, and investors in community services and real estate.

Interest in anchors as contributors to climate mitigation and adaptation is growing. This interest tends to include organizations shifting purchasing power to environmentally protective and carbon-reducing supply chains, reducing their sizable carbon footprints, and, particularly in the case of universities, training predominantly local people for “green” jobs and, more generally, accelerating research and technological solutions.

More is possible from anchors. Especially in the context of locally-led climate adaptation, these organizations have paid less attention to their untapped potential to empower others. They can do more to enable and more widely disperse civic problem-solving power. The intellectual, logistical, analytical, political, and financial capital of universities and health systems can put skills and tools in the hands of community members. They can push for policy change and public investment on their behalf, extending the impact of their usual roles and re-considering how



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**REACH NOLA (now C-LEARN)** started in 2006 in New Orleans in response to Hurricane Katrina as a multi-pronged community strengthening partnership including widespread sharing of mental health skills across the community. They engage all sectors to better understand and strengthen resilience in neighborhoods threatened by floods and weather events associated with climate change.



EXAMPLE OF TASK SHARING

their strengths can become assets available to others taking transformative action.

Including engineers. An Early Adopter effort with the International Coalition for Sustainable Infrastructure (ICSI), whose 80-organization network of networks reaches potentially millions of engineers, accelerating shifts to sustainable and resilient built infrastructure globally. They also see themselves as anchors for bolstering human infrastructure, from community co-design practices to applying principles of inclusive and mental health-promoting design features. ICSI, with partners such as the Center for Resilient Cities and Landscapes and the Global Consortium on Climate and Health Education at Columbia University, will generate guidance and a Learning Hub for adopting, spreading, and generating such best practices.

### RE-CHARGING ANCHORS FOR “ACCOMPANIMENT”

Up to now, there has been little expectation that anchors, even healthcare systems, should be advancing the work of psychological resilience. Doing so will be essential to mainstreaming the work of psychological resilience. But doing so could also help shift the role of anchor institutions towards “accompaniment,” a role psychological resilience especially calls for.

The term accompaniment emerges from decades of work in building equitable health systems globally, especially as defined by the global health NGO Partners in Health.<sup>110</sup> It describes an ongoing relationship of fidelity with a place or group that seeks and can benefit from the resources and expertise of, in this case, a healthcare provider to grow capabilities that meet the aims of that group and place. Accompaniment is not necessarily about an equal mutuality of needs in the relationship. It is a different

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relationship. One of the commitments from the healthcare provider is to “walk with” the other — to fill in the needs framed by others as those evolve and shift over time.

Embracing this role will require universities and hospitals, and potentially many other anchors, to more than simply adjust what they already do to have more community impact. They will need to change what they do. In the context of psychological resilience, this means that their technical and service capabilities are tapped to equip many more people with skills essential to psychological resilience. It means providing other social supports and improvements that upgrade communal well-being and nurture. And, critically, these efforts must be in service of the aims of others. Rarely has playing these kinds of roles been a part of visions for healthcare anchors, or mental healthcare anchors, despite what would seem to be a compelling fit between their missions and the work of psychological resilience.

Community members are less interested in, for example, university faculty doing research than in faculty providing permanent technical support for teams of local neighborhood associations to do their own work. Faculty can equip neighborhood teams, for example, to monitor, survey, and track report cards of distress and related living conditions themselves and to drive policy shifts and target responses. While more mental health clinic appointments at the local hospital or health center would be useful, it would be even better if that center provided resources and coaching to realize neighborhood-driven solutions, such as putting a community mental health worker on every block to add access to steps in care,

multiplying integrated community therapy groups in local gathering points, or supporting action circles hosted by community centers.

The notion of accompaniment itself can also be stretched further in this context. Consider how, if anchor institutions hosted the operations and technical support for networks of local NGOs working to spread the tasks of care and change, they could grow from usually small, poorly resourced groups into extensive, effective, implementer networks that explore, design, lead, and execute change.

Looking at psychological resilience anchors in this way, in terms of how they assume functions that help others effectively perform the tasks of care and change, it becomes clear that we need more of them, not just in number but in variety. A diversity of human services agencies, community centers, professional associations, relevant subject-expertise NGOs, and local and regional government entities can similarly “fill in” and be credible, committed, and anchored to a place. This understanding leads to a definition of anchors for the purposes of psychological resilience:

Anchors are established, common institutions, communal networks, and other capable and locally credible entities that can be accompanying owners of one or more of the fundamental functions for assisting the spread of the capacity for psychological resilience.

These fundamental functions are (i) setting aims and supporting planning, design, and implementation, (ii) training and coaching on content, tools, and skills, (iii) monitoring, managing, and sharing improvement strategies, and (iv) providing formal-care backup

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**VISHRAM** was a community mental health care program in rural India to reduce psychosocial distress through targeted interventions for, but also prevention and management of, Depression and Alcohol Use Disorders. They are guided by the twin principles of universal promotion and prevention for the entire village population, led by village residents, alongside targeted care for individuals with mental disorders.



EXAMPLE OF TASK SHARING

when appropriate (i.e., when direct care for symptoms is part of the aims). The process of psychological resilience is essentially what's made possible by complementary anchors coming together to shepherd the tasks of care and change matched to the aims that initiated their coming together.

Whether or not they were designed to do so, anchors can contribute technical, organizational, convening, or other support to assist in or fulfill any of these four functions. Those can include civic associations, other human service organizations, and much of the private sector. Several anchors may be needed to cover these functions for a given aim.

An added value of growing such clusters of anchors as a common strategy for psychological resilience would be building global consensus that mental health systems should be out front and routinely provide these anchor functions to their communities. Efforts to strengthen mental health systems should include supporting that role.

Just as task-shared treatment and care can be framed as a series of steps, beginning with defining a set of tasks and then determining who can complete them, so too does the process of psychological resilience first identify necessary tasks or functions and then figure out who can fulfill them. General knowledge can be customized into local practice and vice versa by assembling credible anchors as intermediaries for assuming or helping others fulfill those tasks. It is how tacit knowledge and institutional memory can be stored and applied to building psychological resilience.

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### PATHS TO CARE AND CHANGE

Paths refer to the flow of tools and methods to those who carry out tasks of care of change and ultimately to the people they need to reach. For example, the Early Adopter initiative described earlier with Slum Dwellers International will deploy youth-led peer group counseling skills in climate-vulnerable informal settlements that can spread to multiple countries and regions through their network.

In this case, the anchors start with Slum Dwellers International, which, as with all initiating adopters, is an anchor itself. Anchors to fill in what they can't do include the area mental health NGO BasicNeeds Kenya, the University of Nairobi Department of Psychiatry, which has experience in designing and coaching task-shared work, and the Kenya Ministry of Health, which has made policy and operational commitments to community task-sharing. The paths will likely be familiar, peer-led, or peer-facing networks such as youth-led climate action groups and social gathering places such as cafes and schools.

Anchors and paths are common-sense concepts. They are key helpers and the means of transmitting their help. But explicitly naming and depending on these roles creates new possibilities of ongoing collective intelligence to triage and match skills to opportunities for maximum impact and with the ground-level sensitivity to adjust and revise.

Using anchors and paths in this way adds value and versatility to status quo of mental healthcare, with its dominant path consisting of already ill or distressed people largely referring themselves to the staff of medical

systems (implicit anchors). Paths are not passive. The same task in the hands of a doctor takes on a different meaning and effect in the hands of a neighbor and fits a somewhat different purpose. Where people are reached, by whom, and when matters.

Working through anchors and paths means ongoing work cultivating and enabling groups of anchors with complementary functions to create and keep adapting an ecosystem of action that works. The design of such tailored ensembles from a first pass through the implementation cycle yielding Early Adopter initiatives, is a first draft open to adjustment and maturation.

Anchors and paths can be thought of as the stable joints that allow for and flex with this ongoing adjustment. This approach to implementation is familiar to, but is not typical of, conventional mental healthcare. It can draw on learning and ways of assembling sustainable capacity in the fields of Global Mental Health, Well-being, and Sense-making.

### GLOBAL MENTAL HEALTH: ACCOMPANIMENT ANCHORS

As noted, the concept of “accompaniment” itself comes from global health advocacy and action. Global Mental Health research, methods, and guidelines have generated best practices to move in the direction of accompaniment: starting from local understandings, learning from and drawing on existing forms of coping, reflecting others’ priorities, and adapting a set of tools via trusted points of contact, similar to the anchor-and-path model as defined here. Similarly, these call

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for the idea of implementation that works in more contextually grounded, inclusive, and co-created ways.<sup>111</sup> These form the basis, for instance, of the Partners in Health multi-country mental health network.<sup>112</sup>

The process of psychological resilience benefits from these decades of experience in the field of Global Mental Health and also challenges its purposes and tools to do more. For example, consensus guidelines were forged through the Inter-Agency Standing Committee (IASC) for how global humanitarian responses and agencies incorporate and monitor “mental health and psychosocial support.”<sup>18</sup> These guidelines show how to integrate support by identifying the crucial implementing steps and basic principles, such as drawing from a pool of tools and measures, that make flexibility possible and powerful, cross-sectoral, and community-engaged.

In general terms, the Roadmap adopts a similar logic but expands it to a broader scope of tools and methods, with a greater emphasis on prevention, social impact, and change capacity. This expansion is largely due to a pronounced shift in this Roadmap toward more dominantly centering non-mental health and psychosocial support organizations and their aims when it comes to where and what spreading the capacity of psychological resilience means.

Another Early Adopter effort will specifically work from these Inter-Agency Standing Committee standards to re-design ones that shift to meet the realities of the climate context, such as being more relentless and chronic than episodic and drawing more attention to adding to social and well-being effects for direct adaptation, change capacity, etc. This re-design is for use by the Food and Agriculture Organization of the United Nations Fisheries and Aquaculture Division to support coastal fishery aquaculture-reliant communities globally.

That shift can also help broaden the pool of who can act as anchors and paths to include the vast infrastructure of humanitarian response. Climate change and adaptation are chronic humanitarian crises that will increasingly be the engine of many other crises. The global humanitarian enterprise for mental health and psychosocial support can be a highly capable added anchoring resource for a planet in a chronic state of emergency by aligning with these broader notions of global humanitarian responsibility.

In just a few decades, the growth of Global Mental Health has normalized and embedded mental health purposes innovatively at grassroots and international levels. These inroads, evidence, and a substantial range of capabilities provide much to build on and realize the aspects of anchoring described here on a mass, cultural scale.

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**CrearConSalud** started in 2017 in response to the hurricane devastation in Puerto Rico. Workshops bring community and healthcare leadership together with mental health clinicians to help underserved communities problem-solve. They have plans to include participatory agroecology and eco-therapy workshops on their farm as part of psychological resilience.



EXAMPLE OF AN ANCHOR ORGANIZATION

### WELL-BEING

The perspectives of Well-being policy and science, as well as growing forms of community-led Well-being action, also highlight the need and possibilities to recruit multiple stakeholders and resources as anchors for the purposes of psychological resilience. The goals of Well-being — and the variety of realities it captures and leverages — emphasize how all sorts of organizations and institutions (schools, childcare providers, workplaces, faith communities, and other trusted traditional or civic anchors, etc.) promote it, intentionally or not, when they fulfill their core purposes well. Policy inroads and measures around Well-being have become global in scope and sprawling in applicability. This diversity, as with the field of Global Mental Health, can be a fertile source for specific tools, capacity, allies, and ready anchors.

Turning to these types of organizations and social networks as anchors for psychological resilience makes sense, especially as they

often already fulfill this role in similar ways. For example, schools and other youth-facing institutions around the world have adopted more psychologically informed and nurture-promoting methods within their teaching and learning approaches, positioning them as credible entities to reach out to or be a trusted place for engaging with parents, youth, and other community members and institutions.

In the US, community coalitions laid the foundations for an all-of-national-government, agency strategy for community resilience that relies on a community well-being framework and evidence base, task-sharing, community ownership etc: *The Federal Plan for Long-Term Recovery and Resilience*. But this example also is a caution. Without anchors of diversity, reach, and prominence, this sized political investment could be fragile and, as it was in this case, too short-lived to drive change.

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### SENSE-MAKING

The range of Sense-making tools and methods sketched in Step 2 adds yet more potential anchor allies. These tools, as outlined earlier, include a wide variety of collaborative planning and instrumental implementation and change management methods, such as quality improvement and forms of collaborative learning and collective impact. Many potential anchors, including NGOs, local governments, and university departments, are familiar with these approaches and can spread them for the purposes here, further growing pools and reach of anchor networks.

These same anchors can also contribute their capacity from hosting convenings to project management and operational logistics, coordination, and communications. Perhaps filling in those kinds of functions widens the circle of anchoring even further to include institutions with political, financial, and cultural power. Anchor recruitment can be a path for more of society playing parts in the aims and social and policy implications of psychological resilience. Early Adopters rely very much on the full range of capacities anchors can bring and so will generate more insight into optimizing and replicating the roles anchors can play so as to better multiply pools of anchors for a global-sized impact, as further described in Step 5.

Still-emerging tools and methods for inner development and transformation, such as the construction of inner development goals discussed above, can also be better clarified through their anchoring value for others' aims. An expanding hub network of the Inner Development Goals organization will take a step to advance that clarity by seeing how their capabilities can enhance and help anchor Early Adopter initiatives of the Global Evergreening Alliance as well as the International Union for the Conservation of Nature FEBA Working Group.

And finally, the earlier discussion of sense-making solidarity, especially its merging tasks of care and change, suggests these forms of coming together have the potential to perform anchor functions themselves, for example, in training others to adopt similar work. They, at the same time, are potential users of anchor functions performed by others, such as adopting tools of instrumental change management and improvement. So sense-making solidarity has the potential not only to be a low-bar, accessible form of connecting people but also to similarly accelerate and normalize the enrollment of anchors and paths to this work so that “every organization can find a path from its status quo into prioritizing mental health and care/change capabilities.” (Personal communication, Susan Mosher, 2023)<sup>113</sup>



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**Good Grief Network** is dedicated to fostering community spaces that facilitate the processing of emotions and a commitment to meaningful action amidst the climate and environmental challenges of our time. Their impactful 10-Step Program has reached over 1,000 individuals globally, empowering them to take action, feel connected, and think critically about systemic issues.



EXAMPLE OF SENSE-MAKING SOLIDARITY

### ANCHORS AND MASS EFFECTS

The multiplier effect of anchors lies in how each anchor is a “type” of organization that is replicable. Schools, faith communities, health systems, and professional societies, for example, are widely present. If one can step into certain anchor roles in one place, others of the same type in other places can do the same where they are. Following threads that connect types can provide a map for recruiting networks of anchors. Drawing on such networks opens up options and more of the social and civic fabric and culture these anchors represent to absorb direct knowledge and stake in the work and aims of psychological resilience.

Yet another Early Adopter effort builds on a model developed by YAPU Solutions for climate adaptation microfinance for small-holder farmers and low-income urban small business owners and households, mostly in the Caribbean and Latin America. This

microlending model relies on a loan officer based at a partner bank or credit union who does hands-on troubleshooting and coaching with groups of recipients. These recipients face a heightened risk of adverse weather and related exposures, so loan officers will be trained and coached by a local mental health NGO, KAHLE Journey, and members of the Jamaica Psychological Society to expand these group engagements and also to provide and facilitate emotional support.

Psychologist professional societies and credit unions exist in many places (the partner credit union COK Sodality Credit Union has the largest union membership in not just Jamaica but in the English-speaking Caribbean and is connected through trade associations that can be engaged as a whole.

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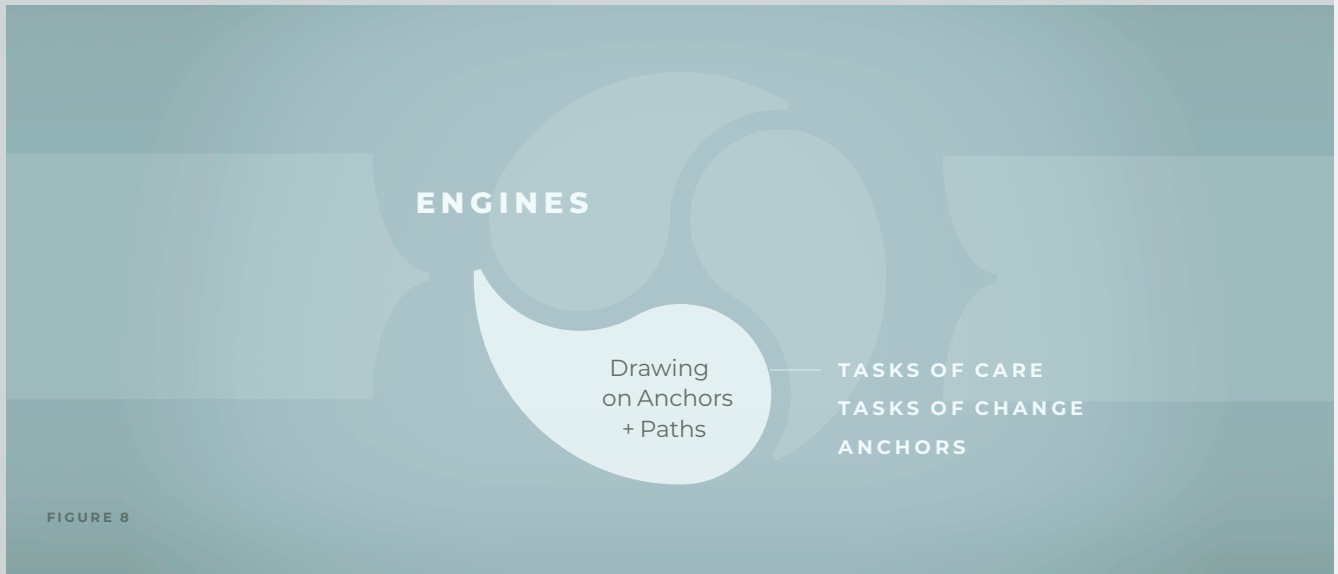


FIGURE 8

The American Psychological Association-hosted Global Psychology Alliance (a network of over 60 national and regional psychology professional associations focusing on the role of psychologists on global issues, especially climate change) is among our first Anchor-accelerator collaborators to, over time, potentially socialize and enroll members to the idea of adopting similar roles. The intention is to prepare other psychologist associations for opportunities to act as anchors in the same way, wherever they are located.

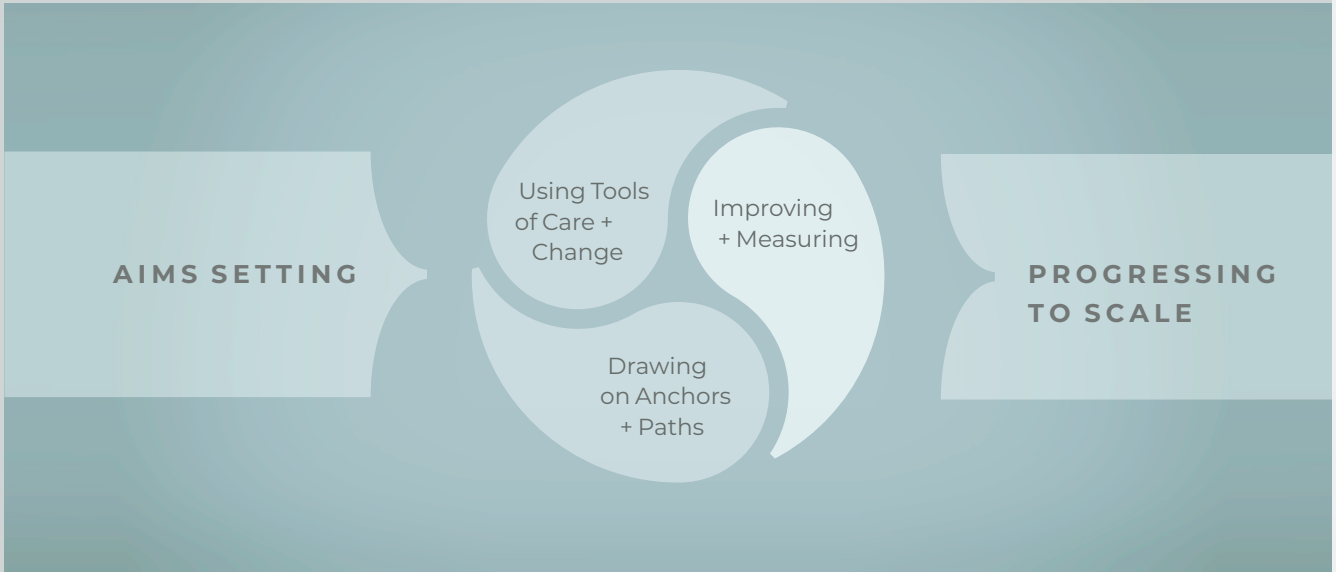
Though there may be many possibilities for coming together around anchoring, there are many challenges in enabling such clusters of anchor and path partners to work well, recruit for and equip their roles, and grow such networks.

The premise of the implementation cycle, the framing of tasks of care and change to meet others' initial aims, which anchors help them to achieve, are starting points. Clusters of anchors and the adoption of tasks need to be steered so they work well as the engines of learning and versatility for psychological resilience.

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This Step builds on psychological resilience as **a process of continuous, reflective responses to complex and often disorienting challenges.** As psychological resilience is more widely owned, so should the tools that help see how well it's working. That means wider familiarity with measures, more emphasis on learning and improvement methods, and **openness to rethink** and diversify which measures and methods matter, and when.

Each step, from aims to tasks and tools to anchors and paths, is a choice and hypothesis. **Assumptions about aims and desired impacts can shift or look different as steps progress.** This complexity is especially likely when intervening, as emphasized here, with psychosocial and mental health purposes that work through common settings, towards other-impact goals, and with non-professionals. So those choices need checking in on and lead to this next step of reviewing and potentially modifying steps in the ongoing cycle.

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That back and forth between intention and reflection requires methods and measures that help do it. Ongoing pulls between generalizable and contextual knowledge and experience are less a choice that needs to be made than a dynamism to be vigilant about; an ongoing loop between the general and local whereby both sources of knowledge are enriched and improved, and where *improvement*, where ongoing evolution, re-calibration, and evolving aims and use of tasks of care and change, are *expected*.

In that way, the implementation sequence of this Roadmap not only resembles and builds on widely used change methods such as Quality Improvement rapid-cycle testing applied in change methods such as Learning Collaboratives referred to earlier. The steps of working together through that sequence itself can also reinforce kernels of care and change. These methods, for example, reflect habits similar to the reflective therapeutic practice of Motivational Interviewing or the use of perspective-taking. Collective sense-making that reinforces checking in with shared aims and values and what is working, or not, to realize them also echoes elements of psychological flexibility.

### IMPLEMENTING THROUGH LEARNING

Putting these premises to work, though, figuring out what this expanded reach and ownership means for a psychological resilience toolbox of evaluating and learning, needs its own initiative.

A team of systems transformation, complexity, and social innovation researchers from the

Waterloo Institute for Social Innovation and Resilience, University of New Brunswick, and the Stockholm Resilience Centre are planning to form a Research Support Team that will facilitate a process of ongoing and real-time learning from the Early Adopter initiatives.

The Research Support Team, over the initial year or so of Early Adopter start-ups, will co-design and manage a format for capturing, observations and data to better understand how the implementation cycle steps actually work and what ways of using measures make sense, especially across these initiatives. That will yield a framework for next-step implementation and evaluation.

While the Research Support Team develops the framework, detailed further below, Early Adopters will initially draw on two measuring sets, which would be part of the observations and data gathered above. Those two sets can be roughly broken into:

- 1) initiative-specific measures: which capture improvement towards initiative-specific aims
- 2) ensemble-specific: which learn about and help steer functions and purposes that are common across initiatives and that capture cumulative mass effects across efforts.

Both of these will be used or clarified by:

- 3) learning about the process itself, or the parallel work of the Research Support Team

Each of these can turn to varying traditions of using quantitative and/or qualitative methods for care as contrasted to change outcomes.

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**Friendship Bench** uses an innovative model that trains community health workers, more fondly known as Community Grandmothers, to provide problem-solving therapy and peer-led group support to those with common mental health conditions, such as anxiety and depression, sitting outdoors on wooden park benches in safe spaces, growing community solidarity and social connections in the community.



EXAMPLE OF TASK SHARING

## 1) INITIATIVE-SPECIFIC MEASURES

These capture the direct effects of a chosen care or change tool(s). These can include an array of change outcomes, such as simply more adaptation or mitigation goals met. However, and again reflecting the intended value of care and change tasks to do ongoing balancing or triaging of needs, usually the compelling starting point is for care tasks. Regaining or reinforcing “caring” was more often the preliminary concern by Early Adopters than changing. Also, as discussed further below, measuring for specifically climate adaptation outcomes in general, and how they relate to psychological resilience in particular, seems at an earlier stage compared to care outcomes.

## QUANTITATIVE CARE MEASURES

These measures tend to include, for instance, checklists of reported endorsement of symptoms or emotional experiences or a rating of the observed competency of use of a specific skill adopted by community members.

Measures drawn from fields of Global Mental Health, Well-being, and Sense-making are readily compiled in guidance and protocols. These measures largely reflect symptoms, functioning, and illness severity, and many are used across multiple contexts. The same largely holds for capturing Well-being outcomes, including measure sets used by local communities and grassroots organizations.

There are various consensus guidelines and summaries of quantitative or scored/checklist measures for symptoms of mental illness and their impairing effects, as well as for characteristics of well-being and its related impacts. Some more widely known and used among

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them include the Inter-Agency Standing Committee Monitoring and Evaluation Framework for Mental Health and Psychosocial Support in Emergency Settings.<sup>114</sup> It should be noted that these kinds of measures do not capture dimensions of distress or symptoms presumed to be unique to climate change. It remains an open question if scales of distress, symptoms, or other psychological impacts are able to, or even need to be associated uniquely with climate-related change itself.<sup>56</sup> For assessing skill competencies underlying task-shared options to diminish these symptoms, illness, distress, etc., the EQUIP platform developed by WHO and UNICEF gathers competency checklists for them.<sup>59</sup>

OECD countries now share measures of subjective assessment of well-being.<sup>115</sup> More expansive menus of community-use Well-being measures that capture a wide range of dimensions and factors of well-being have also spread. These can be locally nuanced as they are connected to input from and use by various levels of government and non-governmental actors and activism, as seen in measure compilations such as those of the Wellbeing in the Nation (WIN) network, What Works Wellbeing or Happy City.<sup>116</sup> These inroads and opportunities for more communal ownership and creation of community-wide report cards on well-being and related social conditions have tended to be largely in the Global North, though actively in marginalized communities there, but also in the South.<sup>117</sup> Spreading tasks of care and change in the context of climate adaptation is an opportunity then to

not only right-size that imbalance but to model South-South and South-North learning that raises the power of this work everywhere.

### QUANTITATIVE CHANGE MEASURES

Some instrumental change practices, such as collective impact or quality improvement, have formats for rating their process but are usually explicitly designed around how groups set and arrive at their own measurable aims specific to the work they are doing.

Accounts of inner transformation (the psychological, emotional, and behavioral attributes or skills consonant with living within and leading others towards sustainable modes of living and relating) are under more consideration. Some lists of measures or competencies are available, the Inner Development Goals particularly detailed. These await further efforts to be translated into actionable metrics that steer to their intended impacts. And finally, understanding enduring adaptive coping and mindsets generated within cultural, local, and indigenous traditions often resist routine, standardized explanation, or replication.

There are also growing, though perhaps less yet widely practiced, global-wide consensus measurable targets specifically for climate adaptation outcomes themselves. Such outcomes would seem to be quite locally and specific-purpose-defined. But menus of generalizable types of outcomes to draw on or align around are growing, the work of the SAA being one example.<sup>118</sup>

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**Tearfund** is a collaborative hub focused on enhancing overall life satisfaction and mental health. Partnering with researchers, governments, businesses, and charities, utilizing insights from 230 communities in 4 African countries, their framework informs decision-making and creates a learning system for wellbeing that improves village life. Their evidence-based approach with commonly used measures of well-being.



EXAMPLE OF WELL-BEING

### QUALITATIVE CARE AND CHANGE MEASURES

The full range of both care and change aims can be explored and evaluated through various qualitative forms of inquiry, ranging from interviewing people, to creative expression, to forms of self-reflective learning, and more. The diversity, accessibility, and versatility of this rich category of learning are substantial. Inter-Agency Standing Committee Guidance also lays out this breadth of tools as applied specifically to mental health and psychosocial efforts in humanitarian settings alone.

Qualitative approaches to measuring and learning especially help elevate and enlarge cultural, traditional, and local practices and wisdom. They also improve quantitative measures. The portability of quantitative measures is partly indebted to that connection through aspects of Global Mental Health, such as the use of rapid ethnographic assessment or

card-sort exercises. The latter, for example, ranks and sorts similar local consensus of common or significant symptoms of what they see as illness, and can create whole new customized measures or bring local specificity to revise or adjust such wider-use quantitative starting points, as well as create new measures.<sup>119</sup>

Doing that often yields adapted versions of quantitative measures that largely overlap in results with predominantly standardized Western clinical screenings and scales. While this lends some validation to generalizable, widely shared aspects of symptoms, distress, well-being, or agency, it also shows margins of difference that, large or small, can be critical in reliably transposing one context with another.

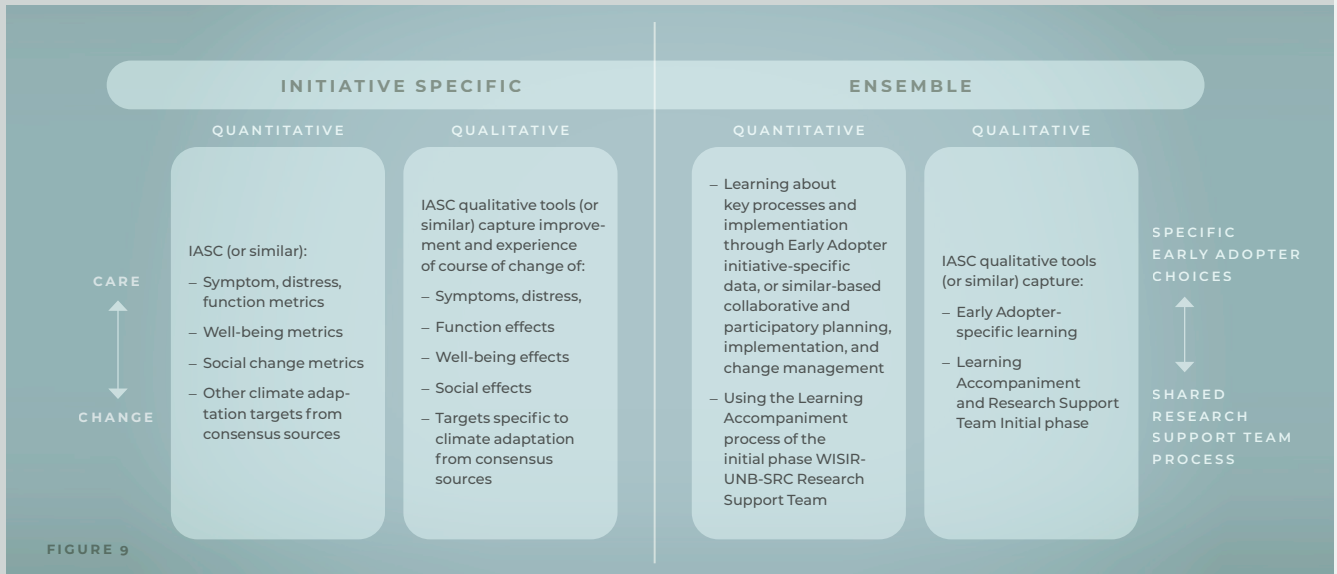
That margin can often be significant. Group Concept Mapping was used, for example, in one effort to particularize a local theory of change of what “agency” meant in where they were East and Southern Africa. That process



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created a substantively new, robust measure to capture what strengthened “agency” for use in an intervention that sought to develop agency for young girls in these regions.<sup>120</sup>

Such participatory measures design can also expand who gathers data (e.g., peers or other community members). That can include community observational canvassing by residents as well as community surveying, such as with standard psychological screens. Gathering information this way can also substantially reshape it. One example is the use of participatory, experiential, and physical mapping by adolescents and youth in Kenya. Walk-throughs and literal mapping of frequented and meaningful physical locations became prompts for reflection on place associations of psychosocial stressors and, thus, potential solutions were also applied to capture climate impacts.<sup>121</sup>

Qualitative and participatory, creative, etc. methods will be critical to capture the change impact of the psychological resilience toolbox on climate adaptation objectives. More is known about the impacts of that toolbox on other social, economic, and political capacities, conditions, and improvements, from peace to poverty, as recognized across this report. Their impact specifically on measurable or trackable climate adaptation objectives, though, has been less explored.

## CLIMATE ADAPTATION AS AN AIM

All told, Figure 9 is a conceptual summary of initial starting points for applying some of the above-mentioned types of sources to measure initiative impacts and learn to implement and be in a position to then scale and spread beyond the Early Adopters. Even in this general form, this schematic maps where to start but also where to start fill in learning.

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**Resilience Project** has created 13+ Resilience Circles globally, trained 27 young leaders to deliver them and moved 160+ young people through their program. In 2022, 100% of participants agreed that the experience gave them the tools to mitigate eco-anxiety, reduce burnout and improve their well-being. They believe the work of transforming the world away from climate disaster is not a marathon. It's a relay-race.

EXAMPLE OF SENSE-MAKING SOLIDARITY

The initiative-specific starting point of how psychological resilience can add value to maximizing their efforts at *climate* change, not just other better explored and measured social and emotional strengthening kinds of change. Early Adopters prioritized more extended climate adaptive results. But all priorities were thought relevant to what communities needed when facing climate adversity. So this presents a valuable opportunity to do the needed filling in of learning on how far that maximizing can go.

Emerging menus of generalized adaptation targets as well as guidance for more local and context-specific created ones,<sup>122 123 124 125</sup> will be used with the Early Adopters to the degree they fit with aims. To succeed at that, two goals really need to kick in and will be prioritized with the Research Support Group, namely getting to:

- i) Ensemble measures that focus on key functions and process aspects of the psychological resilience cycle (including data use choices)
- ii) A theory of change that shows where to

look to better understand and use these care-change-climate connections across widely diverse applications of psychological resilience.

## 2) ENSEMBLE MEASURES

Making sure aims and actions talk to each other is a pivotal job for Anchors. So how that role succeeds at adjusting and bringing in tools, methods, and their use is a critical common element across initiatives and for yielding cumulative effects from them.

At least three features across Early Adopter initiatives are critical common elements to learn more about and optimize in real-time:

- i) Their Design: operating through the implementation and improvement steps and functions of Anchors and Paths;
- ii) Their primary Action: overlapping kernels through, and synergy between, widely owned tasks of care and change; and
- iii) Their Purpose: that i) and ii) realize

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others' aims, including when those aims are about strengthening climate action and have communal value.

How are these three features actually working out across Early Adopters?

For example: Does the opening aim or vision have traction over time as a guide? Does the translation of that into tasks of care or change happen, and how well? Is all that experienced as equitable, effective, and appropriately participatory by those affected?

How do anchors translate project-specific and ensemble aims into action, and what do they need to do so? When do formal measures help do that? Which kinds?

### 3) LEARNING ABOUT THE PROCESS ITSELF

Ensemble evaluation will therefore consider those common elements, including how they connect and how tasks of care and change work through anchors in ways that realize local goals, including climate resilience outcomes themselves. That process will start in Year 1 by developing a cohesive ensemble theory of change of how psychological resilience works.

This evaluation step is also a substantive implementation support step by identifying in real-time, with actionable observations and notes to compare across Early Adopters what is working and what barriers they are facing. Learning as they go about better ways to operationalize the implementation cycle or to use opportunities for new or added initiative, specific, and ensemble-enhancing data.

This initial phase of ensemble evaluation will proceed through four main phases over approximately the first year of implementation:

**Phase 1-Initiation** A group of “Learning Accompaniers,” local scholars with context-specific expertise, will be matched as participant-observers with each Early Adopter initiative on a part-time basis. Baseline data consisting of how each Early Adopter perceives the relationships between psychological resilience-framed aims, intervention design and execution, their initial-focus initiative-specific measures, as well as the broader goals and conditions of climate adaptation will be collected.

**Phase 2- Preparation** Learning Accompaniers (Accompaniers) will adopt a shared practice for facilitating evaluative inquiries of

- i) operational progress and project-specific milestones and measures, and
- ii) how psychological resilience process elements are working, in particular the three common elements listed above, as well as more broadly the perceptions and assumptions of participants of the value of the initiative, its connection to impacting climate adaptation, circumstances, and aims
- iii) experiences of the work as enhancing equity, community, and transformation.

They will convene as a group on a monthly basis to discuss the Accompanier's observations and respective experience of Early Adopter's purpose, methods, aims, progress, and challenges. Accompaniers will also act as a feedback resource to Lead Anchors in real time.

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**Phase 3- Synthesis and Design** The Research Support Team will engage each Accompanier after each meeting to discuss patterns of emergence, changes in data from previous weeks, and implications for the change strategies being pursued by the Early Adopters. Progress will be tracked using a variety of social innovation assessment processes and tools, including appreciative inquiry, network mapping, simulation, and emergent modeling.

**Phase 4- Prototyping and field-testing** Evaluators will examine patterns across Early Adopters as well as characteristics of successful processes. This will create prototyping opportunities to

- i) provide feedback on learnings and support interventions to guide organizational change that nurtures resilience;
- ii) co-collect, co-design, and co-create measures and assessment models to capture the emergence and evolution of such resilience-based goals and their perceived and

actual connection to climate resilience goals;

iii) identify changes in systems functions and interconnections within local, regional, and global networks;

iv) synthesize insights from context-specific interventions that can be scaled across other Early Adopter efforts; and

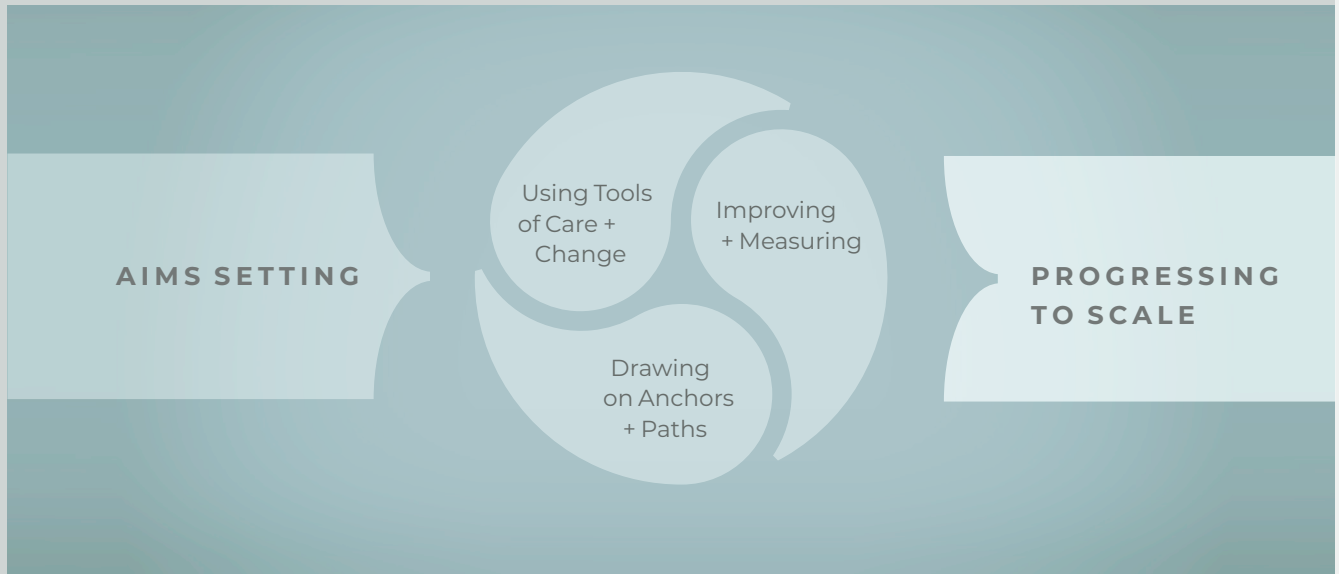
v) assist Early Adopters and Accompaniers in driving innovation amidst increasing scale, volatility, and complexity.

These will culminate in a draft principles-based framework and its next step use, which will include further detailing a path to scale that depends on the cumulative effects of anchoring and a clearer set of measures and their use for getting there.

# 5. Progressing to Scale

## MASS EFFECTS THROUGH ANCHORS

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This Step ties together the Roadmap and specific opportunities that the Early Adopter efforts set in motion to **increase global capacity for psychological resilience**.

**At COP28, the SAA expanded to include “health” as a seventh designated system for action.** SAA and countless affiliated efforts aim to re-engineer these seven essential systems that underlie human communities to minimize the implications and damage of increasingly catastrophic climate and environmental change. **It is a monumental challenge to summon the requisite urgency and staggering range of action this entails.**

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Adding health priorities to global climate resilience priorities can help accelerate a path to growing capacity for psychological resilience. At the same time, there is also a gain to be had if *all* “health systems” incorporate tenets of this Roadmap by adding their power as anchors and seeing whole communities as “the system.”

That path is essentially one of propagating pools of anchors, of sustaining governmental and non-governmental capacity to be and to support anchors. This segment explores “progressing to scale,” which has two primary prongs of action, anchoring and governing, steered toward convergence with each other.

### ANCHORING AND GOVERNING

Throughout 2024–2025, Early Adopter initiatives will generate insights into anchors’ functions. Building on this learning, the variety of anchors among Early Adopters can begin to provide examples and guidance to engage with networks of crucial types of anchors such as universities, mental and medical health systems, and principal sector missioned NGOs. As described, anchors can be recruited and engaged as a group through existing professional organizations or other ways that members of these groups affiliate, including academic associations, health ministries, professional societies, and issue-based and advocacy coalitions and convenings.

The Race to Resilience and other campaigns and collaborating networks are essential to help spread and replicate these roles. Still, governments are a vital channel to coordinate, align, and have accountability to

sustain them as well. All the functions of anchors should be part of the toolboxes of governments, too, including launching and adopting new initiatives.

A diversity of anchors ensures valuable redundancy and versatility to respond to fluctuating fiscal, political, organizational, and other circumstances. That underscores the value of local and regional governments as anchors. But while not mutually exclusive — the Early Adopter initiatives model this mix — there is different initial groundwork needed to mobilize global-sized governmental as compared to non-governmental participation as anchors and allies. So we will work along two distinct paths for each that increasingly converge over time.

The Roadmap focuses on municipal and smaller regional governments. These, in particular, are essential for realizing this ambitious, culture-changing scale. They tend to know their neighborhoods, to be accustomed to working across sectors, and to be operationally closer to the work of expansion. Local governments can potentially act as a hands-on and nimble convener in building a density of anchors.

Local governments not only contribute to the mechanics of achieving mass effects, but they are also important partners for realizing and acting on the potential for the work of psychological resilience to open paths for engaging with fundamental issues of justice, public participation, and the purpose of government itself.

As observed in Step 2, Using Tools and Methods

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**THRIVE NYC** launched in 2015 as a new way for cities to lead on mental health as community health: making task-sharing the city's job to spread, including the whole of government to incorporate mental health skills across all sectors to reach more people and spread more impact on more social outcomes, supporting people and neighborhoods to help drive and experience how all that can get to more accessible, resonant, relevant, help.



EXAMPLE OF LOCAL GOVERNMENT LEADING

for Care and Change, Well-being measures are proxy measures of social cooperation. They capture imbalances in how resources, benefits, and public goods are distributed to yield life satisfaction that buffers against other social harms such as violence, conflict, premature death, disability, social exclusion, and lost human capital and opportunity. Anchors have untapped opportunities to enable or host more robust forms of civic participation, dialogue, and awareness around those imbalances. And the more anchors from more backgrounds, the more prospects for that to happen. But local government, especially, can add unique impact and value to, and be changed by, being committed to this purpose.

That's why one of the Early Adopter initiatives will be led by ICLEI, a global network working with more than 2500 local and regional governments of all sizes to advance sustainable urban development. Given health systems are a recent addition to the SAA framework, this

initiative will partner with both health and mental health NGOs leading work in this area, such as Health Care Without Harm, to survey ICLEI members and capture best practices to produce guidance for local governments globally to include health and mental health systems strengthening in local climate adaptation plans. And complementing that is another Early Adopter effort, where BRAC urban planning and education innovation departments and the Bangladesh Health Watch intend to spread the Locally Led Adaptation model to several cities in Bangladesh but to include and integrate a psychological resilience component into its city planning capacity for that.

Figure 5A summarizes the path to scale this Roadmap and its Early Adopter partners set in motion. The Billion Minds Project's Columbia University-based Secretariat infrastructure for COP<sup>2</sup> ("Billion Minds") will annually update this intended progression



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through Annual Roadmap Updates, and recalibrate as needed, beginning with taking stock after Year 1 with the Accompanier-based learning and framework, described in Step 4.

What follows then is indeed a “roadmap.” It is a proposed way forward sketched in Figure 11 that will likely adjust along with the work of psychological resilience itself, offering a doable path to start and work through. Two general streams of effort are put forward to progress with increasing crossovers before ultimately converging:

- i) Anchoring: generating networks of anchors as nodes for the proliferation of capacity for mass effects, and
- ii) Governing: guiding governments to be effective as catalysts, accelerants, and stewards for ongoing adoption of psychological resilience collaborations towards shared and equitable aims.

### ANCHORING STREAM

#### Anchoring Stage 1. Leverage Early Adopter-specific spread – 2024–2026

Early Adopters (Lead anchors) capture the range and versatility of psychological resilience building across the SAA systems. They provide in miniature an all-systems launching pad to spread and take off from. At first, that spread will be through their own organization and networks.

Each initiative’s course, challenges,

and adjustments will inform the pace, path, and timing of that expansion.

Steps during this period are to:

Successfully launch and establish operations of each Early Adopter initiative towards its aims.

Initially, rely on opportunities of Early Adopters already have to expand through their other locations and relationships as the way to replicate anchor functions.

Billion Minds-COP<sup>2</sup> begins an ongoing process to engage with networks and conveners of types of anchor organizations to:

- i) familiarize and sensitize potential allies to this approach,
- ii) better understand the utility and challenges of how to systematically organize and assist in recruiting global-sized anchor engagement.

These networks can include globally and regionally connected universities (e.g. Global Consortium on Climate and Health Education, Planetary Health Alliance), health and mental health systems, and NGOs (World Health Assembly/WHO, ATACH, MHPSS Collaborative, COP<sup>2</sup>, United for Global Mental Health, Global Psychology Alliance), other changemakers (e.g., Catalyst 2030, WEF-Global Shapers Community) accelerators for growing Locally Led Adaptation (e.g., Global Center for Adaptation, South x South Climate Alliance, and innumerable private sector allies engaged in community resilience. All can amplify and help equip these respective actors to assume local anchor roles.

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This engagement will also help strategically prime certain anchor pools to further draw on in subsequent steps, and to suggest initial opportunities to rehearse how to prepare them to join or lead new initiatives.

From that learning and engagement, Billion Minds-COP<sup>2</sup> will by 2026 facilitate:

Establishment of an initial Global Anchors Group that includes networks of anchor types as well as other efforts to adopt psychological resilience purposes of regional or multi-country -size through similar anchor types, one example being WorldBeing, spotlighted earlier, which is on a path to extend emotional resilience and wellbeing skill building integrated within government school systems, to reach 5 million children annually, especially girls, in India, Kenya, and Rwanda.

This kind of capacity is becoming more common, lending credibility to how whole systems can be anchoring ones and are ready to be resourced as such.

Co-develop with the Global Anchors Group a pilot set of operational and technical capacities needed for Group members to:

join Early Adopter efforts to add options for their expansion and “mainstreaming”

form or join new initiatives for psychological resilience

### **Anchoring Stage 2. Transition Early Adopters to Mainstream – 2026–2028**

Building on these mechanisms, Billion Minds-COP<sup>2</sup> will increasingly focus on preparing Early Adopter initiatives to transition to “mainstream”: ie, to autonomously manage as an anchor group subsequent growth or further development of the original initiative.

Increasingly draw on the Global Anchors Group to add anchors for Early Adopters who need them to mainstream.

Accelerate feasible opportunities to rehearse and pilot operational preparations and guidance (developed above), for Group anchors to initiate or join independent (non-Early Adopter) initiatives.

Billion Minds aims to phase out direct project management support to Early Adopter initiatives by 2028

Through this period, broaden as possible but then focus on the evolving infrastructure, networks, policies, etc, to normalize independent adoption and spread of psychological resilience process.

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### Anchoring Stage 3. Shift to independent adoption – 2026–2030.

Stage 2 experience in mainstreaming Early Adopters should help progress anchors groups' readiness to further transition from Early Adopter-based expansion altogether, and towards independent adoption at far greater magnitude.

Initially, this transition will expand through well-established, global-sized climate adaptation collaborations such as Race to Resilience.

COP<sup>2</sup> Regional Hubs and other allies will then increasingly take on the initiation and brokering of anchor and path ecosystems:

COP<sup>2</sup> Regional Hubs, the Anchor Groups, and others at this phase will have accumulated learning to draw on, including continuous improvement and assessment as described in Step 4, operational capacity, tools, guidance, as co-created with the Anchor Group as above, and other forms of stocktaking of the work through each of these three stages, including use of a potential range of deliberative and participatory decision models and methods by Early Adopter and subsequent initiatives.

An open access portal to facilitate this matching of anchors, adopters, and related technical expertise will be created.

The initial utility for such a portal will be to facilitate Early Adopter needs in their ramp-up in Stage 1. It will then progress in functionality through these stages to assist independent adoption and anchoring groups at scale by 2027.

### GOVERNING STREAM

#### Governing State 1. Initial landscaping, guidance, and learning – 2024–2026

Governments are involved in several Early Adopters and will be encouraged to be part of each stage of the Anchoring stream. However, given the unique and consequential nature of government anchoring of psychological resilience, this stream describes a focused process for evolving ways to integrate government and civil society through establishing parallel development and exploration of each before converging them.

Billion Minds will progress this work along the following lines:

To explore and learn from the interactions of local government with Early Adopters in general, and as anchors.

Complete consensus guidance for local municipal governments globally to include strategies that promote health and mental health in climate adaptation plans informed by the Early Adopter effort with ICLEI that will include a focus group and survey process of municipal leaders on these issues.

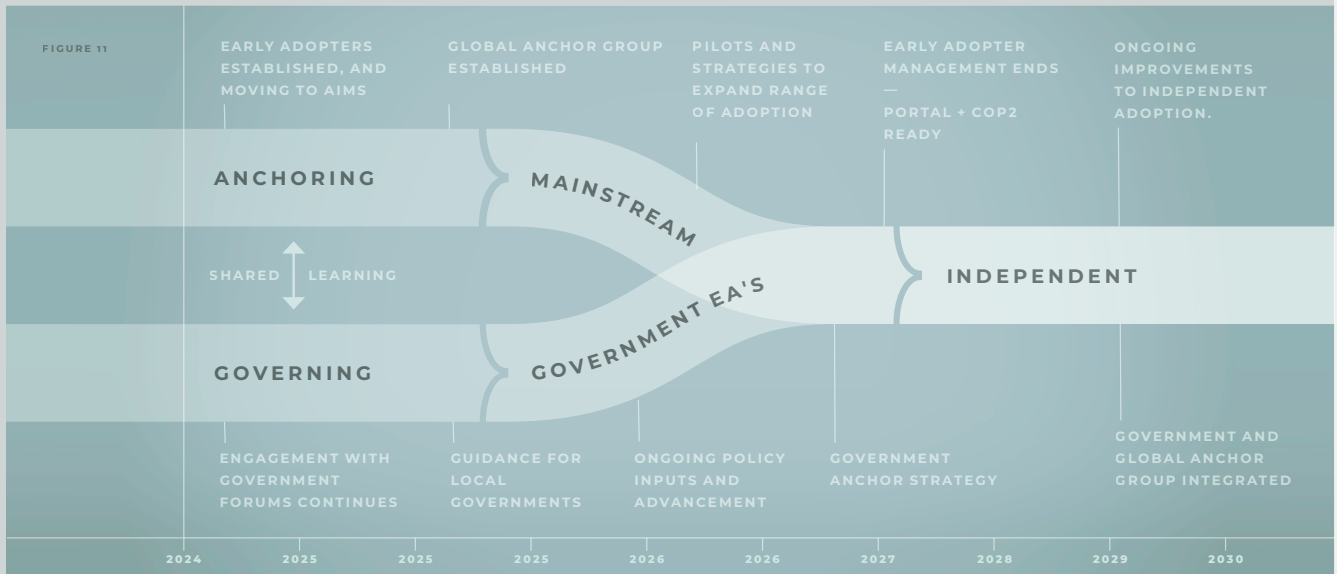
Participate and explore a wide potential range of intergovernmental and regional forums and alliances to accelerate government adoption of the aims of the psychological resilience process.

This can include contributing to policy for growing mental health and allied systems-strengthening such as mainstreaming promotion and Well-being governance. These can also include forums and

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networks such as the Global Ministerial Mental Health Summits, UHC 2030.<sup>126</sup>

### Governing Stage 2. Initial spread of government in anchor roles- 2025-2026

Building off of the multi-pronged engagement and consensus building in Phase 1 to establish communication and organizational connections with governments, associations, and forums through advancing opportunities for governments to join Early Adopters’ mainstreaming efforts.

Share advisory input on (especially local) examples, use cases, and obstacles for governments being anchors, including as initiating adopters.

Advance opportunity pilots for governments to participate as an anchor in these ways.

### Governing Stage 3. Increase focus on routine government independent adoption and other anchor roles – 2026-2030

From these inputs, complete a:

Government Anchors Strategy by 2026 that solidifies learning to date for how to enable governments to succeed as anchors (initiating or otherwise).

The strategy will also describe and prepare for merging interested governments/ networks with the Global Anchor Group, COP<sup>2</sup> Regions, and other channels for mainstreaming and independent initiation of initiatives across the potential non-state landscape detailed in the Anchoring stream.

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FIGURE 12

### MOVING FORWARD

This initial sketch of a path to scale extends small-scale models into mainstream-connected ones that are catalytic to realizing psychological resilience as a cultural norm and commitment. It substantively sets in motion and hopefully further provokes and adds momentum to many other efforts pursuing the same.

This is an ambitious and uncertain prospect; progress towards it may come in fits and starts and be revised along the way. However, it is the basic logic of current global efforts at mobilization for climate adaptation. Indeed, it is the default logic model for humanity to tackle the climate crisis. A logic that must include the goal of shifting institutions toward helping people stay together and capable of living with and leading great change through these challenges in mindful solidarity.

# Early Adopters

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SYSTEM	ADOPTER	AIM
Food & Agriculture	Global Evergreening Alliance	Integrate a range of mental health and adaptive behavior tools within an effort to enable millions of smallholder farmers and their families to sustain new farming practices and to better cope with the ongoing uncertainties and challenges of their livelihoods.
Health systems	University of Waterloo University of New Brunswick Stockholm Resilience Centre	Learn with all the Early Adopters and a team of social innovation researchers to develop ongoing implementation tools, guidance and scale for global psychological resilience capabilities and mental health system strengthening.
Human Settlements	Slum Dwellers International (SDI)	Bring peer-led solutions to a youth mental health crisis that also help youth to act as community problem solvers in informal settlements across the SDI network. This effort will be integrated within SDI's widely known Locally Led Adaptation model.
Human Settlements	Society for Promotion of Area Resource Centers	Integrate psychological counseling and support roles into how SPARC and its partners empower women to generate solutions to climate resilience and a range of intersectional economic and equity issues across areas of northwest India.
Coastal & Ocean Systems	Food and Agricultural Organization; Fisheries and Aquaculture Division (FAO-F&AD)	Modify and improve existing international consensus standards for incorporating mental health and psychosocial support in humanitarian crises to adapt to the added considerations of the ongoing climate crisis, for FAO-F&AD to use to support fishing and aquaculture communities globally.
Infrastructure Systems	International Coalition of Sustainable Infrastructure (ICSI)	Establish guidance and a learning hub for ISCI's 80 organizations reaching engineers worldwide who collaborate with communities in the Global South to spread the use of mental health and built environment principles and best practices.

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SYSTEM	ADOPTER	AIM
Water and Natural Systems	International Union for Conservation of Nature)	Establish an IUCN Friends of Ecological Based Adaptation Working Group on Psychological Resilience to incorporate psychological resilience methods within nature-based projects and policies globally.
Cross-cutting: Planning	BRAC	Integrate community mental health and broader psychological resilience approaches within an effort to spread Locally-Led Adaptation through multiple local municipal governments and partners in Bangladesh.
Cross-cutting: Planning	Urban Sustainability Directors Network (USDN)	Add capability to USDN's cross-USA network of over 200 community-led Resilience Centers to use tools of rapid improvement and implementation to enhance psychological resilience through partnerships with local health systems and government agencies.
Cross-cutting: Planning	World Economic Forum Global Shapers Community (WEF-GSC)	Provide tools and support for any of the 500 GSC Hubs and 10,000 Global Shapers to generate local Roadmap-aligned initiatives as COP <sup>2</sup> Ambassadors. This will include coaching through the youth-led group Force of Nature to adopt and spread their youth climate cafes.
Cross-cutting: Planning	ICLEI	Complete a survey and focus group assessment with local urban governments globally through ICLEI to result in use cases and guidance for ICLEI members to incorporate “health systems” strengthening, consistent with Roadmap principles and best practices, in their local climate adaptation plans.



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SYSTEM	ADOPTER	AIM
Cross-cutting (Finance)	Billion Minds Project Pan-African Collective for Evidence	Manage a phased evidence mapping and review process with a range of finance, insurance, and investment organizations to together identify methods and practices to measure the value of emotional and psychological losses, damages, and strengths and ways they can be applied to invest in and compensate for the costs of climate adaptation.
Cross-cutting (Finance)	YAPU Solutions	Equip microfinance initiatives, such as credit unions serving the Caribbean region, so when they problem solve with community members receiving microfinance for climate damage in highly-climate-impacted low- and middle-income regions they can also engage recipients about their potential emotional and psychological needs.

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# Further Reading

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## ROADMAP BRIEFS:

*HOW NURTURE EFFECTS CAN CONTRIBUTE TO RESILIENCE  
IN COMMUNITIES* BY ANTHONY BIGLAN

*SOLIDARITY SENSE-MAKING* BY JO HAMILTON, JOHN JAMIR BENZON ARUTA,  
AYOMIDE OLUDE, SVETLANA CHIGOZIE ONYE, JENNIFER UCHENDU

*USING WELL-BEING METRICS TO SUPPORT MENTAL HEALTH AND  
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*INNER-OUTER TRANSFORMATIONS* BY KIRA COOPER, OLA TJORNBO, DON  
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*CLIMATE CHANGE + MENTAL HEALTH* BY SUSAN CLAYTON

## REGIONAL DIALOGUE REPORTS

*YEAR TWO* BY NATALIE GREAVES, HALEY BROWN

*YEAR ONE* BY NATALIE GREAVES, HALEY BROWN, GARY BELKIN

## GLOSSARY

# How Nurture Effects Can Contribute to Resilience in Communities

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Worldwide efforts to address the myriad problems that the world faces could be facilitated by application of the principles of Nurturing Environments.<sup>1-3</sup> Research in the behavioral and biological sciences converges in showing that individual and groups flourish in environments that:

Minimize toxic biological and social conditions

Richly reinforce all kinds of prosocial behavior

Minimize opportunities and influences toward problem behavior

Promote psychological flexibility, which involves the mindful pursuit of one's values, even in the context of stressors and barriers.

Over the past fifty years research consistent with this framework has created family, school, organizational, and community programs and policies that have proven benefit in increasing nurturance and thereby preventing all of the most common and costly psychological, behavioral, and health problems.<sup>2</sup> The challenge, however, has been to translate this knowledge into concrete change in communities and nations around the world.

The UN sponsored Race to Resilience has the potential to increase nurturance in communities and to thereby increase its effectiveness in addressing climate change.

# How Nurture Effects Can Contribute to Resilience in Communities

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## How the Promotion of Nurturing Environments Could Enhance Community Resilience

### PSYCHOLOGICAL FLEXIBILITY AND RESILIENCE

Research on psychological flexibility has shown that when people become more psychologically flexible they become more resilient. As people become more psychologically flexible, they get better at managing stressful and discouraging experiences and feelings so those experiences are less likely to stop them from pursuing important goals. Instead, people can become more focused on important values and goals and are better able to pursue them. This is the essence of resilience.

A particularly relevant example of this process is the impact of a program designed to help refugees become more psychologically flexible. Research supported by the World Health Organization has shown that traumatized refugees become less distressed and more focused on pursuing positive goals through a series of six sessions that promote psychological flexibility.<sup>4,5</sup>

### FAMILY INTERVENTIONS THAT PREVENT PROBLEMS AND ENHANCE RESILIENCE

One of the ways in which the trauma of climate change is undermining wellbeing and resilience is in undermining development of youth prosocial behavior and attachments that occurs in the context of family adversity<sup>6</sup> and undermines community solidarity. Fortunately,

there are numerous family programs that have been shown to prevent these problems.<sup>7,8</sup> What is needed is a concerted effort to make these programs available in disadvantaged contexts. A recently developed effort to promote the widespread implementation of culturally appropriate family interventions in under-resourced nations could make a substantial contribution to preventing stress in communities at the same time that it influenced youth to become involved in addressing climate change and its impact on communities. The success of these efforts provides another component to enhancing resilience in communities and preventing its decline.

### SCHOOL INTERVENTIONS THAT PREVENT PROBLEMS AND ENHANCE RESILIENCE

A similar body of evidence shows unequivocally that schools that nurture youth prosocial development prevent academic failure, substance use, and behavior.<sup>2</sup> Two prominent examples of such programs are Cooperative Learning<sup>9-11</sup> and the Good Behavior Game.<sup>12</sup> Systematic efforts to get such programs implementing in schools would bolster youth behavior and connections that underly community cooperation and resilience at the same time that it nurtures the development of prosocial values and behaviors in the next generation.

In addition, schools and communities can do much more to create meaningful roles for youth in which they participate in the efforts of communities to address their problems.<sup>13</sup> In this way you can turn a liability into an important asset.

### PREVENTING PROBLEMATIC

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## INFLUENCES THAT UNDERMINE WELLBEING

There are at least two ways in which individuals and groups are influenced to engage in behavior that is deleterious to them and their community. One is the formation of peer groups that engage in problem behavior. This is especially likely when families, schools, and communities offer limited opportunities for prosocial growth. The family and school programs mentioned above help to promote more nurturing peer group formation, but they are more likely to succeed if the community creates opportunities for meaningful prosocial roles in the community.

Another is how corporations and other economic drivers can have the same deleterious effects. Corporations that market tobacco, alcohol, and unhealthy food are prominent examples.<sup>14</sup> A second way in which corporations may undermine wellbeing is if they oppose policies that benefit poorer segments of the population or promote policies that put the interests of the corporation above the interests of population wellbeing. Thus, countries and communities need to examine how corporate and other economic practices undermine wellbeing and take steps to regulate their practices. The climate context adds a whole other layer to this understanding of corporate and governmental action or inaction on youth. Surveys to date, for example, suggest that the lack of institutional and corporate commitments to tackle climate change exacerbates youth distress, lack of confidence in government and other institutions, and experience of betrayal. How this disaffection

may affect the social fabric and community wellbeing needs to be better understood, but is a substantial cause of concern.<sup>15</sup>

## FOSTERING COOPERATION

The above efforts have great potential for helping communities to take effective action. However, such action requires effective groups and organizations that are working toward well-defined and important goals. Here, the evidence is not as strong as it could be, but there are examples of strategies that are enabling groups to form and take effective action.

One example is the use of [Action Circles](#) to help communities address very specific problems. The complexity and enormity of the problems communities face can be paralyzing. Communities need ways to break the problem down into component steps and create small groups to address each component problem. For example, an effort to reduce greenhouse gas emissions in a community requires affecting myriad diverse practices such as decreasing the use of fossil fuels in transportation, changing building codes, and creating walkable neighborhoods. Achieving each of these goals is made more feasible by creating an Action Circle of ten to twelve people who agree to put a few hours a week for two to three months to work on a problem. Action Circles can also be created to analyze complex problems and identify a set of steps to be taken to address different facets of the problem. Such an Action Circle would then create additional Action Circles to work on each of facet.

Ensuring that groups cooperate effectively is enhanced by promoting psychological flexibility

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of members of the group and the group as a whole. For example, [Prosocial World](#) puts group members through a process in which they clarify their values and goals and examine the thoughts, feelings, and actions that could move them away from achieving their goals and the actions they can take to move forward.

## THE EXPLICIT PROMOTION OF NURTURING VALUES

The explicit promotion of values that favor the nurturance of every person could be helpful. Such values are implicit in all of the family, school, and community efforts that have been shown to promote psychological wellbeing and health. But by making these values explicit a community can enhance support for any given program or policies, by tying it to all of the other nurturing things that are happening in the community. The impact of such overarching values in influencing social behavior are well established.<sup>16</sup>

The reverse of this process has happened over the past fifty years, for example, in the United States. Free market advocacy for values that promoted individuals pursuing their own economic wellbeing with the argument that economic self-aggrandizement would benefit the general wellbeing, shifted values and policies in the U.S. that have increased poverty and economic inequality and caused large disparities in health and wellbeing.<sup>17</sup>

## NURTURANCE AS A VITAL COMPONENT IN ADDRESSING ALL OF OUR NATIONS' PROBLEMS

This brief summary provides a broad outline of many ways in which behavioral science can facilitate community and nation efforts to address the huge challenges that they all face. If it seems useful to find ways to integrate it into the overall effort to promote resilience, we suggest the creation of an Action Circle to identify and implement specific steps.



# How Nurture Effects Can Contribute to Resilience in Communities

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# “Solidarity Sense-Making” Emotions in Motion

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This report makes a cogent case for approaches to enable and resource the tasks of care and concern, and to support and sustain sense-making solidarity for climate change. “Care” involves “making sense,” and is strengthened by capabilities to also enact change with others. In this section we are terming these as approaches for sensibility sensemaking. These reflect a perhaps permanent space of developing and eclectically co-creating spaces and modes of connecting for the mixed and fluctuating work of coping, emotionally grounding, making sense, connecting and sustaining resolve in forms of solidarity with others.

What we know about the approaches

One characterization of how these work is through developing inner resilience - which itself can be a term of varying meaning that draws on and informed by practice and research from a range of lineages. These lineages include psychology and psychotherapy, emotions, values, worldviews, spirituality and religion, contemplative approaches and mindsets, Indigenous wisdom traditions, nature connection, trauma responses, embodied and

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somatic approaches and practices of care, trust and accountability in organisational cultures, society and politics.

There is a nascent yet growing body of research (e.g. Wamsler et al., 2021<sup>1</sup>) attesting to the importance of generating and using insights from these approaches to address the intersecting emergencies of our time. There are increasing examples of projects - such as COP<sup>2</sup> - and meta-studies which draw on a range of inner resilience approaches, for example the [Adaptive Mind project](#), the [Inner Development Goals](#). Despite this, some approaches to inner resilience are marginalised, under the radar, under-resourced or of insufficient scale to support the change needed for transformative sense-making solidarity.

This briefing provides a flavour of approaches used to increase inner resilience for climate justice, acknowledging the constant re/invention and opportunities to apply learning from wider situations. In Section 1 we outline some common principles and potential of these approaches, followed by Section 2, which gives examples of the lineages that inform these approaches (Table 1) and a consideration of the cultural and geographical contexts where forms of sensemaking solidarity are offered. Section 3 provides a Case Study of Sustyvibes, a youth-led group based in Lagos, Nigeria.

<sup>1</sup> Wamsler, C., Osberg, G., Osika, W., Herndersson, H. and Mundaca, L., 2021. Linking internal and external transformation for sustainability and climate action: Towards a new research and policy agenda. *Global Environmental Change*, 71, p.102373.

## PRINCIPLES AND POTENTIAL

Some common principles across the approaches include:

- Approaches enable care and change: often through the interplay of care for self, others and the more-than-human world, and recognition of the intersections between climate crisis and ongoing/historical forms of oppression.
- The creation of safe-enough spaces is important and requires exploring in context. In essence, safe-enough spaces need to balance the needs of trust building, being able to hold potentially strong emotions and insights, to enable room for growth and to practice forms of repair if harm from oppressions is caused.
- Approaches that build community: there is a generative impact of having previously privately-held feelings witnessed and validated by wider groups, which can foster community solidarity and agency. Such approaches foster a sense of common humanity, which allows people with lived experiences of climate crisis and its mental health impacts to perceive them as shared human experience and realise that they are not alone in their struggles.
- Non-judgemental spaces: where participants can explore and express their authentic self and most genuine mental/emotional experiences, thoughts and responses in relation to the climate crisis.
- The granularity of emotional responses and how they are experienced requires attention. Simply put, ‘grief’ will be experienced differently according to intensity, context, meaning, cultural valuing, and how it connects to existing or anticipatory loss.

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– Approaches are not prescriptive about an ‘action’ outcome, aside from taking action with care and compassion. They aim to be generative spaces to enable people and organisations to resource themselves to increase their sense of individual and collective agency and bring their best response.

– Trauma-informed spaces, which can acknowledge, detect, assess, and provide support when/if trauma arises.

### Potential of these approaches:

The overall insights from these approaches demonstrate that - in different ways - they can encourage and support imaginative, potent and powerful forms of sensemaking solidarity with the climate crisis at different scales. As the extent of climate crisis impacts, and motivation for engaging with solidarity and collective actions varies across cultures and contexts, approaches need to be suited to their context. Contexts include geographical location, cultures, whether offered by/ aimed at youth/ adults, whether offered by anchor organisations/workplaces/aligned to specific movements or offered as voluntary practices, and degree of impact from and/ or engagement with the climate crisis.

In the Global North, there is evidence<sup>2</sup> that forms of inner resilience work are marginalised within climate movements, and that some people feel such work is inaccessible, exclusive or a distraction to the urgent action needed. To achieve greater impacts, inner resilience approaches need scaling up and resourcing, which could be supported by a more robust evidence base. Ongoing forms of research and evaluation are needed to answer overarching questions such as ‘What approaches to developing psychological resilience are used for whom, in what contexts, with what resources and with what impact?’ It is also necessary to identify high-impact climate engagement (e.g. working with policy decision makers) given the urgency of the climate crisis and to foster hope among people as a form of strengthening psychological resilience.

<sup>2</sup> Power, C., 2016. The Integrity of Process: Is Inner Transition Sufficient? *Journal of Social and Political Psychology*, 4(1), pp. 347–363. doi:10.5964/jsp.p.v4i1.538.

# “Solidarity Sense-Making” Emotions in Motion

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## LINEAGES AND CONTEXTS OF THE APPROACHES

### Lineages

To inhabit a principle of recognition justice, these approaches need to acknowledge the lineages and traditions that they draw on, and where necessary make explicit the changes made to adapt to different contexts. Table 1 provides a non-exhaustive list of lineages of wisdom and practice that inner resilience approaches draw on, together with a short description and some examples.

LINEAGE	DESCRIPTION AND EXAMPLES (WHICH DRAW FROM BUT ARE NOT LIMITED TO THE LINEAGE!)
Buddhism and Contemplative Practices	<p>Contemplative approaches draw on meditation and mindfulness approaches from Buddhism and contemplative spiritualities and wisdom traditions.</p> <p>A range of approaches draw on contemplative approaches from Buddhism. A growing body of research focusing on Mindfulness Based Interventions (MBIs) suggests they have the potential to support shifts in behaviour and adaptation in different contexts and scales and encourage a shift in creative and holistic policymaking, e.g., Wamsler et al.3; Bristow, 20194.</p> <p>The <a href="#">Work that Reconnects</a> (and <a href="#">Active Hope</a>), based on the teachings of Joanna Macy, draws on Buddhist philosophy and practices (together with deep ecology, systems science and Indigenous wisdom traditions). They aim to enable a deepening connection to self, others and the more than human world, with the intention of building the capacity to respond to the climate and wider emergencies. Research findings indicate that for those with pre-existing active engagement in social and environmental justice, participation was resourcing and engendered a renewed commitment to action (Hathaway, 20175; Hollis-Walker, 20126; Johnstone, 2002, Hamilton, 20227).</p>

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## LINEAGE

## DESCRIPTION AND EXAMPLES

(WHICH DRAW FROM BUT ARE NOT LIMITED TO THE LINEAGE!)

Western  
Psychotherapy

Theories of grief and loss (Kübler-Ross, 19708, and Worden, 19919) can be usefully applied to feelings of actual or anticipated loss associated with the climate crisis (Randall, 200910).

Grief tending approaches draw on these and a range of faith-based traditions, e.g. the [Good Grief Network](#).

Psychologically-based groups to help people ‘respond creatively and collectively to our global dilemmas’ exist such as Living with the Climate Crisis. Knowledge of defence mechanisms, denial, ambivalence are integrated into approaches such as [Project Inside-Out](#).

Trauma informed approaches integrate theory and practice of trauma, for example the Trauma Resource Institute (TRI) which cultivates ‘trauma- informed and resiliency-focused individuals and communities throughout the world’.

Western  
Psychotherapy

Indigenous wisdom and practice traditions are often collective beliefs that represent and prioritise harmonious relationships of people and nature, which practitioners integrate into modern approaches. For example, grief tending practices from the Dagarra group from Burkina Faso, popularised by the late [Sobunfu Somé](#) and Malidoma Somé<sup>11</sup>, have been integrated into Weller’s ‘gates of grief’ (Weller, 2015<sup>12</sup>), Ungunmerr-Baumann et al., (2022) integrate [Dadirri](#) or ‘inner deep listening and quiet still awareness’ of Australian Aboriginal peoples<sup>13</sup> into research approaches.

Western  
Psychotherapy

Approaches embedded within religious and spiritual traditions and movements (Rothberg and Coder, 2013<sup>14</sup>), build on hundreds of years of engaged praxis where faith is combined with contemplative practices, rituals, and engaged social action, and an acknowledgement of interdependence. Examples include Islamic ecology, permaculture and leadership group [Wisdom in Nature](#), and Pope Francis’s Encyclical (CAFOD, 2020<sup>15</sup>).

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## LINEAGE

## DESCRIPTION AND EXAMPLES

(WHICH DRAW FROM BUT ARE NOT LIMITED TO THE LINEAGE!)

Nature connection  
and more than  
human practices

Connection with nature and the more-than-human world includes practices to reclaim relationships, which can contribute to expansive worldviews and the development of an ‘ecological self’. For example, the ‘Natural Change Project’ (Kerr and Key, 201216) provided motivation and resourcing for pro-socio-ecological work.

Creativity and  
imagination

Creative approaches use expressive and performing arts such as writing, dance, visual art, photography, singing and voice work to enable a different connection with climate justice. For example, Cape Farewell curates a collection of testimonies and research reports offering a range of reflections about art and engagement with climate change, and the reflection it can stimulate (Roosen et al., 201817). Creating and listening to stories in communities can enable greater engagement in complex issues such as energy and climate change (Smith et al., 201718), whilst courses such as those offered by [Bayo Akomolafe](#) invite a potent exploration through creativity, wisdom traditions and community building.

Somatic and  
body-based  
approaches

Bringing the knowledge and praxis of somatics into the politics of movements for change. Examples include [Generative Somatics](#).



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## CONTEXTS FOR SENSEMAKING SOLIDARITY

Alongside acknowledging the lineages and traditions, attention is needed to the context: the cultural and physical locations and situations where forms of sensemaking solidarity to develop inner resilience are offered and applied. Examples of different contexts follow, which include geographical and social locations, children and youth focus, creative approaches, stages of engagement.

The degree of resourcing, acknowledgement and space afforded to inner resilience in the contexts they are offered and experienced in will influence their effectiveness and impact. The fast-moving nature of climate justice requires ongoing support and reinforcement that recognises the need for cultures (e.g. within workplaces / organisations) to support acts and interventions of sense-making solidarity. This includes building, nurturing and maintaining cultures of consent, trust, accountability and reciprocity (Whyte, 2019).

3 Whyte, K. (2019). Too late for indigenous climate justice: Ecological and relational tipping points. *WIREs Clim. Change*. 11, e603. doi: 10.1002/wcc.603 Online

## GEOGRAPHICAL AND SOCIAL LOCATION

Geographical and social location can amplify climate and disaster vulnerability and can pose challenges to climate mitigation, adaptation, and resilience strategies. For example, approaches will need attunement to contexts of:

- those already experiencing devastating physical and psychological impacts from direct experience of typhoons, droughts, floods, heatwaves, displacement, migration, and the impacts of resource extraction, and
- those experiencing minimal impact at present (e.g. more affluent people in the Global North), but knowledge of the climate crisis foreshadows more severe impacts directly/ indirectly, such as climate anxiety and/or grief and backlash from mitigation strategies experienced as identity threats or a loss of future expectations.

Social location refers to the relative affluence/ poverty experienced in society. While it recognizes that people in Global South countries face the intensified impacts of the climate crisis due to their lack of economic capacity and safe and stable infrastructures and resilience systems, people in the Global North are relatively more sheltered from the severe direct impacts. Even within countries, some populations and groups are more vulnerable to the brunt of climate hazards than others. For instance, individuals and families with low-income backgrounds in Global North countries are disproportionately impacted by extreme heat and cold and other climate hazards.

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To bridge the gap between different regions, one approach is to utilize digital platforms and international meetups to showcase climate stories from the Global South and share them with the diaspora in the Global North. Work by the Nigeria-based organization, Sustyvibes has witnessed growing trends of global youth dialogues and gatherings, led by young people coming together to connect and collaborate with peers. This approach has proven effective in allowing people from diverse backgrounds to share their personal experiences and gain validation. It has been shown to foster resilience and even spark action, especially when conducted in a supportive and non-judgmental environment, where all participants are encouraged to connect on a human level through openness and vulnerability.

## CHILDREN AND YOUTH FOCUS

Climate justice affects and impacts youth and young people in different ways, as they generally have less agency to effect change than adults, and are growing up impacted by the knowledge and witnessing/experiencing the impacts. Importantly, it is their future that is threatened by the future and long-term consequences of the climate crisis. Hickman, Marks et al., 2021<sup>4</sup> found that ‘climate anxiety and distress were correlated with perceived inadequate government response and associated feelings of betrayal’. Examples

4 Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R.E., Mayall, E.E., Wray, B., Mellor, C. and van Susteren, L., 2021. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *The Lancet Planetary Health*, 5(12), pp.e863-e873. [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3)

of projects aimed at building the inner resilience of youth include [Climate Psychology Alliance](#), [SustyVibes](#) who focus on Climate and Mental Health issues through their flagship project, [The Eco-Anxiety Africa Project](#), and [Climate Youth Resilience](#) project.

## THE PUSH AND PULL FACTORS TO PARTICIPATING IN FORMS OF SENSEMAKING SOLIDARITY

How approaches are applied and used is influenced by where they are offered, for example as part of movements for social justice, through the workplace, or through existing anchor organisations.

Approaches that are integrated into workplaces, education, organisations for social change or through anchor organisations such as mental health provision/primary care can achieve a scale of uptake, voluntary workshops can achieve depth and focus but may struggle to be applied at scale. Both need to be linked to a menu of ongoing forms of support and resourcing (e.g. follow-on groups, or one to one support) which take into consideration the needs of individuals and organisations.

## STAGE OF DIRECT / INDIRECT ENGAGEMENT

Approaches need to consider the stage of engagement. For example, approaches integrated into initial engagement about causes and impacts of climate change need to model and acknowledge forms of denial (of not wanting to know) and grief (fear of loss of expectations, identity threats). Those who are actively engaged might require places to express

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anger at the inadequate level of action, or from impacts of law enforcement when protesting.

## Some examples include:

– Climate cafes, which are publicly accessible, friendly and empathic spaces to explore feelings and responses to climate change, and suitable for early and ongoing climate change engagement.

– [Inner Transition](#) (part of the [Transition Network](#), a ‘movement of communities coming together to reimagine and rebuild our world’) is aimed at those already involved in movements for change. Research has highlighted that Inner Transition practices can contribute to the development of successful projects and has encouraged emotional awareness in all activities (Banks, 2012<sup>5</sup>), but is sometimes marginalised within such movements (Power, 2016<sup>6</sup>).

– [Deep Adaptation Forum](#) is aimed at those who are already facing the realities of the climate crisis, and exists to ‘connect people, in all spheres of life, to foster mutual support and collaboration in the process of anticipating, observing, and experiencing societal disruption and collapse’.

– Research is a way to include the stories of local people and their communities. When people take part as guides in the research, it becomes more collaborative and ensures

5 Banks, S., 2012. Inner Transition survey results. [pdf] Transition Network. Available at: <http://www.transitionnetwork.org/resources/inner-transition-survey-results> [Accessed 12 June 2016].

6 Power, C., 2016. The Integrity of Process: Is Inner Transition Sufficient? *Journal of Social and Political Psychology*, 4(1), pp. 347–363. doi:10.5964/jpspp.v4i1.538.

that on-the-ground needs can match up with policy decisions, contributing to representation justice. It is an important step in empowering individuals because involving them emphasises the importance of their input and lived experience, and when they see their input being implemented, they see that they are an agent of change.

## CASE STUDY: SUSTYVIBES YOUTH DIALOGUES

[SustyVibes](#) connects youth to incorporate sustainable change, ways of living, and collaboration in their lives. Its focus on Climate and Mental Health issues is through their flagship project, [The Eco-Anxiety Africa Project](#). SustyVibes captures the range and versatility of bringing a psychological lens to those objectives.

## CREATIVITY AS ADVOCACY AND MAKING SENSE OF EMOTIONS

At SustyVibes, we recognise the important role art plays in advocacy and storytelling when it comes to climate justice and sustainability. This is why, at SustyVibes, we use the term “Artvocacy” to describe the creative activities we do to share the message of sustainability, including dance, music, humour, and art. These artistic expressions give young people a form of agency and encourages them to see that their gifts and talents can be used in advocacy, that change is not only through more academic or professional avenues. Creative arts are also known ways to help those struggling with mental health so it has encouraged healthier coping strategies for ecoanxiety. Activities that our community

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enjoy engaging in include our “SustyParties” (a sustainability-themed party with several sub-themes ranging from bridging generations, mental health awareness and creating joy) where young people have the opportunity not only to connect but feel validated in their environmentally related emotions.

## EMOTIONAL THEMES

During our virtual and physical dialogues, we facilitated a safe space for young people to be vulnerable and honest about the real impacts of climate change on their mental health and livelihoods. In these dialogues we heard the lived experience of those who are in countries facing natural disasters and those who are living the economic and social consequences of environmental changes in their country including prolonged dry season and intense flooding. Throughout the conversations where young people shared their stories and feelings, we were able to pick up on recurring emotions that young people feel during this time. Additionally, through our virtual dialogue which was attended by both participants in the Global South and Global North we were also able to pick up on the difference in feeling and awareness of what is happening in the world when it comes to climate change.

## Some examples of the recurring emotions include:

### STRESS AND DISRUPTION

Multiple young people in the Global South spoke of the multifaceted impacts of extreme weather events in their daily lives and how this causes stress and disruption. For example, a mudslide in Sierra Leone forced many people to relocate which resulted in job changes, school changes and other living changes which impacted families economically. For young people, the stress of these changes and constant loss and adaptation can severely impact their mental health. This came up again in the lived experience of other young people in different parts of the Global South such as flooding in the Philippines and Nigeria. In the case of flooding, it did not mean relocation but it meant that the infrastructure to continue to go to school ceased as well as the ability to continue to engage with online communities or activities. This again emphasises the disruption that extreme weather events cause in the lives of young people and the ensuing effect it has on their mental health. The stress is the result of questions that cannot be answered by civilians when it comes to extreme weather, such as: Why did this happen? How long will this continue? Where will we go? How will this affect my education/friends/family/dreams?

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## ANXIETY, GRIEF AND HELPLESSNESS

Young people expressed feeling anxiousness, grief and helplessness concerning climate change and its impact on their lives and the surrounding world. Multiple young people from the Global South brought up the helplessness that they experience when nothing is done to help their country face extreme weather conditions, especially seeing a lack of support from the Global North. This enforces an idea that the events they experience will continue to happen and that they will have to adapt and accept the consequences of climate on their livelihoods. As they witness these extreme weather conditions and the destruction that it causes, it also brings up levels of grief for young people whether it is grief because of homes lost or grief because of the permanent life changes that take place as a result of extreme weather.

## IGNORED/LACK OF AGENCY AND INFLUENCE IN POLICY

Another emotional tone which was recurring throughout our dialogues is that young people do not have agency or influence in policy or governmental action when it comes to tackling climate change. This is frustrating when considering how much climate change impacts the lives of young people and their future. Young people believe they should be involved in policy making processes and that they should be given the opportunity to lead during research processes.

## GEOGRAPHICAL DISSONANCE

In the virtual dialogue we did notice a difference when it came to the experiences of those living in the Global South and those in the Global North. For those in the Global North where the impact of climate change is not experienced as severely, some young people spoke about how unaware they had been about climate change and the impact it has been having on people. Some participants from the diaspora also spoke about how though they experience the impact of climate change in their lives, they know of what's been happening in the Global South due to conversations with family and friends from their home country. This geographical dissonance highlights how climate stories from the Global South are still not prominently known in the Global North which impacts climate knowledge in the North and climate support in the South.

## THE COLLECTIVE IMPACT OF DIALOGUES AND STORY SHARING

The dialogues were a testament to the importance of bringing young people together and creating safe spaces for them to openly talk about climate change and its influence on mental health. This helped young people to realise that their stories are shared and that across nations, other people are experiencing severe weather changes and the economic and social impacts of this and how it feeds into one's emotions and mental state.

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Positively, it also gave young people a room to advocate for themselves. Many young people discussed the ways they can become more aware of climate change, the ways they can build communities centred on research and advocacy and how to form youth-led initiatives that help one another.

This enforces the idea that young people do not have to be in academia or particular circles to have access to platforms that can educate them and help them fight for their cause. Instead the dialogues created the space for everyone to come together from all over the world and feel comforted by the fact that their emotions are felt collectively as is their desire to be included in progressive climate action.

# Using Well-being Metrics to Support Mental Health + the Environment

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WHAT WORKS WELLBEING

Climate change is happening. It is increasingly obvious that it is affecting, and will affect, human wellbeing in a variety of ways, from physical health to economic productivity. Some of those impacts are on mental health. **To recognize these impacts, we need to think about how to define human wellbeing.** As described by the World Health Organization, it is more than the absence of disease (World Health Organization, 2018) and includes the possibility of optimal functioning.

Adverse impacts from climate change can include not only clinical conditions like depression, anxiety, or post-traumatic stress disorder, but also impaired cognitive functioning, emotional or behavioral control, economic productivity, or social relationships. And while many of the impacts are short-term, some have lasting impacts or may be permanent, particularly in the case of young children whose brains are still developing.



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WHAT WORKS WELLBEING

A growing, global research literature points to factors that strongly affect one's sense of well-being: mental and physical health; positive, supportive relationships; economic and emotional security; a sense of purpose; autonomy; and opportunities for growth. Daily experiences also have an effect. Analyzing how people assess these factors in their lives and reviewing the detailed literature relating to these influences can enable policymakers to design interventions that improve subjective and other dimensions of well-being. Doing so lends detail but also methods to not just capture, but act on what can otherwise seem as abstract or elusive realities of life, rather than often critical drivers and glue for it. While often subjective, these features can drive hard, objective realities.<sup>1</sup>

Peer support and relationships, and reliably captured dimensions of things like psychological flexibility and hope, can yield real abilities for people to change their lives. Hope for example reflects agency and sense of life purpose. Recent research, finds, for example, that low income adolescents with high levels of hope are more likely to pursue higher levels of education and avoid risky behaviors.<sup>2</sup>

Prosocial attitudes and connections seem to buffer sustained wellbeing in face of mental

illness and social determinants and assaults on mental health<sup>3</sup>. Positive mental & subjective wellbeing helps people do key things they need to do—take care of themselves and each other, stay employed, collaborate with others and sustain relationships and social capital, make societal contributions.<sup>4</sup> And this “glue” grows inter-generationally. There is good longitudinal evidence that mothers mental health matters for later child and adult wellbeing too<sup>5</sup> Social and emotional learning and related resilience building programs in both global north and south have shown great flexibility and possibilities for scale and promoting wellbeing when done well (with focused skill reinforcement, and quality and feedback loops).<sup>6</sup>

## FROM NEIGHBORHOODS TO NATIONS

In growing examples such as these residents and local governments can map how regions or neighborhoods differ in elements they can

1 De Neve, J. E., and Diener, E., Tay, L., Xuereb, C. (2013, August 6). The objective benefits of subjective well-being. In Helliwell, J., Layard, R., & Sachs, J., eds. World Happiness Report. New York: UN Sustainable Development Solutions Network., Available at SSRN: <https://ssrn.com/abstract=2306651>

2 Graham, C. The Power of Hope: How the Science of Well-Being Can Save Us from Despair. Princeton University Press.

3 Patalay, P., Fitzsimons, E. (2016, 9 September). Correlates of mental illness and wellbeing in children: are they the same? Results From the UK millennium cohort study. PhD Journal of the American Academy of child & adolescent psychiatry, volume 55.

4 De Neve, J. E., Diener, E., Tay, L. (2013, January). Objective benefits of subjective wellbeing. [https://www.researchgate.net/publication/255483372\\_The\\_Objective\\_Benefits\\_of\\_Subjective\\_Well-Being](https://www.researchgate.net/publication/255483372_The_Objective_Benefits_of_Subjective_Well-Being)

5 What Works Wellbeing. (2018, January 22). Origins of happiness: new research. <https://whatworkswellbeing.org/blog/origins-of-happiness-new-research/>

6 Clarke, A., Sorgenfrei, M., Mulcahy, J., Davie, P., Friedrich, C. & McBride, T. (2021). Adolescent mental health: A systematic review on the effectiveness of school-based interventions. Early Intervention Foundation. <https://www.eif.org.uk/report/adolescent-mental-health-a-systematic-review-on-the-effectiveness-of-school-based-interventions>

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WHAT WORKS WELLBEING

also craft and identify as priority for wellbeing where they live.<sup>7</sup> Incorporating wellbeing aims and measures whether at hyperlocal or national levels enhance these factors by spotlighting the multifactorial approaches and policy areas that can come together to do that. National and local governments, as well as community organizations, are now regularly using well-being metrics as complements to the income and other objective metrics typically used when designing policies and monitoring their successes and weaknesses.

The United Kingdom's Measuring National Well-being program assesses a range of subjective and objective indicators of the aspects of citizens' lives that public consultation and evidence have deemed most important to track.<sup>8</sup> It includes the so-called ONS4 personal subjective wellbeing measures, a set of four questions that are now included regularly in official statistics and cover the three main well-being dimensions: life satisfaction (evaluative), happiness and anxiety yesterday (hedonic), and meaning and purpose (eudaimonic). Several other countries, ranging from Canada to Chile, have also incorporated these kinds of well-being metrics into their

7 Happy City Bristol, Wellbeing in the Nation ([wellbeinginthenation.org](http://wellbeinginthenation.org))

8 "UK Measures of National Well-Being Dashboard - Office for National Statistics." <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/ukmeasuresofnationalwellbeing/dashboard>.

official statistics.<sup>9</sup> Scotland's 2008 National Performance Framework sets out a vision of national well-being and then charts progress toward the vision through a range of social, environmental, and economic indicators, such as increasing physical activity and access to local green spaces. Drawing out what matters in this broad sense is done with the intention of understanding and changing national priorities. Similarly, the Wellbeing of Future Generations Act 2015 in Wales legislates for national wellbeing goals.<sup>10</sup>

There are also local and municipal efforts to assess well-being in a broad sense. The City of Santa Monica, for example, constructed a citywide, multidimensional well-being index in 2015. The city included hedonic and evaluative measures and found that residents are generally satisfied with life, that middle-aged people report greater stress than other groups do, that women report lower life satisfaction than men do, and that Latino residents report greater stress and loneliness than members of other ethnic groups do. The city has used the results from that index to identify priorities and undertake multiple projects to enhance community- and city-level well-being. These include organizing community walks in green spaces and providing opportunities

9 "Subjective Wellbeing Measurement across the Globe - OECD Review of Current Practice and a New Frontier." What Works Wellbeing, October 12, 2023. <https://whatworkswellbeing.org/blog/subjective-wellbeing-measurement-across-the-globe-oecd-review-of-current-practice-and-a-new-frontier/>.

10 "Well-Being of Future Generations (Wales) Act 2015: The Essentials." Gov Wales, June 15, 2021. <https://www.gov.wales/well-being-future-generations-act-essentials-html>.

# Using Well-being Metrics to Support Mental Health + the Environment

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for community members to participate in the arts or other activities that tend to enhance well-being and reduce loneliness.

## ADDING A NEW LENS ACROSS ALL POLICIES

Making tangible how much mental health is larger than health care but is a means and an end of wider policy domains, can change those domains, including mental health systems themselves. For example, in response to well-being surveys, the UK instituted the Increasing Access to Psychological Therapy program, which eases access to care for common mental health conditions by providing it free in the local community. But such surveys also pointed to social innovations and other sector-opportunities, such as establishing the National Citizen Service, which deploys volunteers to help 16-year-olds develop the skills needed to be active and responsible citizens, mix with people from different backgrounds and start getting involved in their communities. And, recognizing the importance of relationships for well-being, the United Kingdom has developed an evidence-based strategy to tackle loneliness across the life course. Meanwhile, schools have been testing a new curriculum, developed as part of a program to teach resiliency, with lessons in areas important for well-being, including relationships, social media awareness, and mindfulness.

Other areas of policymaking can be similarly affected.<sup>11</sup> In a traditional approach to policymaking, the goal of increased employment would be enough if it were coupled with efforts to ensure that the jobs created paid at least a living wage. Yet epidemiological studies show that improvements in autonomy, support, the balance of demands, and security in the workplace yield long-term mental and physical health, and by extension, social and community benefits. Research also suggests that expanding mental health services, supporting personal development, and helping people improve their relationships can all have long-term effects on well-being. Even addressing unexpected noise—such as through better insulation—could be more important for well-being than, say, providing larger living spaces. Policymakers also confront numerous options for how to implement different programs and policies; well-being evidence can help to guide these choices. A critical factor is this is accounting for the importance of relationships, inclusion, and the ability of the people who are affected by a policy or program to influence the decisions that are important to their lives.

Cost-benefit analyses typically add up the economic benefits of an existing or proposed action and weigh these against the costs to yield a monetary metric to compare the options and trade-offs. Yet it is also feasible to put a monetary value on well-being evaluations. While cost-benefit analyses have

<sup>11</sup> “Wellbeing at the Heart of Policy: Setting out the WISER Priorities.” What Works Wellbeing, October 5, 2023. <https://whatworkswellbeing.org/blog/wellbeing-at-the-heart-of-policy-setting-out-the-wiser-priorities/>.

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always aimed to include all the aspects that are important for human welfare and already incorporate assessments of various nonmarket influences on society and economies (ones that are not traded in markets, such as clean air and cohesive communities), today's methods enable nonmarket influences to be incorporated more thoroughly.<sup>12</sup>

Well-being evidence enhances cost–benefit analysis in three ways. First, the evidence lengthens the list of the types of important benefits and costs that can be quantified and included in the analysis. Subjective well-being evidence can demonstrate that the impacts (benefits or costs) on individuals may be larger or smaller than those observed through individuals' behavior or through market prices. Last, well-being evidence demonstrates that a well-being gain associated with an additional increment of income is likely to be higher for a low-income recipient than for a high-income recipient. Benefits and costs can then be weighted to increase the monetary value of benefits or costs that accrue to lower income individuals or households. A good example of this is to account for the extra costs that low-income people bear from climate change as they live in more vulnerable places, such as evaluating and monetizing the subjective well-being impact of flooding inside and outside of people's homes to justify investments in reducing such incidents. For example, Wellbeing Valuation tools were used to calculate a per-property wellbeing value of [Pounds sign] 25,000 in

12 "Levelling Up the United Kingdom: White Paper." GOV. UK. February 2, 2022. <https://www.gov.uk/government/publications/levelling-up-the-united-kingdom>.

a flood affected area.<sup>13</sup> And the UK treasury as part of increasing efforts to align expenditures with well-being aims, in its Leveling Up White Paper used the WELLBYs approach to measuring wellbeing to estimate that raising the bottom quartile of the population in terms of wellbeing to the UK average life satisfaction score would be worth £57bn – £92bn (p.129).

In New Zealand in 2019, similarly applied a treasury tool for conducting cost–benefit analyses during budgeting began to include subjective well-being data alongside additional measures of public welfare.<sup>13</sup> To create transparency about the implicit trade-offs related to each monetized value, the treasury makes analyses public—a move that has encouraged greater (and ongoing) discussion of how to place monetary values on well-being. Cost–benefit analyses incorporating subjective well-being metrics were among the inputs into New Zealand's first well-being budget, which required ministers to show how their investment proposals would meet five well-being priorities, among child well-being (reducing rates of family violence) and transforming the economy (reducing greenhouse gas emissions, soil erosion, waste, and water pollution). While predominantly growing as a practice in higher-income "global north" countries, such methods are spreading and showing potential wide geographic utility. We often hear that it can be difficult to evaluate wellbeing impact in some settings. But

13 Fujiwara, Daniel, Richard Houston, Kieran Keohane, Ilian Gramatki, and Cem Maxwell. "Valuation of the Impact of Roadworks and Flooding Using the Wellbeing Valuation Method." Simetrica, 2018. <https://www.anglianwater.co.uk/siteassets/household/about-us/pr19-12f-valuation-of-the-impact-of-roadworks-and-flooding-using-the-wellbeing-valuation-method.pdf>.

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wellbeing measurement and valuation has been done in many settings including across Africa, in the Seychelles and Vanuatu as well as in OECD countries.[INSERT Tearfund cite]

## PROMOTING PUBLIC HEALTH

Evaluations of medical treatments are usually evaluated for their impact on quality-adjusted life years (QALYs), which essentially discount the years of life one lives with a particular affliction by the extent to which the condition reduces the quality of life. (A QALY value of 1 for a year reflects a year of perfect health; 0 represents death.) The limitations of this framework can be remedied by incorporating well-being data. For one, treatments that might improve social relationships or a sense of independence (which are known to be important for well-being) generally receive no credit in standard analyses. Each treatment or disorder has well-being effects on caregivers, friends, and relatives which are also ignored in traditional analyses. Finally, as with stated preferences, the lived experiences of these conditions may differ from those estimates. Life-satisfaction surveys make it possible to assess the costs to well-being from the reported experiences of individuals who are affected by the conditions in question. A focus on understanding lived experiences would lead to greater priority being given to mental health and to improved end-of-life care, including more emphasis on palliative care and pain relief.

The UK Treasury's Green Book states that, in some cases, well-being may be the most appropriate measure for assessing cost-effectiveness when comparing options for achieving goals such as improving children's mental health. The New Zealand Treasury exemplifies this understanding in its well-being-based

approach to setting spending priorities during budgeting. At the operational level, it has specified 12 well-being outcomes (measured by the ONS4 questions and other metrics) and four kinds of capital (natural, human, physical and financial, and social), and it assesses all budget decisions on the basis of whether they address the health of the four capitals and attack social and demographic inequalities in well-being; it also projects how resource-allocation decisions will affect each capital's ability to improve current or future well-being.

The science of well-being is increasingly informing the focus of policies and programs. People's sense of well-being depends on having good mental and physical health, relationships, security, autonomy, opportunities to participate in work and community, a sense of purpose and growth, and positive daily experiences. It is also evident that people often think they will be affected by experiences more (or less) than they are and decisions can now reflect lived reality rather than only how people expect to react to situations. At a societal level, it is important to focus on improving the lot of those with the lowest levels of well-being as well and high levels of vulnerability, such as those with mental health conditions or living in areas vulnerable to climate change disasters. Reducing the ill-being of unemployed individuals, meanwhile, is likely to have positive spillover effects for the families and communities surrounding them. The science of well-being offers a new and robust lens into how humans experience economic processes and their lives more generally. Gaining that understanding is an important first step to designing policies to help improve people's lives.

# Inner-Outer Transformations

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Shifting towards a more sustainable future amidst worsening interconnected social and ecological crises is a daunting task. Among the many challenges facing the Earth and its inhabitants, worsening mental health, deepening rates of poverty, accelerating losses of biological diversity, and a warming climate profoundly complexify efforts to enhance conditions for collective flourishing. Strengthening capacities to respond to change will entail, among many things, enhancing individual and collective resilience (Folke, 2006). **Resilience conveys multiple meanings in different contexts. In ecological contexts, resilience describes how a system can learn, adapt, self-organize and sustain its general functions when exposed to stressors (Holling, 1973; Walker & Salt, 2006). Similar yet also quite different, resilience in social contexts refers to processes and capacities that enable individuals and communities to respond to crisis and adversity (Afek et al., 2021; APA, 2022).** Foundational to both conceptions, resilience is a process of responding to change with flexibility, adaptability, transformability, and integrity without breaking down or collapse (Armitage et al., 2012; Reyers et al., 2022). Since social-ecological systems (SES) are deeply entwined and interacting, successfully leveraging paradigmatic shifts towards collective wellbeing requires synergistic transformations across multiple scales (Moore et al., 2014; Olsson et al., 2022).



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As convenient as it would be, there is no universal checklist or map for how to achieve such transformations. Insights gleaned from various traditional ways of seeing, being, and relating have diverse approaches for cultivating generative capacities and mindsets for collective flourishing. However, engineering interventions and tools in instrumental ways that decontextualize these existing sources of wisdom(s) and knowledge(s) in order to somehow achieve a more widespread effect is problematic. Ensuring that approaches to inner and outer transformations interrupt instead of reproduce patterns of exploitation, hegemony, and violence requires on-going assessment and evaluation.

Attempts to simplify understandings of and solutions to complex social and ecological challenges reproduce unsustainable system dynamics thus undermining both individual and collective transformative capacities including resilience (Bennett & Lemoine, 2014; Bentz et al., 2022). Qualities of resilience help social-ecological systems (SES) respond to threats such as climate change. Biological systems – including those that have been or are currently experiencing environmental degradation – and social systems – especially those that have or continue to be oppressed through processes such as colonisation – face additional challenges that undermine their resilience. Responding to the need for change at one scale in increasingly volatile, uncertain, complex, and ambiguous (VUCA) conditions will require systemic innovations (Westley et al., 2013).

The International Panel on Climate Change (IPCC), the World Wildlife Foundation (WWF), and the Intergovernmental Science-Policy

Platform on Biodiversity and Ecosystem Services (IPBES) are among several prominent organizations advocating that responses to complex challenges such as climate change can no longer be approached through governance mechanisms or technology alone, but rather, require a profound change in dominant ways of thinking (IPBES, 2022; IPCC, 2021; WWF, 2018). Interest in leveraging inner dimensions for broader systemic change is increasing in areas such as governance, economics, and climate (Grenni et al., 2020; Lynam, 2019). Despite the mounting interest, shifting what is collectively described as “mindsets” including values, worldviews, and beliefs (Wamsler, 2018; Woiwode et al., 2021) will require profound psychocultural transformations (Berzonsky & Moser, 2017; Hedlund-de Witt et al., 2014; Ives et al., 2023).

Mindsets are commonly described as lenses through which individuals or groups of people think, act, and relate (Wamsler, 2020; Wamsler & Osberg, 2022). Comprised of values, beliefs, and worldviews, these inner dimensions strongly influence how individuals see themselves in relation to the world, thus play a key role in influencing how they interact with others and their environment (Horcea-Milcu, 2022; Horlings, 2015; Schreuder & Horlings, 2022). At the core of many issues underpinning unsustainability is a dominant modern-colonial mindset that values growth, consumption, and competition (Dunlap, 2023; Machado de Oliveria, 2021; Wispelwey et al., 2023). This anthropocentric and hegemonic way of seeing and relating in the world is problematic for many reasons. First, infinite growth on a finite planet is simply not feasible given resource limitations (Meadows, 2008; Rockström et al., 2009).



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Second, concentrated power in wealthy nations is driving overconsumption by a relatively small population, thus worsening conditions for SES across the globe through pollution, privation, and exploitation (Ahlström et al., 2020; Bahadur & Tanner, 2014). Third, competition within and between nations is compounding issues that undermine long-term viability through pathways such as conflict, pollution, energy and resource consumption (Fan & Hui, 2020; Namany et al., 2023). Fourth systems of coloniality strongly limit capacities for mitigation, adaptation, and transformation in vulnerable communities who are most directly affected by issues such as climate change (Bordner et al., 2020; Pfalzgraf, 2021; Reibold, 2022). These and many more factors elucidate that progress towards a more just and viable future is intrinsically linked to changes in both individual and collective mindsets that shape SES (Moore & Milkoreit, 2020; O'Brien, 2019).

## **BENEFITS OF INNER TRANSFORMATION**

Characterized by their rich diversity, mindsets vary across culture, place, space, and time. Shaped by religious, spiritual, and traditional knowledge, these inner dimensions strongly influence processes of sensemaking and systems of valuation. In addition to cultural influences, mindsets shape and are also shaped by the unique landscapes to which individuals are connected (Barca et al., 2012; Gray & Manuel-Navarrete, 2021; Grenni et al., 2020). For thousands of years, cultures that prioritized mindsets oriented towards collective and long-term viability endured, whereas those that had narrow and short-term goals often

collapsed (Davis, 2009; Wright, 2004). There is undoubtedly deep wisdom to be learned from these traditions and other ways of living that prioritize collective and long-term flourishing.

Once primarily influenced by local place-based ways of knowing, being, and doing, mindsets are now informed by forces of globalization at an unprecedented speed and scale. It is becoming increasingly common for practitioners and decision makers in the Global North to utilize practices originating from traditional knowledge systems for self-improvement or to treat specific afflictions. Some of the most popular interventions involve practices such as mindfulness, meditation, yoga, and planet medicines (Boda et al., 2022; Carrette & King, 2005; Wilson, 2014). Mindfulness practices drawn from Buddhism, have become prolific secular and post-Buddhist interventions designed to help individuals cultivate generative sustainability capacities such as empathy and compassion (Conversano et al., 2020). In these contexts, inner transformations correlated with mindfulness practices have demonstrated benefits for reducing consumerism (Dhandra, 2019), deepening nature connectedness (Barbaro & Pickett, 2016), increasing belief in climate change (Panno et al., 2018) and driving pro-environmental behaviour (Thiermann & Sheate, 2020). Yoga and plant medicines have also been associated with many benefits for sustainability including deepening relational connections with self, others, and the world (Kettner et al., 2019; Watts et al., 2022).

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## EMERGING CHALLENGES FOR INNER TRANSFORMATIONS FOR SUSTAINABILITY

Cultivating both individual and systemic resilience thus necessitates a transformation of mindsets and valuation models that prioritize growth, consumption, and competition. As others have suggested, more resilient, relational, and complexity-tolerant capacities will be needed to support this level of systemic transformation (McIntyre and Dion, 2023). Part of this complexity awareness is linked to the ability to centre collective wellbeing in all decision making (Bauger et al., 2021). Additionally, it points to the fact that leveraging inner capacities to act in the face of planetary challenges such as worsening climate conditions will require contextual-specific transformations. It would be deeply unethical and inequitable to assume that all people require the same kind of inner transformations. Those who have contributed least to the climate emergency and many other socio-ecological crises are already bearing the heaviest burden often with limited access to resources and compounded systemic vulnerabilities (Ehigiamusoe et al., 2022; Homer-Dixon, 1994; Weaver et al., 2023).

Despite the mounting interest in leveraging inner capacities for profound paradigmatic shifts, and some initial promising case studies, there remain many unknowns regarding how inner change will drive systems transformations (Blythe et al., 2018). Some of these unknowns are linked to broad questions such as how are interventions and systemic transformations scaled safely across different contexts (Olsson et al., 2022). Other unknowns are linked to whether interventions for inner transformation

are actually the main drivers behind intended psychological and behavioural changes (Fucci et al., 2022; Geiger et al., 2019; Hafenbrack et al., 2021). Perhaps more concerning, are issues related to whether interventions for inner change might undermine individual and collective capacities for long-term viability by strengthening unsustainable systems and power dynamics (Cooper & Gibson, 2023; Jimmy et al., 2019; Rose Black & Switzer, 2022). For example, through processes of appropriation and mystification, many practices originating from wisdom traditions have been commodified, tokenized, paternalized, and used in manners that strengthen systems of oppression (Stein et al., 2023; Wilson, 2014). Inner transformations, when approached as simplified goals or universal solutions to systemic challenges undermine conditions for sustainability.

While often pursued with good intentions, many dominant approaches to inner change perpetuate a reductionist theory of change for inner transformation (Andreotti et al., 2021; McIntyre et al., 2023). This oversimplified understanding of the complexities entangling collective mindsets fails to recognize drivers of both past and present inequities, inequalities, and exploitation (Bateson, 2018; Gibson, 2017). Any attempts to homogenize sustainable mindsets or to profess there are “best practices” for inner change are problematic at best and dangerous at worst. Moreover, given the profoundly complex challenges undermining conditions for long-term viability, it is insufficiently precautionous to assume that all interventions for inner transformations will endeavour mutually beneficial changes across scale (Westley et al., 2013) or that large-scale change

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will occur without conflict, tensions, struggles (Olsson & Moore, in press). Accordingly, as interventions for inner-outer change proliferate and become more accepted in mainstream climate change and sustainability spaces, it is critical that they are approached in ways that reduce potential harms while simultaneously supporting resilience (Stein et al., 2022).

## INNER-OUTER TRANSFORMATION AND THE NEED FOR ASSESSMENT

Evaluation has a vital role to play exploring the many unknowns surrounding inner transformation, external resilience, and the connection between the two. Done correctly, evaluation is an invaluable tool for learning and exploration. It provides a structured framework that allows us to pose questions, systematically gather data, and ground decision making in evidence. However, done poorly, evaluation becomes an expensive box ticking exercise that obscures more than it reveals and constrains our ability to innovate and respond to emerging threats (Patton, 2010). Unfortunately, too often this is how evaluation is experienced by practitioners. Presently, there is no agreed upon evaluative approach for innovative projects dealing with complex problems, let alone within the context of inner transformations. The selection of appropriate indicators, the balance between quantitative and qualitative data, and the trade-offs between simplicity and comprehensiveness are all areas of controversy (Mulgan, 2006). Too often, the response to this lack of clarity is to focus on concrete, measurable impacts, especially those that can be assigned a monetary value through techniques such as 'stated preferences' or social

value assessments. These tend to prioritize immediate gains such as the number of jobs created or investment dollars raised but take no account of broader, slower moving systems variables such as resilience. There is also an overreliance on static, predetermined metrics created through tools such as logic models.

Many practitioners recognize the inadequacy of these approaches, highlighting the importance of measuring social innovation impacts over time, as the path to change is non-linear and incremental indicators are not equipped to reflect systemic change. Furthermore, it is widely recognized that measuring the process of social innovation is as important as measuring its inputs and outputs, despite the inherent difficulties (Mulgan, 2006). Capturing the iterative and adaptive nature of social innovation requires approaches that go beyond static measurements and embrace the learning process inherent in social innovation initiatives (Westley & Antadze, 2010). The emergence of new evaluation approaches, such as Developmental Evaluation (Ibid.) Principles Focused Evaluation (Patton, 2017), and the Essential Leadership Model (ELM) (McIntyre and Dion, 2023) have given us new tools for prioritizing learning when innovating in response to complex problems. Unfortunately, there remains much work to be done in applying these tools to understanding how inner and outer transformations scale (Dinca-Panaitescu, 2020; Milley et al., 2018).

The literature on transformation in social innovation (Westley and Antadze, 2010), social-ecological systems (Olsson et al., 2006), and socio-technical systems (Geels & Schot, 2007) consistently shows that these are

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multifaceted processes dependent on delicate interplay of causes operating at multiple different scales along different trajectories. This is not a question of proliferating changes at the micro scale additively producing a broader change, but rather a question of how changes in individual mindsets and behavior at the micro scale are influenced by- and simultaneously co-creating- broader social structures (Giddens, 1981; Moore et al., 2014). In the context of social innovation, it is the norm to measure scaling through the mechanism of ‘scaling out’ – that is through replication and spread. However, it is also essential to pay attention to processes of ‘scaling up’, for example through policy change, or scaling deep, for example in changing cultural norms and values (Moore et al., 2015). As such, there is an urgent need to develop new forms of evaluation, based on complexity-informed approaches, that harness these dynamics for positive change, without reproducing violence and exploitation (Cooper & Gibson, 2022; Gibson, 2005).

## INNER-OUTER TRANSFORMATIONS IN PRACTICE

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We ascertain that developing new evaluative processes for inner transformation is critical for responding to deteriorating climatic conditions in manners that are generative to both individual and collective resilience. We must listen to the other voices within the systems we do not want to hear. The ELM Model, standing for the Essential Leadership Model (ELM) attempts to find points of conversation by bringing leaders

together to think and articulate their positioning and share their story. It demands a face-to-face exploration of one’s role in the socio-environmental discourse. “ELM is a story of being the best leader you can be by accepting the gifts offered by other great leaders. ELM challenges the way most of us think about systems (finding room for others within our systems, allowing others to challenge our perceptions) and how to realize our aspirations within our chosen sector and beyond” (McIntyre and Dion, 2023). At the core of ELM is re-evaluation of the story we tell ourselves and others.

In post-industrial narratives, we express approval, praising best practices while discounting or denying the use of wise practices. Best practices assume year-on-year growth to be considered successful. A ‘good’ growth rate for a company must be higher than the national rate. The standard economic growth rate for industrial nations usually falls between three and six percent overall (IMF, 2023). Falling below two percent indicates an economic depression or the beginning of a recession. With this in mind, a five percent company growth rate, while not impressive, is acceptable since it is still higher than the national rate. In our industrial world, understanding growth rates is essential to appreciating the success of a company or nation and their future potential. We believe growth allows us to assess success, both externally and internally. Growth means change, but does it change your intrinsic nature or characteristics? What if we changed the narrative to a wise practice articulation suggesting that success be defined not by economic growth but rather by what flourished within our perusal? Wise practices help us understand what can and

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will take root within a territory. In this case, growth is not tied to economics. Internal (individual or communal) growth may be deemed much more important than economic targets based on the economic successes of others. There is no inward vision within best practices. Bringing together best and wise practices to evaluate one's story changes the definition of success. There is a new movement looking at Indigenous ways of knowing that recognize a 'best practice' that responds and reacts to the territory and community. This is a merging of best and wise practices, creating a social bricolage. This approach to all things systemic is referred to as Indigenous Trans-systemics. This involves turning down the volume of the systems that have gotten us into this mess and allow space for other ways of knowing and being to be heard and acted upon (Battiste & Henderson, 2021; McIntyre, Cloutis, & McCarthy 2023; Cooper, McIntyre, McCarthy, in press).

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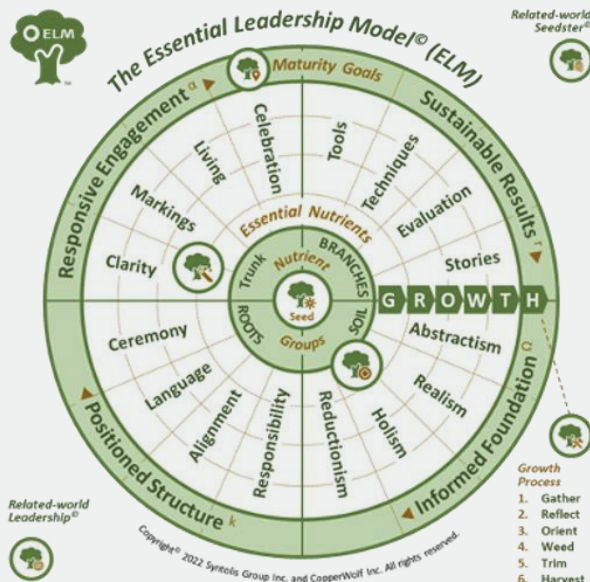
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# Inner-Outer Transformations

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# Climate Change+Mental Health

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Climate change is happening. It is increasingly obvious that it is affecting, and will affect, human wellbeing in a variety of ways, from physical health to economic productivity. Some of those impacts are on mental health. **To recognize these impacts, we need to think about how to define human wellbeing.** As described by the World Health Organization, it is more than the absence of disease (World Health Organization, 2018) and includes the possibility of optimal functioning.

Adverse impacts from climate change can include not only clinical conditions like depression, anxiety, or post-traumatic stress disorder, but also impaired cognitive functioning, emotional or behavioral control, economic productivity, or social relationships. And while many of the impacts are short-term, some have lasting impacts or may be permanent, particularly in the case of young children whose brains are still developing.

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We also need to recognize the variety of channels through which climate change can influence psychological wellbeing. In particular, we can distinguish four channels of influence, though their experience and impacts can overlap. First, climate change is leading to an increase in frequency and intensity of extreme weather events, such as hurricanes, floods, and wildfires. Drought and heatwave may also be included in this category. Second, climate change also incorporates slow-moving and chronic changes in the physical environment, particularly rising temperatures, rising sea levels, and changing patterns of precipitation. Third, both acute and chronic conditions associated with climate change can affect human systems such as physical infrastructure, agriculture, and the economic system, with resulting indirect effects on human wellbeing. Finally, people's awareness of climate change – which can be linked to personal experience but also to the experiences of other people and to media coverage – can itself be a source of stress and emotions that threaten mental health.

The impacts of extreme weather events on mental health are well-researched. The experience of living through a hurricane, flood, or wildfire can be traumatic, especially among those who experience concrete impacts such as loss of property or the death of a loved one. Systematic reviews of the literature illustrate quite clearly that these events lead to statistically significant increases in PTSD, depression, anxiety, substance abuse, suicide, and domestic violence (Cianconi, Betrò, & Janiri, 2020; Lowe et al., 2019; Palinkas & Wong, 2020). According to Palinkas and Wong (2020), between 25% and 50% of those

exposed to extreme weather events will experience negative mental health outcomes.

Although slower climate changes, such as rising temperatures, have been studied for a shorter amount of time, a rapidly growing body of research has demonstrated the potential for heat, in particular, to have a detrimental effect on psychological health and well-being. Studies relying on such disparate indicators as suicide rates (cite), admissions to psychiatric facilities (cite), interpersonal aggression (Mares & Moffett, 2016), and the emotional tone of social media posts (cite) have all found links to higher temperatures. A meta-analysis by Liu et al. (2021) estimated that for every 1° Celsius increase in temperature, there was a 2.2% increase in mental-health related mortality and 0.9% increase in morbidity. In addition, higher temperatures have been shown to reduce some types of cognitive performance and learning (Park, Jisung, Behrer, & Goodman, 2021), as well as reducing labor productivity among those exposed to the higher temperatures (Ioannou et al., 2022). Emerging research also suggests that changing patterns of precipitation can affect mental health (Evans 2019), though more research is needed to fully describe and understand these impacts. Finally, climate change is associated with decreased air quality, which has been linked to mental health problems (Borrioni et al., 2022; King, Zhang, & Cohen, 2022), cognitive impairment (Chandra et al., 2022) as well as impaired social behavior (Shi, Wang, & Chen, 2022).

The indirect impacts of climate change will be profound, and it is not possible to fully map out their impact on mental health. Worth

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highlighting, however, are food security and migration. By negatively affecting agriculture as well as the nutritional value of some crops, climate change is projected to heighten food insecurity. Although the long-term psychological impacts of malnutrition have not received much research attention, a recent systematic review found that childhood malnutrition is associated with impaired neurodevelopment, lower academic achievement and cognition, and behavioural problems (Kirolos et al., 2022), and some studies have shown links between food insecurity and poor mental health (Militao et al., 2022; Ovenell et al., 2022). Relatedly, migration is likely to increase due to climate change, because some areas disappear (e.g., low-lying islands and coastal areas), become unliveable (e.g., due to extreme weather, thawing permafrost or desertification), or are no longer able to support subsistence and market farmers. Although voluntary migration might be an adaptive strategy in the face of climate change, involuntary migration tends to be associated with decreased mental health (Schwerdtle et al., 2022).

Awareness of, and concern about, climate change are also on the rise. A negative emotional response may include anxiety, grief, anger, guilt, or all of the above (Hickman et al., 2021). Such responses are normal and rational, and may help people to prepare for more concrete impacts. But in some cases they may be strong enough to threaten mental health: research has consistently shown that climate anxiety (Clayton & Karazsia, 2020) is associated with clinical anxiety and depression. As with clinical anxiety, a high level of climate-related anxiety may impair behavioral, cognitive, and/

or emotional functioning, especially when combined with a feeling of disempowerment.

These feelings of what has been described as “existential dread” are not just about individual experience. They are linked to complex perceptions of society, including a sense that governmental responses have been inadequate (Hickman et al., 2021); that other people are ignoring the issue (...); and that the burden of climate change is unevenly distributed, with the heaviest impacts being felt by those who have contributed the least to the problem (Uchendu, 2022). Those feelings of inequity, in turn, have an impact on feelings about the social system, and may contribute to dissatisfaction with life in general (Schneider, 2019). Several authors have discussed the idea that climate change represents a moral injury (Henritze et al., 2023). Originally developed to describe the experience of some combat veterans, the idea of moral injury is that witnessing an act that violates one’s moral principles – especially when committed by an authority figure, or even participating in the act oneself – has a profound psychological impact that can lead to the development of trauma symptoms. Because many or most people feel that protecting the natural environment is an ethical or moral responsibility, witnessing or contributing to climate change may be perceived as a moral violation, particularly when combined with the recognition that those who are most harmed by it tend to be those who are least responsible.

Inequity is a fundamental fact of climate change. Geographically, different parts of the globe are warming and transforming at different rates. Demographically, different groups are experiencing different impacts

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and are differentially vulnerable based on their existing levels of resources. Some of the most vulnerable groups are, internationally, countries in the Global South, where warming and desertification are generally proceeding more quickly; Indigenous Peoples, whose cultures and traditions are disrupted by changing connections to landscape; and women, for whom pregnancy and motherhood may increase vulnerability and gender roles may limit access to behavioral options, information, and financial resources. Within a country, marginalized and minoritized communities also have access to fewer resources, and have often been impacted by policies that systematically force them into the most threatened geographic areas. Climate change impacts also intersect with other sources of stress for vulnerable groups; it can be impossible, for example, to distinguish between poverty and climate change as causes of food insecurity, or to separate racism and climate change as causes of exposure to environmental hazards.

The mental health impacts of climate change are not inevitable. Individual-level, community-level, and systems-level resources can be made available to help individuals to be resilient in the face of the geophysical impacts of climate change. At the individual level, opportunities for action and emotional regulation skills can help to avoid harmful levels of climate anxiety. Family and community connections help people to prepare for, and cope with, the effects of extreme weather events and high temperatures. Importantly, systems level changes can increase the availability of mental health services, and also provide other services, such as green infrastructure, that

promote mental health. Simply knowing that one's elected leaders are trying to address climate change may promote a positive mindset (Hickman et al., 2021), though we can't demonstrate a causal connection.

Resilience may not always be the best outcome to hope for. It seems to put the responsibility on the individual to cope with negative circumstances. It is time to consider other terms, such as resistance or transilience. Resistance implies taking action to avoid the negative effects of climate change, especially the ones that are socially mediated. Transilience (Nasi, Jans, & Steg, 2023) describes the possibility of positive transformation in the face of climate change. It encompasses persistence as well as flexibility. Research has demonstrated that people who score high on a transilience measure are more likely to engage in behavioral adaptation to climate change and to support adaptation policies (Nasi et al., 2023). Notably transilience was also related to satisfaction with life.

Mental health impacts are real, but they can be modified by individual tendencies and by the physical and social environment. Understanding the ways in which climate change threatens mental health should encourage us to make the changes that will facilitate individual adaptation and growth in healthy societies.

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# Climate Change+Mental Health

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# A Rapid Analysis of COP<sup>2</sup> Regional Dialogues (June-November 2023)

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KEYWORDS: CLIMATE CHANGE, MENTAL HEALTH, PSYCHOLOGICAL RESILIENCE, CLIMATE RESILIENCE AND ADAPTATION, LARGE QUALITATIVE DATA SETS

## INTRODUCTION

### Dialogue context

This document summarizes the process and outcomes of a second phase of dialogues facilitated by COP<sup>2</sup> to inform “The Roadmap for Care and Change.” These dialogues expand on priority actions and interventions identified during phase 1, operationalizing a ‘Care and change” and “Anchors and pathways” conceptual model to identify socially acceptable ways for advancing climate mental health resilience (1).

## METHODOLOGY

### Qualitative analysis capacity building initiative (Qual- CBI)

As with Dialogue one (D-1) a qualitative interpretivist philosophical paradigm was used [2-4]. In keeping with the recommendations of D-1 a deliberate effort was made to build qualitative data analysis capacity within COP<sup>2</sup> through training and education of youth analysts. This Qualitative data analysis Capacity Building Initiative (Qual CBI) occurred in three (3) phases (recruitment of mentees, didactic education, facilitated analysis mentorship) over approximately five (5) months and is summarized in Figure 1.

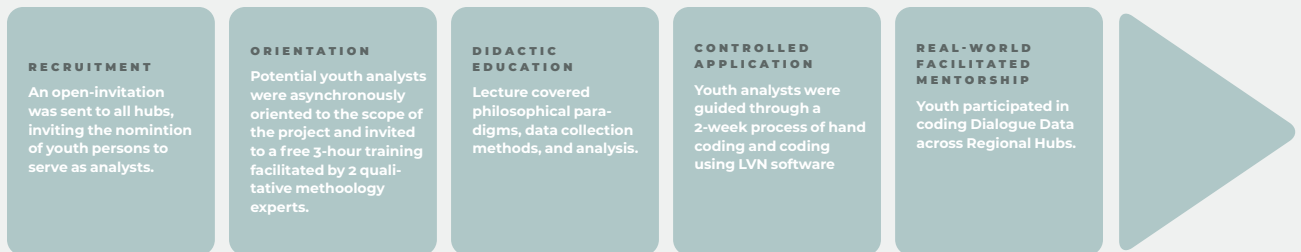


Figure 1 Qualitative data analysis capacity building initiative (Qual-CBI)

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## SAMPLING AND RECRUITMENT:

Data was collected in five (5) virtual dialogues with participants attending according to groupings informed by World Health Organization (WHO) regional geographic areas.<sup>1</sup> These Regional Dialogues (RDs) were attended by 164 multi-sectoral participants. Gatekeepers knowledgeable of climate and mental health advocacy, research, policy, and education at local, regional, and international levels facilitated recruitment through purposive and snowballing techniques. This was in keeping with phase 1 methodology (5).

## DATA COLLECTION AND ANALYSIS:

The dialogues were conducted in English and participants were placed into breakout rooms (3-8 persons per room) to facilitate rich nested discussions. The breakout rooms were facilitated by climate/ mental health actors knowledgeable of the realities (challenges and emerging solutions) occurring at this intersection in the geographic region of interest.

<sup>1</sup> The regional groupings constructed for the dialogues were: Europe (EU), North America (NA), Latin America and the Caribbean (LAC), Sub-Saharan Africa (SSA), and Western Pacific Southeast Asia (WPSEA).

Dialogue (and breakout room) format<sup>2</sup> was standardized across regions and involved two broad thematic areas of discussion, a) experiences and best practices for a global roadmap — “The Roadmap for Care and Change” and b) effective mechanisms through which the COP<sup>2</sup> network could accelerate the integration of psychological resilience<sup>3</sup> into climate action.

Audio from the breakout rooms was captured using Zoom and exported to the prototype Local Voices Network, Cortico (LVN)<sup>4</sup> software in m4a format for verbatim transcription and artificial intelligence informed content analysis.

<sup>2</sup> Format/ Agenda used to facilitate the RDs: Introductions led by [Regional Hub Lead/s](#); Global and Regional COP2 recaps [~15 min] Introduction to the Roadmap by Gary Belkin [~20 min] Breakouts: Set the scene by Regional Hub Lead/s [~10 min] Discuss themes, experiences and best practices for Care and Change [~15 min] Discuss: Effective Paths and Anchors [~15 min], Summary and next steps by [Hub Lead](#) [~5 min]

<sup>3</sup> A pragmatic process rather than a static concept or normative end state. The Roadmap for Care and Change (see [cop2.org/Roadmap](https://cop2.org/Roadmap)) describes the workings of psychological resilience as a process that reinforces behavioral, psychological, and emotional elements that help make it possible for people to respond in solidarity to climate change and environmental crises.

<sup>4</sup> Cortico’s Local Voices Network (LVN) is an artificial intelligence system designed to facilitate rapid identification of thematic content of small group conversations. [Local Voices Network — Cortico](#)

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Google Jamboards was also used as a method of secondary data capture for people who might have preferred to write versus voice thoughts at any given point during the breakout room discussions. The content from each Jamboards were then transferred to an individual Word file and treated as discrete document for analysis.

## **FACILITATED ANALYSIS MENTORSHIP (QUAL-CBI):**

Transcripts and Jamboards were then subjected to rapid thematic analysis by six (6) analysts: four (4) analysts were “COP<sup>2</sup> Youth Lived Experience Evaluators(YLEEs)”,<sup>5</sup> and the other two (2) were NG and HB. NG is a doctoral level trained qualitative researcher, who alongside a volunteer professor from the COP<sup>2</sup> network, Dr. Clement Nhunzvi, mentored HB and youth evaluators in the analytic process as part of a pilot to inform a capacity building

<sup>5</sup> YLEEs were compensated for their time.

plan for large data set analysis within COP<sup>2</sup>.

NG and HB developed a 20-point deductive coding frame based on the Care and change- Anchors and pathways’ conceptual model. All six (6) analysts then double coded 52 minutes of one (1) dialogue. HB and NG reviewed coding patterns in LVN to confirm correct use and application of coding dictionary by the YLEEs. As a result, one code was modified to improve clarity. Post confirmation of coding quality across all coders — the master data set of 15 transcripts and 6 Jamboards was then divided among analysts.

Coded sections in the LVN were exported in excel with the aid of the Cortico engineers — to allow data condensation using structural codes and highlighted sections across the data set. However, analysis using the highlight summary function was found to be the most useful method for identifying emerging patterns and retrieving relevant supporting evidence. In a series of meetings, HB and NG discussed the emerging patterns of reducing the data using a matrix of codes, organizing and global themes.

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**FIGURE 2- EXCERPT FROM DEDUCTIVE CODING FRAME**

CODE NO.	CODE NAME	CODE	CODE DESCRIPTION
<b>Tools: Care and Change</b>			
1	Bolster	BOL	Practices that bolster mental health (experienced/ perceived)
2	Prevent	PREV	Practices that prevent mental distress (experienced/ perceived)
3	Diminish	DIM	Practices that diminish/ reduce mental distress (within or across any socioecological level- individual, interpersonal, community etc.) (experienced/ perceived)
4	Participatory Climate action	PCIAx	Participatory climate action (within or across any socioecological level- individual, interpersonal, community etc.) (experienced/ perceived))
5	Integration	INT	Participatory climate action and mental health activities (within or across SEM- Levels- e.g., individual, community, policy) (experienced/ perceived)
6	Resources	RES	Any (non-human) resources (in practice/ hypothetical) needed to equip communities to engage in participatory climate change or mental health resilience activities
7	HR & Critical Skills	HR-CS	Any human resources/ critical skills (in practice/ hypothetical) needed to equip communities to engage in participatory climate change- mental health resilience activities
<b>Scale: Anchors and Paths</b>			
8	Anchor- content and skills	A-CS	The roles of experts related to providing/adding value in content or skills needed to facilitate integrated climate and mental health resilience
9	Anchor- planning and implementation	A-PI	The roles of experts related to providing/adding value in planning and implementing interventions needed to facilitate integrated climate and mental health resilience
10	Anchor- measuring and bettering	A-MB	The roles of experts related to providing/ adding value in monitoring/ improving interventions/ systems designed to improve climate and mental health resilience

## RESULTS

One hundred and sixty-four (164) persons (including 3-4 facilitators per region) participated in the dialogues over the five-month period (attendance by region: EU (N = 33), NA (N=35), LAC (N =

22), SSA (N = 23), and WPSEA (N = 51).

Across regions dialogues revealed that many participants were already involved in community informed and empowering practices that were serving to prevent and mitigate the impacts of climate change on the mental

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health of the various communities which they served or were aware of. Much of this work was borne out of the lived experiences and expressions of need informed by worsening acute climate threats such as cyclones, heat, flooding, and droughts. Agency and action were achieved through grass roots organization in addition civil society and government actors working collaboratively at points. However, the magnification and sustainability of mental health and well-being resilience interventions would benefit from raising awareness to the nexus through existing education paths, trusted community leaders and institutions, in addition social media and other virtual platforms.

Importantly there were examples of participants working with indigenous groups and first-peoples e.g., sharing best practices for caring for the environment e.g., wildfire mitigation in Australia and understanding how vulnerable populations cope with adverse climate events by coming “into peace” and maintaining hope through rituals of healing (West Pacific / SouthEast Asia).

The thematic summaries for factors serving as tools for Care and Change along with those that act as Anchors and Paths for achieving psychological resilience into climate adaptation are summarized in the table below with supporting evidence.

## PRACTICAL METHODOLOGICAL CONCLUSIONS

The Qual –CBI emerged as an effective mechanism for building analytic capacity in youth and may be useful in future for Global Health projects involving youth from low resourced regions or geographically remote regions.

The compatibility between Zoom, m4a file types, and the LVN platform timely and efficient production of transcript with integration into a shared virtual platform which could be used globally.

The LVN platform with the enhanced highlight capacity and real-time -parallel, transcript and audio check feature were an invaluable resource when reviewing transcript accuracy (especially given the diversity English-accent across the globe)

The virtual dialogue process using the Regional Hub model as piloted by COP<sup>2</sup> continues to be a feasible low-cost mechanism for capturing timely, global, contextually relevant views, perceptions, and experiences.

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**TABLE 1**

Thematic summaries of factors serving as tools for Care and Change and Anchors and Paths for accelerating incorporation of psychological resilience into climate adaptation

BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p><b>Care and Change — Bolster-Prevent and Diminish</b></p> <p>(These three concepts were found to co-occur in the data set suggesting that the solutions for building resilience, preventing mental distress from climate change and diminishing the occurrence of negative sequelae are linked/ common/ can be shared.)</p>	<p>Strategies for bolstering — Numerous strategies are already in place across various geographic regions namely the use of preparedness and mitigation interventions geared towards marginalized/ vulnerable populations. Specific examples include those empowering and including youth, and indigenous populations through nature therapy.</p> <p>Increasing climate literacy and fostering a sense of ownership, belonging, and social capital within communities was identified as a cornerstone for mental health resilience in response to climate threats. Moreover, it was noted that multi-sectoral funding mechanisms were especially crucial to the success of the resilience concept. Funding Interventions that address the specific needs of persons with occupations like fishing, and farming were highlighted as ways of ensuring equitable access to mental health resources across all segments of society.</p>	<p>“Project on women environmental defenders in the Philippines is that dealing with their emotional reaction to all this ecological decline involves going back to their old ways of healing. So we deal, for example, with indigenous peoples who are also environmental defenders. So one way for them to hope is to engage in their indigenous rituals as a way to express their emotions and come into peace with all these extreme emotional experience that they're facing in the context of environmental decline in the country.” — WPSEA</p> <p>“One thing we did is increasing climate literacy on the mental health impacts of climate change, because we think that understanding your own experience in the context of climate change can help also in understanding your own emotional reactions.” — WPSEA</p> <p>“So it's really important for the roadmap to also consider getting the bigger participation of the private sector because even within our communities we can actually do impactful initiatives like the one that we started where in which we brought the discussion on, it's difficult, the discussion on the impacts of climate change on health and mental health to the communities that are not our customers. So they are our stakeholders for our ESG [Environmental, Social, and Governance] and advocacy initiative. So these are the farmers and also the fisher folks. We have included that in our program for this year. So these are part of our initiative to reach out to the underserved and served communities. So we have the resources, I mean the private sector has the resources to roll out initiatives.” — WPSEA</p>



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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p><b>Care and Change — Bolster-Prevent and Diminish</b></p> <p>(These three concepts were found to co-occur in the data set suggesting that the solutions for building resilience, preventing mental distress from climate change and diminishing the occurrence of negative sequelae are linked/ common/ can be shared.)</p>	<p>Prevention through existing resources — Harnessing existing disaster response human resources may be pivotal in preventing mental illness post-acute climate crisis. This may necessitate incorporating mental health response skills/tasks into the skill set and role of the existing emergency responders. Further, facilitating a seamless transfer of skills from micro (community) to macro (national) levels may minimize population-level distress..</p> <p>Youth as agents of prevention — Recognizing youth potential to be climate advocates, and integrating indigenous practices of environmental defense and protection further enriches preventive strategies. .</p> <p>Communicators — Community leaders emerged as linchpins in effective communication, playing a pivotal role in disseminating information and fostering collective commitment to resilience.</p> <p>Collaboration — Overall this collaborative and comprehensive approach, grounded in existing skills and practices, establishes a robust foundation for preventing mental illness.</p>	<p>“We do have [existing] emergency volunteers, and I'm one of them in a very practical sense to go out and put tarps on roofs and sandbag places, but they also have a way that they can support communities, and they do a lot of community events, handing out flyers about, have you prepared your house for storms?... And they [the emergency] haven't yet really tweaked to the idea of mental health, but it's something that I think would be really valuable if those sorts of more practical emergency workers, the volunteers were involved as well.” — WPSEA</p> <p>And so these youth advocates, once they become older, they graduate into community advocates, but both of them I think have been quite key to both care and change, because these are, I guess, the first line of defense in the communities whenever somebody experiences a violation of their rights or mental health.” — SSA</p> <p>“Also increasing the awareness of the preventative health impacts of taking action that protects people against climate change is critical in terms of policy.” — NA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p>Care and Change — Participatory Climate action</p> <p>&amp; Integration of action (PCIAx+INT) — (Across sectors PCIAx and INT were identified as key approaches/ways of working. In addition, concepts of justice, equity, and respect for the innate value of all human beings underpinned a fundamental call for the inclusion of all in the development and execution of the climate response. However, there is a need for organization of action to achieve maximum impact.)</p>	<p>Inclusion and the benefits of coordinated community and advocacy action — A notable aspect is the swift response of community persons who step up before professionals/experts arrive. Embracing Indigenous and decolonial practices, and building upon existing models, these initiatives should prioritize co-creation and respect at the community level. This participatory approach not only ensures that the community's unique needs are met but also fosters a sense of ownership in climate action, emphasizing a collaborative and sustainable response. Challenges for participatory climate action arise in the operationalization of these initiatives, with mechanisms being needed to shift actors from discussion to action.</p> <p>It is likely that there is a need for the development of pathways that facilitate climate and mental health advocates to be trained in strategies for moving their various initiatives from individual or group action to the national and global policy levels.</p>	<p>“These advocates took it upon themselves, tried to salvage as much medicines as much as possible from the damaged local health centers. And they also collaborated with local officials to provide care for women in the community at the time when professional healthcare practitioners couldn't yet reach the community.” — WPSEA</p> <p>“Centering people with lived experience and communities who are most vulnerable, but how to do that in a way which is really kind of co-created and meaningful.” — EU</p> <p>“Digging into decolonial approaches, focusing on indigenous knowledge systems or ways of working through global mental health methodologies. It's like task sharing, task shifting ways of working with laypeople, who operate from their own lived experience, expertise to provide psychosocial support to others, working in a wide variety of community contexts.” — NA</p> <p>“Experience where participants no longer wanted to engage in climate cafes and wanted to do more climate action on the ground.” — EU</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p>Care and Change — Participatory Climate action &amp; Integration of action (PCIAx+INT) — (Across sectors PCIAx and INT were identified as key approaches/ ways of working. In addition, concepts of justice, equity, and respect for the innate value of all human beings underpinned a fundamental call for the inclusion of all in the development and =execution of the climate response. However, there is a need for organization of action to achieve maximum impact.)</p>	<p>Multi-sectoral and participatory impacts on public &amp; private sectors — The COP2 network addresses a critical need for interdisciplinary dialogue and inter-and multisectoral collaboration. Participatory climate action and mental health activities not only raise awareness but also encourage a vital marriage of forces between the public and private sectors.</p> <p>Acknowledging that psychological threat is more prevalent among those engaged in on-the-ground work is crucial to the development of community psychological resilience to climate threats. The understanding of who is at risk should be expanded to include persons who are not traditionally viewed as front-line climate mental health responders e.g., teachers as their day-to-day activities involve interacting with and supporting vulnerable populations who are/may have experienced climate-related trauma. Importantly, impacted or vulnerable communities have pre-existing strategies to cope with mental health impacts, identifying and learning from ongoing interventions will add value to the development of global strategies that could be operational in non-clinical community settings e.g., schools.</p>	<p>“Opportunity to work across silos and really integrate disciplines such as intersectionality, as well as thinking and using decolonizing approaches.” — EU</p> <p>“Transformational skills that help underpin participatory climate action. So it's not just about quote-unquote treating or managing individuals who are already experiencing the mental health impacts of climate change, but also really enabling people to act on the climate, to mobilize themselves perhaps not to feel afraid but instead to feel empowered to affect the change that we want to see.” — WPSEA</p> <p>“I think there's so much more that the private sector can offer. And there are a lot of corporate social responsibility arms or projects where you don't work with your clients but that you work with other communities that can actually benefit from your resources.” — WPSEA</p> <p>“Seen public school teachers or leaders in public schools talk about climate change or teach psychological resilience for climate change in the Philippines and being able to see the outcomes or the fruits of those projects, seeing how both just the teachers but also the students, how they receive that information, how they interact with one another, what their reflections are on the lived experiences of climate disasters every year.” — WPSEA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p>Care and Change — Resources</p> <p>(Human Resources &amp; Critical Skills were found to be nested together in a manner that suggested a fundamental global framework for responding to climate and mental health challenges already existed in the regions studied. However, restructuring and or funding of new professional and layperson tasks undergirded by community involvement and empowerment would be needed.)</p>	<p>Funding and Dissemination of information — Essential resources include funding for mental health interventions and tools, or physical resources to share with communities in the process of gaining trust and belief “or buy-in/ support for proposed interventions.</p> <p>Language is a critical component to ensure that information is accessible and relevant.</p> <p>Further, there is a need to share information, research questions, and develop clinical links between heat/ high temperature and mental health in children and youth (including sharing education tools/cost-effective interventions that minimize the physical and mental impact of heat)</p>	<p>“Mobilize more capital towards impact and therefore looking at ways in which there is common interest areas between a group of funders and then helping them move that capital faster and more effectively. And mental health one of those areas.” — WPSEA</p> <p>“Mental health care is expensive.” — SSA</p> <p>“Need of having flyers, having T-shirts printed, just going with something so that you have buy-in. It is not that easy to have buying in from communities if you don't have something to give them.” — SSA</p> <p>“So one of the things we've observed through the Children's Hospital Network is increases in mental health presentations of children and young people during hot weather.” — WPSEA</p> <p>“There are some low cost, readily available ways of cooling that have been developed for physical health and it'd be really interesting to know whether they help for mental health and to actually make sure that people are aware of the benefits of staying cool and helping other people stay cool when it's hot, from a mental health point of view.” — WPSEA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p>Care and Change — Resources</p> <p>(Human Resources &amp; Critical Skills were found to be nested together in a manner that suggested a fundamental global framework for responding to climate and mental health challenges already existed in the regions studied. However, restructuring and or funding of new professional and layperson tasks undergirded by community involvement and empowerment would be needed.)</p>	<p>Workload management, Empowerment and Ownership — Tasksharing emerged as a critical aspect of resource optimization, allowing investment and ownership from the community. Proficiency in micro-level communication—such as community risk communication and health messaging—without exacerbating anxiety was identified as being crucial.</p> <p>Empowering youth and community advocates, utilizing emergency volunteers who are already trained and trusted, and ensuring culturally appropriate approaches were identified as core elements of initiative development and sustainable workload management.</p> <p>Ultimately, investing in and fostering community ownership of any climate-psychological resilience initiative is essential. Therefore, education that focuses on methods for facilitating successful communication engagement will be necessary for actors working in the climate- and mental health intersect. [Quotes are presented in the context of resources to facilitate creation of sustainable climate and mental health interventions]</p>	<p>“Psychosocial support systems that meets the disasters that we face and they should be culturally appropriate.” — SSA</p> <p>“More involvement so that workers take ownership of the process to say, “We are part of it.” When you talk of climate justice or you talk of climate change in an environment or in an industry, particular industry, people take ownership of it.” — LAC</p> <p>“Approach would be using the primary healthcare approach, because that’s where you can directly meet the people. So we’ve got people, community health workers, they are called the health surveillance assistants. So these are the people who stay in the community, they provide this first aid help to the people in the respective areas. And we have also volunteers in the respective communities, we have got community based organizations in the communities.” — SSA</p> <p>I think we need to first have supportive environments that promote mental health and wellbeing. Integration of psychological services into various healthcare settings including primary care, schools, workplace, and community centers.” — SSA</p>

# A Rapid Analysis of COP<sup>2</sup> Regional Dialogues (June-November 2023)

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p>Anchor — Content and Skills</p> <p>(Increasing capacity of communities to respond to psychological needs secondary to climate change necessitated widening access to mental health and wellbeing education. This access should be bidirectional with information being provided to communities who will be recipients of care as well as professionals and lay persons who can assume the role of frontline mental health care providers, Pedagogical techniques should be suited to the target audiences and should include the arts.)</p>	<p>Supportive environments and Education — Focus on the importance of creating supportive environments that prioritize mental health and well-being across various settings, highlighting the need for integrating psychological services into these settings to empower individuals and build their KBS (knowledge, beliefs, &amp; skills). This involves leveraging the creativity of artists to address issues like climate change and emotional resilience, educating communities about mental health among non-specialists, and ensuring that educators and social workers possess the skills to identify and intervene when needed, ultimately connecting individuals with professional services if required. Additionally, there was an emphasis on community empowerment through information, activism, and social capital to influence government policies on crucial matters like physical climate change impacts. Overall, these approaches aim to foster a comprehensive ecosystem where mental health is prioritized and supported across different spheres of life, nurturing both skills and content development while promoting well-being.</p>	<p>“Skills that young people or that people in general can be built with was equipping and using the creativity of artists to engage in both the climate and building emotional resilience.” — EU</p> <p>“Mental health for laypeople, the people who are not specialized in mental health careers like medicine, psychiatry, psychology, nursing, mental health, something like that.” — SSA</p> <p>“Local office of emergency management, they're the guys who respond to the wildfires, et cetera, and they're the first boots on the ground, but they don't know that much about mental health. They wait for Red Cross to come in. So I think just helping those offices be more savvy about mental health.” — NA</p> <p>“Creating, enabling an environment for people. One thing is to create awareness and another thing is to make an enabling environment for people to actually follow through with it.” — WPSEA</p> <p>“People like teachers and school principals, social workers are provided with the skills where they can actually intervene if necessary with a view to referring people for professional services if necessary.” — WPSEA</p> <p>“Rural communities, they need to be engaged and be taught as a way of advocating for issues to do with the resilience in the event that disasters struck.” — SSA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Anchor- planning and implementation	Experts and lived experiences — Experts and persons in leadership roles were found to be essential to the process of accelerating response to climate change; however a gap in knowledge related to the impact of climate on mental health was thought to exist for these groups. Further, there was a clear articulation of the need for communities directly impacted by climate to share their lived experience with policymakers to create a circular implementation process integrating community engagement and feedback. This might be particularly relevant where tension might exist between non-health policy agenda items and the need for safeguarding mental resilience by preventing detrimental impacts on the climate secondary to human-driven economic activities.	<p>“For example, in our country, there's a big lobby in favor of coal, coal mining and coal powering of electricity. And coal is obviously extremely bad for the environment, and so we need to ensure that communities and society as a whole are properly informed about the hazards of coal, and secondly, are informed about the importance of renewable energy, solar and wind, and educating communities, ensuring that communities are empowered with information, with activism, with social capital, with integratedness in terms of international context to ensure that there's pressure on governments to make correct decisions in terms of policy about how to proceed with things like electricity, water sanitation, disposal of sewage, et cetera.” — SSA</p> <p>“So it's both: on one hand infrastructure, on the other hand, training people within the hospitals, the leadership, and make them more aware that there are really needs for healthcare facilities to mitigate.” — WPSEA</p> <p>“Educating communities, ensuring that communities are empowered with information, with activism, with social capital, with integratedness in terms of international context to ensure that there's pressure on governments to make correct decisions in terms of policy about how to proceed with things like electricity, water sanitation, disposal of sewage, et cetera.” — SSA</p>



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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Anchor- measuring and bettering	<p>Co-creation of knowledge using non traditional/ dominant positivist methodologies — Based on this data measuring, monitoring and improving understandings around the mental health and climate nexus will necessitate development of dynamic mechanisms perhaps using a systems science approach to create appropriate channels for real time access by policy makers to research outcomes/ outputs.</p> <p>Creation of functional data informed and data-generating communities of practice may be a mechanism for achieving this. These communities of practice can serve as platforms for large-scale co-creation of knowledge-with collective learning and knowledge sharing. Emphasizing and applying a systems lens will allow for a comprehensive understanding of the interconnected factors influencing the occurrence of climate and mental health impacts. Leveraging researchers on the ground ensures that initiatives benefit locally-led adaptation.</p> <p>In essence, shifting from traditional methodologies toward more inclusive and diverse approaches may allow for a richer and more accurate assessment of the true effects and benefits of interventions at both local and policy levels.</p>	<p>“Then we do a baseline study to see how big is the problem, offer the intervention, and do it in line, and of course, in the midway, do some monitoring and evaluation to see the progress, how things are happening on the ground. And that’s how I think we would approach it.” — SSA</p> <p>“Pivot a bit from the traditional methodologies we have used to acquire data because we need to move towards solutions.” — LAC</p> <p>“The citizen science is important, and that will come from the communities. Not always will we be able to draw on the records from health for medical practitioners. So, we do need to rely on the citizens and science, although it may seem to be anecdotal.” — LAC</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Paths-Content channels	<p>People &amp; Technology — People were identified as pathways for information about mental health and climate impact mitigation resources or care, particularly trusted figures within communities.</p> <p>Platforms such as social media, including WhatsApp groups, were found to provide accessible spaces for sharing resources and fostering support with hotlines offering immediate assistance and guidance in times of need. Additionally, leveraging mobile applications tailored for mental health may provide pivotal support, especially in areas with limited access to formal support systems.</p> <p>Engaging youth as active participants in mental health initiatives amplifies outreach and relevance within communities. Further collaborating and sharing information through existing community organizations increases reach with concomitant broadening of access to resources and support mechanisms for persons in need.</p> <p>Together, these examples demonstrate the importance of diverse communication channels that merge human activity with low-cost social 2.0 tools to facilitate access to information and care.</p>	<p>“Developing an app and some public facing information for warnings about hot weather.” — WPSEA</p> <p>“Some local NGOs said, “Nobody is stepping up to coordinate, and we’re going to do a survey and share the results with everybody and try to bring everybody around the table.” And I thought that was really a fascinating example of how you can marry research and response in a way that helps break breakdown barriers.” — LAC</p> <p>“When people were living very isolated lives, these WhatsApp groups played an important role in providing people with a sense of social support, a sense of community cohesion, where people who, for example, were struggling both psychologically and in terms of their medical conditions, they were provided with support, people went and got groceries for them and brought it to their door.” — SSA</p> <p>“So just very recently actually during the pandemic we introduced the region, I mean the headquarters, introduced a mental health program and then a facility like a hotline for mental health concerns for employees. So at least for our community, I mean the community that I’m familiar with, I’m talking about our employees, so yeah, so at least we have introduced a hotline.” — WPSEA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Paths-Community	<p>Community figures and trust — Similar to the thematic content identified related to content channels, trusted figures within faith, educational, or healing practices often serve as vital links, connecting community members to crucial resources. Beyond religious contexts, non-governmental organizations such as environmental bodies, psychological support groups, and various working groups are actively involved, as indicated by the data. Those with ties to governmental ministries are recognized as channels for resources, and these ministries frequently function as service providers within these communities. This intricate network, encompassing diverse stakeholders from faith-based individuals to government bodies, highlights the array of interconnected support structures available for assistance.</p>	<p>“Youth groups definitely can also play their part in ensuring that the messages get to the right people. Because we have, I'm sure across the continent, we have a large population of young people that can be involved.” — SSA</p> <p>“The kids all know. They're all very much on top of this. It's very much in their world, even little children, I'm finding. And so I think it is much more about how do we then resource parents in how to think about it themselves, process their own feelings about it, their own grief, their own overwhelm, their lack of feeling like they have agency or they can do things or what can they do? And all of that piece of it. So then they can turn around and resource their kids around, all of it.” — NA</p> <p>“You need to find the people in that community who would first listen to your message and sort of work through them because it might be difficult for them to share with a complete outsider. And so in some of our communities it's very difficult for somebody outside to even go in.” — LAC</p> <p>“You can reach people is by working with their concerns from their family members and especially their children and grandchildren.” — NA</p> <p>“Use of flyers might save costs again instead of going out there. But by printing flyers and distributing them, it might save one or two things concerning these disasters. And we can also use schools, because in schools, if you give awareness to children, mostly children will go back home and they try to explain to their parents or to their guardians on what to do in the event that this disaster strikes.” — SSA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
<p>Paths-Places of support-</p> <p>(Places of support were found to be preferentially community-based)</p>	<p>Echoes of Alma Ata, Primary Care and Universal Health Coverage — Accessible mental health support is pivotal, especially when integrated into familiar spaces like schools or religious institutions, offered free of cost. Prioritizing affordability ensures widespread access. Embracing virtual platforms such as podcasts caters to specific communities, like indigenous groups. Community-based care is crucial, acknowledging and addressing loss while actively reducing stigma. Learning from effective systems further strengthens this support network, creating a more comprehensive and inclusive approach to mental health care provision.</p> <p>These findings suggest that the climate and mental health positioning within the global health agenda is highly compatible with principles aligned with the primary healthcare approach to care provision and Universal Health Coverage.</p>	<p>“And another one that could probably be related to or that could be applicable to the wider Southeast Asia region would be working through faith-based organizations or networks or maybe religious institutions.” — WPSEA</p> <p>“With my colleagues, we have set out a climate change study group where we also discuss the effects of the climate change in line within mental health as a study group.” — SSA</p> <p>“Religion probably is a big driver in the country. As far as my experience goes, a lot of people will attend church, will attend temple or mosque, and that gives them a level of social support that they sometimes might be missing in a more trusted environment.” — LAC</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Hub Roles	<p>Global foci for action -The COP2 Hubs were identified as playing a pivotal role, serving as a mechanism for concentrating and uniting various mental health services and networks. The Hubs were found to operate as snowball platforms, facilitating interdisciplinary collaborations and concentrating efforts within the climate space, connecting the groundwork of impactful initiatives to facilitate further spread. They also serve as low-cost resource-sharing platforms, acting as a vital bridge between grassroots efforts, policymakers and government levels.</p> <p>Challenges — Hubs highlighted potential challenges that need to be addressed in the broader global policy space, including the impact of industry by powerful nations in regions like the US and Europe, and the disproportionate impact on climate-vulnerable nations. Participants from Hubs suggested that focusing efforts on climate-vulnerable nations will accelerate all efforts— highlighting innovative potential in adaptation strategies, and underscoring the necessity of platforming climate-vulnerable nations in policy decision-making. Also, it will be necessary to balance global research and policy ambitions with the practical reality that not all solutions are universally applicable remains a key aspect of their approach.</p>	<p>“And then we also work with government actors, we work with different funders like the major partners. So we can also help with the help of the information that’s coming from the ground. We can help in prioritizing the issues that they want to fund and also bringing different partners. So we may have three, four partners or funders who want to know maybe fund climate change so we can bring them together for focused action on a particular activity or maybe particular action item that the government is also bring to order, the partners are also agreeing.” — WPSEA</p> <p>“Community of practice.” — WPSEA</p> <p>“The younger people probably are more vocal, but we do need to find ways of getting the older generations to share how they are being impacted mentally or psychologically.” — LAC</p> <p>“When we talk about policy and solutions, we tend to not focus enough on how the more vulnerable households in our societies will adapt. They can be innovative, and we need to explore how we can mobilize them.” — LAC</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Roadmap Gaps	<p>A necessary next step — The Roadmap should empower communities, bridge gaps, and ensure a holistic approach to mental health amidst climate adaptation efforts. Initiatives should be co-created, with communities identifying their challenges and the Roadmap allows for tailored support. Funding must be secured for these initiatives.</p> <p>Specific examples of items to address in the Road map included: offering mental health training, especially to healthcare workers eager to assist but lacking adequate expertise; leveraging partnerships with insurance firms; engaging local researchers to ensure locally driven adaptation benefits; facilitating avenues for older generations to express their mental and social impacts; and fostering internal support networks to aid climate scientists in coping with these challenges within their professional spheres.</p>	<p>“Getting the bigger participation of the private sector because even within our communities we can actually do impactful initiatives like the one that we started where in which we brought the discussion on, it’s difficult, the discussion on the impacts of climate change on health and mental health to the communities that are not our customers.” — WPSEA</p> <p>“ROI in this case is not return on investment, but risk of inaction.” — NA</p> <p>“Work that gets done is relevant to people on the ground and that people feel connected to it. So as much as we want to talk about scaling up action and replicable action, how can we for example, use researchers on the ground to help make sure that it really is benefiting local people and that it’s adapted to whatever local context we’re trying to help.” — EU</p> <p>“Showing how that process is really practical but also including language that can really make sense to people in communities who were doing this work for.” — EU</p> <p>“We have a bad government habit of when they do finally maybe commit to a priority like homelessness and housing, they’ll just dump shed loads of cash onto communities with no structure, no guiding principles, and not much accountability. It’s like money out the door, job is done. This is where I think COP<sup>2</sup> could make some major contributions, is to provide guidance to federal governments and so on. Here are the kinds of frameworks that you can apply between your big dump of cash that you want to get out the door and the communities to make this marriage happen.” — NA</p>

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BASIC THEMES	SUMMARY OF THE ORGANIZING THEMATIC CONSTRUCT	SAMPLE EVIDENCE
Psychological Resilience	<p>Resilience through community — Psychological resilience manifests as a comprehensive community-wide response, requiring community engagement paired with professionals equipped with necessary skills. It's crucial to emphasize “resilience” refers to community-level strategies, rather than focusing on individual resilience.</p> <p>Awareness about the impact of climate-related issues on mental health – such as flooding and extreme heat on productivity and stress — highlights the need for collective approaches that involve training entire workforces, and emphasizing community care to effectively address these challenges.</p>	<p>“The work that it would take to delve into any of these fields, in a significant and most impactful way, is almost onerous and daunting, and it would make the best of us want to step back and say, “Oh, no.” But the advantage that we have is that, one, we are from a region here in Latin America and the Caribbean that is particularly vulnerable. And the sense, also, that we have of the injustice of being so vulnerable to conditions that we have not created puts us in a position of strength to be able to speak with passion, to be able to speak with commitment, to making a difference, and not shying away from this onerous task.” — LAC</p> <p>“Think there's a lot of discussion around their dissatisfaction with working within the existing systems, the master's tools and all of that. So I think there's some sense of, “We're on our own and we're going to have to figure this out outside of existing systems.” So there's a lot of energy around that. And I think probably the biggest piece of all of it too is in the midst of the action and the other kinds of feelings, is making a lot of space for grief. That is something that as societally, we do poorly here in the US anyway. And so, being able to help people be able to raise distress tolerance in order to sit with the grief of it also, so that they can begin to cope with that side of it.” — NA</p> <p>“Think there's a lot of discussion around their dissatisfaction with working within the existing systems, the master's tools and all of that. So I think there's some sense of, “We're on our own and we're going to have to figure this out outside of existing systems.” So there's a lot of energy around that. And I think probably the biggest piece of all of it too is in the midst of the action and the other kinds of feelings, is making a lot of space for grief. That is something that as societally, we do poorly here in the US anyway. And so, being able to help people be able to raise distress tolerance in order to sit with the grief of it also, so that they can begin to cope with that side of it.” — NA</p> <p>“It is distressing and dismaying to hear our countries which are ready, and have to show that the thing, even though they don't want to accept theirs, responsible for the climate vulnerabilities that we're experiencing start now, as the United States has recently done, to go exploring for more oil, and Europe going ahead with more fossil fuel exploration.” — LAC</p>



# A Qualitative Rapid Analysis of COP<sup>2</sup> Regional Dialogues

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FEBRUARY 22, 2023

## INTRODUCTION

This document summarizes the process and outcomes of a rapid analysis of an inaugural set of COP<sup>2</sup> global Regional Hub Dialogues conducted in October, 2022.

These Dialogues were a first step towards creating global-reach capacity to capture broad input to policy and practice at the intersections of climate and mental health. This brief report intends to generate discussion and enable consensus building within COP<sup>2</sup> around “initial state” impressions on priority actions and perceptions of what is needed in this area.

**It was also a first opportunity to elicit feedback on COP<sup>2</sup> first major initiative, the development of a strategy “Roadmap” to be delivered at COP28 in collaboration with the Race to Resilience campaign and aligned efforts and collaborators to identify a path to incorporate psychological resilience within the Sharm El Sheikh Adaptation Agenda goal to promote climate resilience for 4 billion people by 2030.**

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## METHODOLOGY

A qualitative methodology informed by an interpretivist paradigm was broadly applied to this work [1-3]. A pragmatic and iterative approach was taken to the development of the analytic plan. Data was collected Oct 10-14, 2022, in a series of four virtual Regional Dialogues attended by interdisciplinary, multi-sectoral stakeholders within the global climate crisis/ action community. The attendees were recruited through personal contact by key gatekeepers/ informants- knowledgeable of climate and mental health advocacy, research, policy, and education within various sub regions of the world (Europe, North America, Sub Saharan Africa, and Western Pacific Southeast Asia).

Dialogues were facilitated by climate actors knowledgeable about climate experience and response within the particular geographic region.<sup>1</sup> Dialogue format was standardized across regions and involved facilitating two thematic areas of discussion: a) experiences of the need, challenges, priorities, and opportunities for doing this work, and b) effective

<sup>1</sup> Four Regional Dialogues were held from October 10 – 14, 2022: The regions and respective dialogue leads were as follows: Europe (E)- Emma Lawrence and Jessica Newberry, North America (NA)- Amanda Clinton, Katherine Catalano, and Leo Rennie; Sub-Saharan Africa (SSA)- Biggy Dziro and Dixon Chibanda and Western Pacific Southeast Asia (WPSEA)- Ramon Lorenzo Luis Guinto, Chhavi Bhandari, Claudia Batz, and Criselle Angeline Penamante.

ways for COP<sup>2</sup> and Hubs to advance action and specifically to inform the Roadmap project.<sup>2</sup>

Audio from dialogues was captured using Zoom and exported to the prototype Local Voices Network (LVN)<sup>3</sup> software in mp4 format for verbatim transcription and artificial intelligence informed content analysis. Transcripts were then subjected to rapid thematic analysis by two analysts NG and HB (Dec 2022- Feb 2023) who are climate actors within the COP<sup>2</sup> Community (members of the North American and Latin America and the Caribbean sub regions<sup>4</sup>). NG is a doctoral trained qualitative researcher and mentored HB in the analytic process. That mentoring allowed for an initial use of a process for preparing and supervising qualitative review by previously non-experienced volunteers as a way to expand capacity and efficiency of Dialogue sensemaking in the future.

NG and HB developed a 7-point deductive coding frame based on the goals and aims of the workshop and the most dominant word captures matched to the questions

<sup>2</sup> Summary of the agenda used to facilitate:

Introductions led by [Regional Hub Lead/s](#) [~15 min]  
Introduction to COP2 by [Gary Belkin](#) [~10 min] Breakout one: Set the scene by Regional Hub Lead/s [~5 min]  
Discuss: Themes, experiences, priorities, and best practices [~40 min] Breakout rooms to discuss: Set the scene by Regional [Hub Lead/s](#) [~5 min] Discuss: Effective ways COP2 and hubs can advance a global agenda & inform the Roadmap [~30 min] Summary and next steps by [Hub Lead or Gary Belkin](#) [~10 min]

<sup>3</sup> Cortico's Local Voices Network (LVN) is an artificial intelligence system designed to facilitate rapid identification of thematic content of small group conversations. [Local Voices Network — Cortico](#)

<sup>4</sup> Varied gender and ethnicity

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that guided the dialogue. They then double coded a 45-minute sub-set of one regional dialogue to confirm consistency of the coding process and use of the prototype LVN software. On confirmation of consistency of coding, NG and HB each coded 2 of the 4 dialogues using the LVN- highlight and tag function, capturing exemplar evidence text in word files on a private virtual working space housed by The University of the West Indies. The coding was punctuated with three Zoom meetings to identify and discuss emerging results and troubleshoot analytic actions.

Results: One hundred and ten persons (including 3-4 facilitators per region) participated in the dialogues over the four-day period (attendance by region: E (N = 30); NA (N=35); SSA (N = 20) and WPSEA (N = 35)).

Participants perceived that while action was needed to address the global climate crisis and its intersection with mental health, such efforts could not be divorced from those needed to address the social and commercial determinants of health which were compounding the climate change/ crisis lived experience. Further, action across the climate community would need to be:

- Community facing, embracing the multiple power structures within communities and countries e.g., local community leaders, civil society organizations, and government agencies.

- Lived experience oriented, including narratives from youth, women, and populations already experiencing negative sequela from climate change e.g., coastal and farming communities.

- Multidisciplinary and strategically coordinated to achieve efficient use of social and financial capital/networks and to avoid fatigue amongst climate actors.

Table 1. provides the list of codes, their abbreviations along with phrases that summarize the basic themes emerging around capacity building and priority actions for developing a Roadmap.

In addition to the global summary table, we provide a table summarizing key content by region including exemplar quotes to capture the authenticity of the narrative. Each regional summary table is preceded by a short paragraph that is intended to capture some of the dominant narratives which resonated with researchers as being important experiences within the specific region.

## PRACTICAL METHODOLOGICAL CONCLUSIONS

- Conducting dialogues using standardized formats and data collection instruments (with provision for cultural and infrastructural variation) can facilitate the collection of large lived-experience data sets.

- The virtual dialogue process using a regional hub model as piloted by COP<sup>2</sup> is a feasible low-cost mechanism for capturing timely, global, contextually relevant views, perceptions, and experiences.

- LVN: is a valuable resource for converting multi-accent voice to text, with real-time voice and time stamp validity check functionality. However, there may be some

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content analysis and data visualization limitations in the current prototype.

## **CAPACITY BUILDING — REGIONAL DATA ANALYSIS GROUP**

This mentor-mentee model appears a viable option for training a cohort of climate actor volunteers to collect and analyze Dialogue data using a qualitative lens. Expanding this initial NG-HB pilot to a cohort of lived-experience evaluators is suggested as a next step to apply to subsequent rounds of Dialogues, working off a process guide that captures the coaching practice used here.

Creation of such nested qualitative evaluator groups within Regional Hubs (with support from methodologists with COP<sup>2</sup>) could increase the efficiency of rapid analysis of larger data sets of conversations.

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**Table 1:** The list of codes, their abbreviations along with phrases which summarize key basic themes emerging across the entire data set.

CODE NAME	CODE ABBREV.	DEFINITION: EVERY REFERENCE BY PARTICIPANTS RELATED TO...	RAPID SUMMARY
Challenges	Chal	Perceived challenges for implementing Roadmap	<p>Theme: Knowledge and Capacity</p> <p>Implementation of a Roadmap may be challenged by a general societal lack of understanding of the intersection of climate and mental health.</p> <p>Burnout and lack of capacity challenge ability to take on new tasks, and lack of cohesion/ collaboration between climate actors within regions may also impact progress</p>
Needs	Nd	Any kind of resources necessary for hub development and sustainability	<p>Theme: Strategic Alliances and Resource Use</p> <p>Building alliances with stakeholders at various political/ power and influence levels e.g., grassroots leaders, national government and multinational agencies is critical to hub development.</p> <p>Clear pathways for engagement at various stakeholder levels, strategic actions to raise visibility and legitimacy of COP<sup>2</sup>, and alignment of resources are priority needs</p>
Priority Actions (impact, themes, and voices)	PAxn- Imp PAxn-Them PAxn-Voi	<p>Priority actions related to the impact that hubs would like to make</p> <p>The thematic structure/ themes to be investigated/ advanced (within and across hubs)</p> <p>The voices (people, sub-groups and organization (formal and informal)) and to include/ be represented</p>	<p>Theme: Voices and Priority Areas for Action</p> <p>Youth, women, and marginalized communities experiencing compounded climate related needs should be included and represented in climate work (from intervention design to implementation and dissemination of findings).</p> <p>The priority areas for action are complex and must address multiplicative/ overlapping areas e.g.- climate change and its relationship to food insecurity, poverty, non-communicable and infectious disease risk, built environment safety, displacement/ migration, resilience, and limited health system capacity to cater or respond to baseline population mental health +/- climate induced stress. Structured education (at multiple levels) on climate, mental health and resilience can be a vehicle for change</p>

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**Table 1:** The list of codes, their abbreviations along with phrases which summarize key basic themes emerging across the entire data set.

CODE NAME	CODE ABBREV.	DEFINITION: EVERY REFERENCE BY PARTICIPANTS RELATED TO...	RAPID SUMMARY
Methods for action	MfA	Methods to be used to achieve the impact	Theme: Actions by Everyone
Priority actions specific to the Roadmap	PAxn-Rm	Priority actions needed to facilitate the Roadmap** noting that this has not been done yet)	Involvement across sectors/stakeholder groups (e.g. artists and non-academic innovators, communication specialists, persons with strategic skill sets). Ways of working should be non-siloed, leveraging existing systems and sharing of resources/ tools globally.
Roadmap implementation/ accelerations		a. Priority actions needed to facilitate the Roadmap- collaborating partner- categories/ power/ influence	
a. Who- collaborating partners. b. What activities c. Time/ Time frames (Before COP28 d. How- elements of effective team building e. Documenting broad inputs into the Roadmap	a. Rm-Imp-Acc-Who b. Rm-Imp-Acc-What c. Rm-Imp-Acc-Time d. Rm-Imp-Acc-How e. Rm-Imp-Acc-Doc	b. Priority activities of the hub including their preferred contributions to the roadmap c. Feasibility of the time frame/ and the extent of the proposed actions d. Elements of team building and networking within COP <sup>2</sup> hubs and with external stakeholders for the roadmap e. Any mention of the hub process for capturing inputs into the Roadmap	Theme: Overcoming resistance Strategic actions to raise awareness of the nexus of climate and mental health are needed to achieve buy-in from the policy level where resistance exists. The how may involve streamlined communication mechanisms- e.g., global newsletters and attendance at global fora
Long term sustainability of hub actions (including)	Sus	The sustainability of the hubs/ the roadmap	Theme: Youth involvement, coordination, and visibility- Education of youth in climate and mental health related work, global coordination, alliances, and visibility are key components to sustainability

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## REGION-SPECIFIC SUMMARIES AND SAMPLE EVIDENCE:

### European Dialogues Summary:

Multi-disciplinary collaboration and alignment of efforts to improve efficiency was a key take-away for the European group. The group described theoretical or philosophical tensions with field experts understanding/ appreciating the nexus of climate change and health and the need to integrate climate-related themes into standard education and treatment models. Within the region, participants noted that implementation of the Roadmap should emphasize the impact of on those most vulnerable, e.g. frontline communities. Further, ideas were shared on how to build youth capacity through expanding K-12 education on climate and improving the advocacy and public engagement capacity of climate and mental health actors through training.

#### BASIC THEMATIC AREA

#### THEMATIC SUMMARY: SAMPLE EVIDENCE

Perceived challenges for implementing a road map to resilience

##### Theme: Knowledge and integration

Implementation of a RM may be challenged by lack of understanding of and appreciation for the intersection of climate and mental health (including among academic thought leaders (possibly delaying integration).

1. "Psychotherapy organizations have been really slow to say, "Look, this needs to be part of your training. All psychotherapists need to be climate aware." So I find that really frustrating because some of us have been working with our organizations for more than a decade and a half now." — **Europe BR1-Participant 5**
2. "My feeling is that we, doctors, psychiatrists and scientists, a lot of people have got scientific background, still don't understand where we are. So, it's a huge task and I think we are still in the awareness building stage, and I'm really disappointed that there isn't more going on." — **Europe BR3-Participant 5**
3. "We are talking about two policy communities, the mental health community and the climate change community and many more at the intersection on them. So there is really a need to think across and think about how to integrate different frameworks and how to find a unite voice across those different factors." — **Europe BR1-Participant 6**
4. "Moving away and shifting from individual-based interventions and responsibility to social and community-based interventions and responsibility, and this is a big shift. It's about changing communities." — **Europe BR1-Participant 8**

Priority actions (impact, themes, and voices)

##### Theme: Voices and Priority Areas for Action

Safe engagement with youth, and vulnerable communities experiencing the impact of climate change is fundamental

1. "... sure that we are capturing and understanding the perspectives of people with many different vulnerabilities and communities who are particularly vulnerable to these impacts. Doing that in a way which isn't putting that burden on them without then also providing support and without making sure that it's problem." **Europe BR1-Participant 1**
2. "Support for resilience that doesn't leave young people taking the responsibility for sorting the problem." **Europe BR1-Participant 5**



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## BASIC THEMATIC AREA

## THEMATIC SUMMARY: SAMPLE EVIDENCE

Methods for action

### Theme: Actions by everyone

Involvement across sectors/stakeholder groups- strategic capacity building, including through education and training:

1. "My son's school is doing more around peer-to-peer actually in terms of support. Training of young people to support young people might be also an angle given also the stresses and strains on teachers at this time." — **Europe BR1-Participant 7**

2. "Around skilling up the staff, the faculty, the teachers in terms of being able to provide this support within the schools. We know that there's really low rates amongst teaching staff of confidence talking about climate issues but also confidence talking about the psychosocial aspects of it as well, and the social justice elements of it. We're wanting to embed something within the wider system of the school but also provide schools with templates for policies around climate well-being and this kind thing."

— **Europe BR1-Participant 6**

### Theme: Overcoming resistance — regional discussions and capacity building.

1. "I wonder whether it would be good to have a separate group for global actors and then to keep the regional one for regional actors and actors on national levels in the regions so that you can have a somewhat bottom up discussions and bottom up evidence emerging across the regions and then you can keep the discussion on the global separate, but then having common media or common newsletter all the way to keep everyone on board. And obviously it might be good to have a representative from each region being present to the global meeting." — **Europe BR2-Speaker 6**

2. "Often the feedback we get back is, "I felt so isolated, what I was feeling, it was so good to hear it being articulated by somebody else." So there's a sense of solidarity and in a microcosm, a kind of mini communities created that then allows people to say, "Okay, I can get on with the piece I'm doing." Which I think is very important."

— **Europe BR1-Participant 5**

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## North American Dialogues:

The North American group focused on themes and organizational structures, and maintaining sustainability through tangible projects. The group wants to be large enough to be a regional guiding principle, to hold the energy and action of smaller organizations by bringing legitimacy and power in numbers to policymakers. In order for this to happen, greater cohesion across efforts is needed for buy-in. The need for capacity building through climate change and mental health training at the service provider level, and in the schools was highlighted.

BASIC THEMATIC AREA	THEMATIC SUMMARY: SAMPLE EVIDENCE
Perceived challenges for implementing a road map to resilience	<p><b>Theme: Knowledge and Capacity</b></p> <p>Implementation of a Roadmap may be challenged by a general societal lack of understanding of the intersection of climate and mental health. Further, lack of capacity to take on new climate tasks/ cohesion/collaboration between climate actors within regions may also impact progress. There is also a general need to reframe theoretical underpinnings to nurture collective dialogue which can inform action.</p> <p>1. "At COP, you hear people talking about how the biosphere interrelates with the atmosphere. With the hydrosphere. With the cryosphere, the lithosphere. All the different spheres that inter-react react to create homeostasis on the planet. The psychosphere never gets a mention in that. Yet the biggest impact on all of those other spheres is the psychosphere. Particularly the human part of the psychosphere. Our sense of our identity, our sense of how we meet our needs and our internal processes around that." — NA BK 2- P3</p> <p>2. "How can these different organizations and agencies work together collaboratively in an actual functional capacity? Not just saying, "Oh. Yeah. we agreed to work on the same stuff together, the Paris Climate Agreement. But tangible ways where we could actually have potential collaborative projects or mechanisms that meet regularly. And actually have conversations instead of just saying we're going to do it. I think obviously there's a challenge. People only have so much capacity to do those type of things. In addition to the work they are doing in this very important work...." — NA BK 2 P 2 BB</p> <p>3. "It's going to be so tricky 'cause in some ways, you'll have these community organizations that might be tiny, but they might be the ones leading that community level work. Yet what are the layers up to the hopefully larger, more encompassing organizations that do have that legitimacy and that power and engagement with policymakers to do the guiding principal stuff and enable and provide tools to the smaller organizations. ...I do think many folks, and even myself at times, I'm like, "Ugh!" I don't have the bandwidth to understand what yet another organization is trying to do in this space." — NA BK 3 Speaker-1</p> <p>4. "I'm actually just going to completely take a note from [redacted]'s playbook. I think he frames it nicely in saying that, in some ways it's problematic to get siloed off about mental health and addictions as a separate thing. And I think there's some problems there because again, you're right. In some contexts and in many sectors mental health isn't prioritized the way it ought to be." — NA BK 3 Speaker-1</p>

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**BASIC THEMATIC AREA**

**THEMATIC SUMMARY: SAMPLE EVIDENCE**

Perceived challenges for implementing a road map to resilience

**Theme: Voices and Priority Areas for Action**

1. In a rural area, and we can realize that vulnerable populations who have low socioeconomic levels and low access to mental health services is a very important challenge in our society. ....our students are very anxious recently. We have faced a lot of students who want to quit their studying at university once they feel very anxious and they don't know how to face that. So I think that's a point of part of the problem that we're facing right now."— **NA Participant 5**
2. "I think there's still a lot of questions about how to prevent all these different mental health impacts that come after a climate related disaster or even just over time of continual experiences of different climate change effects. So I know one of the things that our center has been trying to do is looking at different types of interventions and different ways to provide that prevention" — **NA Participant 3**
3. "38% of carbon emissions come from the built environment. So whether that's through embodied carbon or through anywhere through the supply chain. So we have this very kind of clear understanding of, oh, this is our role in it, but this has been a really great reminder of the other side of what architects do, and that is build spaces for people and the needs that they have in those spaces. So, not only is it good to be building resilient buildings for carbon purposes, but also the emotional resilience that comes along with that." — **NA Participant 2**
4. "creation and speaking of a new language together. As you're saying, compare the view through the window, not argue about the framing of the window. Because the perspective is actually bigger than any individual perspective. So I think we partly need some new language"— **NA BK 2- P3**
5. "But I think is my personal, we need to reduce the technology uses. We have too many technologies for attending the needs of the people"— **NA BK 2- P4**
6. "Seeing it as an enabler, and what would you call it? What kind of my research-y brain was like a moderator and a moderator in associations. You can't have the outcomes of work, school, community participation, spirituality, all those pieces, if in the middle of it all, you don't have well people, families, communities. I think there's a framing piece that's important and [redacted] articulates it better than I, but I'm with you. And I also think in most areas, but in this area in particular, it's problematic to even disentangle mental health from physical health. I think they're still closely entwined, so they almost need to be part of the same conversation." — **NA BK3 P3**

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**BASIC THEMATIC AREA**

**THEMATIC SUMMARY: SAMPLE EVIDENCE**

Methods for action

**Theme: Actions by everyone** — with specific reference to increasing the connectivity between communities and federal agencies to create a continuum for sharing and achieving impact and legitimacy.

1. “So from my experience with COP is that the real drivers of change are people at the local level. Whether that’s community members, local organizers. City council, mayors. Those kind of people are ones that have direct interaction with the impacts of climate. Are the ones that are there. They’re the first responders. So they have an immediate need to have solutions and to address problems. Whereas sometimes federal global level, these broad conversations are idealistic and slow moving. So by focusing on actually showcasing the successes that are happening on the ground, but don’t necessarily have the network to communicate out what they’re doing. But it’s something that might be replicable. Using those case studies as a way to actually have the impact.”

— **MFA-NA BK2 PART 2**

2. “One thing that’s really important to think about in terms of both people that probably want to be involved and that could be very helpful. And that also gets to some of the other issues we’re talking about in terms of recognizing the humanity. Also different ways to approach this from other cultures and that can bridge cultures. Actually it’s artists. It’s really important to remember that the people that really can communicate both on the scope of the issue that we’re talking about and also in a way that actually will help people change their behavior. A lot of times that comes down to emotional connection, which you can get from art.... You start getting all these academics together and they start wanting to talk about who’s most important. If you can cut through some of that with a very intentional shift, by putting some different kinds of people in front. That can also really help reduce some of that hierarchical sparring.” — **MFA-NA-BK 2**

3. “I think one of the challenges is mainly changing some practices in the youth, maybe building new competencies. Then I think we can create some general competencies, taking the good practices from the experience of the other ones and generalizing them to the new generations of the youth, the adolescents. At the same time, closing that bridge through the experience of twin psychologists working in this area. For example, in our psychology program, we have very few spaces to teach about natural disasters. For example, we only have one elective lecture, which is disaster psychology. And it’s the only training that future psychologists have to work with population who suffered from some loss. So I think it’s a challenge to have experienced people who may have good decision making when facing this kind of problems. So sometimes we just practice and trying and doing some mistakes and trying once again. That’s one of the challenges that I could explain from my point of view.” — **NA Participant 5**

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**BASIC THEMATIC AREA**

**THEMATIC SUMMARY: SAMPLE EVIDENCE**

Methods for action

4. "Psychologists don't serve people. We serve aliveness. The aliveness as it shows up in our clients. Teachers serve the aliveness in the students. You know you're making progress in the classroom when the aliveness of the kids, it's aligned with a greater purpose. So I think we need to be reframing understanding of what we are doing, which is reshaping our identity. We don't need to be afraid of change. Think of the difference between being 10 and being 16. Your entire identity changes. Think of the difference between an adolescent and a young adult. Then starting the family and then the family leaves home."

— **NA BK 2 P3**

5. "I think you actually can't achieve energy efficiency without being really mindful of how people use the buildings and whether or not the buildings are serving their needs. Because when the buildings are not serving people's needs, they very successfully undermine all the design elements that are meant to be energy efficient and cetera, to try to recreate their environments to be a little more aligned with their realities and their needs." — **NA Participant 4**

6. "I think that I'm very concerned about young youth, older youth, children, adolescents who may not have access to properly receive confidence from the grownups. I think the elderly may have such a better experience, but I can perceive that the effects are somehow reflected on characteristics of anxiety and depression. Particularly our students are very anxious recently. We have faced a lot of students who want to quit their studying at university once they feel very anxious and they don't know how to face that. So I think that's a point of part of the problem that we're facing right now." — **Participant 5 BK2**

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## Sub-Saharan Africa Dialogues Summary:

Sub-Saharan Africa highlighted a need for awareness of the intersection of mental health and climate change, and a need for awareness of mental health care. There was discussion of changes in natural environment leading to huge shifts in everyday lives, e.g. subsistence farming and low-income families. The question of how to equip youth to stay resilient was raised. Dialogues suggested it is critical to engage community stakeholders and leaders, e.g. Ebola crisis & community leader information dissemination and mental health training at the service provider level, and in the schools was highlighted.

### BASIC THEMATIC AREA

### THEMATIC SUMMARY: SAMPLE EVIDENCE

Perceived challenges for implementing a road map to resilience

#### Theme: Knowledge and Capacity

Implementation of a Roadmap may be challenged by a general societal lack of understanding of the intersection of climate and mental health underpinned by pervasive mental health stigma.

1. There's a move to move away from the stigma associated with mental health or even mental health discussions. But it's definitely something that we are still working on since I work in mental health research. And something that, yeah, a lot of research programs and a lot of people are trying to work on so that we can have more mental health awareness in the public or in society. — **SSA BK3-Participant 4**
2. And regarding the link with climate change, I think a lot of people don't really link the two together. — **SSA BK 3- Participant 4**
3. You speak of climate change, speak of mental health. But I think combining them together it's something that's still a bit farfetched in most regions in our country. — **SSA BK 3- Participant 4**
4. The way we look at mental health in Africa, or let's say West Africa. And it's stigmatizing. So people usually don't talk about these mental health issues, although it impacts them. So I think awareness is something that can play a big role. — **SSA BK Kigali-Participant 3**
5. So I think the resources we talk about, first thing is awareness, and awareness and not maybe from government or from both the people themselves, the community themselves being involved and having discussion around this really work.
6. there's need for collaboration from both the community leaders and those in authority for whatever is being put across to make an impact. — **SSA BK 3-Kigali- Participant 5**

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## Western Pacific SouthEast Asia Dialogues Summary:

The WPSEA group was focused on maintaining resilience in the face of disaster. There is a need to integrate discussions of mental health and climate change, which are currently siloed. There was discussion that showing up in dialogue regionally can offer support and resilience, but that the process needs to have results. There were youth advocates in the space who felt supported by the space but emphasized a need for action and purpose. The group agrees that grass-roots-up efforts are more effective than global level-down efforts. A system to share best practices regionally and globally is needed, along with education and integration in the schools.

### BASIC THEMATIC AREA

### THEMATIC SUMMARY: SAMPLE EVIDENCE

Perceived challenges for implementing a road map to resilience

#### Theme:

Accessibility of mental health care; lack of attention to mental health and climate; disaster & direct and indirect mental health impacts, e.g. ripple effects (housing, employment, etc) impacts on mental health

1. So the disasters, instead of making us, maybe for a moment much more cooperative, but as soon as it's gone it has the opposite effect on us, making us more competitive because we all want to be on the survival side. — **WPSEA BR1 – Participant 1**
2. I think we need look at areas that are beyond disasters and beyond such larger effects that impact lives [inaudible]. But really look at things that impact people in daily lives: how it's impacting housing, how it's impacting employment, how it's impacting really mental health and resilience, how it's impacting our health systems need to address the issues on ground. What challenges on day that people face in future in addition to disaster management, or in addition to preparing more resilient systems that can address cyclones and heat waves. — **WPSEA BR3 – Participant 7**
3. The talks about mental health and climate change are very scarce. I mean, I'm teaching the PS biology, and some I also teach in the environmental biology. But in their curriculum I think it is not part of the curriculum, considering that their major is on the environment. We are just focusing on the climate change alone but not actually the climate change and its implications, especially in the mental health. — **WPSEA BR4 – Participant 7**
4. Mental health services here, both preventive and therapeutic, are not that accessible. Meaning if you want to, for example, book a therapist you really have to pay a prime. And if you want to go to the government services you have to go through a lot. And it's not accessible for all regions in [redacted], especially those who are in the rural area who are at greatest risk for disasters, who are experiencing the most negative effects of climate change yet they contribute the least. They have the least access to mental health because of misallocation of resources and actually the... What do you call this? The unfair landscape of help and public health here. — **WPSEA BR4 – Participant 2**



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BASIC THEMATIC AREA	THEMATIC SUMMARY: SAMPLE EVIDENCE
Methods for action	<p><b>Theme:</b></p> <p><b>WHO</b> — scaling, governmental support, across sectors and industries, local community investment and delivery; educational curriculum (youth, first aid responders, clinical practice)</p> <ol style="list-style-type: none"> <li>Perhaps thinking about are there any regional days of awareness that we can be really using or should we be doing more. Finding kind of ways of using storytelling to, that might quite resonate with people and be quite impactful when you think about building this roadmap as well, whether it's photos, videos, et cetera. And get solicit of people's perceptions. — <b>WPSEA BR2 – Participant 2</b></li> <li>I think if government is able to step up and provide more of a service then it certainly will save lives as well as make sure that people do make sure they do have good mental health. — <b>WPSEA BR2 – Participant 1</b></li> <li>And to scale it up, I think collaborations is the way to go. And party/stakeholder collaboration again, not just bring in the climate and the health professionals into the scene, but other sectors as well, as [inaudible] pointed out. Different sectors, the different industries must start looking into if we can find any common points where we can bring in a multi-stakeholder collaboration. We can probably lead that way. — <b>WPSEA BR3 – Participant 5</b></li> <li>The need for having better awareness in developing countries, the need for having integration in topics in the education curriculum, how we need to have psychological first aid responders who are deployed and the need to have more psychosocial first aid being provided and people being trained into the same. WPSEA BR1 – Participant 12</li> <li>Any form of intervention happening, that it be delivered by people locally who knew the local community and were connected to the local people. So both having that level of a bigger message that's coming across based on the research and based on expertise, but also then making sure that it's connected locally to local people. — <b>WPSEA BR1 – Participant 13</b></li> <li>Inter-agency coordination talk, focusing on physical as well as psychological help for people affected, strengthening health systems, longer and robust investments for future preparations, building community support and multi-stakeholder intervention, as well as creating more evidence in relation to climate change and mental health, as well as having more robust advocacy on the issue at multi levels and bringing the issue closer to people. — <b>WPSEA BR1 – Participant 16-5</b></li> <li>We need to come up with a system where people can really share good practices and findings as fast as possible. — <b>WPSEA BR1 – Participant 11</b></li> </ol>

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**BASIC THEMATIC AREA**

**THEMATIC SUMMARY: SAMPLE EVIDENCE**

Methods for action

**Theme:**

**WHO** — Prioitize traditional knowledge and practice; lived experience forefront to mobilize stakeholder & private sector collaboration

1. Conversations on going back to the traditional knowledge. In other countries there have been Indigenous groups and Nomadic people who've seen climate change through generations, and they understand their environment. So I think learning from those traditional understandings and knowledge is also key to going forward on this issue.

— **WPSEA BR3 – Participant 5**

2. So bringing in lived experience at the forefront and mobilizing stakeholder collaboration as well as harnessing the traditional knowledge of indigenous people.

— **WPSEA BR1 – Participant 16**

3. So in terms of sustainability, who can contribute to it best, because right now we're seeing there's a trend in terms of eco-friendly options and we can see that consumers are being more open to it. So why not engage the private sector as well? Sort of encourage that sort of behavior among our countries. Maybe we can write that one.

— **WPSEA BR1 – Participant 3**

4. First is just showing up I think in this room means a lot already. We need to get involved and show up. The previous presenters earlier were talking about lived experience. I think when we're talking about lived experience, that means also asking other people to show up with us. — **WPSEA BR1 – Participant 4**

5. I think for this to be sustainable, we should also start education the younger generation so they too can actually take interest and be more knowledgeable about it. And probably can even come up with even more innovative ideas on how to solve the current problem.

— **WPSEA BR3 – Participant 3**

# Glossary

INTRODUCTION > AIMS > CARE+CHANGE > ANCHORS+PATHS > IMPROVING+MEASURING > SCALE > ENDNOTES > FURTHER READING

**Accompaniment** An ongoing relationship of fidelity with a place or group that seeks and can benefit from resources and expertise. Accompaniment is not an equal mutuality of needs. It is a commitment on one side to “walk with” the other, to fill the needs framed by the other as those needs evolve and shift over time.

**Anchors** Anchors are established common institutions, communal networks, and other capable and locally credible entities that can be accompanying owners of one or more critical functions to assist the spread of the capacity for psychological resilience.

**Care** The task of care is to diminish and prevent distress, illness, and their symptoms, as well as promote overall emotional well-being.

**Care Tasks** Forms of hands-on personal contact, but other actions, such as policies, mass communication, and public services, can often yield similar effects. The breadth of needs and challenges within climate change calls for a proportional range of tools and knowledge to draw on. Global Mental Health, Well-being, and Sense-making fields provide a robust starting point for assembling that array of learning and experience.

**Change** The task of change is to achieve substantive, transformative climate adaptation. Change in the context of psychological resilience reinforces the behavioral, psychological, and emotional elements to design, influence, better advocate for, and directly implement change-making climate and environmental solutions and responses.

**Climate adaptation** Process of adjustment to actual or expected climate

and its effects to moderate harm or exploit beneficial opportunities.

**COP** Annual “Conference of the Parties” to the international climate agreement, the United Nations Framework Convention on Climate Change (UNFCCC).

**Global Mental Health** (Global Mental Health) A knowledge area characterized by efforts to approach, define, implement, and frame the promotion of mental health and treatment of mental illness as a challenge of globalized solutions and dimensions that take in full responsiveness to both the broad scale, and the local diversity and contexts, of that endeavor.

**Inner Development** A set of perspectives that understand inner changes in mindset, behaviors, attitudes, and other psychological capabilities as prerequisites for achieving the “outer” changes in politics, economics, and technology necessary for leading and enacting sustainability and climate resilience.

**Integrated Community Therapy** A systematized and widespread integration of emotional support elements within a community-group problem-solving and solution-sharing format.

**Kernels** Overlapping beneficial psychological outcomes and skills that result in or get used across multiple kinds of group or individual interactions.

**Mass effects** The multiplier effect of dense adoption of tasks of care and change.

**Mental Health** Mental health is used here to mean an experienced level of comfort and quality in how people think, feel, and act inter- and intra-personally.

# Glossary

INTRODUCTION > AIMS > CARE+CHANGE > ANCHORS+PATHS > IMPROVING+MEASURING > SCALE > ENDNOTES > FURTHER READING

**Originating purpose** (other-outcome driven) The work of COP2 is in support of climate change organizations, enabling ecosystems of psychological resilience-building so that mental health and well-being can serve as a means of achieving and empowering other ends rather than only as ends unto themselves

**Paths** Places or other opportunities for care and change capabilities to reach intended beneficiaries at scale. These can be trusted community groups or locations, schools, workplaces, religious organizations, and content channels such as social media platforms and YouTube.

**Psychological flexibility** [It has a specific cited definition in the text I can find]. It is a good example of a psychological or developmental kernel with multiple beneficial impacts.

**Psychological resilience** A pragmatic process rather than a static concept or normative end state.

**Race to Resilience** A global campaign to mobilize Non-Party Stakeholders to increase the resilience of 4 billion people by 2030

**Resilient people** Those who are helped to work towards being emotionally, psychologically, behaviorally, able to humanely cope, adapt behavior, find meaning, connect others, cooperate, absorb trauma, loss, and distress, drive change, have agency, and share hope in the face of climate and environmental change.

**Scale** “Scale” has to start being appreciated as cultural diffusion. Cultural diffusion is when specific cultural values, ideas, or even cultures are adopted as cultural values or practices.

**Sense-making** A range of knowledge and practice that enables understanding, evaluating, designing, problem-solving, imagining, assuming, and problem-solving tasks of care and change.

**Sense-making solidarity** A range of emerging, largely grassroots paths for working through emotions in solidarity with others to make sense of climate and environmental change in ongoing and potentially unpredictable ways that inform and often intentionally engage or explore action.

**Task-sharing** Methods that allow mental health non-professionals and laypeople to pick up skills to deliver basic elements of steps in illness and distress care and treatment, prevention, promotion, and well-being interventions in a wide range of places and situations.

**UNFCCC** United Nations Framework Convention on Climate Change.