Introduction to Transformational Resilience

The Need, Methods, and Benefits of Preparing People Worldwide for the Traumas and Toxic Stresses of Climate Disruption

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The adverse psychological & psycho-social-spiritual reactions to climate-generated traumas & toxic stresses

We Are In the Midst A Civilization-Changing Event!

The interlinked climate-ecological-biodiversity crisis is already affecting and will increasingly undermine every aspect of society.

The impacts will significantly harm psychological and psycho-social-spiritual health!
The Climate-Ecosystem-Biodiversity Crisis is Unlike Any Modern Society Has Faced!

Even with aggressive emissions cuts and ecosystem restoration efforts:

- It will ***worsen for decades*** and increasingly ***intermix fast-growing disasters*** with ***chronic and intense (toxic) stresses*** offering less and less time for recovery.

- It will ***traumatize and severely stress adults, disrupt social support networks and other protective systems, aggravate racism and other systemic oppressions, and undermine the social determinants of health***—all of which will ***increase ACEs***.

- Left unaddressed, the resulting ***psychological and psycho-social-spiritual maladies*** will be ***as bad*** as the physical impacts ***and derail*** emissions reductions.
Despite These Threats, Little Focus Has Been Given to Preparing *People* for the Profound Traumatic Stressors to Come!

- To the extent that the psychological dimensions have been recognized the response has been *disaster mental health* and *mental health first aid*.

- Health has recently become a focus, but has primarily addressed climate change generated *physical illnesses* and *diseases*.

- **While important, neither will succeed without an equal emphasis on proactively preparing *people* for the *psychological & psychosocial-spiritual* impacts already occurring and speeding our way!**
This is Especially Important Because the Climate Crisis Also Offers The Opportunity for Profound Transformation!

It is a primal truth that, as painful as it can be, adversity is often our greatest impetus for learning, growth, and transformation.
Imagine the Benefits of a Global Preventative Transformational Resilience Movement That Helps:

- **All adults & youth** become *trauma-informed*, build on strengths, and enhance personal and collective protective factors so they can think and act in healthy ways even in unhealthy conditions.

- **All leaders** learn to promote social narratives, shift cultural norms and practices & make their groups *safe, healthy, just, and equitable* resilience-enhancing entities.

- **Everyone** learns how to use adversities as *transformational catalysts* to find new meaning, purpose, and hope in ways that motivates them to increase social *and* ecological wellbeing as a way to increase their own sense of wellbeing.
Trauma and Toxic Stress Are Epidemic Today

To these now add the acute disasters and chronic toxic stresses generated by the interlinked climate-ecosystem-biodiversity crisis!
Average Global Surface Temperatures Have Already Risen By 1.8 F (1C) Above Pre-Industrial Levels—With 2/3 of Rise Since 1975

In Oct. 2018 the IPCC said emissions must be cut by 45% by 2030 (11 years) and essentially to Zero by 2050 to keep temps from rising more than 2.7 F above pre-industrial levels—which will trigger irreversible catastrophe.

Even if temperatures can be constrained, more frequent & extreme disasters & toxic stresses will continue for a century or more!
Some of the Consequences: More Frequent and Extreme Disasters

Wind, Rain, and Snow Storms

Wildfires and Smoke Emergencies

River Flooding

Heat Waves and Temp. Extremes

Drought and Food & Water Shortages

Sea Level Rise and Storm Surges

And many other surprise disasters...
Equally Important: More Ongoing and Intense (Toxic) Stresses From Experiencing, Seeing, or Worrying About...

- Our future and our children’s future
- Loss of place, community, culture, and natural environment
- Disruption of close family and friend social support networks
- Forced migration
- Water, food, and other resource shortages
- Economic disruptions and job losses
- New illnesses and diseases
- Disaster-triggered crime or violence
- Intensified racism, sexism, and other systemic oppressions
- Many other surprising chronic toxic stresses
Frontal-Cortex: "Executive Center"

- Can **direct**, but **not control**, the Fear & Alarm Center.

- **Meaning making center** of brain that sorts out real from false threats, develops beliefs about the world and self, and decides appropriate responses.

- **Memory of past trauma** and mind racing about **future threats** can prevent discharge of hyperarousal.

Amygdala: The "Fear and Alarm Center"

- Fear-based survival reaction occurs **automatically** when senses threat.

- **Releases neurochemicals** into the body that produces hyperarousal to prepare us to fight back, flee, or if overwhelming freeze.

- Works like **smoke detector**—a false alarm is better than mistake—but chronicity produces dysregulation.
“Direct, acute experience with climate change can produce...sudden and severe mental health consequences.”

(Mental Health and Our Changing Climate, American Psychological Association 2017)
Examples of Psychological Impacts of Fast Moving Climate Disasters

Effects depend on the intensity, duration, and level of exposure to the event.

Research shows **20%-50%** of people impacted by extreme weather events can experience severe:

- Anxiety
- Depression
- PTSD
- Higher suicide rates
- More

**Examples**

- **30% to 50% of Katrina survivors** suffered from PTSD, severe depression, anxiety, or hopelessness, and suicides went up substantially.

- **20% of east coast residents after Superstorm Sandy** reported PTSD, **33% reported depression**, and **46% reported anxiety**.
Examples of Psychological Impacts of *Fast Moving* Climate Disasters

Effects depend on the intensity, duration, and level of exposure to the event.

Elevated levels of PTSD have been found among people impacted by wildfires...

sometimes *lasting several years*. (APA)
Examples of Psychological Impacts of *Fast Moving* Climate Disasters

Effects depend on the intensity, duration, and level of exposure to the event.

Research shows similar psychological effects from *flooding* with curious increased impacts on *children*:

- Anxiety
- Depression
- PTSD
- Higher suicides rates
- Increased aggression in children

**Example**

In the UK after the 2007 summer floods:

- 75% of the people directly impacted had severe anxiety
- 50% experienced depression
- About 25% suffered from PTSD
Disasters Can Increase Violence
(Canadian Red Cross)

The risk of violence in emergencies increases by up to 300% due to a combination of shocks at the individual, family, community, and societal levels. The main drivers include:

- Collapse of personal or social protective systems
- Increased individual and community stress
- Individuals relying on harmful coping mechanisms such as alcohol or drugs
- Pre-existing risk of violence
- Crowded insecure environments

Research shows increases in violence of up to 300%

Examples of Psychological Impacts of Slow Growing Climate Impacts

Effects depend on the intensity, duration, and level of exposure to the event.

Research shows droughts can produce a similar range of mental health problems and increase substance abuse.

Examples

• Studies in Australia found that family dysfunction, depression, anxiety, hopelessness and suicide rose in mist of drought.

• In US droughts of the 1980s, male farmers and ranchers in Wisconsin, Minnesota, North Dakota, South Dakota, and Montana demonstrated rates of suicide twice the national rate.

• Many studies have found that alcohol & drug abuse rise in droughts.
Examples of Psychosocial-Spiritual Impacts of Climate Change

Effects depend on the intensity, duration, and level of exposure to the event.

Research shows hotter temperatures alone tend to increase:

- Substance abuse
- Domestic violence
- Assaults
- Robbery and burglary
- Higher suicides rates
- Interpersonal aggression
- Violence

Examples

- One study looked at 30 years of monthly crime and weather data for 2997 U.S. counties and found that as temperatures warmed so did aggravated assaults, simple assaults, robberies, burglaries, larceny and vehicle theft.

- Research in Europe also linked hotter weather to higher crime rates.
Research shows growing hopelessness and helplessness due to the “unrelenting day-by-day despair” of climate change (APA)

Examples

• Prolonged drought, insidious impacts like food shortages, rising sea levels, and the gradual loss of natural environments are: “causing some of the most resounding chronic psychological consequences.”

• Mental health problems can also be triggered indirectly from: “Watching the slow and seemingly irrevocable impacts of climate change unfold, and worrying about the future for oneself, children, and later generations.”
Indigenous communities, people of color, immigrants, low income populations and other frontline communities often experience climate impacts first and the hardest.

The impacts are often aggravated by unjust and inequitable norms, practices, and policies that exist before impacts, and are intensified during, and afterwards.
Health inequalities are socially determined, avoidable, and unjust differences in people’s health across the population and between specific groups. They disadvantage people and limit their chance to live longer, healthier lives.

Some Examples of Health Inequities Include:

- Living in locations where disasters are most likely to occur
- Poor air or water quality due to nearby polluting industries or sites
- Poor quality housing and transportation access
- Lack of employment opportunities and sufficient income
- Poor early childhood development and education
- Lack of access to healthy foods
- Lack of access to, or extremely costly, health care services
- Lack of sufficient protection from crime and violence
- Lack of protection against institutionalized racism and discrimination
Most of the impact research evaluates single disasters or stresses that end and allow time for recovery.

As the interlinked climate-ecosystem-biological crisis accelerates, the disasters and toxic stresses will become more Extreme, Repetitive, Surprising, Cumulative, and Intersectional!
Traumatized and stressed people often retreat into a self-protective survival mode that leaves them uninterested in external issues like emission reductions.

Left unaddressed, the adverse human reactions to climate impacts threaten to stall or derail efforts to minimize the climate crisis!
Worldwide the Climate-Ecosystem-Biodiversity Crisis is Generating Both...

**Individual Traumas**

**Collective Traumas**

Both can cause people to harm themselves, others, and the natural environment.
Summary of Impacts of Climate Traumas & Toxic Stresses If Not Addressed

Stress Reaction From Release of Cortisol & Adrenaline

- Physical Reaction:
  Increased blood pressure, pulse rate, difficult breathing, cold sweats, muscle tension, aches & pains, sleep disorders

- Mental Reaction:
  Excessive fear, worry, guilt, lost trust, shattered assumptions and lost meaning

If not discharged, what began as helpful adaptive reactions can become harmful

Maladaptive Coping

- Self-numbing via legal or illegal substance, food, tobacco abuse
- Seeking relief via diversions like hyper-vigilance, social media, electronic video games
- Seeking relief by inflicting our distress on our children or others via aggression or violence
  - Dissociation, denial, neglect, and reenactment
- Less ability to cope, problem solve, and enhance wellbeing

External Stressors

Social Breakdown
(Trauma-Organized Groups & Communities)

- High distrust, despair, meaninglessness
- Low empathy and compassion
- Authoritarianism and extremism
- ‘We vs. Them’ polarization
- Interpersonal aggression, violence, crime
- No concern for environmental degradation
- Less ability to cope, problem solve, and enhance wellbeing

If It Continues

All Encompassing Personal Breakdown

- Physical health problems (e.g. cancer, heart)
- Psycho-emotion problems (e.g. anxiety, depression, PTSD, complicated grief)
- Spiritual problems (e.g. hopelessness)
- Cognitive problems (e.g. memory loss)
- Behavioral problems (aggression or withdrawal)
- Less ability to cope, problem solve, and enhance wellbeing

If many people experience these reactions

If It Continues
A Whole New Way of Thinking Is Needed To Respond to a 3-7°F or More Temp Rise!
Most climate resilience and adaptation programs—while important—will increasingly be:

- **Ineffective** because it is very difficult to predict the precise location and scope of impacts or prevent serious harm.

- **Inadequate** because they mostly focus on external physical factors and fail to prepare *people* for impacts to come.

- **Harmful** at times because many seek to maintain business-as-usual, which caused the crisis.
Disaster mental health programs—while vital--will increasingly be:

- **Overwhelmed** (most are already fragile)

- **Stop Gaps** because most are short term and only seek to stabilize people during and immediately after disasters

- **Inadequate** because they do not help people cope with persistent and intensifying (toxic) climate stresses.
Many direct social service programs—while vital—will be increasingly inadequate because they are:

- **Siloed** into mental health, physical health, low income programs

- **Not designed** to address 2-5 co-occurring psychological and psycho-social-spiritual maladies simultaneously

- **Not able to assist** the millions of people that will be impacted
A Whole New Way of Thinking Is Needed to Respond

Traditional approaches to risk and vulnerability analysis will be also increasingly inadequate because they tend to...

• Focus on visible easily quantifiable things like buildings and infrastructure and ignore the human dimensions of resilience.

• Seek to eliminate weaknesses (which can seem endless) rather than build on strengths & enhance protective factors.

(Twigg, 2004, IFRC 2012)
A Whole New Way of Thinking Is Needed to Respond

Traditional concepts of “resilience” will also be inadequate because...

it will be **impossible** to “**bounce back**” to pre-crisis conditions....

And many people **don’t want this**!

Traumatized and stressed people want to be able to **increase** their sense of wellbeing **above previous levels**!
A Whole New Way of Thinking is Needed to Respond

**Resilience vs. Preparedness**

**RAND Corp. Assessment**

Traditional Disaster Preparedness Programs Have Not Worked Well Enough

*Rand’s Community Resilience Portfolio* by Anita Chandra, RAND Corp.
Prevention *Before* Harmful Reactions Occur Is the Only Viable Solution!

And It Works!

- ACEs prevention
- Smoking prevention
- Minimum drinking age laws
- HIV infections
- Childhood immunizations
- Motorcycle and bicycle helmet laws
- Child seat and safety belt use
- Many More Examples!

Adapted from. *Adverse Community Experiences and Resilience: Addressing and Preventing Community Violence*, by Ruben Cantu, The Prevention Institute Nov 4 2016
A major national and global prevention movement can **Build a Culture of Transformational Resilience**!
Pre-Disaster

“Community Cohesion”
Honeymoon phase can last a few days to a few months; often thought of as “resilience”

“Heroic Phase”
Occurs during and right after impact; often thought of as “resilience”

Impact

“Disillusionment”
Can last months to years and generate severe mental, social, and spiritual distresses: this is where “resilience” skills are most important

“Recovery”
Coming to terms and working through grief can take years; “resilience” skills also vital here

“Bounce Back”
If sufficient time exists for recovery, many eventually return to some semblance of pre-crisis levels

Some People Remain Dysregulated

Another Disaster or Anniversary Reactions Can Cause Regression

But others use the traumas as a transformational catalyst to find New Meaning, Purpose, and Hope

Transformational Resilience is *Essential*  
(A version of post-traumatic growth)

The ability to constructively cope with climate and other adversities and use them as catalysts to learn, grow, and *increase* personal, social, and ecological wellbeing substantially above pre-crisis levels.

From *Transformational Resilience*, B. Doppelt  
(Greenleaf Publishing 2016)
Key Elements of Helping Individuals Build Their Capacity for Transformational Resilience
A Framework for Building Resilience---Not a Specific Model

Age, culturally, and demographically appropriate:

**Trauma-Informed Skills**

- Basic info on how trauma & toxic stress can affect mind, body and behaviors—and behaviors of groups
- Awareness of symptoms in self and others

**Presencing Skills (self-regulation)**

- Bio-psycho-emotional self-regulation skills
- Robust personal, social, and ecological supports
- Cognitive awareness and control skills

**Purposing Skills (adversity-based growth)**

- Learning and meaning making
- Values-based decisions
- Active engagement to harvest hope

(See ITRC Library on the website for research basis of this model)
The Three Pillars of Transformational Resilience in Groups, Organizations, and Communities
(From Transformational Resilience, Greenleaf Publishing 2016)

See ITRC Library on the website for research basis of this model.
Again--Imagine the Benefits of a Global Preventative Transformational Resilience Movement That Helps:

- **Everyone** becomes **trauma-informed**, builds on strengths & enhances protective factors so they can **think & act in healthy ways** even in unhealthy conditions.

- **All leaders** learn to **promote social narratives**, **shift cultural norms** and **practices** & make their groups **safe, healthy, just, and equitable resilience-enhancing entities**.

- **Everyone** learns how to use adversities as **transformational catalysts** to find new meaning, direction and **hope** in ways that motivate them to increase social **and** ecological wellbeing as a way of increasing their own sense of wellbeing.
Climate and Ecological Programs Must Quickly Expand Beyond Their External Focus & Also Emphasize Building Transformational Resilience!
Mental Health, Physical Health, Social Justice, and Other Professionals Must Get Out Front of Impacts by Building Transformational Resilience!
Building a Culture of Transformational Resilience Is Possible!

“The ideas of one generation become the instincts of the next.”

— D.H. Lawrence

Adapted from. Adverse Community Experiences and Resilience: Addressing and Preventing Community Violence, by Ruben Cantu, The Prevention Institute Nov 4 2016
Let’s Launch a Movement to Make The U.S. and All Other Nations...  

Trauma-Informed Human Resilience-Enhancing Societies for Climate Traumas & Toxic Stresses!
About the International Transformational Resilience Coalition (ITRC)

A global network of mental health, social service, education, climate, faith and other leaders working to raise awareness of the urgent need, methods, and benefits of proactively building universal capacity for Transformational Resilience for climate impacts.

• Led by national steering committee and regional steering committees in the PNW and CA.
• Webpage on ACEs Connection Network site and private Basecamp site for ITRC members
• Major conferences held in different parts of the U.S. (2016, 2017, 2018)
• Private and public workshops held in the EU and throughout the U.S.
• Free quarterly webinars with participants often from nations worldwide.
• In 2018 inventoried and assessed resilience building programs across the west coast.
• In 2019 had SB 1037 introduced in Oregon leg. to make resilience education universal
• Recently issued Call to Action on the Climate Mental Health and Psycho-Social-Spiritual Emergency – we ask individuals and organizations to sign on!

This information and more found at: http://www.theresourceinnovationgroup.org/
About the Presenter

Bob Doppelt founded and coordinates the International Transformational Resilience Coalition (ITRC). He is the director of The Resource Innovation Group, which is affiliated with Willamette University. For almost a decade he directed the Climate Leadership Initiative (CLI) and taught systems thinking and global warming policy at the University of Oregon. Prior to that he ran a research institute and taught at Portland State University. His academic training is in both counseling psychology and environmental science. He is also a mindfulness teacher (Spirit Rock Meditation Center), and Mindfulness-Based Stress Reduction Instructor (U. Mass. Medical School Center for Mindfulness). In 2015 he was named one of the world’s “50 Most Talented Social Innovators” by the World CRS Congress.

Bob is the author of a number of best-selling books on the process of systems-based individual, organizational, and community change.

His book Transformational Resilience (Greenleaf Publishing 2016) describes these and other “Presencing” and “Purposing” principles and skills for building personal and psycho-social-spiritual resilience for the impacts of climate change. His other books include Leading Change Toward Sustainability (2003), The Power of Sustainable Thinking (2008), From Me to We (2012), and Entering the Watershed (1993).