

How Extreme Weather Is Changing Communities: A Call for Shared Responsibility

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Extreme weather is no longer only a subject discussed by climate scientists, environmental organisations, or governments. It is increasingly becoming part of everyday life for communities around the world.

Floods are entering homes and businesses. Heatwaves are making cities dangerously hot. Droughts are putting pressure on water supplies and agriculture. Wildfires are destroying ecosystems and settlements. Powerful storms can damage roads, electricity networks, schools, hospitals, farms, and businesses within hours.

Behind every extreme weather event are people.

A family is trying to rebuild a damaged home. A farmer wonders whether the next harvest will survive. A business owner is calculating the cost of closing after a flood. There is a child whose school has been disrupted. There is a community wondering whether the surrounding infrastructure can withstand the next disaster.

This is why understanding extreme weather is important for everyone, even people who do not consider themselves climate activists.

Climate resilience is ultimately about protecting **people, livelihoods, infrastructure, economies, ecosystems, and our shared future.**

The Problem: What Is Happening?

Extreme weather includes events such as unusually intense heatwaves, heavy rainfall, flooding, droughts, wildfires, storms, and other severe weather conditions.

Extreme weather has always existed. However, human-caused climate change is influencing many types of extremes. A warmer atmosphere and ocean can change rainfall patterns, intensify heat extremes, increase the amount of moisture available for heavy precipitation, and contribute to conditions that make some disasters more damaging.

But extreme weather events do not become a community disaster because of the weather alone.

The level of damage also depends on **where and how people live, the strength of infrastructure, access to information, poverty levels, emergency preparedness, environmental management, and the ability of communities to recover.**

A heavy storm, for example, may have very different consequences in two communities. One community may have effective drainage, flood defences, emergency alerts, insurance, strong buildings, and evacuation plans. Another may have drainage systems that are blocked, poorly planned development, limited emergency services, and households without the financial resources to relocate.

The weather event may be similar, but the human consequences can be completely different.

That is an important climate lesson:

Disaster risk is created by the interaction between hazards, exposure, vulnerability, and our ability to respond.

How Extreme Weather Changes Communities

The first and most visible impact is often damage to homes and infrastructure.

Flooding and storms can destroy houses, roads, bridges, electricity networks, telecommunications systems, water facilities, schools, hospitals, and businesses. Rebuilding these facilities can require significant public and private investment.

But the effects do not stop when the rain stops or the storm passes.

A damaged road can prevent workers from reaching their jobs.

A flooded school can interrupt children's education.

A damaged health facility can reduce access to medical services.

A power failure can affect businesses, hospitals, food storage, communication, and household safety.

This demonstrates how interconnected communities really are.

Food and Agriculture Are Also at Risk

Farmers are among those who experience changing weather conditions directly.

Agriculture depends heavily on temperature, rainfall, soil conditions, water availability, and predictable growing seasons. Drought can reduce crop yields, while excessive rainfall and flooding can destroy crops, damage farmland, kill livestock, and interrupt transportation between farms and markets.

When agricultural production falls, the consequences can travel far beyond farming communities.

Food supplies may become less reliable. Farmers can lose their income. Businesses that process or transport agricultural products can also be affected, and consumers may eventually experience higher prices or reduced availability.

Climate resilience, therefore, is also connected to **food security and economic stability**.

Extreme Heat Is a Community Issue

Heatwaves deserve particular attention because their dangers are not always as dramatic as floods or storms.

Extreme heat can affect health, productivity, energy demand, transportation, education, and working conditions.

People working outdoors, including construction workers, farmers, transport workers, and street traders, may face greater exposure. Older adults, young children, and people living in poorly ventilated buildings can also be particularly vulnerable.

Cities can experience additional heat because buildings, roads, and other hard surfaces absorb and retain heat.

This is why trees, parks, shaded public spaces, appropriate building design, cooling strategies, and heat-health plans should be considered essential parts of urban development rather than decorative extras.

Climate Change Can Deepen Existing Inequality

One of the most important lessons about extreme weather is that **its impacts are not evenly distributed**.

A wealthy household may have savings, insurance, reliable transportation, temporary accommodation, and the resources to repair damaged property.

A lower-income household experiencing the same disaster may lose almost everything.

Similarly, small businesses may struggle to survive prolonged closures, damaged equipment, lost stock, or disrupted supply chains.

This means climate change is not only an environmental issue.

It is also connected to **poverty, inequality, housing, public health, employment, education, development, and social justice**.

Building climate resilience requires us to ask not only, *“How do we protect places?”* but also, *“How do we protect the people who are most vulnerable?”*

What Can Governments Do?

Governments carry a major responsibility because many climate risks cannot be solved through individual action alone.

The priority should be **climate-resilient infrastructure**.

Roads, bridges, drainage systems, electricity networks, schools, hospitals, housing, water systems, and other public infrastructure should be designed, maintained, and upgraded with future climate risks in mind.

Governments should also strengthen flood management. This includes maintaining drainage systems, protecting natural waterways and wetlands, and improving waste

management, so drains are not blocked, mapping at-risk areas, and preventing unsafe development in highly vulnerable locations.

Another major responsibility is **early-warning systems**.

People need accurate information before dangerous weather arrives. Warnings should be understandable, accessible, timely, and accompanied by clear instructions.

Telling people that a storm is approaching is not enough.

Communities need to know:

Where should we go? What should we take? Who needs assistance? Which roads are safe? Where are emergency shelters? Who should we contact?

Governments should also invest in emergency response capacity, climate education, resilient agriculture, water security, renewable and low-carbon energy systems, nature protection, and long-term adaptation planning.

Climate policies should not exist only in documents. They need funding, measurable targets, transparent implementation, and accountability.

What Should Businesses Do?

Businesses are also part of the climate solution.

Extreme weather can damage buildings and equipment, interrupt transportation, affect workers, increase operating costs, reduce access to materials, and disrupt supply chains.

Every business (large or small) should therefore understand its climate risks.

A business owner can begin by asking:

What would happen if our premises flooded tomorrow?

What if extreme heat prevented employees from working safely?

What if electricity was unavailable for several days?

What if our main supplier could not deliver because of a climate-related disaster?

These questions turn climate change from an abstract environmental discussion into practical business planning.

Businesses can develop emergency plans, protect important data, diversify suppliers, improve energy and water efficiency, reduce unnecessary waste, protect employees during extreme weather, and assess whether buildings and equipment are sufficiently resilient.

Companies should also examine their environmental impact.

Reducing emissions, improving energy efficiency, adopting cleaner technologies, designing products that use resources responsibly, reducing waste, and supporting circular-economy practices can contribute to long-term sustainability.

Sustainability should not simply be used as a marketing statement.

It should become part of **business strategy, risk management, operations, investment, innovation, and decision-making.**

What Can Communities Do?

Communities are often the first to experience a disaster and among the first to respond.

Community-level preparation can save lives.

Residents can identify local risks together. Which streets flood first? Where are elderly or vulnerable residents? Where can people safely gather during an emergency? Which households may need assistance? Who has useful equipment, transportation, medical knowledge, or emergency-response skills?

Community organisations, schools, faith groups, youth organisations, local businesses, and residents can work together to create local emergency plans.

Communities can also organise environmental activities such as tree planting, neighbourhood clean-ups, waste reduction programmes, recycling initiatives, drainage awareness campaigns, community gardens, and climate education.

However, community action should complement, not replace, government responsibility.

People can clean their neighbourhood, but governments must still provide functioning waste-management systems.

Residents can plant trees, but authorities must still protect green spaces.

Communities can prepare for flooding, but public institutions must still invest in drainage and resilient infrastructure.

Effective climate action requires partnership.

What Can Individuals Do?

It is easy to believe that one person's actions are too small to matter.

But individuals influence households, workplaces, communities, markets, and political decisions.

Start by becoming informed.

Understand the climate risks affecting where you live. Learn what to do during floods, heatwaves, storms, or other emergencies relevant to your area.

Reduce unnecessary waste. Conserve energy and water where practical. Reuse and repair products when possible. Dispose of waste responsibly. Support sustainable businesses and community initiatives.

Most importantly, **talk about climate change**.

Climate education should not remain inside universities, scientific conferences, or environmental organisations.

Parents can discuss it with their children.

Teachers can discuss it with students.

Business owners can discuss it with employees.

Community leaders can discuss local preparedness.

Young people can bring new ideas and innovation.

Every informed conversation can help transform climate awareness into climate action.

From Reaction to Prevention

One of the biggest changes societies need to make is moving from **reacting to disasters** to **preparing before they happen**.

After a flood, communities often repair damaged roads.

But could better drainage have reduced the damage?

After a heatwave, emergency measures may be introduced.

But could more trees, shaded spaces, better buildings, and heat-action plans have protected people earlier?

After crops fail during drought, emergency food support may become necessary.

But could improving water management, drought-resistant crops, better forecasting, and agricultural support have strengthened resilience beforehand?

Preparedness cannot prevent every extreme-weather event, but it can significantly reduce vulnerability and potential losses.

That is the foundation of climate adaptation.

Climate Action Requires Both Adaptation and Mitigation

There are two important sides to climate action.

Mitigation means addressing the causes of climate change by reducing greenhouse gas emissions and protecting or increasing natural carbon sinks.

Adaptation means adjusting our communities, economies, infrastructure, and behaviour to reduce harm from climate impacts that are already occurring or expected.

We need both.

Reducing emissions without preparing communities for existing risks leaves people vulnerable.

Adapting without reducing emissions allows the underlying problem to continue growing.

A sustainable future therefore requires societies to **reduce the causes while preparing for the consequences.**

Questions Every Community Should Be Asking

Climate preparedness can begin with simple but important questions:

- What extreme weather risks are most likely in our area?
- Who in our community is most vulnerable?
- Do people know what to do during an emergency?
- Are our drainage, roads, buildings, schools, and health facilities prepared?
- How would local businesses continue operating after a disaster?
- Are farmers receiving the information and resources they need?
- Do residents have access to reliable early warnings?
- Are development projects considering future climate conditions?
- Are young people involved in climate decisions?
- Are government climate commitments actually being implemented?
- What can we prevent today from paying for repairs tomorrow?

These conversations should happen before disasters, not only afterwards.

The Future Is a Shared Responsibility

Extreme weather teaches us something important: **climate change does not recognise borders, professions, income groups, political parties, or generations.**

But vulnerability can be reduced.

Governments can build stronger systems.

Businesses can become more responsible and resilient.

Communities can organise and prepare.

Schools can educate.

Researchers can provide evidence.

Innovators can develop solutions.

Young people can bring creativity and urgency.

And individuals can make informed choices and demand meaningful action.

Climate action does not mean that everyone must become a climate scientist.

It means understanding that our choices and systems affect the environment—and recognising that protecting the environment ultimately protects people.

So perhaps the most important question is not:

“Who is responsible for climate change?”

The question that can move us forward is:

“What responsibility can each of us take today to make our communities safer, stronger, fairer, and more resilient tomorrow?”

Because climate resilience will not be built by one government, one organisation, one business, or one individual.

It will be built when knowledge becomes awareness, awareness becomes responsibility, and responsibility becomes collective action.