

Building Resilience and Adapting to Climate Change

By Deborah Butler



Is Adaptation to Climate Change Possible?

Yes, adaptation is possible. But it has to start with those in power recognizing and internalizing the severity of the climate change issue first. All stakeholders in local communities will need to adjust their thinking and policy-making as well. But it *is* possible. And necessary.

One important adaptation measure is to maintain the health of our current ecosystems. This isn't just an adaptation measure, but a mitigation measure as well. Ecosystems that are considered safe harbors help to sustain biodiversity and contain carbon. In the study of paleoecology, the term [climate refugia](#) has originated. It refers to those areas that have remained strongholds of biodiversity throughout periods of glaciation and later warming periods. One such area is the southeastern part of The Great Smoky Mountains in the U.S. Protecting this and other climate refugia is critical to adapting to and mitigating the effects of Climate Change.

Some measures that may be more controversial, therefore more difficult, to put into place are those that require a change in economic allocation and governance. For instance, converting centralized energy distribution systems to decentralized systems would require a change in how local and national governments think and operate.

Yet, large centralized energy systems are much more vulnerable to climate change because of their infrastructures. When energy distribution emanates from one area that envelops long distances, interruption in one single point of the system can affect all people in that network.

Likewise, it will take a change in thinking for governments and others in power to accept that indigenous peoples play an essential role in managing land. Protecting their land rights may seem counterintuitive for those trying to maintain power. However, indigenous people manage almost 50% of our planet's land, and they've been doing it in a responsible way that mitigates the effects of climate change.

These are the people who farm to support their families. They are hunters, herders, and fishermen. Together, they hold millennia of cultural knowledge. With that knowledge

and experience, they can see tiny changes in water cycles, wildlife, soil, and weather. Farmers can see signs, such as if a particular insect is slightly less plentiful this year or a particular flower is blooming earlier than usual.

Many governments, however, have taken land rather than restoring it to those who need it most. Those who have lived in harmony with the land, who have seen climate change coming but have not been able to stop it, will be the most affected by its effects, ironically.

Why is Climate Resilience Important?

Resilience means “the ability of a system or organization to respond to or recover readily from a crisis, disruptive process” according to Dictionary.com. In our case, the system or organization is *us*. The impending crisis will definitely be disruptive. It may very well be devastating as well. How we respond and prepare now will determine the severity.

This past June and July marked one of the hottest summers on record. Historic heat waves and droughts, and torrential rains in many places illustrated a rising global temperature. In Paris, June and July held the two highest temperatures on record. All across France, 1,500 people died because of heat-related repercussions.

Ironically, in spite of the 1,500 deaths last summer, it's Paris that has led the global push for cities to become more resilient to both physical and economic challenges of the 21st century. This only serves to prove how dire the situation is for the all of us if we don't work create a resilient planet.

How Do You Build Resilience Against Climate Change?

When we think of climate resilience we often think of big events – like heat waves, wildfires, torrential rains, or hurricanes – that will increase in frequency and intensity as the climate changes. However, there's more to good resilience planning than that.

Resilience planning also takes chronic incidents into account. Issues such as the migration of at-risk populations, deteriorating air quality and rising sea levels are also considerations.

Cities like Los Angeles have created a resilience plan for the LA Metro. There is the danger of extreme heat impacting subways and other transportation, so they've developed an All Hazards Mitigation Plan. Understanding the impact of Climate Change, they've created a response plan that targets:

- Maintaining a state of good repair program that is robust.
- Creating a greater degree of redundancy in communication systems.
- Making sure that there is back-up power
- Working with other agencies to meet post-disaster resource needs.

Around the globe, other cities and communities are taking proactive steps to adapt to Climate Change and to ensure resilience within their economic, transportation, and other systems by building resilience plans.

Why Creating a Positive Climate Builds Resilience

The severity and recurrence of global natural disasters has done damage to more than just infrastructures and natural resources. It's been soul-crushing to those affected by them. Resilience is something we need to build within ourselves and in each other.

Though it's difficult to see through an optimistic lens when faced with the aftermath of a devastating flood, wildfire, or hurricane, that may be just what we need to do to achieve some resilience-building. While we take into account what's been destroyed, we can also consider our opportunities to build more carbon-neutral, resilient, and nature-friendly communities.

We may be able to heal as humans by planning for a better future- one that is equipped to withstand and possibly mitigate the effects of Climate Change. We can also view the planning as not only a benefit to environmental growth, but as an opportunity for economic growth and sustainability.

In the words of David Attenborough, *"We are, after all, the greatest problem-solvers to have ever existed on Earth. If working apart, we are a force powerful enough to destabilize our planet, surely working together, we are powerful enough to save it."*