

## ***Environmental Catastrophe Leads to Rise of Sustainable Megacities and Neo-nomadic Communities***

### **Forecasts:**

- **The Global Environmental Catastrophe dramatically alters the map as coastal areas disappear during the early 21<sup>st</sup> century.**
- **Slow multilateral response eventually produces robust institutions for managing environmental refugees and building sustainable megacities.**
- **Half of the world's population turns to neo-nomadic knowledge work in a virtual economy that is resilient in the face of harsh climate changes.**

The world expected – but was largely unprepared for – the powerful environmental changes that came to the fore in the 2010's. One after another, hurricanes, floods and other natural disasters devastated populations, instigating mass migrations of environmental refugees. In retrospect, Hurricane Katrina seemed like a friendly warning of things to come. Relief organizations were consistently overwhelmed, trying to deal all at once with desertification and drought, food shortages, sporadic flooding, pummeled infrastructures and mass migrations.

Atmospheric CO2 levels continued to rise, causing the polar ice caps to melt during summertime starting in 2011 and continuing every year since. Rising sea levels devastated coastal cities that had not built adequate flood levies. New Orleans, for example, was hit again by a hurricane in 2011 and then was finally abandoned after another devastating storm in 2015. By 2018, the poles were ice-free year-round. Rising sea level produced a global panic. Coastal regions became uninhabitable swamps during the 2020s, and their original populations scattered. Continental outlines were redrawn almost yearly. By the 2030's, environmental chaos was simply routine.

The global community responded clumsily at first. The US and EU tightened their borders against the flood of people. Humanitarian conditions got much worse for environmental refugees but governments could not stem the tide of illegal immigrants. People were constantly informed about the ongoing stream of disasters thanks to instantaneous communications, yet they felt powerless to make a difference. This hopelessness bred “disaster fatigue” among the populations in safe, developed areas, which reduced charitable donations and stifled the efforts of relief organizations.

Consumed by frustration, local law enforcement in many countries exploited the chaos and grew corrupt. Rwanda-style conflict erupted across much of the developing world. Al Qaeda was reinvigorated by the widespread violence, humanitarian deterioration and mass migration, though the movement had begun to fade in the early 2010's. Areas hardest hit by environmental disasters, such as Bangladesh and Indonesia, provided large numbers of recruits for fundamentalist organizations. These organizations took advantage of migrants and chaos to

increase the frequency of low-tech terrorist attacks, many targeted against industry and stable, developed communities.

These mass migrations permanently blurred the distinction between domestic and transnational security. As countries abandoned notions of domestic sovereignty, national militaries reframed their mission from war-fighting to peace-keeping in order to subdue the chaos. Military units took the lead in fortifying coastal cities, policing refugee camps and protecting non-governmental organizations (NGO's). Key NGOs handled most relief and aid operations, as they were best equipped with the social and cultural skills to relocate, rebuild and stabilize the affected communities.

After a decade of fruitless finger-pointing, the UN reemerged as a powerful arbiter of bilateral and multilateral treaties to distribute resources and to ease tensions. At the 2021 meeting of G8 countries, leaders created the Global Emergency Management Agency (GEMA), tasked with monitoring and coordinating the international emergency response to everything from hurricanes to earthquakes. A global effort emerged as world leaders and governance institutions proactively merged diplomacy, humanitarian assistance and military force in order to provide disaster relief and to engineer communities for the 21<sup>st</sup> century.

Fundamental redesign of civilization's structures became a top priority. Sustainable "megacities" emerged in the mid-2020s to facilitate resettlement of displaced populations. Strategically placed inland and significantly above sea level, these megacities relied on huge reservoirs and vertical agriculture projects to meet the demand of the population. New engineering methods and resilient materials yielded light-weight fortified buildings specifically designed for harsh weather conditions and better organized mobility. Open source sharing of architectural methods to deal with new environmental factors accelerated the process of sustainable habitat design. These technologies allowed neo-nomadic communities to pick up and move in the face of flooding, drought or famine. After decades of environmental disasters, most architects and planners no longer trust the environmental stability of their communities.

By 2039, civilization has come to accept the reality of a harsh and unpredictable global climate. More than half of human civilization has returned to a nomadic lifestyle. The struggles endured during two decades of climatic upheaval have yielded new communities that are resilient and adaptive in the face of constantly changing conditions. High-mobility helps alleviate the tensions created by competition between migrant communities. A far cry from the poor nomadic tribes of centuries past, many of these communities have become successful players in the virtual global economy, consisting largely of knowledge workers who work online and on the move.

### **Further Reading:**

- Intergovernmental Panel on Climate Change, [www.ipcc.ch](http://www.ipcc.ch)
- Architecture For Humanity, [www.architectureforhumanity.org/network/index.html](http://www.architectureforhumanity.org/network/index.html)
- Environmental Refugees to top 50 Million by 2010, [news.mongabay.com/2005/1011-unu.html](http://news.mongabay.com/2005/1011-unu.html)