Even before the COVID-19 pandemic, the year had already begun on uncertain terms. Australia’s forest fires were raging, having burned through 186,000 square kilometres. In February, maximum temperatures in Antarctica hit a highest ever 18.3°C, signalling worsening climate change. Commodity prices were struggling. A slowing global economy had translated into lower demand — and depressed prices — for oil.

Now, things have worsened. As the disease escalated, cities, countries and regions went into lockdown. Russia’s refusal to cut oil output any further (to hold up prices) led to Saudi Arabia flooding the market with more oil, resulting in a crash in oil prices. With borders closing and supply chains disrupted, strained flows of goods, services and people are likely to get worse before getting better. The economic impact is already visible. The 11-year-long bull run in the Dow Jones Industrial Average ended last week.

This is what a perfect storm of shocks looks like: A series of environmental, economic and social stresses that overwhelm the capacity of states and communities to respond, adapt and rejuvenate. The coronavirus did not trigger an economic crisis; instead, it tipped the scales when conditions were already vulnerable.

In 2008, the world faced parallel crises in global finance and in food supply. The former (a chronic problem) was thanks to financial mismanagement and not paying heed to risk indicators. The latter (an acute challenge) was due to rising fertiliser and energy costs, use of foodgrains to produce biofuels, and unfavourable weather conditions. Major rice exporters restricted exports. Food price shocks hit financially-stressed countries in West Asia and North Africa, in part triggering the “Arab Spring”. We are again witnessing a combination of chronic and acute upheavals.

In climate science, scientists refer to tipping points. These are thresholds in Earth’s physical climate system and impacted ecosystems, which when crossed can trigger self-reinforcing feedbacks (say in the carbon cycle, planetary reflectivity and global mean surface temperature) and set off tipping elements (say, in melting of ice sheets and sea level rise). The World Meteorological Organisation estimates that surface temperature rise could be up to 1.6°C by 2030.

Several additional stressors could compound persisting troubles. Water stress fuels transboundary tensions. Unseasonal rains or a poor monsoon would impact agricultural output, further depressing rural consumer spending. While low oil prices are a temporary boon for large importers such as China and India, governments must decide whether to increase duties on petroleum products to shore up revenues or pass on lower prices to boost demand. Meanwhile, extreme weather events have increased in frequency and intensity. During 1990-2018, of nearly 300 such events in India, most occurred after 2008. Flooding events have increased three-fold since 1980.

Fast shocks and the current pandemic underscore that tipping points need not be physical alone. It certainly matters what we do to the planet and what the planet does to us. What really matters, though, is what we do to each other. Responses to the acute public health crisis lend some insight into how the world might react to periodic financial crises, unresolved trade tensions and chronic challenges of non-linear climate risks.

SCENARIO 1: Lockdown. This is the worst outcome. Countries fall back on insular approaches. Travel restrictions were necessary to combat the spread of the virus. But how will governments respond to adverse economic impacts? European governments have limited room to fallaciously boost their economies. The US has resisted major stimulus measures, dragging down stocks further. China wants to kick-start the economy but its export markets remain closed. With no coordinated fiscal stimulus, governments might resort to more trade protectionism, hurling the global economy towards man-made tipping points.

SCENARIO 2: Emergency services. This is a time-bound response. Under guidance from the World Health Organization, resources are pooled and deployed in regions where local public health services are overwhelmed. Countries agree to share more information than they have done so far — to avoid misinformation and further contraction in public trust. Under a best case scenario, if the virus’ advance peaked by mid-2020, it could stimulate some green shoots of recovery. However, a bad monsoon in South Asia or another devastating hurricane season in the US could further shock public finances and blunt efforts for economic revival.

SCENARIO 3: Community action. Cooperation is better achieved in smaller groups and when there is a clear threat. Local responses would include socially responsible behaviour (not just social distancing but also avoiding panic-purchase purchases or profiteering from price hikes). This scenario works early in the onset of a crisis. Once tipping points are crossed, community health systems collapse. Similar quarantines reappear when extreme weather events strike. India has done well to give advance warning of cyclones and saving lives. But community action alone does not suffice for post-disaster recovery to rebuild infrastructure and revive economic activity.

SCENARIO 4: Collective action. Through an emergency sitting of G20 finance, environment and health ministers, major economies make four pledges: (1) Pooled public health resources; (2) moratorium on further increase in trade barriers for 18 months; (3) coordinated fiscal stimulus with a bias towards small businesses to increase spending power; (4) a process to develop climate risk atlases for the most vulnerable in poor and rich countries.

I sit in isolation and write this. Emergencies do not always yield rational responses; suboptimal scenarios are likely outcomes. We must start by finding solutions at our local, institutional and community levels. And hope that our leaders see value in international cooperation.