

How to Think about the Future: History, Climate Change, and Conflict

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Historic Future

"If you want to rule the whole world, does it follow that everyone else welcomes enslavement? To robbery, slaughter and plunder they give the lying name freedom. They make a wilderness, and call it peace."

"All of the predictions about the future have been wrong, either in substance or in detail. No one correctly predicted any of the inventions we now make a business out of."

History is our only laboratory for the future. But examining history reveals two apparently contradictory messages. First, history repeats itself. The first quote above is not from some contemporary political analyst in Afghanistan, Georgia, Iraq, or Colombia, though it could well be—It is from the Roman historian Tacitus, describing the Roman invasion of Britain, and was written nearly 2,000 years ago.

Second, only charlatans and bookies predict the future. Complexity and human ingenuity combine to make the future inherently unpredictable. It is possible to make projections or educated speculations, but few true predictions. The second quote is from a former chief executive of the Digital Equipment Corporation, one of the pioneering computer companies in the USA.

The future is the past, with new wares and bits replaced. The problem is in predicting which parts will stay and what the innovations are going to be. The biggest mistake organizations make is in assuming an either/or future: no change—business as usual, or all change—a brave new world. Neither ever will be true. Understanding how to think about and prepare for a complex and uncertain future is going to be the key challenge for humanitarian agencies during the next decade. Those that adapt and are nimble will be able to provide service to the disaster-affected of the world. Those that don't, won't.

Complexity

The future of human society is unpredictable because it is complex; but complexity does not make meaningful insight impossible. By making more of the insights from modern complexity theory and our increasing knowledge of the dynamics of organizational evolution, it is possible to make better guesses as to how aid agencies must evolve and as to what the future might look like.¹ To get an inkling of just how complex our future is, we need look no further than the ramifications of climate change.

Climate Change

The earth's climate is changing faster now than at any point since humans evolved. Climatology is making projections of how much the world will warm up and what the higher level consequences of this will be, but the specifics, for this or that country, in this or that year, are beyond prediction. In a recent report,² researchers at the Feinstein International Center tried to predict the likely increase in humanitarian spending resulting from increased climate change-induced disasters. The research brought home just how poorly under-

stood are the linkages between climate, hazards, disaster, and response. It also highlighted how poor present data gathering systems are, particularly in humanitarian action, and thus, how ill-equipped researchers are to make any sort of predictions. Looking forward 20 years, the research concluded that, with equal probability from equally good models, the increase in humanitarian spending could be anything from 300% down to an actual slight reduction! Given the uncertainty over modeling the future, many researchers looking at the linkages between climate and society have delved into the past, looking at what happened in previous periods of extreme climate change. One line of research, exploring the linkages between violence and climate change, is particularly illuminating. Archaeologists working in southern Libya, for example, have shown that the shift from hunter-gatherer communities to urban communities 5,000 years ago is associated with a period of rapid drying-out of the climate. In essence, people retreated to the remaining desert oases and had to reorganize society to survive. In comparing this new society with the old, the researchers describe it as more structured, less healthy with a lower life expectancy, more hard working, and more violent.³

The Great Famine in Northern Europe (1315–1317), was preceded by a threefold drop in crop yields caused by a disastrous run of wet and cold summers. Up to 25% of Northern Europe's urban population died.⁴ Researchers in Singapore have shown that for the whole of the "little ice age" (1550–1750), there was an associated massive social change that correlated with increased conflict.⁵

Coming up to date and looking at climate change, crop yields and violence in the Sahel over the past 50 years, economists have shown that there is a direct correlation between bad weather, crop yields, GDP, and violence.⁶ Essentially, in a year of bad rainfall, reduced yields from rain-fed-agriculture lead directly to an average drop in the GDP of 5%. They also have shown that, on average, for every 1% drop in the GDP, the probability of the state suffering major violence goes up by 2%. So, a 5% drop in the GDP increases the probability of major violence that year by 10%. Projecting that forward to 2080, they argue that the expected 3.5°C rise in average annual temperatures will cause a fall in annual rainfall by 24% which, via lower yields and lower GDP, will lead to a 15% increase in the probability of violence. At present, in any one year, Chad has a 10% probability of major violence. With this projection, that goes up to 25%, i.e., two and a half times as likely.

There also are statistically significant relationships between crop yields and violence on a much more local level. In Tanzania, there is a direct correlation between years of bad harvests and years where the killings of elderly women denounced as witches increases. Poor harvests mean that those who are seen as a net drain on resources also are seen as a threat to survival.⁷ In Darfur, work by Helen Young shows how the northern pastoralist tribes of that region shifted to a reliance on mercenary payments from the government as a rational, if disreputable, means of survival when faced with a collapsing pastoral economy, stress, among other things, by have become climate change.⁸

The point of this line of reasoning is twofold. First, to understand how complex systems (our society) react to

major stresses (climate change), we can look back at what did happen, and learn from it what may happen. Second, the research highlights that all too often, people react to stress thorough fear, control, and coercion, thus, leading to violence. There is no reason to suppose that societies in the near future will be any different. Climate change is not just about changes in disaster frequency, food security, and disease patterns, it also is about confronting the very real possibility of substantially increased levels of fear and of violence.

Organizing for the Future

Beyond examining climate change in isolation, these changes also affect the increasingly interconnected nature of global economic systems, food supply, and water systems, leading to an increasing propensity to destabilize the relationship between man and the environment, whether on a local or national level. Many of the crises of the future will have complex causal chains of triggers pushing human systems beyond the point where they can absorb stress to the point of breakdown of the control of vital resources (food, potable water, health care) become increasingly inequitable; where fear becomes more pervasive; and where political violence, from coercion through repression to killing, triggers the collapse into "humanitarian crisis".

What then Does this Mean for Humanitarian Agencies?

First and most obvious, these future predictions are not inevitable. Complexity theory shows us how, through positive feedback loops, small changes to systems inputs and configurations can lead to big changes in outcomes. Actions taken now can make a difference to the future. Knowing what could happen in the future, humanitarian agencies have a golden opportunity to engage now in discussions with those who shape the future, to forewarn and forestall this vision of chaos. It is time for more dialogue at the national level with local chambers of commerce and other forum, engaging the main corporate actors in a country. Equally, the discussion over how to react to climate change and stress must take place with line ministries and, probably as important, with the political parties who may come to power in the future. Where agencies have a true local presence, they must be engaging in the same dialogue with municipal and other local representative structures. This notion of disaster mitigation and preparedness through local political dialogue is something new to most agencies.

Second, agencies have learned during the past decade about what drives organizational adaptation to complex environments, stressing the duality of robust systems and flexible delivery.⁹ Organizations, particularly those that have grown rapidly and are transnational, need doctrine. They need systems of accountability—clear ways in which information and authority flow. They need universal professional standards that are enforced and regularly undated on the basis of solid evidence of what works and what does not. In the humanitarian business, there are the beginnings of this with International Humanitarian Law, the Sphere standards, and the Humanitarian Accountability Project (and many other such initiatives).

But on their own, robust systems produce cookie-cutter solutions. They are the organizational equivalent of the

state clamp-down in the face of stress. They are only useful if they are balanced with an ability to be obsessive about context. The application of the standards must be nuanced by a real understanding of the reality of each environment each time they are applied. Reality is the ever-changing, highly nuanced environment of each point of action of the organization—the street corner skirmish for the Marine, the individual's medical and social profile for the doctor. Having the systems financial and human resources that allow standards to be adapted to meet the specifics of demand in each environment, is the hallmark of successful organizations today. The aid business has somewhat failed here. Organizational research has shown that there are strong forces at work in almost every profession which, left to their own devices, force organizations towards conformity, towards all acting and looking alike.¹⁰

This has profound implications for how transnational agencies staff and organize. It means pushing for more authority for programming to the field. It means breaking away from an obsession with meeting predetermined deliverables, often hard-wired into grant contracts, and that, of course, means changing the way the grant contracting system works. If agencies are to go down this route, and neither lose control of their operations nor see a drop off in program quality, it also means putting far more effort into training and servicing of their personnel on the ground, most of whom will be national, not international hires. Culturally, this is a big shift. Most agencies still operate with an effective two-tier system in which international hires lead and local hires follow. Salary levels, training opportunities, and health and life insurance all follow the same pattern. Research just published by Abby Stoddard

shows that the pattern carries on into security risk. Apart from a spike in incidents in the last three years in Afghanistan, Sudan, and Somalia, the rate of security incidents that intentional staff are involved in has been coming down, year-on-year. The rate for national staff has been going up.¹¹ So organizations must be schizophrenic!

Third, organizations only can contain this schizophrenia if they have excellent monitoring and feedback systems that allow for authority and responsibility to move dynamically in the organization to meet the needs of the moment. Feedback also allows the organization to be evidence-driven and answer important questions like, are we having impact? Why are we having impact? How can we have more impact?

Fourth, successful organizations know where they are going, even if they cannot clearly see the path along which they need to walk. The RAND Corporation has built a whole science of long-term policy analysis on this principle, dubbed Robust Decision Making.¹² The basic tenant is that if you have a clear goal then every little step can be judged against the question, "Does this bring me nearer to, or further from, my goal". The path evolves rather than being planned. The principle works if there is a clear well-articulated and believed goal.

If humanitarian agencies are to provide quality service for those in need in future crises, whether fueled by globalization, climate change, or any other major trend, then these same agencies must embrace the four principals outlined above. It means a radical change in how they spend their money; investment in knowledge and quality staff; promotion to the field not away from it; a decentralizing of power and authority coupled with the development of clear agency goals and doctrine, and above all, an obsession with learning.

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