

POLITICS / CORONAVIRUS

Mike Davis on pandemics, super-capitalism and the struggles of tomorrow

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By
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The coronavirus pandemic is overwhelming to comprehend. There are now hundreds of thousands of confirmed cases. Tens of thousands have died. Nations are on lockdown as the disease continues to spread. The planet is in crisis.

How did this happen?

What are the underlying political, economic and environmental structures that paved the way for this global outbreak? Where do pandemics emerge from? Is our capitalist way of life biologically sustainable?

To shed light on some of these questions, we turned to American writer, historian and political activist Mike Davis, author of over 20 books, including *City of Quartz*, *Planet of Slums*, *Ecology of Fear*, and *The Monster at Our Door: The Global Threat of Avian Flu*.

Davis is a Distinguished Emeritus Professor at the University of California, Riverside and is a recipient of a McArthur Fellowship and the Lannan Literary Award for Nonfiction.

He responded in writing to a series of questions from Mada Masr about the coronavirus pandemic.

Mada Masr: *How has the combination of capitalist agriculture and urbanization led to the emergence of pandemics? And why do these strains of influenza generally emerge in southeast Asia?*

Mike Davis: Some viruses have natural breeding grounds, like cholera for instance. Almost all cholera outbreaks originate in the warm, fecal-rich waters of the Gulf of Bengal. Others have permanent homes in certain animal families: plague in rodents, influenza in wild birds, yellow fever in monkeys and coronaviruses in bats. Influenzas usually emerge in the south of China. It's an inadvertent consequence of one of civilization's greatest success stories. For several millennia, the farming system of southern China, which subsequently spread through southeast Asia, has been the most productive on earth, with domestic ducks and chickens raised side-by-side with pigs in rice fields that produce two harvests a year. Lots of protein with a double portion of carbs. But the flooded paddies attract migratory birds that often pass on new flu strains to ducks and chickens, who in turn infect pigs, an animal whose immune system closely resembles our own. The leap from swine to man is easy and sometimes catastrophic. Since pigs can acquire flu from both birds and humans, a double infection can lead to the "reassortment" of their gene segments and the creation of a hybrid virus with wild bird lethality that also has a key to enter human respiratory cells. The result is a pandemic, as in 1918-19.

MM: *Can you explain why RNA viruses — like coronavirus — often lead to deadly outbreaks?*

MD: Viruses, of course, are basically parasitic genes that hijack the genetic machinery of the cells they invade to make copies of themselves. Viruses based on DNA have a built-in proof-reading mechanism to ensure accurate replication, but RNA viruses lack it. The result is swarms of mutants with slightly different amino acid architectures. (Imagine a Xerox machine that makes an error in virtually every copy.) In fact, influenza A, which has only four genes (corona has eight), is so error prone in reproduction that it probably hovers on the edge of extinction. Put another way, it pushes the rate of mutation to the limit, about one million times faster than DNA-based viruses or cells. Spitting out so many different and inaccurate versions of one's genome has a huge advantage in resisting

the human immune system because there will inevitably arise viruses at least partly resistant to the antibodies produced in past infections or generated by vaccination. This is why influenza A changes annually and continues to sicken humans despite many previous infections. This is called antigenic drift. Antigenic *shift* is what I just described as happening when two different influenzas “mate” in the same cell and produce a novel virus. Although the process is slightly different in coronaviruses, as they have an equally extraordinary talent for recombination and shift.

MM: Why haven't we seen a universal vaccine developed for influenza? Is it even possible?

MD: Mutations usually occur in the ‘heads’ of the two to three proteins on the virus’s surface that allow it to “dock” on a human cell and then enter. Those are the sites that annual vaccines target. But the “stalks” of these proteins are stable and don’t mutate. Virtually all researchers agree that the tools exist to fashion a broadband vaccine that incapacitates the invariant stalks thus conferring general immunity against all strains that might last for years. The research is out there, but Big Pharma won’t develop or manufacture such a vaccine because it is not profitable. (If given a radical design for a car that lasts for a lifetime, would GM manufacture it?)

Following the H5N1 avian flu outbreak in 2005, the Bush administration took baby steps to gear up production but lost interest after the outbreak subsided. Since then, a chorus of scientific voices has regularly demanded action but was ignored during the Obama years. But vaccine design has been revolutionized, and, with the surge of research to conquer COVID, a universal flu vaccine may follow. The only certainty is that it won’t come from Big Pharma.

MM: It appears that the coronavirus is less risky for younger age groups. Are countries in the Global South that generally have younger populations therefore less at risk from the current pandemic?

MD: No, not necessarily. Remember that up to this point, the virus has circulated in populations where under-50s are generally well-fed with reasonably good access to doctors and hospitals. This means that severe and critical cases among younger people occur mainly — although by no means exclusively — among those with pre-existing health conditions. But what happens when COVID spreads through populations with minimal access to medicine and dramatically higher levels of poor nutrition, untended health problems and damaged immune systems? The age advantage will be worth far less to poor youth in African and South Asian slums.

There's also some possibility that mass infection in slums and poor cities could flip the switch on coronavirus's mode of infection and reshape the nature of the disease. Before SARS emerged in 2003, highly pathogenic coronavirus epidemics were confined to domestic animals, above all pigs. Researchers soon recognized two different routes of infection: fecal-oral, which attacked the stomach and intestinal tissue, and respiratory, which attacked the lungs. In the first case, there was usually very high mortality, while the second generally resulted in milder cases. A small percentage of current positives, especially the cruise ship cases, report diarrhea and vomiting, and, to quote one [report](#), "the possibility of SARS-CoV-2 transmission via sewage, waste, contaminated water, air conditioning systems and aerosols cannot be underestimated."

The pandemic has now reached the slums of Africa and South Asia, where fecal contamination is everywhere: in the water, in home-grown vegetables, and as windblown dust. (Yes, shit storms are real.) Will this favor the enteric route? Will, as in the case of animals, this lead to more lethal infections, possibly across all age groups?

MM: Does the coronavirus pandemic come as a surprise? Was this predicted? And if it was, why does the world seem so unprepared?

MD: Nothing has been less surprising. The imminence of a pandemic has been uppermost in the minds of epidemiologists since the outbreak of SARS in 2003. Following the arrival of avian flu in 2005, the US government published an ambitious "National Strategy for Pandemic Influenza" based on the finding that all levels of the American public health system were totally unprepared for a large-scale outbreak. After the swine flu scare in 2009, the strategy was updated, and, in 2017, a week before Trump's inauguration, outgoing Obama officials and incoming Trump administrators jointly carried out a large-scale simulation that tested the response of federal agencies and hospitals to a pandemic arising in three different scenarios, from Swine flu, Ebola or Zika virus. The system, of course, failed to prevent the outbreaks or, for that matter, flatten the curves in time. Part of the problem was detection and coordination. Another was inadequate stockpiles and supply chains with obvious bottlenecks, such as depending on a few overseas factories to produce vital protective equipment. Behind all this, moreover, has been a failure to aggressively take advantage of revolutionary advances in biological design over the last decade in order to stockpile an arsenal of new antivirals and vaccines.

MM: Is capitalist globalization biologically sustainable?

MD: Only by accepting a permanent triage of humanity and dooming part of the human race to eventual extinction.

Economic globalization — that is to say, the accelerated free movement of finance and investment within a single world market where labor is relatively immobile and deprived of traditional bargaining power — is different from economic interdependence regulated by the universal protection of the rights of labor and small producers. Instead, we see a world system of accumulation that is everywhere breaking down traditional boundaries between animal diseases and humans, increasing the power of drug monopolies, proliferating carcinogenic waste, subsidizing oligarchy and undermining progressive governments committed to public health, destroying traditional communities (both industrial and preindustrial) and turning the oceans into sewers. Market solutions leave in place Dickensian social conditions and perpetuate the global shame of income-limited access to clean water and sanitation.

The present crisis does force capital, large and small, to confront the possible breakdown of its global production chains and the ability to constantly re-source cheaper supplies of overseas labor. At the same time, it points to important new or expanding markets for vaccines, sterilization systems, surveillance technology, home grocery delivery and so on. The combined dangers and opportunities will lead to a partial fix: new products and procedures that reduce the health risks of constant disease emergence while simultaneously spurring the further development of surveillance capitalism. But these protections will almost certainly be limited — if left up to markets and authoritarian nationalist regimes — to rich countries and rich classes. They will reinforce walls, not pull them down, and deepen the divide between two humanities: one with resources to mitigate climate change and new pandemics and the other without.

MM: To what extent does this pandemic open an opportunity to overhaul economic systems and policies of neoliberalism? A kind of shock doctrine in reverse?

MD: As sometimes in the case of wars, governments and ruling elites resort to collectivist measures and implement policies previously deemed radical or anti-systemic. In order to maintain popular support for the two great slaughters of the last century, major concessions were made to the working-class majority in the Allied countries, including union recognition, collective bargaining and expansion of the right to vote. Wartime state capitalism also led to direct state or military administration of railroads and utilities. If antiwar opposition was repressed, labor nonetheless found new power in exchange for participation in the organization of war production. When the wars ended, of course, corporations and trusts tried to dismantle these concessions and denationalize war industries, while unions and the left fought to keep what they had temporarily won. That's why 1919 witnessed the greatest strike wave in history.

Faced with pandemics which threaten the health of all classes, today's situation is genuinely analogous. Along with unnecessarily repressive policies, panicked governments are also authorizing progressive measures, such as the nationalization of hospitals in Ireland and the temporary adoption of income maintenance in the United States, that offer new platforms for struggle. Thus, we witness a political arms race as big capital and rightwing parties struggle to define a capitalist agenda within the crisis, while the left explores the opportunities for winning permanent reforms like Medicare for All. But the most important phenomenon has been the re-emergence of a working-class bloc that has the talisman of "historical agency." I refer to the broad coalition of organized healthcare workers (in the USA led by the nurses union) that is being radicalized by the epidemic and can be counted upon to assume an even more leading role in tomorrow's struggles for fundamental socio-economic rights. Right now, they are everywhere the social conscience of the crisis. So in every country, progressives are obligated to make solidarity with frontline caregivers their immediate priority.

MM: What is the interrelationship between emergent diseases and the capitalist world economy, from cases like Ebola to deadly strains of influenza?

MD: I'll enumerate some instances:

* Factory fleets and factory farms compete on unequal terms with local fishermen and small farmers. Several hundred million people from Chihuahua, Mexico to Luzon, Philippines have been forced off the land (and sea) in the last twenty years. Urbanization — China is an outstanding case — is also needlessly eating up farmland. But the key point is this: Small-holder agriculture, the foundation of local food security, has been subordinated to or replaced by capitalist export agriculture that is subject to the fluctuations of commodity futures markets and dependent on imports of fertilizers and pesticides. The latter, of course, are derivatives of crude oil, and, because of overuse, they end up as dangerous waste streams causing cancer (pesticides) and kill fishing grounds (the nitrogen eutrophication of rivers, lakes and offshore waters).

The FAO estimates that global foodstuff production (mostly grain) must increase by at least 50 percent in the next generation to feed population growth. Capitalist agriculture, I believe, cannot meet that goal, even with revolutionary advances in bioengineered crops and drip irrigation, because the world market misallocates crop production (beef over grain) and fails to deliver basic income to small producers and farmworkers. At the same time, the critical foundation of the Green Revolution of the 1960s — the drilling of millions of tube wells for irrigation — is crumbling as aquifers everywhere are depleted or

poisoned. Look at the Punjab or the Indus Valley, or, for that matter, at the acute water crisis in world cities like Mexico City or, recently, Cape Town.

* Ruined small producers, of course, move to cities, many of which are still shaped by the legacy of the colonial period, when only the European districts had sanitation, clean water and medical services. Despite some dramatic improvements in health conditions by progressive nationalist governments in the era of Nasser, Nehru and Sukarno, health conditions in slums, especially on the urban periphery, have deteriorated dramatically at the same time that their populations have exploded.

* The vast majority of these slum-dwellers work in the informal subsistence economy. They have become, for the most part, redundant to the requirements of capitalist reproduction on a world scale. These “surplus people” have no claim to any of the medical benefits that are often associated with formal employment and lack incomes high enough to purchase healthcare in the marketplace. Corporate capitalism globally no longer generates jobs — full-stop.

* In the 1980s and 1990s, structural adjustment programs — the rules imposed by rich countries and their banks that coerced poor nations to give up economic autonomy — have everywhere forced the downsizing and often the privatization of public services. Public health budgets in particular have never recovered, nor have salaries for health personnel. As a result, the West has strip-mined the Caribbean, Africa and southeast Asia of trained doctors and nurses.

* Healthcare, probably in a majority of non-G20 countries, is financed by municipal and regional budgets. Highly regressive tax systems allow big companies and the local middle classes to minimize or escape fiscal obligations. This is a powerful structural constraint on medical provision and even more on sanitation infrastructures. The lack of clean water and toilets, as everyone knows, is the number one public health issue in the world and the single greatest cause of preventable mortality, especially among children.

What could be more obscene than the case of India where even in famed tech cities like Chennai and Bangalore, women in the slums have to defecate in public? Or the epidemic of lead poisoning in the decrepit water pipes of Flint and other Rust Belt American cities? Or the campaign of Nestle and other multinationals to induce neoliberal governments to privatize their water systems? (Pay-to-use public toilets in slum areas are another rapidly growing profit point.)

* Big Pharma, the monopoly of monopolies, epitomizes the contradiction between capitalism and world health. Extortionate prices and proprietary patents for medicines