Collapse: The Post-peak Narrative

Contributed by Peter Crabb
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A consensus appears to have been reached that the world's production of conventional oil peaked in recent years. And to many observers, it means that from this time forward the supply of oil and natural gas, along with peaking coal and uranium, will decrease toward zero, leaving global Industrial Culture without the precious energy that made that culture possible. With such a precipitous future awaiting the Industrial Tribe, it is curious that one does not hear much about declining energy supplies in the mainstream media. Instead, we are bombarded daily with the “Industrial Progressive Narrative” (Princen et al, 2013), a comforting meme that portrays society as having ever-more energy resources that will drive never-ending growth into the future:

“This month Continental Resources told investors that the [Bakken Formation] contains enough recoverable oil to double the official count of U.S. reserves and enough 'oil in place' to meet the nation’s needs for hundreds of years” (Dokoupil, 2013). This completely illogical idea has parasitized the minds of nearly everyone in the Industrial Tribe. Young people, who are the future of a species that more than ever needs to make radical new adaptations, have been completely bamboozled by the corporate media and industrial education system into mispreparing themselves to live in a push-button, pill-popping world of abundance and technofun that very soon may not exist.

The Post-peak Narrative, by contrast, paints a grim picture of inevitable decline and biological downsizing in the face of decreasing supplies of cheap and easy-to-obtain sources of energy. In this narrative, Industrial Culture and its overbloated human population grew out of the luxurious but temporary carrying capacity that coal and oil and the other fuels made possible. As the fuels run out, the artificial carrying capacity they created would disappear, and the culture and population that grew up around those fuels would collapse. The Post-peak Era would be a tragic fall characterized by decreases in energy use and cultural complexity, the obsolescence of megatons of cultural stuff, and the shrinking of the human population.

W.S. Jevons in 1865 may have been the first to call attention to the danger to society of increased technical efficiencies that led to faster exhaustion of Britain’s finite coal deposits: “To allow commerce to proceed until the source of civilization [i.e., coal] is weakened and overturned is like killing the goose to get the golden egg” (Jevons, 1865, p. 345). Jevons’s warning that energy sources will one day run out, creating serious problems for society, has since been echoed by M. King Hubbert, Colin J. Campbell, and others who have persuasively shown that world oil, gas, coal, and uranium production is (or will be) decreasing during the 21st century at the same time that demand will be increasing. This mismatch between energy supply and demand will likely not turn out so well for most of us.

To find out just how badly things may go, I took a dark journey into the Peak Oil and Culture Collapse literatures to identify specific predictions about what will happen when the industrial fuels run out [see Readings, below]. Six predictions stood out that paint a picture of imminent cultural and biological collapse.

Technological Systems Shutdown. Industrial society’s technological infrastructure is largely made from fossil fuels and it runs on energy they contain. At some point during the next decades, as fuel supplies dwindle, the infrastructure would no longer be able to function. No more petroleum-powered transportation, no oil or coal to stay warm in colder climates, almost no electricity, and no more plastics from petroleum. Without gasoline-powered transport, very few people would be able to get to “work,” so that kind of “work” would become obsolete. Without electricity, the information and communications infrastructure would crash and all of our electronically encoded knowledge would be permanently lost. Book-based knowledge may also be lost as libraries and bookstores are mined for their paper fuel, giving “book burning” an unexpected new meaning. Big Science would become a hazy and perhaps bitter memory. Without petroleum-powered transport and electricity, centralized public health services like water and sewage treatment facilities, emergency medical services, hospitals, medical research, and mental health care would come to an end. Without fuel for tractors and trucks and without electricity for refrigeration, agriculture and food distribution systems would collapse. There would be no more supermarkets to feed the masses.

Economic Crash. Energy is defined as the capacity to do work, so it follows that as fossil-fuel sources of energy

decrease, the amount of work that can be done to support the global economy would also decrease. The global economy would crash as demand for oil and other fuels exceeds supplies. Hyperinflation, soaring prices for commodities, and bank closures would ensue. Money would become worthless, and nearly 100% unemployment would follow. The industrial model of mass manufacturing, distribution, and consumption would fall apart, leaving billions of people without any familiar or workable means of subsistence.

Institutional Shutdown. The social institutions that grew up around the exploitation of fossil fuels would also collapse as fuel supplies decrease. Governments would fail, and the services and protection they provide would halt. As governments' power slips away and civil disorder increases, some in power may succumb to authoritarian impulses, but authoritarian bullies would survive only as long as gasoline and diesel reserves last. Without government or energy, cities and suburbs would become largely uninhabitable, prompting starvation, violence, and mass migration. Industrial education would also collapse. Education's dubious romance with technology would be revealed to be the stupidifying rip-off it is as the PowerPoint slides and SMART Boards go dark and students and teachers no longer know what to do with themselves. The 30% of the U.S. population who are school age would be thrown out on the streets to keep company with their homeless and unemployed families.

Ecosystems Collapse. We are already seeing environmentally destructive efforts to wring from the earth increasingly expensive and difficult to extract oil (deep water drilling), gas (fracking), and coal (mountaintop removal). All of these projects require petroleum fuels, so that as fuel supplies dwindle and prices skyrocket, it is a sure thing that the plug on these desperate engineering feats would eventually be pulled. But even as the Fossil Fuels Era comes to an end, relief from global warming and pollution would probably not follow immediately. People would turn to firewood and other biomass to keep warm and cook food, and deforestation and wood smoke pollution on a global scale would follow. And even before the last can of beans in the cupboard is devoured, hungry humans will no doubt turn to hunting and fishing any animal that can be eaten, raising the possibility of cataclysmic global species extinction. Roads, cities, and industrial facilities would become "dead zones" that may never be remediated.

Violence and Conflict. With all of this upheaval going on, it stands to reason that conflict wouldn't be far behind. There would be anger and backlash against the capitalist elites and governments once people caught on that the Industrial Progressive Narrative is a lie. And there would be global wars, at least so long as there is fuel for Humvees, fighter-bombers, and aircraft carriers. We are already seeing colonial "resource wars" waged by the energy-guzzling Industrial Tribe against Iraq, Afghanistan, Yemen, and other countries. Conflict between ethnic groups, the poor and the rich, and the young and the old are also likely to break out. As people migrate away from cities and colder latitudes to more habitable areas of the planet, we can expect more conflict to erupt between roaming newcomers and native inhabitants. All of these axes of conflict would be deadly and destructive.

Population Die-off. When humans learned to use fossil fuels for energy, manufacturing, and agriculture, they inadvertently created an artificially inflated carrying capacity that supported unprecedented population growth. As the oil runs out, that carrying capacity would collapse and excess "petro people" will die off. Estimates of how many people would die during the crash vary, but it seems plausible to expect that, once the natural carrying capacity for humans is reestablished, about 2 billion people would survive out of the current 7.1 billion. Causes of death would be starvation, infectious disease, exposure to extreme temperatures, homicide, and combat. It also seems likely that many folks would choose voluntary die-off to avoid whatever horror is coming their way. Not even a lifetime of watching tv violence will have prepared Industrial Tribespeople for all of the suffering and death that may occur when the oil runs out.

Conclusion. These are the predictions the Post-peak literature makes about the shape of things to come. Just when these things will happen (2015, 2030, 2050?) or how they will unfold (soft and slow landing or hard and fast landing?) is unclear. But there is agreement that the oil will run out and that difficult times are coming. The oil industry knows it, world governments know it, and now you and I know it. What shall we do?

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Graphic of beached oil drum courtesy Sarawakiana.blogspot.gr