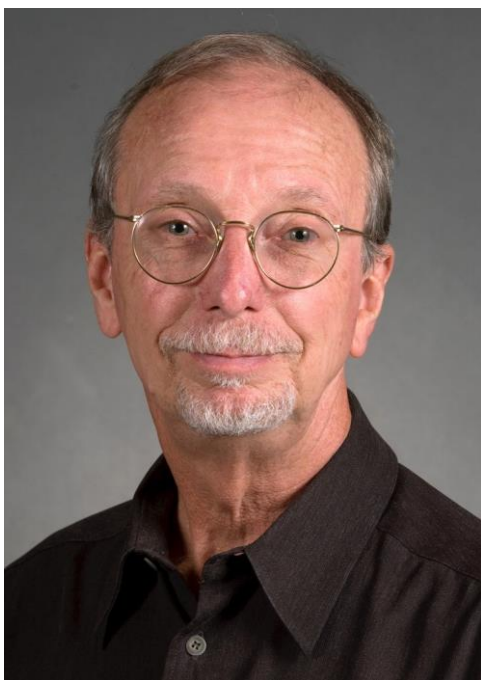


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Phil Kelly & David Claridge



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THE GEOPOLITICS OF GLOBAL SCARCITY

PHIL KELLY AND DAVID CLARIDGE

ABSTRACT

Hordes of people inhabit our planet, now almost seven billions and growing, too many for most to stay healthy and satisfied in the face of steady decline of sustaining human resources. Persistent scarcity of human needs tends to equate to eventual social breakdown and conflict, this frequently escalating to political polarization, rebellion, and warfare. Claims of unfairness in the distribution of what resources do exist will heighten these disturbances. Consequently, one could predict a multitude of disruptions worldwide in the years ahead. Thus, coming crises will be the conclusion reached by this article's authors. Facing this conflict-tied-to-scarcity assumption, good solutions for resolution to strife may prove difficult to locate. Indeed, will a majority of mankind be forced simply to adjust to harsh environments of turmoil and depletion? Might democracy, capitalism, and progressive governance vanish, replaced by suffering, repression, and isolated confinement? Inherently, classical geopolitics attaches to these sorts of environmental questions, particularly to demographics and to resources, and to locations and positions of states and regions, concepts closely tied to numbers and placements of peoples and to natural wealth.

Geopolitics will serve as this paper's template, extending an analytical platform for the reader. Beyond these several variables, other spatial traits interweave with scarcity as well – climate change and migrations, water and land depletions, uneven distributions of wealth, heightening temperatures and natural disasters, passageways through oceans and continents, and decreasing natural and energy wealth -- among the many descriptions. Such geopolitical facets associate, when they impact upon scarcity, to political and social instabilities and to human and national insecurities.

Once more, the focus of this essay, the geopolitics of global scarcity, provides some good insight into the many threats tied to increases ahead in populations and to depleting resources, both of which one should see in the coming epoch of likely insufficiency. But more so, what might be the consequences in geopolitical and in other terms for such scarcity?

Accordingly, in the four parts that will follow in this article, the authors will respond to these several queries:

- *How might coming scarcities equate to strife?*
- *What are primary examples of scarcity?*
- *Can such scarcities be adapted to or reduced?*
- *Which global outcomes could be predicted?*

The majority of conclusions, reflective of growing poverty amidst greater populations, decreasing resources, and spreading political impasse, alas, will slant toward the pessimistic, the authors fearing that generations yet to come may face serious hardships with few opportunities for correcting the ravages of scarcity that will lessen the chances for satisfying living standards for a majority.

Key terms: theory of scarcity, classical geopolitics, demographics, locations, and resources, global warming and climate change, pan regions or pentagonal structures

PART ONE -- THE PROBLEM OF SCARCITY

For this essay, “scarcity” defines as an insufficient amount of resources, a short supply or wanting of provisions, for the support of human life. Three contrasting perspectives or “frames” (Scoones 2018, 3-4) add some further depth to this concept:

- *Absolute scarcity*: a coming exhaustion of resources, their availability fixed, limited, and near depletion. Such sparse “planetary boundaries” were first described by Thomas Malthus in *An Essay on the Principle of Population* (1790), and later expanded in Rachel Carson’s *Silent Spring* (1962), Paul Ehrlich’s *The Population Bomb* (1968), and Donella Meadow’s (1978) Club of Rome, *The Limits to Growth*, among other studies. Recently, Robert Kaplan, *The Coming Anarchy* (2000), David Wallace-Wells, *The Uninhabitable Earth* (2017), and Bill McKibbin, *Falter* (2019) add to this list in their conclusions depicting harsh futures.
- *Relative scarcity*: a more positive prediction of possible remedies to scarcity via scientific, economic, and other innovative adjustments. Malthus feared population growth would outpace food production, recommending celibacy and later marriages for solutions, but he predicted war, disease, and famine as more likely remedies. David Ricardo, *On the Principle of Political Economy and Taxation* (1817), drew upon expanded trade and technological improvements for food production, his ideas linked later to new discoveries of oil and mineral reserves and to heightened agricultural productivity in the Green Revolutions of Asia. Unfortunately, these perspectives of optimism toward finding remedies are losing support among many scientists, although most continue to advocate some attempt at resolution.
- *Political scarcity*: a contest among political forces for distribution of existing resources, how certain groups succeed in attaining better access over others toward fulfilling human needs. This third stance reflects the scarcity-inducing-conflict theme of the authors’ premise.

Ian Scoones (with the authors agreeing) sees a trend favoring the absolute scarcity frame over the relative scarcity frame:

Few today would claim that resources are infinitely substitutable or that technological improvements will always offset resource limits. Instead, many commentators would argue for some acknowledgement of limits, while [still] arguing for technological solutions.

Nonetheless, it is the political-scarcity frame that will yet draw our first attention in this essay, that of rival contests for sparse resources, although the absolute-

scarcity frame also offers a good perspective on the expected limitations of supplies.

Before the later sections of this essay receive their study, a good start might be to note several assumptions about conflict brought on by scarcity:

First, a theory of scarcity guides this essay, drawn in four parts:

(1) Competition for resources defines politics. A growing scarcity of resources surely exists, and rising competition over such dearth stimulates politically-induced strife.

(2) Yet, distribution of available wealth, however limited, still must be administered by some form of allocation. Unfortunately, often serious frustration arrives with this distribution, for reasons of scarcity itself and for the possibility of unfairness seen in the allotments.

(3) To lessen such frustration, the governing unit must gather sufficient power and legitimacy to distribute what stocks survive, this through repression and/or through satisfying the wants of the ruling elite, its supporters, and others of power.

(4) Finally, the general population, demanding more but given less and sometimes alleging injustice, must be calmed and distracted from their frustrations, among such distractions, religion, entertainment, and admission to their own failures in competing for scarce resources, might be utilized (roughly taken from Easton 1979), or instead, chaos and revolutionary “pitchforks” may rule.

Geopolitics attaches to these descriptions of scarcity, in particular, to demographics and to resources, both tied to numbers of humans and to the resources available to them. In its definition, the concept stresses locations of countries and regions, numbers and placement of peoples, and availability of resources (Kelly 2016, ix), all impacting upon foreign affairs. These geopolitical traits as well as others will appear throughout this essay.

Specifically, geopolitics will be the prime contribution of this essay, for here the authors might have something original to say. Since much already has been written about resources limitations and scarcity-tied-to-conflict, they will list general comments to describe such strife but enlist geopolitics where appropriate to assist the reader toward a different and hopefully a broader explanation of the scarcity topic.

One should understand that geopolitics serves two primary purposes as a theoretical model for international relations (Kelly 2019a): first, it establishes a geographical framework or backdrop for guiding scholars, students, and states persons to a better understanding of global affairs, albeit, one that is longer-termed and normally not immediate toward policy making, i.e., Monroe’s Doctrine and global sea power, both for guiding centuries of United States

foreign policy; and second, it supplies a multitude of theories for asserting this longer-termed guidance.

Several geopolitically-formatted frameworks for the present essay will fulfill this promise:

- Earth's assets are not evenly distributed. Enjoying ample resources, the wealthier regions exist astride poorer regions lacking such riches – northern latitudes tend to be favored with power and prosperity over middle/southern latitudes.
- Core lands of advanced capitalist trade and technology dominate and out-compete against peripheral areas of subordination and mercantilism, a structure of dependency.
- Pivotal advantages give leverage to certain wealthier areas and states contra the weak – heartlands, pan-regions, condominiums or pentagonal configurations.

If the United States will or can effectively provide leadership toward a global solution to the dangers tied to scarcity, these three intersecting platforms should be considered as well:

- Eurasia resides as the dominate continent in strategic affairs, although it is divided and weakened by its inherent checkerboard configuration of rival states poised against each other.
- American sea power encircles Eurasia, intending a favorable balance there to enhance United States security, for a fortress America would not be effective against a united and hostile Eurasia.
- As a global heartland, the United States performs a vital role as stabilizer and leader among nations on Earth, this reflective of its seafaring location and power.

One such geopolitical platform should be considered in particular, that of the dependency thesis, of a prosperous core of states compared to a dependent periphery of wealth-depleted states, once more, portrayed as resources-rich lands contrasted to locales waning in riches. As a way to correct this allegedly wrongful distribution, Lenin advised revolution in the hinterlands, violence against the supposed profits of imperialism enjoyed by the rich that would prompt a resumed dialectic path to a socialist ideal of a wider plenty. Nonetheless, such radical proposals have not succeeded and may well be outdated at the present moment, reflective of the power of elites.

A non-radical United Nations resolution, the New International Economic Order (NIEO), first proposed by countries of the South in the 1970s, advocated a marked redistribution of riches from the core to the periphery according to tariff, taxation, and other enhancements directed by the wealthy to sustain the poor. But

this plan never gained much traction from the core states. It could be added, also, that the normal flow of weakly-regulated international capitalism appears to have increased the regional wealth polarizations and not to have lessened them, without any plan or interest for fairer or more equal distributions (Steverman 2019). Unfortunately, neither approach shows confidence in solution to the growing plight of scarcity.

Second, resources upon Earth's surface are not equally distributed. Richer nations rest politically healthier and steadier as measured against poorer nations suffering instability, the former blessed with natural wealth, yet the latter, not so. Peoples of North America, Western Europe, Japan, coastal China, and a few pockets of wealth in between appreciate more satisfying living conditions. The Southern World, largely of the middle latitudes, Latin America, Sub-Sahara Africa, the Middle East, middle Eurasia, and much of Asia, must endure depleted means. Hence, less human and political stress will be experienced by the already-wealthy northern regions, but more of both will plague the areas inhabited by the poor of the South.

Ironically, whereas northern countries have largely created the pollutions responsible for the damages rendered by industrialization and climate change, the marginal countries suffer more directly from the northern neglect. Once this reality of greed and disinterest becomes more widely understood, national and international conflict should rise, spurred on by the dependent peoples against the more blessed core.

This portrait of riches blended with poverty within states and beyond does not define as some peoples being superior, others being inferior. Rather, it revolves around disparate allocations of riches on our global surface being erratic in natural-wealth allotments. Capitalism drawn from this wealth tends to reward the successful, its profits growing exponentially over that of the peoples disadvantaged by sparse resources. But, this outcome of an internationally-unregulated capitalism holds the likely potential for global disaster.

A bundling of resources may bring better outcomes for peoples and countries than isolated and separate deposits of riches (Kelly 2018). For instance, this bonding would come in a joining of fertile lands, abundant waters, and temperate climates together for providing food plus unifying rivers and topography coupled with ample stocks of capital, industrial, and energy assets for national growth. Single or isolated riches, in contrast, will stay less productive or even cause liability, the latter, a resources curse of a reliance on oil and other export revenues producing political suppression (Ross 2001). Once more, these bundles of resources favor the lands named above, more in the Northern temperate grid that has cradled recent global empires, and less in the middle latitudes that have brooked exploitation from the North and local rebellion and corruption. Stated once more for emphasis, citizens of the northern hemispheres, and not of the southern, dominate world affairs as reflected in their successes toward

translating their riches into power. The middle-latitude states endure a dependency to the North and an instability reflective of their poverty.

These wealthy northern lands, rewarded with ample resources, have become new heartlands, rich regions that will be sought after by starving migrants seeking refuge from wastelands of the South but nonetheless gated against their arrival by the northern possessors. The traditional pivotal zones of power and leverage, described by Halford Mackinder for Eurasia (1919, 1904) and Phil Kelly for North America (2017), still pertain but with the added variable of regional wealth.

But steadily, per capital global reserves are declining, with larger declines confronting the marginal peoples. Pointing to potential dangers ahead, trends of polarity between “haves” and “have not’s” is extending at alarming rates, the plight of the poor worsening without improvement. Climate change is punishing the already-depleted lands of Earth, the dangers of heat and of sparse water and food becoming evident. Marginal peoples suffer higher temperatures in their southern clines, their heat being closer to the limits for human survival. Such warmth will be responsible for depletions of their waters, lands, and thus, for foods, forcing the most destitute to attempt settlements in the wealthier areas.

A truism holds that “wealth begets wealth,” this favoring the capitalists, but their successes rarely trickle down to the poor. Affluence stays at the top, and once there, continues to expand as seen at present. And it appears, too, the wealthy strive for more but dread sharing with others. Greed and growing riches by the elite, Marx predicted, will eventually doom capitalism. That rivalry and polarization between the classes, again if noticed and resented, creates turmoil if not rebellion and revolution. But above all, it is doubtful much plenty will spill down to the less fortunate unless forced to do so by a strong progressive government.

Third, ubiquitous abundance, rare in most societies and politics, delivers social calm and economic optimism. But the historic norm among most human societies is the opposite, that of scarcity, this breeding want, frustration, suffering, and sometimes strife when conditions seriously atrophy. But, particularly where the poor notice this divergence and hold resentment, the scale of violence points upwardly. Here, the plight of poverty and of thwarted expectations among the many against the privileged few may come to explode into brutality if the elite weaken or struggle to repress and the poor possess the means and the will to overturn the systems that command them.

Fourth, resolutions to wealth imbalance, even if attempted, rarely succeed, for History shows few, if any, instances of a satisfactory conclusion to the scarcity problem, that being, an approximate delivery of evenness of plenty for a majority. Riches unevenly and unfairly applied appear the standard most times to

a monopolizing of the extant wealth by the powerful. And once more, seldom do the elite want to share a large portion of their possessions.

A discovery or manufacture of additional resources would reduce the intensity of such harsh futures, but such seems far from a doable reality, particularly on a large enough scale to avert widespread want. And to repeat, these additions themselves might not see a fair distribution. Were such abundance discovered and administered properly, tensions would lessen. Again, that ideal appears unlikely.

Marx saw a spillover of power by wealthy elites eventually controlling the state, thus enhancing their protection and their resources, an almost inevitable transition at the final capitalist phase of his thesis. One could visualize a similar transition at present, but perhaps a more nuanced view could see some leaders becoming more altruistic and welcoming some redistribution. Nonetheless, the rich traditionally have controlled governmental affairs, and their most greedy partisans perhaps would be the most devoted and able to control the public sectors for their own protection and aggrandizement.

Ignorance and distractions among the destitute may provide some solution to our dilemma of scarcity-linked-to-conflict, a “bread and circuses” provision once calming the masses by the ancient Roman elite. Or, as Napoleon once stated, a convincing religion would keep the poor from murdering the rich. Let’s keep abundant drugs, sex, sports, and consumption within our current habitat, as portrayed in Aldous Huxley’s *Brave New World* utopia, these diversions pointing us away from a depressing reality. Repression coupled with slavery has been the norm in past centuries with some satisfaction to stability. Yet, the authors, as would the reader, see these alternatives as much less agreeable and humane. Democracy, constitutional rule, and shared resources would be preferred.

Perhaps the authors exaggerate this plight of scarcity, violence, and repression. Might humans, and perhaps the wealthy included, hold the capacity for reform and altruism? Can a cycle of privilege amidst poverty somehow turn to some degree of a more widely-shared wealth and a stabilizing culture of sacrifice? This, they indeed hope. In recent centuries, certain examples of leadership saw success in reduced tensions of want and division, for instance, President Franklin Roosevelt in tempering fears of depression and in promising a recovery and an improved fairness for the majority. Yet, such examples seem rare, and if present, not lasting, for Roosevelt’s reforms weakened after two generations. We may continue to suffer a leadership dearth that might fail to deliver a less polarized society. Have the present northern middle-class generations lived innocently in a prosperous and democratic bubble, one not seen before or likely to repeat in the future?

In sum, scarcity tends toward frustration, this potential accruing to strife. But, if abundance of riches and their better distribution hold a more peaceful and democratic attainment, how might such be achieved and be lasting? Once more, does humankind possess the capacity to resolve the plague of scarcity amidst conflict induced from wealth disparities? The authors will pursue these queries in the pages that follow.

PART TWO: SOURCES OF RISING SCARCITIES

The intention of this next section will be to note briefly many of the various causes attached to scarcity, but yet not to sketch out expansive depictions of their sources, for these are amply noted in the current literature and need not be replicated here to a greater extent. Geopolitics, the authors' contribution to this issue, provides a neutral backdrop to the disturbances described below, for instance, those fixed to climate, water, soil, location, and migrations, among the many. The reader should note the several spatial concepts already described. But, geopolitics should not receive blame for the depletions and disruptions, for these arrive instead in humans and in Nature herself.

Global warming appears to be one common denominator pointing to a growing scarcity of resources. Although difficult to document accurately, all indications show the Earth's airs and waters expanding in temperature at rates faster than anticipated, the heat due to human-created greenhouse gases and other pollutants (McKibbin 2019; Wallace-Wells 2017; Kaplan 2000).

HUMAN HEAT DEATHS

People adjust to high temperatures by sweating to cool their bodies. But with high heat joined with high humidity, this cooling by perspiration will shut down, the body then becoming dangerously hot. Kidney problems, central nervous and circulatory malfunctions, high blood pressures, and heart failures and strokes could appear with many so harmed and not able to cope (Harmon 2010). In some harsh regions, humans simply could not live for more than a few hours, left outside to direct heat exposure. And these environments are expanding in size and among many peoples, particularly in South Asia and the Middle East.

For more of the tropical lands today, conditions may be reaching such levels as to threaten survival. One study estimated this heat barrier ending life at beyond ninety-five degrees Fahrenheit with ninety percent humanity (Berwyn 2017). Some lands already approach this threshold, and most are poor in resources and located in the middle latitudes. We could be arriving at scenes where certain lands are so hot they will have become permanently abandoned by former occupants.

High temperatures associate with evaporated moisture and drought, forest fires, disease, limited human energy, unsettled weather patterns, and destruction of

flora and fauna, each prompting local suffering and encouraging migrations to cooler and healthier places and all destabilizing societies and governments.

RISING TEMPERATURES OF OCEAN WATERS CAUSING MOUNTING SEA LEVELS

Over ninety percent of pollution in carbon dioxide now finds its way into sea waters, triggering ocean temperatures to increase at alarming rates and to the heated water expanding in volume to create higher sea levels. (Pierre-Louis 2019; Abraham 2018). Together with melting glaciers at either end of our planet, heightened waters will widen coastal erosions, waste adjacent farmlands, and inundate human settlements. Since eighty percent of peoples live near oceans, residents will be forced to move inland, often to already overpopulated and impoverished cities. Additionally, sea-level rises threaten to cover over just two percent of lands, but ten percent of humans reside on these shores that are producing twenty percent of Earth's manufacturing. Warmer waters also spur on hurricane violence as seen recently in more category 5 storms.

THAWING THE ARCTIC PERMAFROST

Increasing temperatures in arctic locations are causing significant releases of methane gases into the atmosphere. Bobby Magill (2014, 2) estimates that over a one-hundred year period, this greenhouse gas has grown to emit "35 times more [of such gas] than carbon dioxide, and over [the last] 20 years, it's 84 times more potent." A similar finding (Shakhova 2007) saw this pollutant of the Siberian permafrost escaping into the atmosphere 3.8 million tons in 2006, rising to an estimated 17 million tons in 2013. In addition, long-sequestered disease germs now freed from the melting tundra could give cause to new global pandemics, the infections raining sickness to the vulnerable many.

Two further reports add to these dangers: arctic warming stretching over one million square miles of surface is shifting the region "from white to dark as sea ice melts and land-covered snow retreats," thus absorbing more of the sun's heat and releasing heightened amounts of carbon dioxide and methane gases (Leahy 2019). In the case of ice-melt in Greenland, its glaciers yearly are now bleeding "11 quadrillion pounds of water" into the seas at increasingly paces, with a much expanded rise in global oceans (Robinson 2019) at the close of the present century.

GLOBAL WATER SCARCITY

One-third of the world's population now reside in water-stressed areas; half of our largest cities suffer this scarcity. Demand for water for human consumption, food production, and industrial necessities will outpace supply by forty percent by 2030 if present trends continue (Braback-Letmathe and Ganter 2015; Hoekstra and Mekonnen 2016). In addition, nearly two million persons die yearly from waterborne infectious diseases, these waters so harshly infected. Delivery infrastructures show a coming decline due to aging facilities, and this harm punishes the poor consumers more than the rich. Other statistics could be

added but these may suffice. To emphasize, it is clear that the growing water plight spells future domestic and international contest, and this may already be contributing to violence in the Middle East and elsewhere.

LAND SCARCITY

Likewise, productive lands steadily decrease due to erosion and flooding, urban and industrial sprawl and pollution, and coastal weathering and inundation. A third of global cropland is losing topsoil faster than through new soils forming. Forest lands are succumbing to new housing and food production. Fires and drought expand this narrative. The difficulties of increasing temperatures and of lower amounts of water further hamper greater productivity of food on lands yet open to farming.

HUMAN FOOD NEEDS NOT SATISFIED

Malthus (Agarwal 2018) posited that population grows exponentially whereas food-supply increases arithmetically, a law of diminishing returns such that populations will eventually outpace available food. In current times, millions of peoples around the globe live near to starvation due to rising food, water, and land prices, the vast majority living in the marginal countries where thirteen percent of residents are undernourished. Nearly half of peoples live on less than \$2.50 a day, a third on less than \$1.25. One billion children suffer poverty, 22,000 dying each day as a result. Most starving people grow listless and weak, but some become violent and threatening to the status quo.

POPULATIONS CONTINUE EXPANDING

Populations continue expanding, particularly in the Southern World, from one billion persons in 1800 to 7.6 billions in 2018, a rise of 1.1 percent or eighty-three millions yearly. This rapid expansion has happened during the past several decades, where today's numbers equate to six and one-half percent of all peoples ever born. Current projections show that Earth will reach ten billions by the year 2056 and eleven billions by 2088. And once more, the marginal countries of Africa, Asia, Latin America, and the Middle East suffer the highest demographic pressures despite their deficiencies in resources, once more, a good recipe for social and political strife.

Recent demographic research might show a contrasting picture to such growth (Karabell 2019), this predicting declining peoples throughout the globe but already appearing in developed regions. This trend could hamper capitalist productivity, the older generations living longer consuming less and a labor shortages reflective of lower births per capita.

RARE MINERALS SUPPLY-CHAIN DISRUPTIONS

Despite rare-earth elements (REEs) holding lower risks of depletions (Than 2018), the danger comes in concentrations of these minerals in limited places (China holds 93% of the world's supply) and in natural or political disruptions of

REEs in the global supply-chain. Were Chinese ports devastated by a tsunami, “grave repercussions to world trade and economies” would follow.

PROLIFERATION OF DISEASE AMID EXTINCTION OF PLANTS AND FAUNA

Health experts predict new global pandemics from poor countries spreading to prosperous areas, these most likely coming in the former since Third-World residents live closer to animals whose sicknesses mutate to humans not immune to new varieties of disease.

Disappearing plants and insects add to depletions of foods and medicines. Fully one million species face near-extinction through changes in land and sea, pollution, invasive alien rivals, and human neglect at protecting these natural assets (Resnick 2019). And since 1970, half of our planet’s animals have disappeared.

ERRATIC WEATHER AND NATURAL CATASTROPHES

Hurricanes, tornadoes, and torrential rains amid drought and flooding will destabilize economies and governments and expose corruption and waste. Earthquakes and volcanoes create tsunamis, and with rain surges, destroy shore lines, again, each prompting scarcities and inducing strife. Multiple examples could be traced to these catastrophes upsetting political systems, but two recently could be cited: Nicaraguan and Haitian earthquakes showing government corruption plus hurricanes over New Orleans and Puerto Rico bringing high costs and political controversy.

MIGRATIONS OF PEOPLES FROM POOR TO RICH AREAS

Migrations of peoples from poor to rich areas, caused by coastal plains inundated by rising seas and storm surges, weather and natural catastrophes leaving peoples without stable habitats, food and water scarcities due to drought and flooding, and political collapse and violence pushing migrants to safer environments – all creating conditions for peoples traveling to more productive lands.

Residents of healthier lands tend to oppose migrants from destitute places into their midst, erecting barriers excluding their desperate visitors. Such political boundaries encourage nationalist regimes that promote racial purity, further walling off the poor from the rich and leaving those in poverty without relief but with growing anger and with the fear of the rich to sharing their bounty.

Cooler, watered, and fertile territories now spawn new environmental heartlands based on favorable climates and on availability of food and water, these lands becoming near-equal in geopolitical importance to Mackinder’s Eurasian pivot. Food, water, and hospitable temperatures now join with places of strategic leverage.

CORRUPTION, CRIME, AND WASTE OF RESOURCES

Scarcity amidst wealth is susceptible to crime and corruption from piracy, cyber-scams, slavery, bribery, embezzlement, and money laundering and speculation, these wastes happening frequently in authoritarian regimes. Democracy offers transparency to resolving these factors, but this system seems to be weakening as conflict increases and resources disappear. Violence could accrue from political deadlock.

CONTAMINANTS

Contaminants from plastics and fertilizers to nuclear, petroleum, and garbage pollute oceans, cities, rivers, and farm lands, diminishing human and animal health, lessening clean waters and food production, and fouling air and productive lands. Dead zones in sea waters created from chemical wastes flowing from rivers into seas show steady expansion.

RELUCTANT ELITES AND CORPORATE OFFICIALS DENY OR IGNORE GROWING SCARCITIES.

They endanger by failing to seek timely solutions and by neglecting equitable distributions to moderate scarcities and political strife and bring some relief to the poor. Once more, it seems the wealthy want to increase their riches but yet oppose sharing their possessions. Reforming this impasse appears daunting, especially when the viability of democracy appears to be waning and wealth polarization to be expanding.

Many good solutions to climate change and to scarcity are lacking, due to the complexity of the natural and human disarray on Earth and to the likelihood that some problems may have already passed a threshold of no-easy-return.

Other examples could be outlined, showing similar impacts of scarcity upon governments and peoples. But to repeat, these all intertwine to heighten dangers, and most will prove difficult to resolve. But said before, likely causes should not direct to geopolitics, for these difficulties reflect human and natural failings instead.

PART THREE: POSSIBLE SOLUTIONS TO DIFFICULTIES TIED TO SCARCITY

In a perfect world, possible cures exist for solving the dangers described above. We could agree, for instance, to reduce population growth, particularly in the Global South, reverse ocean and atmospheric heating, redistribute wealth among and within nations, redirect conflict to appropriate courts and mediations, welcome lower living standards and consumption levels for the rich, adapt to worsening environments, and support diversity and applaud human rights.

Unfortunately, such ideals appear distant to present realities, their achievement unlikely and in some cases, probably not possible as we might have gone beyond the points of restoration. Yet, if not attainable now, some remedies at least could

stand as goals for future living. But, a more united and progressive leadership and public, the authors surmise, would be necessary to enhancing any restructuring of the riches of Earth.

The following suggestions exhibit some approximation of what might yet be necessary if successful remedies can be located. But the reader be advised: the authors are setting up these ideals, then largely refuting their possibility:

The governing sectors lead this struggle against scarcity-linked-to-conflict:

- Community interests take priority over individual interests.
- Governments must be seen as efficient, effective, and trustworthy, and thus, to be relied upon to administer good remedies. Regulations represent positive paths for improvements. Private sources may partner with the public, but the latter normally will lead.
- Transparency should be evident, with neutral agencies established to inspect for waste, corruption, and inefficiencies.

Northern elites support and finance a restructuring of global wealth:

- Leader states should prove willing to sponsor significant redistributions of global resources within and among countries and regions. That reality translates to a voluntary shift of wealth from core to periphery following the strictures of the New International Economic Order (NIEO).
- Sufficient political power and planning will bring this re-direction, all peoples holding some representation in deciding options and strategies.
- Such re-allocations would be administered through a federally-constituted United Nations exhibiting a large and professional bureaucracy that emits efficiency, fairness, and a showing of success toward heightened living standards for the poor.
- Above all, the United States, as an exceptional and indispensable leader-state (Kelly 2019b), must play an active role in problem-solving, financing, and directing regional development and in stabilizing against threats of warfare and crime, torture and genocide, failed and rogue states, and labor and environmental degradation, among other obligations.
- To extend this point further, North America best fits Mackinder's heartland thesis (Kelly 2017). It is best positioned to lead a global reformation due to its protected location, wealth and technology, and dominate sea power. As global and exceptional hegemon, it should be responsible for substantial leadership and contribution.

Democracy characterizes this federal governance, a transparent and representative constitutional regime: Beyond efficiency, honesty, transparency, and success, a political culture of moderation and compromise must emerge to be seen as fair and representative, particularly as visualized by the marginal peoples.

- Representation should be global, all peoples joining toward establishing a more-equal distribution of global resources.
- Political structures will be parliamentary, taxation progressive, policies and services protecting all, and marginal persons enjoying a broader ownership of available resources.

Unity among global residents a must:

- A unity among peoples must arise, all agreeing to resolve the plight of the poor amidst the ravages of Nature and human greed (Kaplan 2009, 98-100). The wealthy would voluntarily relinquish riches to the less fortunate such that scarcity will diminish. If a world government faces some resistance, elites and nations would be forced to obey, this requiring, again, an effective and honest bureaucracy to implement such a reallocation.
- Majority rule should be followed, allowing for all to submit grievances and opposing views. Minority opinions must be heard and factored into planning and decisions.

A value system honoring community and altruism and not accumulation of wealth must be constructed:

- Capitalist profits should be replaced by strategies to uplift the less advantaged. Nature must be protected from the ravages of mining and real estate investments. Community above individual advancement; yet retaining the advantages of classical and regulated capitalism.

An integrated approach to resolution, and not a piecemeal one, would be necessary. Attempting to resolve isolated or single problems could enlarge other difficulties. This would require a specialized and efficient governing authority to guide a rational and coordinated plan.

- For example, expanding food production and eradicating disease would increase already-over extended populations and heighten pollutions and exhaust resources. Fracking of oil and natural gas might produce more energy, yet this will release methane in amounts surpassing coal-derived carbon dioxide. Earthquakes add to the negative as well.
- It could be assumed that some of our current problems now extend beyond a tipping point of resolution. Indeed, certain wasted resources might already have disappeared permanently or will disappear shortly. Hence, people should learn to adapt to this reality.

Again, a professional global bureaucracy must be established:

- One must assume a global bureaucracy, staffed by professionals who are well-financed, this vital toward mastering the current array of problems,

with plans sufficiently joined to form a broad base for approaching solutions.

- This institute would be staffed by representatives from all peoples and based throughout the world, with local groups and governments supportive of and participating in an expanded government. Multi-nationally-trained armed forces should be available for immediate intervention to stem any violence, genocide, and human-rights violations in nations and regions exposed to anarchy and crime.

Limitations for population growth must be discussed and worked into policy:

- Population growth extends more to the poorer regions of the Global South than to the lands of the North, the latter in some cases decreasing in human numbers. This topic remains controversial due to diverse cultures, religions, and national sensitivities. Yet, it must be imposed to some degree if scarcity and frustrations are reduced. Such a reduction should come fairly and voluntarily.
- Since capital and new technologies replace certain labors, alternative but useful and dignified job alternatives for the unemployed must be located.

Ample funding for resolving problems inherent to scarcity:

- For instance, try expanded green farming methods, promote renewable energies, protect habitats, rid waters and soils of pollutions, devote better health and reduce population numbers, transit nuclear energy as a temporary to green energies – all of these and others supported by generous funding coming from the wealthy countries.

Reform of capitalism with more stringent regulations and anti-trust provisions:

- Unequal distributions of wealth must become less extreme, either by voluntary relinquishing of riches and power by the wealthy reflective of the NIEO or by redistribution forced by way of a progressive but fair world taxation.
- Monopolies, unemployment, low wages, sparse benefits, and elites' control of the state must be replaced by equitable economic and political structures.
- Labor, consumer, and environmental protections should be instituted along with other reforms bent toward increasing living standards for all.

Migrants accepted and provided for:

- Peoples escaping ruined lands must readily be welcomed by the northern residents, the North's lands, waters, and foods shared in addition to social and employment opportunities given to the new residents so they might enjoy similarly productive lives.

New global cultures must form, with traditional customs still kept but modified:

- Reduced living standards will transpire for the wealthy, with enhanced standards raised for the poor. A community bent toward sharing Earth's abundance must become implanted.
- Warfare must end, replaced by arbitration and adjudication and by an effective collective security. A professional multinational intervention force will be established to resist torture, genocide, repressive regimes, and any other threats against human rights and peaceful resolution of conflict. Diversity would be applauded, all religions, cultures, and living styles thriving without repression.

Supposing some success in most of these goals, how might one envision this sort of future environment? Generally, it would lack large pockets of depression and poverty, yet still be agrarian as well as urban and industrial, and citizens would deserve health in body and psyche, be at peace with others and not polarized and antagonistic, and enjoy reasonable standards of living. The government would be democratic and federal, strong, and bureaucratic, emitting honestly and efficiently in allocating resources without favor to any elite or location.

Nonetheless, are these solutions really possible, too utopic to earn achievement? Are difficulties too vast to bring resolution to humankind? To the authors, the future, indeed, looks bleak, the obstacles too complex to overcome and the solutions too distant and too ignored to be easily attained. Frankly, they see the odds weighted to the negative.

These encumbrances support the authors' doubts:

- The present reality does not support an easy resolution for the coming liabilities. Problems are mounting, but solutions and intentions appear lacking. Even a widespread interest at remedies continues weak.
- The Great Nations including the United States are not leading a redistribution of wealth to reduce scarcities. They continue resisting reforms in climate change and in establishing a stronger world governance.
- Without a significant wealth-transfer from the prosperous regions, the ability of the destitute to adapt to increasingly-harsh conditions cannot succeed, and this better distribution happening remains doubtful.
- Conflict and disarray among peoples and states continues ubiquitously.
- Environmental problems are not only expanding but may have passed beyond their points of resolution. Few remedies appear implanted to date.

In sum, the authors see a depressed and increasingly dangerous world, their pessimism raised because necessary reforms are not occurring. If wrong, and they earnestly pray that will be the case, at least they have portrayed a human habitat that we should work to avoid.

PART FOUR -- FUTURE SCENARIOS REFLECTIVE OF SCARCITY

Recognizing difficulties in attempting to outline a future, the authors will suggest several possible outcomes to this portrait of scarcity and conflict, five scenarios from the more hopeful and secure to the more bleak and dangerous. But the worst-case choices, unfortunately, will direct their visions to the more likely outcomes, these being of a great suffering among a majority of peoples reflective of the instabilities of scarcity, in part, brought about by climate change.

Once more, we must not blame classical geopolitics. It merely provides a geostrategic backdrop for portraying a serious and expanding global scarcity that may erupt into conflict and disruption. Unfortunately, geopolitics cannot offer immediate solutions to the dangers of the future.

First Scenario: Humans adapt to and/or resolve future scarcities: This case emerges as the most positive to confronting, resolving, or resisting the scarcity plight. Peoples will accept less consumption, raise smaller families, consume more meager diets, and adjust to climatic irregularities.

--- Reliance upon scientific and other innovations will bring some remedy, for instance, solar and wind power, de-salting oceans, increased food production after locating clean waters and fertile soils, re-cycled waste, to name a few. Protections will be legislated against dangerous innovations, in genetic or germline engineering, artificial intelligence, and other similar endeavors (McKibbin 174-201).

--- Perhaps humankind is ready to move in these directions for settlement of the problems outlined above. Public opinion may support plans to reduce pollution, to encourage birth controls, and to bring healthier environments. Leaders will decide to follow their pleas. This assumption places some confidence to the human ability to encounter problems effectively after these are noticed and feared.

--- One could admit to a “crisis-forcing-reform” scenario, evidence of disaster too apparent to refute and pushing publics and leaders to construct remedies. New leaders, holding the right medicines, it is hoped, will arise during such moments.

--- Or, a world federal government will appear, one strong enough to propel ready results. A progressive governing structure, if humanistic, democratic, and strong, will demand a redistribution of resources from rich to poor and a coordinated drive to relieve climate change from its dangers.

Second Scenario: Earth will succumb completely to failure and violence, peoples and countries falling into anarchy and regions dividing into fiefdoms. A return to the Middle Ages, with marauding militias, widespread lawlessness, starvation, exploitation, and disease, amid an isolated and protected elite where such is possible.

--- This image assumes both the fall of the Great Powers and the demise of the less powerful, a reign of anarchy and strife for most. International wars, national rebellions, and domestic chaos will extinguish any settlement to problems inherent to scarcity and the environment.

Third Scenario: The South will drag the North into conflict, attempting to force a more equitable reallocation of resources: Protest, subversion, sabotage, and resistance will stem from the margins against the elite, all to relieve the suffering derived from scarcity and unfairness in distributions of wealth.

--- Here, the assumption does not rest on a unification of the northern powers, as they could individually resist southern pressures upon their wealth. But, a joining together into a condominium of forces for protecting themselves from the threatening sectors could also be imagined. The South could attempt to organize a unified front to press for a share of northern riches, but the authors doubt this happening due to the sector's weaknesses, corruptions, and geographical obstacles of distances, topography, choke points, deserts, and oceans.

--- This portrait reveals a continued northern dominance because those areas possesses in pentagonal or pan-regional patterns the military and economic means to ward off any danger from the weaker peoples. Even asymmetric terrorist attacks including the nuclear would not be sufficient to force a sharing of wealth or even to a welcoming of destitute immigrants from the South into the North.

Fourth Scenario: The wealthy will isolate from the poor, fearing disruptions to their stations. In this, the well-to-do within and among countries separate themselves from the poor by isolating against any attempt to release the destitute from their plight. Kaplan (2009, 101) pictures this scenario:

[As] the years pass, and world food and energy prices fluctuate, Malthus is getting more respect. If you wander through the slums of Karachi or Gaza, which wall off multitudes of angry lumpen faithful -- most men -- one can easily see the conflicts over scarce resources that Malthus predicted coming to pass.

--- The present world already encounters walls against unwanted immigration from poor lands to rich lands, and these separations will increase both within and between countries -- all leading to conflict, violence, and repression, yet still not altering the status quo of riches astride poverty.

--- In geopolitical terminology, certain concepts come to mind in this scenario: pan regions - imperial structures linking northern states with dependent southern colonies, the latter providing cheap labor and resources plus profitable markets for the former. Condominiums arranged in pentagonal clusters -- the Great Powers collaborating in dividing Earth into spheres of influence for their advantage. These configurations resemble a world separated into gated sectors that will show the continued preservation of the rich nations.

Fifth scenario: a combination of all of the above descriptions: Some peoples will keep their prosperity, others will see collapse. This scenario differs from present

times only in exhibiting greater gaps and conflict between rich and poor and in coming ravages of climate change and scarcities. Solutions and adjustments will be limited and isolated. Significant portions of Earth will fall into anarchy or desertion, unable to fight the inevitabilities of scarcity. But, the walls separating the rich from the poor will stay in place and even be heightened, a “spaceship Earth” scenario of distinct compartments housing levels of success and failure.

The authors tend, unfortunately, to favor the final two conclusions, of a widespread gated world, the northern powers constructing walls dividing poor from rich, and of a continuation of a world facing political, social, and environmental upheavals but not able or willing to bringing forth a better society for all.

CONCLUSIONS

Earth’s inhabitants, still growing in number, face diminishing resources, continuing political stalemate, and ensuing depression of living standards, lower for the less powerful but maintained and protected for the privileged – a portrait breeding a likely future of suffering, repression, violence, and separation among Earth’s peoples. The authors have attempted to outline several scenarios to temper this dark impression of the future. Yet, they predict a gated world, the rich protected behind their walls and the poor exposed to environmental conditions that will limit their well-being and survival.

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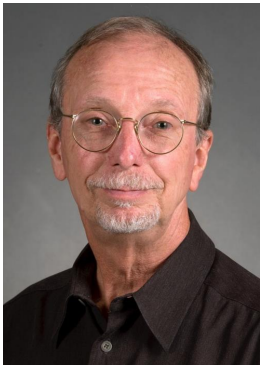
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The Authors



Phil Kelly is the Roe R. Cross Distinguished Professor of Political Science at Emporia State University



David Claridge is an undergraduate honor's student majoring in molecular biology at Emporia State University