

Real Goals to Empower the Developing World

Alternatives to the U.N.'s
Agenda for Sustainable
Development

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Executive Summary

The United Nations is soon due to replace its ambitious Millennium Development Goals with a new set of far more extensive and even more ambitious Sustainable Development Goals. However, the U.N.'s approach suffers from some major flaws. Instead of setting targets, the world should adopt strategies that have proven to deliver a healthier, greener, and more prosperous planet—strategies that also improve the resiliency of communities to whatever nature throws at them.

The U.N.'s approach is flawed because it focuses on simply announcing a slew of targets that are unlikely to prove achievable, especially as there are tradeoffs involved in meeting some targets over others.

Moreover, the U.N.'s emphasis on “sustainability,” as generally defined among development bureaucrats and NGOs, imposes significant burdens on developing countries' freedom and ability to achieve the rapid increases in human welfare that were the target of the original Millennium goals.

The U.N. also ignores the lesson of the most successful developing economies. For instance, Hong Kong and Singapore followed a proven path to prosperity that is centered on principles that have significantly increased the resiliency of their societies.

We therefore recommend five realistic goals that developing world economies should pursue. They are:

1. Secure Property Rights. Markets, the source of wealth and prosperity, are impossible without security in property rights. Governments should make it their first priority to ensure that property rights are recognized

and respected. The Arab Spring began because small businessmen were constantly having their merchandise and tools of their trade expropriated by officials. Land titling is one important means of securing these rights. Common property rights should also be officially recognized and reformed. New technologies such as the Blockchain can help to secure these rights.

2. Secure the Rule of Law. The rule of law reduces arbitrariness in government that can be a huge drain on an economy and human dignity. Research has found that improvements in the rule of law can empower the disadvantaged and help unleash entrepreneurial spirits even among the most previously oppressed peoples. A secure rule of law also reduces corruption. Technology can help deliver this goal, as has been seen in e-governance projects in India. Finally, charter cities can help deliver a “new start” to governance.

3. Ensure Access to Affordable Energy. Affordable energy is key to unleashing human potential, but the U.N.'s emphasis on sustainability perversely increases energy costs. Increased energy costs are an especially severe problem for the poor, who spend a larger share of their income on necessities like energy, shelter, and food. Higher energy costs are also associated with worse health outcomes. Thankfully, technological innovation in fossil fuel extraction has recently reduced energy costs, while reducing emissions in the developed world. Developing countries should allow and encourage use of these technologies to develop their own energy sectors. Distributed renewable energy has a small but limited role to play, but investments in advanced traditional energy can deliver much greater benefits to developing nations.

4. Ensure Access to Capital and Credit. Access to capital is important to unleashing “the fortune at the bottom of the pyramid.” Credit allows those who have capital to share its benefits with those who do not, to mutual advantage. As noted, land titling process can provide access to capital, but there are other forms as well. Microsavings, microinsurance, and microloans are all important and are made possible and more accessible by modern communication technology, which lowers transaction costs to unprecedentedly low levels. By some estimates, there is an economy of at least \$13 trillion locked up that just needs to be freed up to allow it to benefit its owners.

5. Allow Markets in Education. The U.N. wants developing countries to provide free universal education. This emphasis on price is unnecessary. Recent research has shown that low-cost private

education is available in many parts of the developing world, and that its quality outstrips that of supposedly free government schools. Moreover, these schools are helping to achieve gender equity, and are cost-effective and financially sustainable. They are accountable to parents, and parents generally prefer them even when cost is taken into account. Concerns about affordability are unfounded.

Taken together, these coherent principles will allow for a much stronger, prosperous, and more resilient planet than the bundle of often contradictory targets advanced by the United Nations and other “sustainability” advocates. An agenda that empowers people rather than bureaucrats, building a resilient and truly healthy society in the process, is the best way to achieve human health and flourishing.

Introduction

In the year 2000, the United Nations adopted a set of eight goals and 21 targets for developing nations in its Millennium Declaration, intended to provide a policy blueprint to help the world's poor secure the values articulated in the declaration—freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility.¹

The eight goals are as follows:

1. To eradicate extreme poverty and hunger
2. To achieve universal primary education
3. To promote gender equality
4. To reduce child mortality
5. To improve maternal health
6. To combat HIV/AIDS, malaria, and other diseases
7. To ensure environmental sustainability
8. To develop a global partnership for development²

The goals had specific subgoals, with very specific metrics to assess their success, such as: “Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.”³

Progress toward meeting the goals has varied considerably among nations. However, rather than reassess the world's uneven progress to date, this year, the United Nations is set to announce a successor to its Millennium Development Goals. This new set of

goals, the 2030 Agenda for Sustainable Development, will be aimed at fostering “sustainable development” across the underdeveloped world. The agenda is ambitious:

We resolve, between now and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. We resolve also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities.⁴

These ambitions translate into 17 specific goals, each with a large number of sub-goals and targets:

- **Goal 1.** End poverty in all its forms everywhere
- **Goal 2.** End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- **Goal 3.** Ensure healthy lives and promote well-being for all at all ages
- **Goal 4.** Ensure inclusive and equitable quality education and

promote lifelong learning opportunities for all

- **Goal 5.** Achieve gender equality and empower all women and girls
- **Goal 6.** Ensure availability and sustainable management of water and sanitation for all
- **Goal 7.** Ensure access to affordable, reliable, sustainable, and modern energy for all
- **Goal 8.** Promote sustained, inclusive, and sustainable economic growth; full and productive employment; and decent work for all
- **Goal 9.** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- **Goal 10.** Reduce inequality within and among countries
- **Goal 11.** Make cities and human settlements inclusive, safe, resilient, and sustainable
- **Goal 12.** Ensure sustainable consumption and production patterns
- **Goal 13.** Take urgent action to combat climate change and its impacts
- **Goal 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- **Goal 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests,

combat desertification, and halt and reverse land degradation and halt biodiversity loss

- **Goal 16.** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels
- **Goal 17.** Strengthen the means of implementation and revitalize the global partnership for sustainable development[.]⁵

The meeting where the agenda will be endorsed will be addressed by Pope Francis, who is expected to echo themes of sustainability explored in his recent encyclical letter, *Laudato Si'*. The letter, subtitled in English as *Care for Our Common Home*, opens with a cry to honor our “Sister, Mother Earth”:

This sister now cries out to us because of the harm we have inflicted on her by our irresponsible use and abuse of the goods with which God has endowed her. We have come to see ourselves as her lords and masters, entitled to plunder her at will. The violence present in our hearts, wounded by sin, is also reflected in the symptoms of sickness evident in the soil, in the water, in the air and in all forms of life.⁶

This belief that use of natural resources involves “plunder” that causes “sickness” in the Earth drives the principle of “sustainability” that is central to the U.N.’s professed development goals. Of course, the Earth is not a living being, and cannot be sick in any medical sense. Therefore, the real question that should concern us regarding the well-intentioned U.N. goals is whether “sustainability” helps or hinder human welfare.

Sustainability *per se* is a laudable goal. However, it has always been achieved through technological innovation and economic growth, not the setting of goals by multinational organizations. For example, the development of synthetic fertilizer has been key to ending droughts and in helping to restore the affected areas to their natural state.⁷ Many of the policies now being advanced in the name of “sustainable development,” on the other hand, have generally rejected technology and growth as increasing man’s impact on the environment.

The World Commission on Environment and Development—better known as the Brundtland Commission, after its head, former Norwegian Prime Minister Gro Harlem Brundtland—issued a definition of “sustainable development” in 1987 that continues to be accepted by major global organizations, from the U.N. to the World Bank:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.⁸

Obviously, “plundering” the planet would not meet this definition, if any use of a non-renewable resource were to be classified as “plunder” that prevents the use of that resource by future generations. Similarly, any alteration of the atmosphere could have effects that harm future generations. By this reading of “sustainable development,” the world should adopt an approach based on the precautionary principle.⁹

The precautionary principle is an imperfect solution to the problem of imperfect knowledge. It is based on the notion that we cannot know what will happen in the future, so we must take steps to avoid any potential harm based on the knowledge we have now. However, current knowledge is always imperfect, so there is no guarantee that the precautionary approach will not make things worse.

While taking small steps to prevent or mitigate against uncertain risks that may never arise can be warranted in some instances, spending a huge amount of resources to do so is wasteful because it reduces the resources available to address actual hazards. Thus, by refusing to invest in proven forms of affordable energy for fear of what that energy

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might do to the atmosphere in 80 years’ time—which we cannot know for sure—we risk reducing future generations’ capacity to use affordable energy to resist other currently unknown threats. Yet that is where the logic of “sustainable” development takes us. Such a precautionary approach would condemn a lot of people to much longer periods in poverty, hunger, and all the other terrible conditions the U.N. wishes to alleviate.

The disconnect between “sustainable development” and actual environmental protection has been recognized recently by a diverse group of environmental advocates, including long-time activist Mark Lynas and the Breakthrough Institute’s Ted Nordhaus and Mike Shellenberger, who call themselves “ecomodernists.” Their manifesto, published in April 2015, puts it well:

Intensifying many human activities—particularly farming, energy extraction, forestry, and settlement—so that they use less land and interfere less with the natural world is the key to decoupling human development from environmental impacts. These socioeconomic and technological processes are central to economic modernization and environmental protection. Together they allow people to mitigate climate change, to spare nature, and to alleviate global poverty.¹⁰

There is a tradeoff between sustainability as it is commonly interpreted and aggregate human welfare. This tradeoff is not just an economic cost. It impinges on the lives of individual men and women, and prevents them from pursuing what may be the most important goal of all, one whose appreciation reaches back to Aristotle: human flourishing.

Resiliency: Key to Human Flourishing

Human flourishing is the empowering of individuals to achieve their own goals. It is more than just the result of material prosperity. There is no one best way to define it because it can be achieved in countless different ways.¹¹ An athlete, a businessman, and a philosopher will each have different views of what human flourishing means to them.¹² The precautionary approach hinders future individuals’ ability to flourish by cutting off certain avenues of development to them, based on our current imperfect knowledge.

The moral imperative of development is to provide the most value-neutral means of allowing mass human flourishing. In the context of the threats the sustainable development goals are intended to alleviate, the most prudent approach for developing nations to take is to increase their people’s wealth, knowledge, and education. All of these goals are important to human flourishing, and

increasing each of them provides for a healthier and even greener society.

It is for this reason that the Competitive Enterprise Institute has long advanced resiliency as an important value in human development.¹³ Development that meets the needs and wants of people in developing nations, rather than of politicians or activists, is inherently resilient. Producing a wealthier society increases the capability of future generations to meet tomorrow's risks, both known and unknown. This requires institutions and markets rather than plans and targets. It also requires accepting that there are limits to human knowledge and that the best way to address these limits is the free exchange of localized individual knowledge through the collective action of human beings in the marketplace—including the marketplace of ideas.

The U.N. actually accepts that resiliency is important. One of its sub-goals is: "By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters."¹⁴ However, as noted, resiliency can achieve far more than reducing risk. It builds a wealthier, healthier, and even greener society.

Accordingly, while goals that aim to increase resiliency may look superficially similar to the goals of

the U.N.'s sustainable development agenda, the means to achieve those results are very different. Reducing poverty will not be achieved by setting a target to "reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions."¹⁵ Reducing poverty is achieved by people getting wealthier. In order for them to do that, certain institutions need to be strengthened and certain barriers need to come down.

Where this has happened we are already seeing reduced human impact on the environment. The trends toward reforestation and less intensive protein sources in wealthy societies, for instance, suggest that, according to the ecomodernists:

[T]he total human impact on the environment, including land-use change, overexploitation, and pollution, can peak and decline this century. By understanding and promoting these emergent processes, humans have the opportunity to re-wild and re-green the Earth—even as developing countries achieve modern living standards, and material poverty ends.¹⁶

The following goals will help achieve a more resilient, wealthier, healthier, and greener world, with the conditions necessary for mass human flourishing.

Producing a wealthier society increases the capability of future generations to meet tomorrow's risks, both known and unknown.

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1. Secure Property Rights

Secure property rights are fundamental to human development, and have been key to prosperity in developed nations. They allow for the mutually beneficial exchange of goods between parties that is the basis of commerce and trade. They provide the capital for investment, secure access to that capital, ensure that property owners cannot be impoverished arbitrarily, and prevent environmental collapse in a “tragedy of the commons.”

Markets cannot exist without property rights, which entail the right to dispose of property as you see fit.¹⁷ Yet all over the developing world, property rights are in a parlous state.

Every year, the *Wall Street Journal/Heritage Foundation Index of Economic Freedom* shows a consistently strong correlation between economic liberty and human development measures.¹⁸

Property rights are an important component of this index, and are assigned a score out of 100. Of the nine developing countries ranked in the top 50 nations, only two—Botswana and St. Vincent and the Grenadines—score above 65 in the index’s ranking for property rights. The top 10 nations’ overall average was 87.5 for property rights (which is dragged down by developing Mauritius’ score of 65).

Formerly developing countries that have reached developed status in the last half century have strong property

rights rankings, such as Hong Kong and Singapore with scores of 90 each.¹⁹ It is notable that most developing countries that have strong property rights were formerly colonies of the United Kingdom, where property rights have traditionally been strongly upheld (although British colonial authorities could be hypocritical on this). Some, like Botswana, have managed to retain those rights, but others have lost them thanks to Marxian-inspired policies that restricted private property following decolonization.²⁰

The similar annual *Economic Freedom of the World* index produced by the Fraser Institute and the Cato Institute notes of property rights: “Perhaps more than any other area, this area is essential for the efficient allocation of resources. Countries with major deficiencies in this area are unlikely to prosper regardless of their policies in the other four areas.”²¹

The World Bank has found a strong correlation between secure property rights and personal income.²² Yet, the only mention of property rights in the U.N.’s goals is of intellectual property rights.

This is perhaps the biggest mistake in the U.N.’s approach. Property rights in much of the developing world are at best illusory. Expropriation threatens at every turn. The supposed “unemployed” people whose sacrifices started the Arab Spring were in fact small businessmen

who repeatedly had their profits, inventory, and tools of their trade stolen by police and government bureaucrats.²³ In fact, the first such uprising, in Tunisia, was triggered by a fruit vendor, Mohamed Bouazizi, who immolated himself after police officers seized some of his merchandise.²⁴

Secure property rights are not only important for increasing wealth, but also for improving environmental stewardship, because owners have a great incentive not to see the value of their property reduced by environmental degradation. Moreover, a system that recognizes property rights protects an owner against degradation imposed by a neighbor in the form of pollution. Collective ownership erodes this system of rights-based obligations.

Generally speaking, private property has been interpreted as a “bundle of rights” that includes the right to freely exploit one’s property, exclude others from it, and alienate it, so long as one does not cause nuisance or harm to others. The functionality of private property rights in promoting personal, general, and environmental welfare is directly tied to this bundle of features. It is undermined to the same extent that any element of that “bundle” of rights is undermined. For example, if individuals are barred from selling their fishing rights, they will have less of an incentive to preserve the value of those rights by not overexploiting the resource. If they decide to leave a

lumber business and no longer intend on harvesting their resource but cannot sell their harvesting rights, they may have an incentive to deplete it. Similarly, if bureaucrats can take away the property right at any time, the right will be less valuable and the attendant incentives will be diminished.

For these reasons, governments should set a goal of securing private property rights. One key measure to achieve this is titling of real estate property.

Land Titling. In many countries, people are unable to prove ownership of the land they occupy, owing to inadequate land titling systems or traditional forms of property ownership where everything belongs to the village chief. As Peruvian economist Hernando de Soto explained in his books, *The Other Path* and *The Mystery of Capital*, land titling reforms significantly benefit the poor, enabling “such opportunities as access to credit, the establishment of systems of identification, the creation of systems for credit and insurance information, the provision for housing and infrastructure, the issue of shares, the mortgage of property and a host of other economic activities that drive a modern market economy.”²⁵

De Soto estimates that up to \$10 trillion of capital worldwide is locked away unused because of inadequate titling systems. A recent study by the Peru-based Institute for Liberty and Democracy (ILD), which De Soto

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heads, estimated Egyptian workers’ real estate holdings to be worth around US\$360 billion, “eight times more than all the foreign direct investment in Egypt since Napoleon’s invasion.”²⁶

Similarly, many local assets around the world remain in common ownership—in reality, owned by no one. Initiatives such as India’s privatization of forest resources seek to address this by enabling the titling of assets by indigenous peoples, who can then tap into those resources to open up new opportunities as described above.²⁷ Estimates by de Soto’s team suggest that similar initiatives could be extended to 900 million plots of land across the developing world.²⁸

Property Rights and the Environment. Failure to secure property rights generally results in what ecologist Garret Hardin termed “the Tragedy of the Commons,” a phenomenon that occurs when no one has any incentive not to deplete a common resource, in the expectation that someone else will deplete it first.²⁹

Common ownership leads to overexploitation because conservation of a resource imposes costs with no attendant benefits to individuals, while private ownership makes that same resource valuable. For example, when the Soviet Union decided to turn the deserts of central Asia into cotton fields by diverting the Amu Darya river, the people who lived off the Aral Sea had

no property rights to defend their shrinking resource. The result was the desertification of the Aral Sea—the greatest environmental disaster of modern times.³⁰ This instance of resource plundering was entirely the product of central planning.

Fisheries provide a good example of how property rights obviate the tragedy of the commons. Individual Transferable Quota (ITQ) systems cap a country or region’s total allowable catch (TAC), while guaranteeing fishers a share or quota, often as a percentage of the TAC. Once the initial allocation is made, fishing rights take on the features of property rights. They may be exploited to the degree allowed by the quota, and they may be leased, sold, or transferred to other fishers. Since the shares are owned in perpetuity, fishers have a strong incentive to harvest as many as possible in accordance with the quota without depleting the fish stock.

Owners of the most efficient fishing vessels have an incentive to buy quotas from those with older, less efficient vessels, reducing the total number of vessels in the long run. Given the novelty of this form of property right, owners of ITQs are likely to be particularly sensitive to the prevailing regulatory climate. Therefore, it is important for government to set up an ITQ market carefully and avoid taxing or interfering with these new property rights in order to maximize the environmental advantages of the system.

New Zealand's ITQ arrangement is the most extensive in operation, and it developed considerably over time.³¹

In 2008, researchers Christopher Costello, Steven Gaines, and John Lynham of the University of California, Santa Barbara, investigated the effects of all 121 fisheries where ITQs and other "catch share" schemes exist around the world, comparing them to the 11,000 fisheries without property rights and controlling for confounding factors such as fish species and ecosystem characteristics. They found that the existence of catch share rights not only precluded fishery collapse but, as in New Zealand, often helped reverse prior collapse.³² The authors found that if catch shares had been instituted globally from 1970, then the incidence of fishery collapse would have been reduced by two-thirds. Fish stocks would be rising rather than falling. The evidence is clear: ITQs and similar catch-share schemes should be implemented now on a global basis

The Blockchain. There are also exciting opportunities that could arise for the public recording and utilization of property rights through the distributed public ledger system known as the Blockchain, best known for its role in the development of Bitcoin. Development of the Blockchain for property recording and titling would significantly reduce transaction

costs—as well as the widespread corruption—associated with government-controlled titling systems.³⁴ Significantly, De Soto's ILD is promoting these initiatives.³⁵

2. Secure the Rule of Law

Property rights cannot be secured without a justice system that backs up their value and enforces rules associated with ownership, defense, and transfer, without being subject to arbitrary decisions or changes. Such a system is known as the "rule of law," and provides many other benefits. The concept dates back to the Leveller philosopher James Harrington, who suggested that the ideal state, the Commonwealth of Oceana, would be an "empire of laws, not of men."³⁶

The rule of law is mentioned several times

Common Property Rights

Some economists now question whether the commons necessarily dissolves into tragedy. The work of the 2009 Economics Nobel Laureates, Elinor Ostrom and Oliver Williamson, demonstrates that traditional cultural concepts of common property rights, particularly among hunter-gatherers, can promote the sustainable use of a resource, so long as there are means of preventing freeloading behavior, such as social norms within a tightly knit community.

However, as Michael De Alessi of the Reason Foundation points out, common private property rights are far more vulnerable than private property rights, for two reasons. First, they frequently are not recognized by judiciaries due to their informal nature, and are thus vulnerable to expropriation by outsiders, including governments. Second, common rights are usually nonalienable, as is the case when they are the historic property of a tribe or clan.

This implies that communities should seek to recognize and title even common property rights. Moreover, there can be such a thing as a "tragedy of the anti-commons." Traditional methods of dividing up property by inheritance (such as "gavelkind" succession that divides property equally among heirs) have regularly had the effect of "hyper-fracturing" property to the extent that effective alienation and use become difficult. The United Kingdom solved this problem through enclosure, although in an inequitable fashion. In any event, the problem is not insuperable. Communities should encourage new methods of dividing common property, such as reformed rules for inheritance.

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in the U.N.'s preamble to its goals but only once in the goals themselves: "16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all." This is fine as far as it goes, although it is plausible that the goal is more about establishing a new transnational judicial system controlled by central planning technocrats.

Julian Morris of the Reason Foundation sums up well the importance of the rule of law:

Private property rights, the freedom to contract, free speech, and the judicial system which upholds these are fundamental to real sustainable development. People must be certain of the rules that govern their behavior, and they should not be subject to arbitrary law enforcement (characteristic of corrupt government). They should also have a remedy at law for violations of contracts and property rights.³⁷

The rule of law, combined with the freedom to contract, results in a system of sanctity of contract, that has many beneficial effects. The late University of Michigan professor C.K. Prahalad interviewed Indian Shakti Ammas ("empowered mothers") who had become entrepreneurs and discovered that their contractual relationships resulted not just in mutual obligations

but in wider benefits. As he says of one example:

She recognizes that violating the contracts will dry up the source of her economic and social success. Transparent transaction governance is an integral part of the ecosystem. She is a local entrepreneur. She is a one-person company, but she does not operate as an extralegal entity. She is bound to the national and global system and is less beholden to the local system of moneylenders and slum lords. ... The ecosystem can provide the tools for the poor and the disadvantages to be connected seamlessly with the rest of the world in a mutually beneficial and non-exploitative way.³⁸

Moreover, under a contract-based market backed by the rule of law, asymmetries, where one party has an advantage over the other, are reduced. Information asymmetries are reduced by widespread knowledge of price signals. Producers who take advantage of this knowledge can find different buyers, thereby reducing asymmetries in choice. The smaller party having recourse to courts and other enforcement systems reduces asymmetries in bargaining power. Taken together, these shifts in relative power reduce asymmetries in social status, producing a more equal society.³⁹

An excellent example of the result of this process is in the breakdown of the Indian caste system achieved after the Indian government strengthened the rule of law in 1991. Dalits, the caste once called “untouchables,” have achieved great things. As the Cato Institute’s Swaminathan S. Anklesaria Aiyar points out in a June 2015 study:

Dalits have increasingly managed to get out of their historical occupations and move into new ones. One district survey in Uttar Pradesh shows the proportion of dalits owning brick houses up from 38 percent to 94 percent, the proportion running their own businesses up from 6 percent to 36.7 percent, and the proportion owning cell phones up from zero to one-third. The Dalit Indian Chamber of Commerce and Industry now boasts of over 3,000 member-millionaires. The former serfs have now become bosses hiring upper-caste workers.⁴⁰

Securing the rule of law reduces corruption. Corruption is, quite simply, abuse of the rule of law by bureaucrats. Attempts to establish the rule of law have gone awry because the method chosen was to pass a law about every aspect of commerce, which merely empowers the bureaucrat who administers the relevant regulation. India’s infamous pre-1991 “License Raj” was a case in point.⁴¹

Corruption is rightly recognized as a problem by transnational institutions. The World Bank calculates the global cost of bribes at about \$1 trillion annually.⁴² The U.N. includes reducing corruption in its goals (“16.5 Substantially reduce corruption and bribery in all their forms”), but seemingly fails to recognize the importance of securing the rule of law in achieving this reduction. By making it a separate goal, the U.N. risks encouraging countries to set ineffective targets on corruption and introduce new ineffective anti-corruption laws that will do little, if anything, to address the problem.

A novel way to secure the rule of law is to use technology to bypass bureaucrats entirely. The state government of Andhra Pradesh in India, for example, has pioneered using digital technology to make the state government directly responsive to the needs of its citizens. While no laws or regulations have changed, citizen can now deal with the state government quickly and efficiently. The old system of land titling, for instance, took up to 15 days and allowed for selective assessment by bureaucrats. The e-governance system takes an hour.⁴³

Similarly, Andhra Pradesh’s e-Seva program reduces time spent waiting in line to deal with a bureaucrat, and thereby reduces the incentives to bribe in order to skip ahead. By allowing

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electricity bills to be paid online, either via the Internet or at e-kiosks provided by the government, the city of Hyderabad alone can reduce wasted time and foregone wages to the value of \$45 million annually.⁴⁴ New technology allows for the reduction or even elimination of the transaction cost of corruption. Citizen reactions to the system include the following:

- “There is absolutely NO corruption in e-Seva;”
- “We are not harassed any more at the hands of government employees;”
- “I can get back to work to earn my hourly wages.”⁴⁵

Charter Cities. In some cases, laws and bureaucracies are so entrenched that the best thing a government can do is to designate an area to start again from scratch. This is the phenomenon of charter cities, which are being planned in several developing nations, either by the governments themselves or in cooperation with a variety of partners.

The basic concept behind a charter city is to provide the certainty of rule of law that becomes a magnet for investment. In Honduras, for example, the constitution now allows for charter cities with “functional and administrative autonomy that includes the functions, powers, and duties” of other cities.⁴⁶ However, this does not mean that the cities are either lawless urban jungles or tyrannous corporate

towns. One form of charter city, the “enterprise city,” defines its system carefully:

Enterprise Cities are established by governments willing to give authority over a zone to a public-private partnership of government officials and developers. These partners create a new regulatory system that delivers a pro-competitive business environment founded on open trade, merit-based competition and property rights protection.⁴⁷

The city’s charter acts as a guiding document that might be thought of as the city’s fundamental constitution. Many charter cities plan to adopt Anglo-American common law systems rather than the civil law systems they have inherited from other European countries.

At present, there is significant local opposition to charter cities. One resident near a proposed Honduran site exclaimed at a town hall meeting, “We’re only fishermen and farmers. We won’t stand for the invasion of these model cities created for the benefit of the rich!”⁴⁸ A change of government in Georgia canceled the proposed Black Sea coast charter city of Lazika.⁴⁹ It will take many years for a modern charter city to become established, but it is worth noting that there are two cities in the developing world that were essentially founded

under the same principles and have done so well they now lead the developed world in economic output: Hong Kong and Singapore.

3. Ensure Access to Affordable Energy

Affordable energy is fundamental to what economist Deirdre McCloskey calls the “Great Fact” of the explosion of human welfare.⁵⁰ It remains central to the reduction of absolute poverty. The U.N. seems to recognize this with its Goal 7: “Ensure access to affordable, reliable, sustainable and modern energy for all.” Yet all is not rosy. The sub-goals indicate that affordability of energy is just one factor the U.N. considers. Most of the others relate to using alternative forms of energy than the most affordable, which derive from fossil fuels.

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency, and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

These subgoals will likely increase energy costs and reduce reliability, all in the name of sustainability. This is perverse and regressive. In the developed world, energy takes up a much larger share of poor households’ budgets. For instance, a household with an annual income between \$10,000 and \$25,000 spends well over 10 percent of its budget on energy, according to the Bureau of Labor Statistics.⁵¹ And a January 2014 study for the American Coalition for Clean Coal Electricity found that “households earning \$50,000 or less spend more on energy than on food, spend twice as much on energy as on health care, and spend more than twice as much on energy as on clothing.”⁵²

Increasing the cost of energy also harms people’s health. That’s because energy use is so fundamental to modern life that it can take precedence over other household expenses—including health care. The National Energy Assistance Directors’ Association found that an increase in energy costs

In the developed world, energy takes up a much larger share of poor households’ budgets.

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led 30 percent of poor households in the United States to reduce purchases of food, 40 percent to go without medical care, and 33 percent to not fill a prescription.⁵³

Despite this, Western governments are pursuing policies to increase energy prices. President Obama said during his first election campaign that electricity rates from coal would “necessarily skyrocket” under his policies; this may finally come to pass under his EPA’s proposed Clean Power Plan. In Western Europe, energy costs have increased due to a combination of renewable energy subsidies and mandates, bans or moratoria on hydraulic fracturing (“fracking”), hostility to nuclear energy, and Russia’s control of natural gas supplies for much of the continent’s eastern half.

Despite the president’s policies, U.S. energy markets have shown that innovation beats regulation every time.⁵⁴ Even though huge swaths of American energy resources are locked up under untouchable federal lands, energy production has boomed over the past decade, thanks to the development of horizontal drilling and improved hydraulic fracturing techniques on private and state lands. These technological advances have led to lower electricity prices from natural gas. And subsurface property rights have benefited both urban and rural

households through royalty payments for energy production on their land.

Moreover, as gas became more affordable, it led to a *reduction* in greenhouse gas emissions. Thanks to energy innovation, America met the emissions targets set for it in the Kyoto Protocol, without any need for burdensome laws and regulation—or for the Kyoto Protocol itself.⁵⁵ Whatever one may think of the need for carbon emissions reduction, energy innovation is achieving that goal.

Reducing artificially high fuel costs is the first step in tackling energy poverty. In America, the market is alleviating the burden of energy costs on poor households, even as the government goes the wrong way. That shows us the way forward for tackling the much greater problem in the developing world.

The first goal should be to allow the development of new technologies without governments picking favorites. For instance, many developing countries are considering bans on hydraulic fracturing, despite the lack of credible evidence that the technology is harmful.⁵⁶ North African countries and South Africa sit atop sizable shale gas deposits, as do China, India, Pakistan, and several other developing nations.⁵⁷ Freeing up the energy market to allow development of these resources could

go a long way toward assuring access to affordable energy.

Moreover, the American experience with new gas technology shows the importance of property rights.

Landowners are able to share in the revenues from gas extracted beneath their property thanks to American property owners enjoying subsurface rights to resource development on their land. Recreation of these rights in the developing world would ensure that the wealth is shared by small and large landowners alike.

Overregulation is holding back small module nuclear reactors and other nuclear technologies. As British parliamentarian and science writer Matt Ridley summarizes,

Better kinds of nuclear power will include small, disposable, limited-life nuclear batteries for powering individual towns for limited periods, and fast-breeder, pebble-bed, inherent-safe atomic reactors capable of extracting 99 percent of uranium's energy, instead of 1 percent at present, and generating even smaller quantities of short-lived waste while doing so.⁵⁸

South African engineers had been leading the way on developing pebble-bed reactors, until the project was pulled in 2010 because of government meddling in the project's design.⁵⁹

Top-down environmental laws and

regulations aimed at promoting sustainability make it virtually impossible to get permits to build nuclear reactors anywhere in the world, because of safety concerns about decades-old technologies. Again, governments should step back from preventing the development of this market. One policy to consider is to allow the development of new forms of insurance that could provide some certainty for potential investors in the nuclear market who are currently scared off by the high liability risk.

Distributed renewable energy also has a part to play. In much of the developing world, solar energy is much more economical than in the developed world, given the lack of developed energy distribution infrastructure. As such, local solar projects make sense, but they do not work at night and the energy they generate is still expensive and low in power. The sort of battery storage needed to maintain reliability of supply without the need for backup generation is not currently widely available, and certainly not at prices every developing world village can afford. Moreover, developed countries such as Germany and Spain have found their renewable energy subsidies economically unsustainable.⁶⁰ They would be prohibitive for poorer countries. Therefore, claims that the developing world can use distributed energy to "leapfrog" the developed world are overblown.⁶¹

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When capital is sufficiently available, would-be entrepreneurs at the bottom of the pyramid have demonstrated a willingness to launch new ventures and invest in the future.

Renewable energy projects come with their own environmental costs, such as habitat destruction for large solar plants and wild bird kills for wind farms. The ecomodernists note: “The scale of land use and other environmental impacts necessary to power the world on biofuels or many other renewables are such that we doubt they provide a sound pathway to a zero-carbon, low-footprint future.”⁶²

As the Breakthrough Institute summarizes, while studies that find that “wind and solar are getting better and cheaper means that these technologies will grow at the periphery of established energy systems in many regions, it does not mean that they will replace centralized grids in developing countries that currently lack basic energy infrastructure.”⁶³ A report by the Center for Global Development found that an investment of just \$10 billion in natural gas could provide energy for 60 million more Africans than the same investment in renewable energy.⁶⁴

Proponents of sustainable development often argue that there is no disconnect between energy policies aimed at reducing carbon emissions and poverty alleviation. The developing world itself has rejected that argument. As Indian parliamentarian and minister Prakash Javadekar told *The New York Times* in 2014, emissions cuts are “for more developed countries. The moral principle of historic responsibility cannot be washed away... India’s first

task is eradication of poverty ...

Twenty percent of our population doesn’t have access to electricity, and that’s our top priority. We will grow faster, and our emissions will rise.”⁶⁵ That is as it should be.

4. Ensure Access to Capital and Credit

In his groundbreaking 1999 work, *Development as Freedom*, Nobel laureate Amartya Sen pointed out that one of the most important aspects of development is freedom of opportunity, a vital part of which is access to capital and credit.⁶⁶ However, capital and credit appear nowhere in the draft U.N. goals.

When capital is sufficiently available, would-be entrepreneurs at the bottom of the pyramid have demonstrated a willingness to launch new ventures and invest in the future—that is, to embrace free-market capitalism to the benefit of all concerned.

The developed world has a long history of market experimentation in enabling credit and access to capital. The modern financial system may actually be the first example of the sharing economy to have evolved, long before smart-phone apps. Rather than sharing capital assets such as cars or spare bedrooms, people shared their liquid capital—they lent money to each other that they did not need to use right away.

Historically, access to capital had been limited to those who already possessed it in the form of assets or savings.

With the dawn of the modern financial system, the invention of credit meant that those who had capital could share it with those who did not. Loans allowed both to benefit. The classic Jimmy Stewart savings-and-loan model was based on the idea that people pooling their savings and lending out to others to buy houses would increase the capital base, making everyone involved wealthier. A bank manager could even look at a business plan drawn up by someone with no collateral and choose to make a loan based on the plan's attractiveness.

As the financial system evolved, other forms of access to capital developed. The development of information technology—even in its earliest forms—enabled lenders to learn of the potential risk posed by their creditors. Credit scores enabled unsecured personal loans via credit cards, while other information provided some predictability as to which borrowers with no credit history had characteristics in common with those who repay. Interchange fees even facilitated the provision of high-risk credit cards. Notably, Sergey Brin founded Google by maxing out his credit cards.⁶⁷

Lending entails risk to the original providers of capital, and access to capital does not guarantee success.

But all else being equal, the greater the accessible capital base, the wealthier those who have access to it will become.

As noted, one of the most effective ways to ensure access to capital is to tap into capital already possessed through land titling. Similarly, the rule of law will allow small businessmen to continue to enjoy profits and the collateral they provide without the threat of expropriation.

Other means of extending access to capital have developed in recent decades. Microsavings, the saving of very small amounts of money on a regular basis, has been made possible by technologies that lower transaction costs. Banks and other credit institutions have been able to pool even these small deposits, whereas previously transaction costs would have made them uneconomical. In turn, this helps to break the cycle of dependency on government handouts in many poor villages. Once this is established, villagers are then able to arrange loans among themselves.⁶⁸

Microsavings, in turn, made microfinance possible. Today, microfinance institutions all over the developing world provide small loans, access to savings, and microinsurance to families or small businesses.

By giving them access to investment capital and affordable financial institutions, microfinance providers

The invention of credit meant that those who had capital could share it with those who did not.

Access to capital and credit enable new markets to spring up where none existed before.

help small- and medium-sized enterprises in developing countries to grow. Often, these businesses are so small that they can neither afford the interest rates on bank loans nor come up with the capital they need on their own. When implemented correctly, microfinance loans empower their customers to invest, grow, and produce, all of which contribute to diminishing poverty within communities.

One of the most prominent examples of microfinance is Muhammad Yunus's Grameen Bank, first established in Bangladesh. According to a RAND Corporation study, areas where Grameen Bank offers programs saw unemployment rates drop from 31 percent to 11 percent in their first year. Occupational mobility improved, with many people moving up from low-wage positions to more entrepreneurial ones. There is evidence of increased wage rates for local farmers. Women's participation in income-generating activities also rose significantly.⁶⁹

Access to capital and credit also enable new markets to spring up where none existed before. Entrepreneurial activity is unleashed. Consider one of C.K. Prahalad's case study of Nirma, a small Indian firm that sold detergent products in small packages at low prices suitable for Indian villagers' daily cash flow, and designed for rural village uses, such as in rivers. The

company soon found itself with a market share equal to that of consumer goods giant Unilever's Indian subsidiary. That forced Unilever to react to Nirma's challenge with similar products, thereby growing this new market. Note that in the process, more environmentally friendly products were invented and sold.⁷⁰

As Prahalad pointed out, over 4 billion people lived on an annual income (in 2002 dollars) of \$1,500 or less, with a billion living on less than a dollar a day. Nevertheless, based on Purchasing Power Parity, this market represents an economy of \$13 trillion or more, not that far off the entire developed world. That figure has only grown since the time Prahalad wrote.

Combine that with all the capital locked up by regulation and we can see that there is a huge economy just awaiting the freedom to develop.

5. Allow Markets in Education

The U.N. goals place a great deal of emphasis on education, as well they should, but immediately throw a monkey wrench into the most effective way to expand education: "By 2030, ensure that all girls and boys complete *free*, equitable and quality primary and secondary education leading to relevant and effective learning outcomes."

[Emphasis added]

The U.N.'s insistence on tuition-free education ignores significant recent research that indicates that inexpensive, high quality, market-based education is becoming more and more available to the world's poor, and that its performance beats government-provided "free" education almost everywhere.

In his book *The Beautiful Tree*, Newcastle University professor James Tooley documents how he discovered low-cost schooling in the slums of Hyderabad in India. His subsequent research in India, Ghana, Nigeria, Kenya, and China revealed that the majority of children in the poorest areas of India and several African countries actually attend low-cost private schools. The poorest of the poor are generally given scholarships. Moreover, His research reveals that education has become available to the poorest children on the planet in spite of, not because of, government intervention.⁷¹

Tooley's research comes to six main conclusions:

Private schools are better quality than government schools. Tooley's tests of over 24,000 children revealed that after controlling for confounding variables, the children at these low-cost private schools significantly outperform those at government schools. A review of other literature concluded, "private

schools are of higher quality, in terms of educational outcomes and teacher commitment, than government schools. It does not mean to say that they already satisfy international standards, or that improvements do not need to be made."⁷²

Private schools meet the demands of equity. This low-cost private education is proving liberating for girls. Tooley's review of all the available evidence finds that despite the common objection that low-cost private schools have not delivered absolute gender parity between girls and boys, they are clearly improving education for girls.⁷³ Given the numerous cultural barriers to the education of girls in many developing countries—not to mention the general lack of support for girls after they begin menstruating—attaining full gender parity still has a long way to go, but it is important to recognize that private education is providing more support for girls than government education does, and there is reason to believe the situation will improve further.

Private schools are more cost-effective than government schools and are financially sustainable.

Low-cost private schools deliver higher quality education at lower cost than government schools. They are more cost-effective by definition. The length of time they remain open provides a very clear proxy for sustainability.

The market is providing what the government has failed to provide.

Tooley and his colleague David Longfield add: “Even stronger circumstantial evidence comes from the vast number of private schools: so many educational entrepreneurs would not be entering these markets if they did not believe the schools to be financially sustainable.”⁷⁴

Private schools are affordable to the poor, sometimes nearly as affordable as government schools.

Private schools are by definition more expensive than “free” government schools, but public schools themselves come with costs, such as, for example, the cost of a school uniform. Tooley and Longfield’s review of the evidence comes to a strong conclusion about affordability: “Some private schools are affordable to significant minorities of the poorest and most disadvantaged groups in society: findings show anything from 20 per cent to nearly 40 per cent of these groups accessing private schools. Studies that find private schools unaffordable by the very poorest sometimes suggest that public schools are also unaffordable.”⁷⁵

Private schools are the preferred option for poor parents. Data from Sussex University researcher Joanna Härmä back up this conclusion. Her surveys found that the “vast majority of parents indicating a preference for private schools over poor quality government alternatives,” a “near universal preference for private

schools,” and “94.4 percent of sample parents’ preferring private over government school.” In addition, “the majority of families (84 percent) view government schools negatively and LFPs positively (77 percent).”⁷⁶

Private schools are accountable.

Tooley and Longfield’s review of the evidence found that competitive discipline ensured accountability to the wants needs of the parents and their children: “By paying fees, parents keep private schools accountable to them. They have the right to ‘exit’ from private schools; whether or not they use this, private schools are aware that they might so are responsive to the needs of poor parents and children.”⁷⁷

The market is providing what the government has failed to provide, because the government is not subject to the market disciplines outlined in the previous sections. One example is government teacher absenteeism, which is the educational equivalent of the bureaucrat’s corruption. Tooley relates the tale of private and government schools in Nigeria:

We made a film for the BBC in Lagos, Nigeria. We had been filming in the private schools in the slums, and there was pretty energetic teaching going on. I'm not saying it was perfect, there's a lot that could be improved, but there's good stuff going on in these schools. And then we got

permission to go to the government school, on the outskirts of the slum. The very first classroom and went into, the teacher was fast asleep at his desk. And the children were teaching themselves.⁷⁸

Combined with the other recommendations in this study, allowing markets in education will provide another step in the virtuous cycle that will lead to a much more resilient world. For instance, access to reliable electricity at night will enable boys and girls to do their homework after sundown.

Conclusion

A resilient world is one where humans are allowed to flourish. Markets are more likely to foster the conditions favorable to human flourishing than the prognostications of planners. Property rights are fundamental to the creation of markets. The rule of law protects people from the depredations of what Matt Ridley calls “chiefs, priests, and thieves.”⁷⁹ In fact, *Laudato Si’* quotes Paraguayan bishops on the importance of secure property

rights:⁸⁰ “Every *campesino* [peasant farmer] has a natural right to possess a reasonable allotment of land where he can establish his home, work for subsistence of his family and a secure life. This right must be guaranteed so that its exercise is not illusory but real.”⁸¹

Access to energy and capital allows for innovation and wealth creation. Finally, markets in education provide increased intellectual capital. Put together, this is a recipe for a resilient world that will be better able to respond to risks and uncertainties, and in particular to environmental risk, than any agenda for “sustainability.”

In ancient Rome, the statesman Cicero said, “*Salus populi suprema lex esto.*” This is often translated as “the safety of the people must be the highest law,” but *salus* more fundamentally means “health.” Cicero, a student of Plato and Aristotle, understood that human health and flourishing were worthy goals for society to pursue. An agenda that empowers people rather than bureaucrats, building a resilient and in that sense truly healthy society, is the best way to achieve them.

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NOTES

- 1 United Nations, Millennium Declaration, adopted at the Eighth Plenary Session of the General Assembly, September 8, 2000, <http://www.un.org/millennium/declaration/ares552e.htm>.
- 2 Ibid.
- 3 Ibid.
- 4 United Nations, “Transforming our world: the 2030 Agenda for Sustainable Development,” August 2015, <https://sustainabledevelopment.un.org/post2015/transformingourworld>.
- 5 Ibid.
- 6 Encyclical Letter *Laudato Si’* of the Holy Father Francis on Care for Our Common Home, May 24 2015, http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.
- 7 Linus Blomqvist, Ted Nordhaus, and Michael Shellenberger, *Nature Unbound: Decoupling for Conservation*, Breakthrough Institute, September 2015, http://thebreakthrough.org/images/pdfs/Nature_Unbound.pdf.
- 8 World Commission on Environment and Development, *Our Common Future* (the Brundtland Commission report), (Oxford, UK: Oxford University Press, 1987). Cited at World Bank Web page “What is Sustainable Development?” <http://www.worldbank.org/depweb/english/sd.html>.
- 9 For more discussion of the precautionary principle, see Gregory Conko, “Safety, risk and the precautionary principle: rethinking precautionary approaches to the regulation of transgenic plants,” *Transgenic Research*, Vol. 12, No. 6, December 2003, pp. 639-647.
- 10 *The Ecomodernist Manifesto*, April 2015, p.7
- 11 For a critique of the idea that happiness is itself a goal, see Iain Murray and Blake Taylor, “What is the Happiness Lobby,” *OnPoint* No. 183, Competitive Enterprise Institute, August 29, 2013, <https://cei.org/onpoint/what-happiness-lobby>.
- 12 Douglas Rasmussen and Douglas Den Uyl, *Norms of Liberty* (State College, Penn. “Penn State Press, 2005), p.148.
- 13 Jonathan Adler, “Greenhouse Policy without Regrets: A Free Market Approach to the Uncertain Risks of Climate Change,” Competitive Enterprise Institute, July 2000. <https://cei.org/studies-issue-analysis/greenhouse-policy-without-regrets-free-market-approach-uncertain-risks-climat>.
- 14 United Nations, op. cit., paragraph 59, goal 1.5
- 15 Ibid, goal 1.2.
- 16 *The Ecomodernist Manifesto*, p.15
- 17 There has been much written about the fundamental nature of property rights. See Douglas Rasmussen and Douglas Den Uyl, chapter 5, “The Natural Right to Private Property” in *Norms of Liberty*; Richard Pipes, *Property and Freedom*, passim, Alfred A. Knopf, 1999.; Julian Morris (ed.), *Sustainable Development: Promoting Progress or Perpetuating Poverty?* Profile Books, 2002.
- 18 Terry Miller and Anthony B. Kim, 2015 *Index of Economic Freedom*, Heritage Books 2015, p. 25, Chart 6, <http://www.heritage.org/index/download>.
- 19 Miller and Kim, op. cit., p. 238 and p. 392, respectively.
- 20 Ato Kwamena Onoma, “The Politics of Property Rights Institutions in Africa” (Cambridge, UK: Cambridge University Press, August 2015), for an examination of the differences in the evolution of property rights after British rule between Botswana, Ghana, Kenya, and Zimbabwe.
- 21 Cato Institute/Fraser Institute, *Economic Freedom of the World* 2014, p.5.
- 22 World Bank, *World Development Report 2006: Equity and Development*, World Bank Group 2006, <http://siteresources.worldbank.org/INTWDR2006/Resources/477383-1127230817535/082136412X.pdf>.
- 23 Iain Murray, “Egypt’s Missing Precondition,” *American Spectator*, July 12 1013. <http://spectator.org/articles/55246/egypts-missing-precondition>
- 24 Marc Fisher, “In Tunisia, act of one fruit vendor sparks wave of revolution through Arab world,” *Washington Post*, March 26, 2011, https://www.washingtonpost.com/world/in-tunisia-act-of-one-fruit-vendor-sparks-wave-of-revolution-through-arab-world/2011/03/16/AFjfsueB_story.html.
- 25 Hernando de Soto, *The Other Path: The Invisible Revolution in the Third World* (New York: HarperCollins, 1989). *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (New York: Basic Books, 2000). Summary from Fragile States: <http://www.fragilestates.org/about/articles-and-publications/topics/causes-and-characteristics/the-other-path-the-invisible-revolution-in-the-third-world/>.
- 26 De Soto, “Hernando de Soto dissects Thomas Piketty’s apocalyptic political thesis,” *Miami Herald*, August 1, 2015, <http://www.miamiherald.com/opinion/issues-ideas/article29774506.html>.
- 27 Ken Schoolland, “India Property Rights Project: Empowering Hundreds of Thousands of Farmers,” International Society for Individual Liberty, February 9 2014. <http://isil.org/india-property-rights-project-empowering-hundreds-of-thousands-of-farmers/>.
- 28 Ibid.

- 29 Garrett Hardin, "The Tragedy of the Commons," *Science*, Vol. 162, No. 3859 (December 1968), pp. 1243-1248. However, H. Scott Gordon of Carleton College, in Ottawa, observed the phenomenon in fishing in the 1950s. Gordon, H. Scott, "The Economic Theory of a Common Property Resource: The Fishery," *Journal of Political Economy*, Vol. 62, No. 2, April 1954, pp. 124-142, <http://www.econ.ucsb.edu/~tedb/Courses/Ec100C/Readings/ScottGordonFisheries.pdf>.
- 30 Charles N. Steele, "The Soviet experiment: lessons for development," in Julian Morris (ed.) *Sustainable Development: Promoting progress or perpetuating poverty?* (London: Profile Books 2002), p. 93.
- 31 For more detail, see Iain Murray and Roger Abbott, "Give a Man a Fish," *OnPoint* No. 178, Competitive Enterprise Institute, May 17 2012, <https://cei.org/onpoint/give-man-fish>.
- 32 Christopher Costello, Steven D. Gaines., and John Lynham, J., "Can Catch Share Prevent Fisheries Collapse?" *Science*, Vol. 321, No. 5896, September 19, 2008, pp. 1678-1681, <http://www.sciencemag.org/content/321/5896/1678.abstract>.
- 33 Iain Murray and Roger Abbott, "Nobel Lessons," *Washington Examiner*, October 22, 2009, <http://www.washingtonexaminer.com/nobel-lessons/article/9415>.
- 34 Michael J. Casey, "BitBeat: Plans for Bitcoin from Necker Island," *Wall Street Journal*, June 2, 2015, <http://blogs.wsj.com/moneybeat/2015/06/02/bitbeat-grand-plans-for-bitcoin-from-necker-island/>.
- 35 "The Blockchain Summit on Branson's Island and its relevance for mining and petroleum conflicts worldwide," Institute for Liberty and Democracy website, undated (summit was held in May 2015), <http://www.ild.org.pe/our-work/ild-projects/blockchain-ild>.
- 36 James Harrington, "The Commonwealth of Oceana," Chapter II, 1656 in *The Oceana and Other Works of James Harrington, with an Account of His Life by John Toland* (London: Becket and Cadell, 1771), <http://oll.libertyfund.org/titles/916>.
- 37 Julian Morris, "What is Sustainable Development?" *The Insider* No. 298, Heritage Foundation, August 2002, <http://www.insideronline.org/archives/2002/aug02/feature.pdf>.
- 38 C.K. Prahalad, *The Fortune at the Bottom of the Pyramid*, Wharton School Publishing 2005, p.69.
- 39 Prahalad, pp. 70-72.
- 40 Swaminathan S. Anklesaria Aiyar, "Capitalism's Assault on the Indian Caste System: How Economic Liberalization Spawned Low-caste Dalit Millionaires," *Policy Analysis* No. 776, Cato Institute, July 2015, <http://www.cato.org/publications/policy-analysis/capitalisms-assault-on-the-indian-caste-system>.
- 41 This is hardly a new observation. "Corruptissima re publica plurimae leges," Tacitus, *Annals* III.27.
- 42 World Bank, "The Costs of Corruption," April 2004. <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20190187~menuPK:34457~pagePK:34370~piPK:34424~theSitePK:4607,00.html>.
- 43 Prahalad, p. 86.
- 44 Ibid, p. 89
- 45 Ibid, p. 88.
- 46 Maya Kroth, "Under New Management," *Foreign Policy*, September 2014, <http://foreignpolicy.com/2014/09/01/under-new-management/>.
- 47 Enterprise Cities website, accessed August 18 2015, <http://www.enterprisecities.com/#what>.
- 48 Kroth.
- 49 Clément Girardot, "The Rise and Fall of Lazika," *The Tuqay*, March 25 2013. <http://thetuqay.com/index.php/2013/03/25/the-rise-and-fall-of-lazika/>.
- 50 Max Borders, "Max U., the Virtues and Imprudent Communitarians," *The Freeman*, April 3, 2013, <http://fee.org/freeman/deirdre-mccloskey-max-u-the-virtues-and-imprudent-communitarians>.
- 51 Bureau of Labor Statistics, Consumer Expenditure Survey, Residential Energy Consumption Survey. <http://www.bls.gov/cex/cecomparison.htm#RECS>.
- 52 Management Information Services Inc., "The Social Costs of Carbon? No, the Social Benefits of Carbon," American Coalition for Clean Coal Electricity, January 2014. <http://www.americaspower.org/sites/default/files/Social-Benefits-of-Carbon.pdf>
- 53 National Energy Assistance Directors' Association, "2008 National Energy Assistance Survey," April 2009, Chapter IV. <http://neada.org/wp-content/uploads/2013/05/NEADA-2008-Survey-Report.pdf>
- 54 Jeffrey A. Tucker, "All Hail the Tumbling Price of Gas," *The Freeman*, January 13 2013. <https://fee.org/freeman/all-hail-the-tumbling-price-of-gas>
- 55 Antony Watts, "USA meets Kyoto protocol goal – without ever embracing it," *Watts Up With That*, April 5 2013., <http://wattsupwiththat.com/2013/04/05/usa-meets-kyoto-protocol-without-ever-embracing-it/>.
- 56 Seamus McGraw, "Is Fracking Safe? The 10 Most Controversial Claims About Natural Gas Drilling," *Popular Mechanics*, January 2015 <http://www.popularmechanics.com/science/energy/g161/top-10-myths-about-natural-gas-drilling-6386593/>.
- 57 U.S. Energy Information Administration, "Technically Recoverable Shale Oil and Shale Gas Resources: An Assessment of 137 Shale Formations in 41 Countries Outside the United States," June 10 2013, <http://www.eia.gov/analysis/studies/worldshalegas/>.

- 58 Matt Ridley, *The Rational Optimist* (New York: HarperCollins, 2010), p. 345.
- 59 Linda Nording, “Pebble Bed Nuclear Reactor gets Pulled,” *Nature*, No. 463, February 23, 2010, pp. 1008-1009, <http://www.nature.com/news/2010/100223/full/4631008b.html>.
- 60 Iain Murray, “American should learn from Europe on wind power,” *USA Today*, June 13, 2013, <http://www.usatoday.com/story/opinion/2013/06/13/america-wind-power-column/2397447/>.
- 61 This is to say nothing of the environmental costs that renewable energy imposes. Solar power plants take up large areas of wildlife habitat. Wind turbines kill birds and bats. Both require rare earth minerals.
- 62 *The Ecomodernist Manifesto*, p. 23
- 63 Alex Trembath and Max Luke, “Solar Panels are Not Cell Phones,” *The Breakthrough*, June 16, 2014, <http://thebreakthrough.org/index.php/programs/energy-and-climate/solar-panels-are-not-cell-phones>.
- 64 Todd Moss and Benjamin Leo, “Maximizing Access to Energy: Estimates of Access and Generation for the Overseas Private Investment Corporation’s Portfolio,” Center for Global Development, January 2014, <http://www.cgdev.org/publication/maximizing-access-energy-estimates-access-and-generation-overseas-private-investment>
- 65 Coral Davenport, “Emissions from India Will Increase, Official Says,” *New York Times*, September 24, 2014, <http://www.nytimes.com/2014/09/25/world/asia/25climate.html>.
- 66 Amartya Sen, *Development as Freedom* (New York: Anchor Books, 1999), p. 39 and Chapter 8.
- 67 Vincent Ryan Ruggiero, “Becoming a Critical Thinker,” Cengage Learning, Inc. 2014, <https://books.google.com/books?id=vdYbCgAAQBAJ&pg=PA54&lpg=PA54&dq=sergey+brin+google+credit+cards&source=bl&ots=MXAzEUwoVg&sig=5QoAMrRacm8gFgY6e23qJ9j9D-8&hl=en&sa=X&ved=0CDMQ6AEwBWoVChMIvdb3wLHuxwIVh9imCh2hSwIt#v=onepage&q=sergey%20brin%20google%20credit%20cards&f=false>.
- 68 Prahalad, pp. 72-73.
- 69 Rahman, Mizanur and Julie DaVanzo, *Assessing the Impact of the Grameen Bank on Women’s Status and Fertility in Bangladesh*, Santa Monica, CA: RAND Corporation, 1993. <http://www.rand.org/pubs/drafts/DRU485>.
- 70 Prahalad, pp. 52-5
- 71 James Tooley, *The Beautiful Tree: A Personal Journey Into How the World’s Poorest People Are Educating Themselves*, (Washington: Cato Institute, 2009).
- 72 James Tooley and David Longfield, “The Role and Impact of Private Schools in Developing Countries: A Response to the DFID-Commissioned ‘Rigorous Literature Review’,” Pearson, March 2015, https://research.pearson.com/content/plc/prkc/uk/open-ideas/en/articles/role-and-impact-of-private-schools/_jcr_content/par/articledownloadcompo/file.res/150330_Tooley_Longfield.pdf.
- 73 Ibid.
- 74 Ibid.
- 75 Ibid.
- 76 Joanna Härmä, “Lagos Private School Census 2010–11 Report: Report Number LG 501,” Education Sector Support Programme in Nigeria (ESSPIN), June 2011.
- 77 Tooley and Longfield.
- 78 Eric Schulzke, “The poorest of the poor in many Third World countries send their kids to private schools, British researcher claims,” *Deseret News*, October 20, 2014, <http://national.deseretnews.com/article/2569/The-poorest-of-the-poor-in-many-Third-World-countries-send-their-kids-to-private-schools-British.html#9ORJS53pT8M2mI0I.99>.
- 79 Ridley, p. 358.
- 80 With some qualifications based on the concept of the “universal destination” of property under “God’s plan” for the world.
- 81 Pope Francis, op. cit., paragraph 93.

About the Author

Iain Murray is the Competitive Enterprise Institute's Vice President of Strategy. For the past decade with the Institute, he has concentrated on financial regulation, employment and immigration regulation, and free market environmentalism.

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