

# Chapter 1

## The Rewealth of Nations

*The first fundamental economic revolution since 1776: Adam Smith cured the major economic problem of his day but ignored a fatal flaw, creating many of the economic, environmental, and social problems of our day.*

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For some 5,000 years, our wealth has been based—directly or indirectly—on development, defilement, and depletion. Every gallon of ocean water is now polluted to some degree, all humans have some Chernobyl in their bodies, and all ecosystems in the planet are in decline or collapse. This sets the stage for the twenty-first century, the Century of Revitalization. The Age of Rewealth is already well underway to the tune of some \$2 trillion worth of annual activity worldwide.

Most attempts to come up with a one-size-fits-all solution to the world's plethora of crises and injustices have all had the same fundamental flaw: they tried to improve an economy based on *development*, *depletion*, and *degradation*; *dewealth* activities that together comprise what we're calling a *deconomy*. This was just a matter of default, of accepting the 5,000-year-old mode of wealth-creation that was already in place. After all, how else do you create a civilization than by constructing new buildings and infrastructure, and by extracting food, water, oil, metals, from raw land and pristine seas?

But hanging on to civilization's birth mode too long is now undoing both our present and our future. It's obvious to any child that a growing population on a planet of finite size cannot remain in that pioneering mode forever. Sooner or later, if we wish to keep growing economically, the basis of wealth must shift to renewing what we've already built, and on repairing the damage we've done to our natural resources. Such wealth-creating activities—*redevelopment*, *replenishment*, and *restoration*—comprise *rewealth*. We're shifting from a *deconomy* to a *reconomy*.

Many of the problems we now take for granted as the “price of progress” simply disappear when our existence—as individuals, companies, and communities—no longer relies on the extraction of virgin resources and the conquering of raw land. Our most fundamental assumptions about our future are altered beyond recognition when our present is based on renewing the capacity of the communities we’ve already developed, and on repairing the damage we did to our natural resources while developing those communities. The de/re shift turns our planet-wide catalog of woes into a vast global inventory of *restorable assets*.

This isn’t just semantics or positive thinking: some \$2 trillion worth of restorative business is conducted annually, worldwide. It’s the fastest-growing major sector of the world economy, tapping an equally fast-growing inventory of restorable assets currently valued at some \$100 trillion (more on that later). For instance: the remediation and redevelopment of contaminated sites (brownfields) didn’t even exist as an industry in 1990. Today, it accounts for some \$7 billion annually in the United States alone, but only a few thousand of the approximately 1,000,000 U.S. brownfield sites have been dealt with. California alone has at least 100,000 brownfields.

Likewise, ecosystem restoration barely existed as an industry 20 years ago: now multibillion-dollar environmental restoration projects are appearing, some in the tens of billions of dollars. A billion here and a billion there, and pretty soon we’re talking real money. Not only is rewealth not a niche or a peripheral curiosity, it already accounts for the majority of economic growth in many—possibly most—older cities.

A note regarding semantics: this book refers to ecosystems, human culture, and other sources of often-sublime beauty by the cold accounting terms “assets” and “resources.” My intention isn’t to infer that they only have value if monetized. Nor is it to infer that all of them are inherently “ours.” The goal is to simply fit everything that contributes to our quality of life within the rewealth paradigm. This systematic approach should make it easier for more people to earn a living restoring those things that bring us health, wealth, and happiness.

### **Three Types of Wealth Creation**

Before we go further, let’s briefly posit three categories of wealth creation:

1. Destructive wealth or dewealth: Wealth derived from depleting the planet’s “savings” . . . that is its store of endowed assets that are either nonreplaceable or very slowly replaceable (not relevant to human timescales).

Dewealth destroys perpetual assets (ecosystem services that produce such things as clean water, clean air, and fish), replacing them with transitory assets (office complexes, shopping malls). This style of wealth builds new civilizations, but will undermine those same civilizations if they remain in birth mode after they should have shifted to renewal mode. This failure to transition from dewealth to rewealth briefly benefits a few people in the present, but impoverishes and poisons the majority both now and for many generations to come.

2. Preservative wealth or “prewealth”: Wealth derived from preserving assets and maintaining systems. This kind of wealth is neutral, neither depleting nor *actively* replenishing the overall health or wealth of the world. Prewealth activities maintain our built environment and conserve our natural environment. Besides conserving natural systems not damaged by dewealth, prewealth preserves assets (infrastructure and buildings) created by dewealth, and maintains built and natural assets already renewed by rewealth.
3. Regenerative wealth or rewealth: Wealth derived from replenishing depleted natural and cultural resources; from remediating contaminated properties; and by restoring, renovating, reusing, or otherwise increasing the capacity and efficiency of an aging built environment. When the renewal of one asset requires the destruction of another (such as removing a dam to restore a river) preference should usually be shown to the longer-lived or irreplaceable asset. For example, a river can provide benefits to humans and wildlife for hundreds of thousands of years. Dams have a useful life measured in decades.

Let’s use farming to illustrate the three types of wealth creation: sustainable agriculture (prewealth) replaces the soil nutrients removed by each crop. An example is the old Aztec beans/squash/corn system still in use on many small farms throughout Mexico. This is as opposed to extractive agriculture (dewealth), such as practiced on the Great Plains of the United States. There, the topsoil depth has decreased from 10 to 20 feet to only an inch or two on most factory farms. Contrast both with restorative agriculture (rewealth), which leaves topsoil thicker and healthier with each passing year.

Rewealth restores value without destroying existing value. The exception to the non-destructive rule is when the continued existence of an asset conflicts with an area’s renewal program, such as a highway that isolates a community from its waterfront.

Within the context of community revitalization, that highway is a liability, even though it might be carried on the accounting books as a multimillion-dollar asset.

Being in a reeconomy doesn't mean that all sprawl or extraction of nonrenewable resources has come to a screeching halt. A reeconomy relies *primarily* on rewealth, not exclusively, just as our current deeconomy already has trillions of dollars of rewealth activities within it. Many cities already base over 80% of their growth on rewealth, so almost all national deeconomies have thriving local reeconomies within them. Our global economy is still primarily dependent on dewealth, but not for long.

The three primary components of a dewealth economy are (1) depleting natural resources, (2) expanding the built environment, and (3) adding value to them via information and labor. The three primary components of a reeconomy are (1) replenishing natural assets (and reusing/recycling the products they create), (2) renewing decrepit or obsolete built assets, and (3) adding value via information and labor.

This is not an economics book, nor is it an environmental or social sciences book. But natural resources—and the value that society adds to them through information and labor—form the basis of all economies. So, let's quickly review the natural history of the global economy.

## How We Got to Where We Are

*At the economy level, capacities can be endowed (e.g., natural resources, land, labor), acquired (e.g., human capital, knowledge, ideas), or built (e.g., institutional design, physical, organizational, or social capital).*

—Jean-François Ruhashyankiko, “Why Do Some Countries Manage to Extract Growth from Foreign Aid?” *International Monetary Fund (IMF) Working Paper*, March 2005 (emphasis ours)

Organized agriculture was invented 5,000 years ago, in the Fertile Crescent, which was formed from sediment deposited by the Euphrates, Nile, Jordan, and Tigris Rivers when they flooded. Agriculture resulted in societies becoming sedentary. This in turn required permanent buildings, infrastructure, food storage, heating and processing technologies, more efficient trade and transportation, security forces, and everything else we now consider marks of civilization.

When organized agriculture first appeared on the scene, the human population was measured in the millions, and the planet was a vast expanse of mostly virgin resources: immaculate streams and lakes; inexhaustible aquifers; rich, deep topsoil;

unbelievably prolific fisheries; endless expanses of huge old-growth trees; almost no human-made infrastructure; and few historic buildings. What's more, there was almost no persistent, nonorganic, anthropogenic pollution.

Under such conditions, the most natural thing in the world was to form an economy based on converting unused land into farmland; on digging wells and diverting flow from rivers to water those lands; on pulling as many fish as possible from the rivers and seas; on hunting whatever wildlife was left from the nomadic days; on trading with other cultures for spices and other wild-harvested products; on turning mined ore into metal farm implements and weapons; on turning trees and rocks into buildings, roads, and bridges; and so on. Under such conditions of infinite land and resources, combined with a small population, any of us would behave likewise. This was the birth of the deconomy. Now, 5,000 years and 6,000,000,000 people later, we're still at it.

Another view of deconomies sees them based on only two things:

1. Extracting virgin raw materials. This includes mining irreplaceable assets such as ores and petroleum, as well as fishing and farming in ways that decrease global stocks of fish or topsoil, as well as using fresh water in a way that leaves remaining surface water and fossil aquifers lower in quantity and/or quality; and even using our air in a way that decreases its quality.
2. Converting long-lasting land functions into relatively short-lived uses, such as unsustainable agriculture; infrastructure; and commercial, industrial, and residential buildings. Perpetual ecosystem services that produce clean air, clean water, and wildlife are destroyed in this process. Vital natural flows—such as of wildlife migration and fresh water—are disrupted to create highways, farms, recreational lakes, power generation, and drinking water reservoirs.

As deconomies—and their resulting civilizations—mature, a plethora of neutral “prewealth” services arise whose connection to those initial extractive activities is less obvious. These include such things as babysitting, entertainment, and health care. But their dewealth-based provenance isn't hard to trace, with just a few moments thought. Dewealth activities produced most of the food these maintenance service providers consume, most of the energy used to transport them, and most of the materials in the products they use in performing their jobs.

As a result, virtually everything that people in a dewealth-based society do directly or indirectly decreases the long-term health—and intrinsic wealth—of the world, even while it might be increasing their immediate and local health and wealth. If their activity serves the public good, that helps justify its dewealth provenance. If they are doing something that damages the public good, then the project's dewealth basis only intensifies the inappropriateness of their actions.

Whether we are taking a vacation, providing community services, or simply struggling for survival, members of a dewealth-based society are making it harder for future generations to do likewise. The deleterious effects of dewealth economies are subtle—maybe even effectively nonexistent on a global scale—when human populations are low. This is thanks to the regenerative powers of nature, such as nature's ability to break down harmful compounds and sequester harmful elements.

But, thanks to explosive population growth in recent centuries, our deconomy outstripped the planet's natural regenerative capabilities some time ago.

Now, let's move from the general to the specific. Understanding how we got here makes it far easier to determine how to make a formal, policy-based shift into a reeconomy.

### **The Industrial Revolution and the Invention of Capitalism**

The Industrial Revolution enabled the past three centuries of explosive population growth. That larger population, combined with the so-called Green Revolution (dewealth agriculture) of the mid-twentieth century, created most of our current environmental damage.

The Industrial Revolution was initiated by three forces: (1) technology, starting with James Watt's steam engine regulator; (2) public education, specifically the advent of a factory-style school system designed primarily by industrialists (in both the United States and Britain) to churn out large numbers of adults conditioned to follow orders, memorize instructions, ask few questions, and show up on time; and (3) procapitalism legislation—again instigated by industrialists who needed employees—that forced self-sufficient people off the land and into factories.

Contrary to popular perception, capitalism didn't evolve naturally. People didn't just wake up one day and say, "Hey, let's let those who own land and companies tell the rest of us what to do." Those who resisted the eighteenth and nineteenth century's externally imposed, violently enforced shift to a capitalist model were jailed. Many of them ended up in Australia, a now-lovely country founded as the world's largest low-security penitentiary for anticapitalists and other criminals of the day.

*To make sure people accepted wage labor, the classical political economists actively advocated measures to deprive people of their traditional means of support. [They] justified their position in terms of the efficiency of the division of labor. They called for measures that would actively promote the separation of agriculture and industry. . . . [They] were unwilling to trust market forces to determine the social division of labor, [calling] for state interventions . . . to hobble these people's ability to produce for their own needs. . . . Although their standard of living might not have been particularly lavish, the people of precapitalistic Northern Europe enjoyed a lot of free time. . . . [via] the suppression of religious holidays . . . employers could enjoy approximately forty additional working days per year.*

—Michael Perelman, *The Invention of Capitalism*,  
(Duke University Press, May 2000)

The sudden, inhumane, mandated transformation of poor-but-independent multi-skilled country folk into slave-like urban factory workers was immortalized by the likes of Charles Dickens and Sinclair Lewis. More recently, it was skillfully documented by Michael Perelman, cited in the above excerpt. The cruelty and suffering of this shift spawned many utopian visions in the nineteenth century. It eventually led to widespread acceptance of reactionary, impractical ideologies such as that of Engels and Marx.

### **Reconomics: From the Dismal Science to the Dream Economy**

Modern economic theory started with Adam Smith's 1776 book *An Inquiry into the Nature and Causes of the Wealth of Nations* (usually simplified to *The Wealth of Nations*). According to economist D. Gordon, "economics has never had a major revolution" since then. The deconomy/reconomy shift is bringing that period of relative stasis in economic theory to an end.

Again, dewealth is not bad per se, but failing to make the inevitable de/re shift when necessary *is* bad. As Thomas Payne said of Britain's rule of the American colonies, "There was a time when it was proper, and there is a proper time for it to cease." The same can now be said for the dewealth model. Payne also said "a long habit of not thinking a thing wrong, gives it a superficial appearance of being right." 5,000 years of dewealth momentum won't stop on a dime. It's deeply embedded in the most basic assumptions of government, business, academia, NGOs, and citizens.

Adam Smith lived in a world where government and nobles dominated the economy, making it almost impossible for free market efficiencies to manifest. The Church of England and the government of England were effectively one and

the same, and the king had divine rights. These rights were often used in economically disruptive ways. Smith's book fixed that problem very effectively.

*The Wealth of Nations* is based on four core principles. The first principle was that labor is the sole creator of wealth, and that specialized division of labor is more efficient than work done by people responsible for the entire process. In factory situations this is often true, but it's not as universally true as Smith might have imagined.

The second principle was that the overriding driver of human behavior is self-interest. Smith offered no real substantiation for this, other than his personal observations. I won't dispute it, except to point out that there's increasing evidence that cooperation and even self-sacrifice play a larger role in both genetic evolution and socioeconomics than we think.

Smith's third principle was that the natural order of the universe transforms the sum total of these selfish individual strivings into public good. This principle was his central marketing tactic. Only by couching it as a quasi-religious article of faith, or natural law, could he hope to compete for mindshare with the church-state that was smothering the economy. He referred to this third principle as the "Invisible Hand" of the market, and that terminology is still in common use.

The fourth principle derived from the second and third. Assuming that self-interest drives the free market, and that a free market automatically works to the benefit of society, then the best course of action is for government to leave the economic process alone. That way, business can compete and trade in total freedom, and humankind will be the better for it. This last principle came to be known variously as economic liberalism, noninterventionism, or *laissez-faire*.

We're not going to deal with the third and fourth principles in this book. They get into the area of corporate governance, which will be discussed in the sequel to this book. For now, let's focus on his first two principles. We'll start by examining the concept of labor as the sole source of wealth (as opposed to natural resources). We'll then take a look at a distinction Smith never thought to make: how the public good that derives from pursuing self-interest based on dewealth differs from the public good produced by self-interest based on rewealth.

### **Labor Versus Resources: Why Take Either for Granted?**

During Adam Smith's time, both human labor and natural resources were taken for granted, and both were horribly abused as a result. Smith attempted to rectify one of these abuses by asserting that labor was the sole source of value in commodities. This exaggeration was probably necessary to get factory owners (whom he largely