

Ethics, Economics, Finance, and Governance for the Anthropocene

*A Working Paper of the Third Millennium
Economy Project*

Third Draft

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Executive Summary

Third Millennium Economy Report

Ethics, Economics, Finance, and Governance for the Anthropocene

For virtually all of the last 10,000 years, our ancestors lived in a geological age called the Holocene in which climatic conditions were remarkably stable and natural resources were plentiful, renewable and seemingly inexhaustible. But during the last few hundred years, exponential increases in human population growth and in the scope and scale of what eventually became a fossil fuel based global market system resulted in a new geological age known as the age of the Anthropocene. In this geological age, global human activities are in the process of undermining the capacity of the biosphere to sustain our growing numbers and our species has become a geological force that will determine the future of life on Earth.

At the dawn of the new millennium, we face multiple interconnected crises: the deterioration of Earth's life support systems, chronic unemployment even in the developed economies, persistent and crushing poverty, an unstable and overreaching financial system, government institutions ill-equipped to deal with the scope and scale of these challenges, and ongoing rapid population growth in many parts of the world. Yet we lack an accurate intellectual map of where we are and where we should be going. The thought systems that serve as the intellectual foundation for many of the most influential institutions that manage society are in critical need of an update in order for us to effectively respond to these interconnected crises.

We entitled this report *Ethics, Economics, Finance, Governance for the Anthropocene* for two reasons: 1) to indicate that the crises we face cannot be resolved in the absence of fundamental rethinking of our present systems of ethics, economics, finance and governance; and 2) to emphasize that we have entered a new era, "the age of man," in which human activities are massively disrupting Earth's life support systems. The following is a brief summary of the sections in this report:

1) Why We are Lost

We are lost because the assumptions embedded in the stories we are now telling ourselves about how the world works are often incompatible with our most advanced scientific knowledge of the real world. Remarkably we find, this knowledge is in broad alignment with how diverse spiritual traditions characterize the relationship between self and world. However, our systems of ethics, economics, finance and governance are rooted in outdated thinking that no longer serves us well. Scientific knowledge provides a coherent basis for making the changes in our economic, financial and governance systems. But this knowledge must be connected to 1) a clear-eyed understanding of our circumstances; and 2) a new (or perhaps merely forgotten) ethical understanding of human identity.

2) Living Safely and Justly in the Anthropocene

We summarize here much of the evidence that reveals that the human project exceeds the Earth's regenerative capacities and that this has resulted in persistent poverty and increasing inequality. This evidence also reveals that these conditions mitigate against shared well-being, even for

those more well off. We also provide here a set of metrics that mark the planetary limits or boundaries which can guide us toward realizing the goal of living safely, justly and sustainably on planet Earth.

3) Ethics for the Anthropocene

Advances in scientific knowledge have revealed that many of our moral beliefs and the ethical principles in which they are expressed rest on dangerously outmoded and unscientific assumptions. This does not mean that all our existing moral beliefs must be discarded or overturned. But it does require testing, adjusting, and re-envisioning them. Many of our beliefs have legitimated, *and even celebrated*, practices that have led to the current sharp and accelerating decline in life's prospects. These must be replaced by an ethic of life affirmation consistent with our fresh, but still incomplete, understandings of our place on Earth and in the Universe.

From this point of view, our reconstructed economics, finance and governance will rest on at least three rather simple, interconnected, premises: 1) that persons are interdependent members of communities that include humans and other life form that depend on, and co-evolved with, the Earth's biogeochemical processes; 2) persons have a fundamental duty to care for where they are and the communities in which they live; and 3) care for life requires the respectful use of low entropy sources of energy and materials (e.g. the products of photosynthesis: forests, fertile lands, fossil fuels, etc) that make life possible. *We call these, respectively, membership, house-holding, and entropic thrift.* Living in keeping with these three premises may be summarized as living in right relationship with life and the world. This ethical framework informs the reconstruction and reconfiguration of economics, finance, and governance that follows.

4) Economics for the Anthropocene

Neoclassical economics as covered in today's economics textbooks (and practiced by both conservatives and liberals alike as the core economic doctrine driving the political affairs of an increasing number of countries) rests on assumptions from the eighteenth and nineteenth centuries that are incompatible with the findings of contemporary science. Tragically, the unscientific assumptions in neoclassical economic theory and the mathematical formalism used by mainstream economists effectively undermine the prospect of implementing scientifically viable and equitable responses to the multiple crises of our time.

5) Macroeconomics for the Anthropocene

The macroeconomic theory and the associated computer model offered here are not predicated on these assumptions. They are based on systems dynamics and provide political leaders and economic planners in highly industrialized prosperous countries with a coherent basis for making the transition to a low growth or steady state economy using many of the tools and concepts of current theory. This transition is required in order to leave ``ecological space`` where growth is justified for human well-being and to prevent the further decline in the Earth's life support systems. The program makes it possible to plan for and manage this transition in ways that minimize disruptions in the real economy, maintain high levels of employment, and enhance the quality of life and the security and well-being of the general population.

6) Regenerative Capitalism in the Anthropocene

Here we explore what will be required to achieve a paradigm shift from current economic theory to a *Regenerative* economic system. It will demand of us a shift from a mechanistic to an ecological worldview, it will understand *the use and limitations of markets*, and demand a more complex and evolved understanding of wealth than what's assumed in Financial Capitalism. It will be grounded in and aligned with the latest scientific insights into how the universe actually works, coupled with humanity's enduring spiritual insights. Our economy must unlock the potential for regenerative true wealth creation. This begins with radical resource productivity improvements, the restoration of vital ecosystem function and the stabilization of planetary life support systems, and carries on through to the an enlightened purpose and a realization of expanded collaborations never before manifested or even imagined. Regeneration is not a new theory; it is not a political philosophy of the left or right, nor simply a new name for an old idea – “sustainability”. Regeneration defines the evolutionary process itself, and it is our task, now, to bring our economic system into alignment with it. When we do, like turning a canoe downstream after a long struggle against the current, our journey will be lightened.

7) Finance for the Anthropocene

After the near collapse of the global financial system in 2008 many academics and policy makers realized that the claim by market fundamentalists that the market system is self-regulating and self-correcting is bogus. But efforts to regulate this system in ways that could prevent a similar collapse from occurring in the future remain unsatisfactory. They are unrealistically premised on the assumption that the amount of capital circulating in the virtual economy of the global financial system can and must increase indefinitely to provide the liquidity required to fuel the growth and expansion of the real economy of the global market system. The unquestioned presumption here is that the optimization of returns on financial capital is the most efficient way to stimulate economic growth and generate wealth.

This approach falsely assumes that there should be no limits to the aggregate growth of the stock of financial capital and no public criteria for making distinctions between qualitative differences in the kinds of growth financed. The case will be made here that our multiple crises can only be addressed based on a holistic understanding of the connections among: 1) capital in the virtual economy of the global financial system; 2) the growth of the real global economy; and 3) the regenerative capacity of human society and the biosphere to enrich and support life. For this reason, we focus on the primacy of real investment decisions – qualitative and quantitative – as the critical leverage point to drive the transition to a regenerative and therefore sustainable global economy. We assert that we are in a state of “financial overshoot,” which accompanies ecological overshoot. We argue that this reality makes real investment decisions by large state and private actors in the economy a matter of vital public interest, demanding global public oversight and accountability.

8) Governance for the Anthropocene

In addition to the historic dysfunction of government at the national level, particularly in the world's current superpower, the existing system of international governance and its primary institution, the United Nations, is woefully inadequate to address the crises of the Anthropocene. To live safely and justly on a flourishing Earth there must be an accountable global governing system or connected network of systems that clearly recognizes the need to address specific, indivisible global issues. *Global issues* cannot be resolved by the current system whose primary

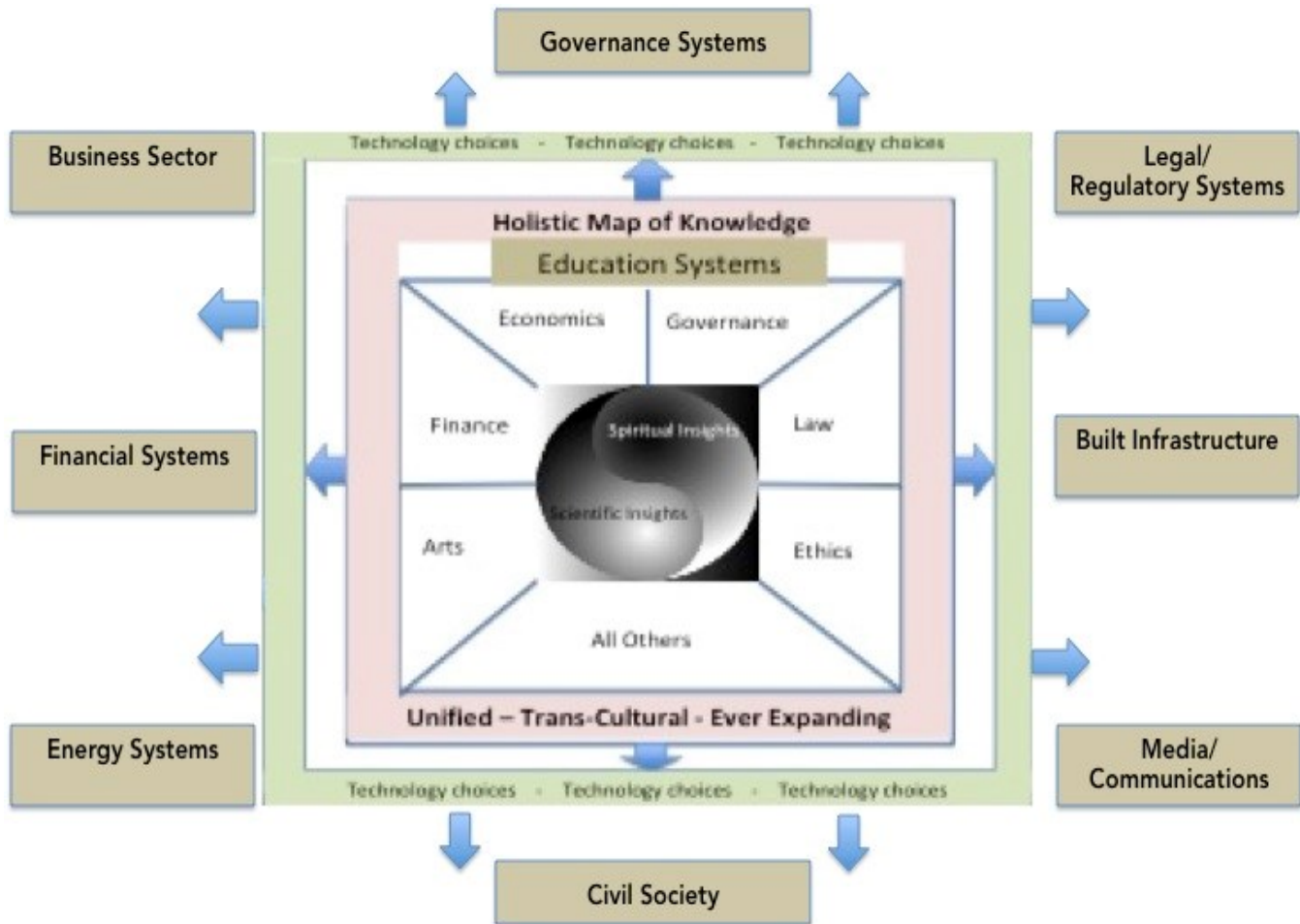
goal is to maximize the allegedly separate vested interests of individual sovereign nation states. The new system could take the form of new global institutions such as a network of regional governing bodies; new directions for existing global institutions such as the G-8 or G-20; and/or bi-lateral or multilateral agreements between major players such as the United States, China, India, and the EU. This new approach to tackling global issues must at the same time respect the principle of subsidiarity—that governing works best closest to individuals and the communities in which they live.

The institutions described in this chapter are offered as examples that together could serve as a functional template for addressing critical and indivisible global issues and problems. These institutions include: 1) a Global Commission with lawmaking and executive powers for adopting and implementing responses to global problems; 2) a Global Reserve that would be responsible for and have the authority to measure and recommend the allocation and distribution of Earth's life support budgets in accordance with the ethical principles set out in this report; 3) a Trusteeship of Life's Commons that would have the legal power and resources required to protect and restore the earth's commons, such as the oceans and the atmosphere; 4) a Global Court that would have the authority required to issue binding rulings that hold corporations, nation-states, and/or their subsidiaries to the rule of ecological law.

Conclusion

In summary, we are calling for a new intellectual map to navigate the unprecedented challenges of the Anthropocene. Such a map must be first and foremost grounded in our latest scientific insights about how the universe actually works, which are remarkably aligned with many of the insights about the relation of self and world in the world's religious traditions. It must also redefine many critical domains of knowledge in alignment with these insights, influence our technology choices, and then guide the principal institutions by which we manage the human project on this planet. This map could, in our view, could enlighten and inform numerous spheres of practical action such as business administration, public policy, urban planning, and the legal system.

The diagram below illustrates the intellectual map that informs all of the commentary in this report:



If there is a single lesson to be learned from modern evolutionary biology, it is that species that survive adapt to changed circumstances. In the age of the Anthropocene, this lesson will be vitally important for our species.