Economics In A World Of Resource Limits – A MAHB Dialogue With Environmental Economist Rob Dietz

"We have oriented ourselves too far toward competition and put too little emphasis on cooperation, both with one another and with nature."

Geoffrey Holland: The biosphere we all depend on is being stressed to the limit by a range of human-caused challenges like excessive carbon emissions and depletion of resources. How has the constant growth model of market economics contributed to these looming threats to life on Earth?

Rob Dietz: Let's start by defining economic growth. It boils down to an increase in the production and consumption of goods and services from year to year for a given geographic area. It is indicated by increasing real GDP or gross domestic product, which is the dollar value of all the goods and services produced in a year. The United States has been aiming for something like a 3% annual increase in real GDP. If that happens, the U.S. economy doubles in size about every 23 years. When you analyze what's behind such an exponential increase in size, you find actual people using, consuming, and discarding actual stuff. There's a throughput of material and energy required for all that producing and consuming and that throughput includes pollution and waste.

So we do things like encroach on and convert habitats into farms, cities, roads, and residences. We exploit what we find in nature, like fertile soil, sources of freshwater, fossil fuels, and all sorts of materials that we use to build our infrastructure and products. We transport goods all over the world. We use incredible quantities of energy to do all the things we do. As a result, there are quantifiable impacts on the environment and observable consequences. That's why we are now in the 6th mass extinction and a climate emergency. We are in a state of overshoot in which we're overexploiting the Earth's resources. We are using living resources faster than they can be regenerated (fisheries collapse is an example of this), we are depleting nonliving, nonrenewable resources (high-quality mineral deposits and fossil fuels are examples of this), and we are emitting wastes at a higher rate than earth systems can safely absorb (climate change from greenhouse gas emissions is an example of this).

It's not just that we're doing things that damage the biosphere, but our economic policy is to do more and more of it each year. Some people look to technology as a way to deal with the negative consequences of growth, but technology often causes more problems than it solves. For example, think about how much more coal can be harvested and burned when you apply high technology to the process of mining coal.

The most responsible action is to dial back our throughput of material energy to sustainable levels. Let's try a medical analogy. Suppose you're a cigarette smoker who smokes a lot and increases the amount you smoke with each passing year. Your doctor wouldn't encourage you to keep smoking and prescribe technology to ameliorate the negative consequences. No doctor is going to suggest that you smoke up and then get in line for a high-tech ventilator or a surgical lung transplant procedure. Cigarette smoking has costs and benefits for the smoker, but the costs can get really big and harmful. The same goes for economic growth. Unfortunately, almost all economists and politicians have been focusing on the benefits and ignoring the costs.

GH: In your book, *Enough is Enough*, you advocate for a transition away from the constant growth economic model to something you call steady-state economics. Others have referred to this as a circular economic model or a zero-waste model. What is steady-state economics and how does it differ from the constant growth model that has prevailed since the initial stages of the industrial age?

RD: At its simplest, a steady-state economy is an economy that aims to maintain a stable level of resource consumption and a stable population. It's an economy in which material and energy use are kept within ecological limits, and in which the goal of increasing GDP is replaced by the goal of improving quality of life.

A steady-state economy would require striking a balance between the stock of natural capital and the stock of built capital, with both remaining relatively constant over time. A constant stock of natural capital entails the preservation of wilderness areas and the maintenance of important ecosystem services, such as climate regulation. A constant stock of built capital means maintaining and improving the quality of infrastructure such as buildings and roads, but not constructing more and more of these over time.

It's important to distinguish between what's on and what's off the list of things to hold steady in a steady-state economy. Only a few items need to be held steady—the number of people, the stock of artifacts (built capital), and the quantity of material and energy flowing through the economy. In contrast, the list of items that can change is long. It includes knowledge, technology, information, wisdom, the mix of products, income distribution, and social

institutions, among other things. The objective is to have the items on this second list improving over time so that the economy can develop qualitatively without growing quantitatively.
In short, a steady-state economy is an economy with *enough* as a goal. It prioritizes well-being above consumption and long-term health above short-term gains. It focuses on innovation and development instead of growth. The pursuit of endless economic growth, with all of its downsides, is clearly unsustainable in the twenty-first century. A steady-state economy is the sustainable alternative to perpetual economic growth.

GH: What are the elements that make up steady-state economics?

RD: Four main features characterize a steady-state economy. The first, and arguably most critical, is a sustainable scale. Sustainable scale requires that the economic subsystem is able to function within the capacity provided by the earth's ecosystems. The economy should grow only if the benefits of growth (e.g., more income, more consumer products) exceed the costs (e.g., climate change, species extinctions). However, as soon as the costs catch up to the benefits, growth becomes uneconomic. At this point, each additional dollar of growth actually makes us poorer, not richer. Uneconomic growth continues, in part, because the benefits accrue to a few rich and powerful people, while the larger costs fall increasingly on the poor and disempowered. This circumstance provides the rationale for adopting the second feature of a steady-state economy: fair distribution of income and wealth.

Anne Krueger of the International Monetary Fund said, "Poverty reduction is best achieved through making the cake bigger, not by trying to cut it up in a different way." But if the size of the oven prevents us from baking a bigger cake, then we'd better start considering how to slice the pieces and how big a slice each person is entitled to eat. The good news is that fair distribution of income and wealth may be the key to alleviating a wide range of social problems, such as violence, crime, and drug abuse. In addition, there's a strong environmental argument for shrinking the gap between the rich and poor: high levels of inequality lead to status competition and associated increases in material consumption across society as everyone tries to "keep up with the Joneses."

The third feature is an efficient allocation. The allocation of scarce resources among competing interests lies at the heart of conventional economics. The dominant thinking holds that free and competitive markets, where prices are determined by supply and demand, lead to the efficient allocation of goods and services (at least when consumers have access to good information about products). A steady-state economy includes a strong role for markets, but it is critically important to recognize where markets work and where they don't and to deploy the power of markets appropriately. A steady-state economy aims to strike the right balance between markets, the state, and civil society. In recent years, this balance has become skewed. We've

put too much faith in the ability of markets to solve problems that they are not equipped to solve, including some problems they created in the first place (e.g., burning too much fossil fuel).

A steady-state economy works toward these first three features (sustainability, fairness, and efficiency) in order to achieve the fourth feature, a high quality of life for all citizens. Currently, GDP serves as the main measure of economic progress, but increases in GDP are not translating into increases in well-being for people in high-consuming countries. A steady-state economy would use different indicators of progress to assess whether the quality of life is improving. It would shift the focus of measurement away from the production and consumption of goods and services, and toward things that really matter to people, such as health, well-being, secure employment, leisure time, strong communities, and economic stability. All in all, it would transform the goal of the economy from producing more stuff to enabling people to live better lives.

GH: Bankers, billionaires, and giant corporations have used their wealth and political power to shape the economic marketplace for maximum advantage to them resulting in the vast majority of the world's wealth belonging to one percent of individuals who use their influence to shape public policy to maximize personal profit at the expense of people and planet. How can a steady-state economic model emerge given the resistance of the privileged class?

RD: The unprecedented concentration of wealth is a political problem. You have described a positive feedback loop in which those with wealth gain political power. And once they have political power, they use it to increase their wealth. And on and on it goes. The only way I can see to change the rules of the economic game is through a massive movement. People need to recognize that the current economic system is rigged so that the rich get richer and the poor get poorer. And even more outrageous is that the current set of institutions, rules, and behaviors have us on a collision course in which we're undermining the life support systems of the planet and putting every living creature, including humans, at risk. We need changes and we need them fast. We need a nonviolent movement to call for a sustainable and fair economy.

GH: The public and social media are largely controlled by a handful of multi-national corporations, who shape their message to serve their big-money advertisers. Is that a major impediment to achieving a steady-state economic model?

RD: Concentration of power within a few institutions can certainly be an impediment to sustainability and fairness, especially if the institutions involved have questionable motives. Since you're talking about corporations, the main motive is the profit motive – a dedicated attempt to maximize revenues and minimize costs, which is not a good pathway to a

sustainable and fair economy. But popular movements have a strong history of eroding such concentrations of power. It starts by understanding what's happening, recognizing that there are other options, protesting against the unsustainable and unfair, and supporting alternatives. On the plus side, many of the economic changes we need can begin at the community scale. People can build and support local businesses, and we see examples of that all the time. You can frequent a farmers market or join a CSA and obtain food directly from a nearby farm instead of shopping for groceries at Walmart. You can make a sport of finding local producers who can meet your needs rather than browsing Amazon.com. The more you support local institutions, the more distributed and less concentrated power will be.

GH: Jobs and the concept of full employment are central to the public's view of economic stability and confidence in the future. However, the human population is nearing eight billion and still growing, even as increased workplace efficiency and robotics are shrinking the job market. How can a steady-state economic model overcome this dilemma?

RD: The goal for employment in a steady-state economy is straightforward: secure enough jobs for people who want them, and make sure labor is directed toward constructive and meaningful tasks. The economy should value the services of talented people and dedicated organizations in their endeavors to do important work. Two policies that could help people secure meaningful jobs in a steady-state economy are work-time reduction and guaranteed jobs.

Work-time reduction provides a way to reallocate the fruits of increasing labor productivity. Instead of using productivity gains to boost production, we could gradually shorten the working day, week, year, and career. People can work less, have more time for family and leisure, or take care of a larger percentage of their needs through efforts and productivity at home.

A guaranteed-jobs policy appoints the state as the employer of last resort and creates jobs for those wishing to work but unable to find employment. Guaranteed jobs may seem like a radical idea, but the right to work is included in Article 23.1 of the 1948 Universal Declaration of Human Rights and has been partially enacted in India, Argentina, and some European cities (e.g., Zurich). In the same way that the public sector guarantees primary schooling, garbage collection, and medical care (in most industrialized countries), it could also guarantee jobs, and, in the process, decouple the goal of full employment from the size or growth rate of the economy.

GH: How important is gender equality to the emergence of steady-state economics?

RD: Gender equality, and more generally equality for everyone, is incredibly important to the emergence of a steady-state economy. A steady-state economy requires us to abandon the consumption free-for-all. If we are going to limit the throughput of materials and energy, it's important that we do so with shared sacrifice, that we're all in it together. We have to all feel like we're contributing to a broader goal rather than feel like there are a handful of privileged haves and a mass of struggling have-nots.

In addition, if we're going to stabilize the population in a voluntary, non-coercive way, it's important to provide age-appropriate sex education and access to contraceptives, but the most important ingredient is equal opportunities for girls in education and equal opportunities for women in the workplace. When girls and women have these opportunities, they have a lot more power and choice about pregnancy and family size.

And remember that fair distribution of income and wealth is a defining characteristic of a steady-state economy. You can't have fair distribution with discrimination or institutional inequality – it has to be fair!

GH: Some say a commitment to dignity for all and to shared citizen responsibility for maintaining a healthy biosphere are fundamental to building a sustainable future. Are those principles compatible with the emergence of a steady-state economic system that best serves people and the planet?

RD: In one word, yes. Not only are such commitment and responsibility compatible with the emergence of a steady-state economy, but they are also required. To get agreement on implementing policies for a sustainable scale, we have to have a commitment to maintaining a healthy biosphere. To get agreement on implementing policies for fair distribution, we have to have a commitment to maintaining dignity for all. I've mentioned shared sacrifice, and that goes hand-in-hand with shared responsibility. Now is the time to reckon with humanity's penchant for exploitation and overexploitation. We have exploited one another unfairly and we have overexploited both the Earth's capacity to generate natural resources and its capacity to safely absorb wastes. Such overexploitation can change when we change our relationship with nature and with each other.

GH: How can we inspire humans to better embody the responsibility we share for protecting and restoring wild, underdeveloped areas of land and oceans as part of any sustainable, life-affirming vision for the future?

RD: I like to start with wonder and adventure. Nature is the source of such beauty, bounty, and mystery that it can put us in a state of wonder and guide us into a lifetime of exploration. Such

exploration can flow through all that we do in life, whether feeding ourselves, raising a family, building a career. I draw my own inspiration from the adventures I have in nature. I've never given up on the playful spirit from childhood. I love following a creek, trying to find its source. I love showing my friends and family members special places, like a hidden waterfall, the biggest tree in the forest, or the spot where a mountain lion killed its prey. And I love riding my bike or hiking or swimming or fishing or paddling or just observing the sights and sounds of nature. We can certainly educate our children on these principles, but I find it far more inspiring to live them as playfully as I can.

GH: How important is it for the world's peoples to embrace their common humanity and see themselves as planetary citizens, as part of the process of shaping a sustainable future, and are you optimistic that we can make this happen?

RD: It's incredibly important. How can we expect people to do what's necessary if they don't see themselves as embedded in nature and in connection with one another and the other species that share this planet? Our current economic institutions and policies depend on greed and exploitation to such an extent that many people have become convinced we are technological gods, masters over nature who control every aspect of our existence. We have oriented ourselves too far towards competition and put too little emphasis on cooperation, both with one another and with nature. I am worried that we are digging ourselves into too big of a hole, but I see lots of reasons for hope. You can look across all economic sectors, from food and farming to housing to transportation, and even energy production and manufacturing, and you can see people doing things differently than how 19th- and 20th-century economic concepts dictate. People are acting on principles of regeneration, energy conservation, frugality, and sharing. People are expressing reverence for nature and that which we've lost. Young people are crying out for change. Changes are coming no matter what we do. The only questions to ask are: What changes do you want to see that provide opportunities for everyone to lead happy lives on a healthy planet, and what can you do to help?

Rob Dietz is the Program Director for the Post-Carbon Institute (www.postcarbon.org), and the co-author with Dan O'Neill of *Enough is Enough: Building a Sustainable Economy in a World of Finite Resources*.

Geoffrey Holland is a Portland, Oregon based writer/producer, and principal author of The Hydrogen Age, Gibbs-Smith Publishing, 2007.

The MAHB Dialogues are a monthly Q&A blog series focused on the need to embrace our common planetary citizenship. Each of these Q&As will feature a distinguished author, scientist, or leader offering perspective on how to take care of the only planetary home we have.

The MAHB Blog is a venture of the Millennium Alliance for Humanity and the Biosphere.
Questions should be directed to joan@mahbonline.org