

**Protecting Natural Systems in an Era of Emerging Planetary  
Consciousness  
A Stanford MAHB Dialogue with Randy Hayes**



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I pledge allegiance to the Earth  
To its mountains, rivers, soil, and sky  
One planet irreplaceable  
To be cherished and protected by all  
Earth Pledge

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**Geoff Holland - You are one of the originators of 'The Earth Pledge'. Why is this pledge an important part of fostering genuine planetary citizenship, particularly with children?**

*Randy Hayes* - We're taught as a child to pledge allegiance to our respective countries. In my case, the United States of America. I understand how important it is to be beholden to a nation state, but nation states are relatively recent concepts in human history. What is not recent is the life support system of the biosphere, which evolved over literally billions of years. At Foundation Earth, Andy Kimbrell and I thought that it's important for children to pledge allegiance to the whole -- to embrace the whole of our Earth. We feel it's important that all humans feel an allegiance to that which supports life.

**GH - Your activism is manifested in a broad range of social, environmental, and economic initiatives. Isn't this like Sisyphus endlessly pushing a rock up a hill when, in the final analysis, public policy is shaped by big money influence, and if so, how do we fix this?**

*RH* - Public policy is shaped quite a bit by big money. Even if big money influencers tried to do the right thing ecologically, I'm not sure it would solve the problem. However, I would welcome that attempt. Yeah, it is a Sisyphean task, pushing this up a hill because advocates like ourselves were born in dark times. Whatever generation you identify with, be it generation X, Y, Z, millennials, baby boomers, or the hippie generation we were all born in dark times. The last 200 years of the Industrial Revolution have been dark times for planetary systems. We were all born within those years as the industrial steamroller was building momentum. So it's a tough task and yet, we can't quit. We have to throw our shoulders into saving our biosphere. We need pledges, bold plans and actions that are commensurate with the scale of the problems.

**GH - You are calling for a transition to a 'true cost' economy. What is that, and how would it change the way humanity relates to the biosphere we all depend on?**

*RH* - As long as people can make money hurting the earth, we're in trouble, because there will always be some, who will find ways to maximize their personal profit at the planet's expense. A True Cost Economy is a holistic economy in that it operates within Earth's carrying capacity, especially by recognizing and avoiding ecological impacts also known as shifted costs or externalities. It maintains the biosphere's life-support systems. It is one-planet living. The use of "Cost" in this phrase is not a financial term. If something cost you your life it would not be primarily a financial concern. If an economy were to cause a near-dead planet it would hardly be of financial concern to desperate people or near-extinct species. A true cost economy accounts for the externalities. It's about eliminating perverse externalities like pollution, and about stopping the destruction of our biosphere, and our critical life support systems. A true cost economy accounts for those external consequences of doing business in ways that are destroying life on earth. I don't know that it's necessarily a good system for the long term of say, the next thousand or 5000 years. But in the short term of the next few decades, I don't think we have a choice, because there's no other coherent alternative economic model. We're running out of time, and so a true cost economy is our best bet for the short and medium term.

**GH - What is 'Mandatory Ecological Impact Disclosure?' What are the challenges and successes pushing that idea?**

*RH* - Well, the challenges are easy to identify and the successes don't take much talking time. There's very little action on this idea to point to that suggests any semblance of ecological policy movement. Even the person the Obama Administration appointed to the Securities Exchange Commission was sorely lacking. The SEC was no fan of accounting for pollution externalities via mandatory disclosure. There's even less hope of achieving sensible disclosure at the Security Exchange Commission in the current Trump administration. Mandatory Ecological Impact Disclosure is a concept ahead of its time. The problem is we're running out of time. At some point, there may be the political will for the Security Exchange Commission to require mandatory disclosure, but that alone doesn't really fix the problem. Disclosure is just a

first major step towards fixing the problem. Foundation Earth has designed mandatory disclosure of pollution externalities in an important way. Corporations often argue that there are little incremental pollution externality doesn't add up to much. But if you summarize all of the increments throughout your nation state and throughout the world, one can clearly see that in aggregate they're causing major destruction. This can be from deforestation or the toxicity of plastics or many other environmental tragedies. And so as a first step, it's fundamentally important that people disclose and have the information. When you have the information you can measure how much one has reduced it and know whether a corporation's claims are bullshit greenwashing or the kind of fundamental change that is required.

**GH - What is biosphere smart agriculture?**

*RH* - There's a lot of attention to climate change and some attention to what's been called climate smart agriculture. Remember, climate change is a fundamental problem, but it's not our biggest problem. Our biggest problem is the collage of all of the assaults on the nine major life support systems of the biosphere. Climate smart agriculture was popularized by the United Nation's Food and Agriculture Organization. Subsequently the World Bank adopted and weakened the climate smart concept to just a bit of greenhouse gas reduction. At best the World Bank version was somewhat climate smart, but it definitely wasn't biosphere smart. To be bold we need to incorporate all of the major ecological dilemmas that emerged from industrial agriculture. Biosphere smart agriculture is essentially ecological farming that furthers biological diversity. It allows for the restoration of live healthy soils with the proper fungi and bacteria that help the whole plant growth process to occur properly. That would give us nutrient rich food. Biosphere smart agriculture is friendly to the entire web of life.

**GH - Another of the initiatives you support is called 'Nature Needs Half'. Can you explain why that is so important to preserving our planet's biodiversity?**

*RH* - Let's start by realizing that biological diversity is one of the nine major life support systems on the planet. Animals such as us Homo sapiens require biologically diverse digestive tracts to absorb nutrients and live. You have your circulatory system and your digestive system and your nervous system and many other systems. We human animals are effectively embedded systems within systems that work as a whole for each individual to survive. Biological diversity matters to our internal human health and it matters to our external world being livable. If you enjoy eating you know many of our foods need require pollinators. Pollinators are part of the biologically diverse web of life. If we were to wipe out the pollinator aspect of the biological diversity of the web of life we'd have a hard time producing the amounts of food that attempt to feed the 7.7 billion (November 2019) people on this planet. So biological diversity is a major life support system. The current sixth great extinction crisis is human induced primarily through land use degradation and destruction. This is primarily from thousands of years of agricultural expansion as our numbers grew. More recently we added toxic industrial agriculture.

Nature Needs Half is about setting aside in a protective status of one sort or another half of the oceans in half of the terrestrial landmass. If you look at the terrestrial landmass, about 846 ecological zone types exist. A team of bright conservation biologists have mapped all 846. We

know how many have half already protected and which ones need further restoration and protection. There is a reason for protecting half of all of them. For example in an Arctic tundra, as an ecological zone type, if you can protect 50% of it, you can save roughly 90% of the species within that zone. Protecting half of the ocean zones and half of the land zones would theoretically save as much as 90% of the planet's existing species. The life support function of biological diversity and protecting half the planet's natural systems are important goals for people to understand and support. The campaign is just getting started. It is of fundamental import if we're going to protect life on Earth in any semblance of what we now experience.

**GH - Why are you asking the World Bank to moderate its support for large dam projects?**

*RH* - Ecologically ignorant people like to throw hydro-power into the renewable energy mix along with wind and solar. But giant dams on major river systems are highly destructive to biological diversity. A river is essentially a non-renewable resource just like mining gold out of the body of the earth or logging an old-growth forest. You can replant trees but you can't replant a forest and its vast complicated biological diversity. Large dams destroy wild, diverse river systems. The simple example that's well understood in North America would be salmon streams. Salmon spawning year after year requires salmons to go upstream to spawn. They can't do that if there's a giant World Bank funded dam slicing up that river. Major dams are not a good solution to our energy needs or to our climate crisis. They destroy biological diversity and the kind of life support system that rivers represent.

**GH - In your opinion, what would be worthy foundational principles for building a sustainable human society?**

*RH* - I have a list of 12 principles in my "Toward a True Cost Economic Model" essay that together would foster sustainability, but it starts with the interdependence principle. First we call for a societal recognition that nature nourishes all things and we are dependent on it. Nature is of higher value than human self-interest. Under this principle the economic rules would reward solving problems together over personal aggrandizement. Any market system would be subservient to nature's laws. Cooperation not competition is the primary social doctrine of sustainability and basis for the new economic order. Industrial advance crushing nature's ways for the sake of capital must quickly become a thing of the past.

The second principle is the responsibility principle, which calls for each generation to leave less and less of an ecological footprint, despite the population size, consumption rates, or technology choices. Every human has the duty to protect diversity within the whole. Hard work to personally get ahead would still have a place in the system, but beyond sustainable consumption levels, family education, and retirement security most of any economic profit would need to support the health of the biosphere. Nature has an inalienable and legal right to exist, flourish, and evolve. I'm far less interested in human rights than I am in humanity's responsibility to nurture the environment that supports all life. Advocates for social equity and natural systems ought to be talking more about human responsibilities. Our responsibility to the earth as a whole is a major principle that every person must share. Children pledging such responsibility is a good way to start teaching wisdom to upcoming generations.

Additionally consider the precautionary principle. It's just common sense to employ the precautionary approach when the consequences of some actions such as are potentially cataclysmic. So there's a few examples of the principles that I believe need to be employed for a true cost economy, for a sustainable society that gets humanity in sync with the ways of nature.

**GH - You are an advisor to the World Futures Council. What has been your main message to them?**

*RH* - The World Future Council is an inspiring organization based in Hamburg, Germany. It was started by Jakob von Uexkull who also started the Right Livelihood Award, which many of your readers will know about. The world future Council is an environmental organization is looking to future generations of not just humans, but generations of all life. It is thinking in the Native American tradition of seven generations ahead. What will your decisions mean for seven generations down the line? Longer term thinking is of fundamental import. So my general advice is simply to carry on the bold things that they already do. For example they have an award once a year and about a future policy. For example it could be who has the best bioregional agricultural program on Earth? Other regions of the world can look at such winners to employ aspects of that policy in their local regions. The future policy award looks at best practices that are meaningful and at scale with the kind of change that we need.

**GH - How important is gender equality to the process of building a future that is sustainable and life-affirming?**

*RH* - Gender equality is fundamentally important when you see the pervasiveness of patriarchy, which is male domination. Patriarchy goes hand in hand with humanity's domination of nature. They run hand in hand. We need to be sensitive to gender issues to balance the scales. An interesting example of a way to help balance the scales is the Iroquois Confederacy. It is also called the Haudenosaunee Six Nations Confederacy of Native American nations. They are from upstate New York and Canadian border area in North America. In the Iroquois system only men could be leaders, but only the women could elect the leaders or remove them. That was their way of fostering gender equality. We need a lot more gender equality in the Western world, but not just the Western world. All of the industrial societies remain patriarchal at this point and need fundamental change.

**GH - A lot of passion and activism around the world these days is focused on feminism, gender rights, LGBTQ rights, racial equality, economic fairness, etc. How do you convince the leaders of these brands of activism that they have an obligation to stand for the protection of the biosphere we all depend on?**

*RH* - There's no gender equity on a near dead planet. There's no healthy economy on a near dead planet. There's no human rights on a near dead planet. All of us need to throw our shoulders to the task at hand to prevent the collapse of our biosphere's life support systems. This is fundamentally important. Anthropocentrism is an important concept to understand. It's

humanity's self-centeredness, humanity's sense that it is the center of the universe. While many exhibit this view, we are not the center of the universe. This planet and the other life forms on this planet can manage fine without us. It is of great import that we humans be good to each other. All of the issues you listed matter deeply. But we damn well better be good to the planet in the process of those struggles or we're not going to have a chance to be good to each other.

### **GH - What can each of us as a planetary citizen do to help build a future that is worthy of our species?**

*RH* - Declare your allegiance to the earth as a whole and become Earth citizens. You need no one's permission. Just declare it now in your heart. That's a good step in the right direction. Remember that individual action is important, but it alone will not get the job done. We need substantial public policy shifts with impact disclosure, ecological farming and a true cost economy. I'm a firm believer that it's not just a bottom up or top down initiative. The great U-turn to a more socially just better world requires both. Typically we must have bottom up pressure to get the top down to move. Both must work hand in hand, because we have so little time to act. It's well past the 11th hour, right? It's probably the 59th minute of the 11th hour. And so we need all hands on deck. We must put an ecologically informed and humanistic public back into public governance. Demand and foster wise governance where public policy enhances our relationship to the earth. Our social systems, our economic systems, our governance systems, our lifestyles, our consumption habits, our overall numbers; all these things need to be in sync with the ways of nature. My advisors suggest that this is what needs to be done:

- **Degrow the Economy 6%/year:** Begin the public cultural, social, and economic discussions and formal planning necessary to reduce fossil energy and material consumption (economic throughput) by up to about 70 percent globally (80 in higher-income and 50 in lower-income countries respectively). This is consistent with achieving the IPCC (2018) goal of almost 50 percent fewer carbon emissions by 2030 and requires 6 percent per year reductions beginning immediately.
- **Overconsumption Reduction:** A one-earth lifestyle for today's population requires that humans living like contemporary North America learn to thrive with about 80% less strain on the biocapacity of productive land.
- **Numbers Reduction:** Recognize that Earth is over-populated even at average material consumption. Implement a global fertility strategy to humanistically reduce the population to the 2-3 billion people that might be able to live in material comfort on this already much-damaged planet Earth.

Implementation of the above objectives requires ending of much of the current market economy and today's style of consumption and waste. Even imagining such a major, disruptive shift carried out effectively is testing. Yet, this is where we are at. Expect that many more will embrace this reality over the next 3-7 years. Quite small economies powered by renewables

with judicious use of fossil fuels for agriculture, other key industries and first responders is a worthy pursuit. If things unravel fast, community-led bioregional agriculture and compassion to neighbors may be needed. Remember that it is preparation that counters fear. Simple happy talk solutions are not helpful. It is important that we live kindly with our neighbors close and far. Remember that the web of life is your closest neighbor.

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Randy Hayes is Founder of the Rainforest Action Network, and Advisor to the World Futures Council