

MICROBES, COMMUNICATION, AND COMMUNITY: AURTMTC/C THE CONVOCATION ADDRESS, PART I (SEPTEMBER 8, 2009)

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On behalf of the Sisters of the Presentation of Mary, the administration, faculty, staff, and upper classmen, welcome to Rivier College. I trust you have all read and found time to reflect on your summer reading. Today, I am honored to have this opportunity to share my own thoughts on Bill McKibben's *Deep Economy: The Wealth of Communities and the Durable Future*. Whatever lies ahead, earning a college degree can open many doors. I suspect an important goal for you after graduation is to secure employment that will allow you to acquire wealth: a new car, a house, and more. It is what most of us intended when we headed off to college. It is reasonable to want

wealth, but have you ever wondered what form that wealth would take and what will be the cost of acquiring that wealth?

In his book, Bill McKibben suggests that Americans are obsessed with having “more” and that the current and only strategy to support the acquisition of more has been to grow our economy. In fact, our economy has grown so much it has moved well beyond our borders. We rely heavily on other countries for almost every material thing we desire. Because of cheap fossil fuels, we can acquire these things with ease, but now more than ever before, we rely on other countries to provide the energy required to support our need for “more.” At last count it has been estimated that each American uses 6 times as much energy as the average Mexican, 38 times as much energy as the average East Indian, and 531 times as much energy as the average Ethiopian person in the street. Much of this energy is used to support our need for more, but what are the costs of having more?

According to Bill McKibben, “growth is no longer making us wealthier, but instead is generating inequality and insecurity.” Many of these material goods we desire have come at the cost of exploiting the hard work of men, women, and children who see little or none of this wealth, and who live in countries that are not wealthy. In his opening remarks he writes “new research from many quarters has started to show that even when growth does make us wealthier, the greater wealth no longer makes up happier.” So, despite having so much, often at the expense of others who have so little, we are not any happier?

There is yet another cost associated with economic growth and that is the impact that growth has on our environment. Early in the book McKibben states “Growth is bumping against the physical limits of our planet so profound that we are experiencing climate change and facing limited energy supplies.” Many of you may be skeptical, but scientists have long been aware of the costs of growth on the planet. For example, I quote a man who has dedicated his life to understanding the physical, chemical, and biological nature of our planet, James Lovelock “Our need for more has increased the carbon cycle greater than 20%, the nitrogen cycle by more than 50%, the sulphur cycle by more than 100%, there is

increasing flow of toxins into air, water, and food chains, and we continue to reduce the planet's green cover. " Lovelock wrote this 25 years ago.

While I may not be able to convince you that accumulating more and more wealth will not necessarily bring you happiness, the negative impacts that growth are having on this planet are well documented. I would like to put something in perspective for you. Research has determined that earth has the same basic chemical composition as Venus and Mars, yet Earth is the only planet to support life as we know it. That makes planet Earth special. Some years ago people didn't think much about the uniqueness of our planet, but after the first astronauts described earth from outer space, perceptions of this planet and interest in its uniqueness changed forever. "A vision of stunning beauty", they said, "like a blue pearl in space." So moved with what they saw, space scientists began referring to earth as Gaia-the living planet-named after the Greek goddess of earth.

It is only relatively recently that we have begun to understand the true extent of human activities on the Environment. You may not be aware of the many ways in which we are altering the planet, but there are people and other life whose existence has been and continues to be profoundly affected. Recent studies suggest that while the impacts of climate change and ozone depletion are global, low income nations will likely bear the most significant burdens: extreme storms, prolonged drought, hunger, increased cancer rates, and an increase in infectious diseases. Deforestation, intensive agriculture, habitat loss, polluted waters, and climate change in combination with rapid population growth have been identified as being the most important factors that have increased the rate and magnitude of species extinction far above normal background rates. These are examples of inequality and insecurity Bill McKibben refers to in his opening remarks.

McKibben suggests we reconsider the notion of ever increasing growth as a means for acquiring wealth and move towards the way we used to live: small communities supported by local-economies. In many ways our current way of life isolates us from our neighbors. We no longer acquire produce from the local farm stands or purchase material goods from home grown industries. Why small communities? Because members of small communities are more likely to communicate with one another, they are better able to help one another, and every member of the community will have something to offer. When people contribute to their community, they feel connected, and they are happier.

Even the oldest and smallest inhabitants of our planet recognize the value of community. Every place on earth is colonized by a diverse array of microorganisms living in small communities called biofilms. The biofilm community permits its resident microbes to effectively communicate with one another allowing them to exchange goods and to provide essential nutrients to those members of the community that need them. These communities are sustainable. Living in a community provides microbes protection from adverse environmental conditions. These communities are durable.

The paradigm of ever increasing growth is not sustainable. The number of poor people continues to rise around the world, and as a biologist it concerns me that we are losing opportunities to learn from other species because of their rapid extinction. Bill McKibben is optimistic and believes that those of us with "more" will consider the true costs of "more." He might not have the best solution, but he has opened up a dialogue that is long overdue. There are many opportunities for you at Rivier College to continue the conversation of what it means to live in a way that is sustainable and what is meant by a durable future. I encourage you to join student clubs, like the Student Green Initiative, attend program sponsored seminar series, and engage in socially and environmentally relevant service. Striving to be your best and to be prosperous is human and valid. My hope is that on your journey to prosperity you participate in creating a durable future, while always considering the dignity of the human person, and remembering that all God's creatures are sacred.

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