Earth Day 2014: Celebrating the Gifts from the Living Earth By Patricia M. DeMarco, Ph.D. Visiting Researcher and Writer, Carnegie Mellon University

On this Earth Day 2014, we find ourselves in turbulent times. In the first celebration in 1970, the environmental movement was still vibrating with the galvanic jolt Rachel Carson's *Silent Spring* delivered. A unified sense of outrage and determination came from the impetus in 1969 of three highly publicized and alarming events: The Cayahouga River caught fire and burned two bridges; there was an oil spill that contaminated the beaches in Santa Barbara, and there was a massive fish kill downstream of a pesticide production plant on the Mississippi River. A decade of laws designed to protect the environment followed. Laws that today are mostly characterized as "killing jobs" and putting burdens on business.

The first initiatives in the days when the skies were blackened by smoke and rivers were considered industrial sewers and transit lanes treated the most visible symptoms of the pollution produced by the advance of the industrial revolution. The laws of the 1970s put corks in the smokestacks, stoppers in the emission pipes and liners in hazardous waste landfills. These measures allow for the combined emissions of 3.6 billion pounds per year of toxic material by legal permit, according to the EPA 2012 Toxic Release Inventory. ⁱThe base environmental protection measures erode each time they are amended as industries gain in political strength each time the economy dips. Environmental regulations are an easy, weakly defended, scapegoat for their ills.

The environmental movement today is more like a cry from the wilderness of the left wing, marginalized by decades of negativity and increasingly futile protest. We need to heed the precaution and the urging Rachel Carson gave over fifty years. Ago. In speaking to the Garden Club of America in January 1963, she commented on the effects of the IRS Tax ruling in 1962 that allowed lobbying and marketing as tax deductible business expenses while limiting such deductions for non-profit organizations. She said, "What happens when the public interest is pitted against large commercial interests? Those organizations wishing to plead for protection of the public interest do so at the peril of losing their tax-exempt status, so necessary to their existence. The industry wishing to pursue its course without legal restraint is now actually subsidized in its efforts." The approach of mounting public outrage against increasingly alarming effects of unrestricted industrial actions has lost its effectiveness. We need a new way to move forward.

Rachel Carson's advice to those who would protect the public interest noted that the way is not easy: "We should be very clear about what our cause is. What do we oppose and what do we stand for?" ⁱⁱ The environment movement has been more focused on what we oppose – No Nukes! No XL Pipeline! No Fracking! We are less clear about what we stand for instead of the fossil based economy of the past 200 years. Change is unsettling,

uncomfortable and frightening sometimes. But, we have the full power of the living Earth as our model, and as our sustenance.

The Earth provides all that we need for our life support as living creatures: clean water, fresh air, fertile ground and the biodiversity of species with which we share the planet. All the energy necessary to support life on earth comes from the nuclear fusion reactor of our star, the sun, 93 million miles away. We depend on the ecosystem services of the Earth, the intricate connections and inter-dependencies among all living things. They represent the benefits human populations derive, directly or indirectly, from natural ecosystem functions that provide food, fuel and fiber as well as services such as pollination and water purification and oxygen creation. These unrecognized services of the living Earth represent billions of dollars equivalent, some of which cannot be replicated by human action. We can take a new page in the environmental movement, indeed in the humanity movement, to recognize the value of the gifts of the earth and organize our economy to use them in a way that regenerates rather than destroys them. We can unite our voices as living creatures sharing our common humanity across cultures, across economic strata and across generations to stand for our common life support system.

The problems we face today did not emerge overnight, and will require system solutions, not spectacular technological fixes. We have come far in accumulating knowledge, technical expertise that allows increasingly invasive and destructive adventures into exploiting what nature provides. We have yet to apply the wisdom of knowing when to restrain or channel that knowledge to preserve and renew the elements that make life on this planet possible – oxygen rich air, fresh water, fertile ground and the biodiversity of species. We must stand for system solutions, not merely protest and object to the problems. We must stand for renewable energy systems that move away from fossil gas, coal and oil combustion. We must stand for preserving fertile ground by moving away from synthetic chemical pesticides, herbicides, and fertilizers to organic and sustainable agriculture practices. We must stand for green chemistry to make the materials, foods and pharmaceuticals we need benign by design, reducing the hazard not the exposure. We must stand to protect biodiversity in our neighborhoods, wildlife refuges and public parks.

If we stand together, with one strong voice, we can save the living Earth! We can **decide** to leave our children a planet with life support systems intact. Stand together. Stand for Life on this Earth in our time!

ⁱ EPA Toxic Release Inventory. National Analysis 2012. www.epa.gov

ii Rachel Carson. "A New Chapter to Silent Spring" Garden Club of America presentation, January 1963. Quoted in: Linda Lear (ed) *Lost Woods: The Discovered Writing of Rachel Carson*. Beacon Press 1998. Page. 212.

iiiR. Costanza et al., "The Value of the World's Ecosystem Services and Natural Capital," <u>Nature</u> Vol. 387 (1997), p. 253.