



Planet Earth: Its Past, Our Present, A Future (?)

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We who have lived through the second half of the 20th century into the 21st century have witnessed a profound transition in the biological and physical relationship between humans and the rest of the planet. In the middle of the last century, our planet still had undeveloped islands: there were frontiers that held new lands, mysteries, adventures, cultures, and resources. However, these islands have merged into a relatively seamless planet by a mobile and expanding population, science and technology, and global communication. We are subject to stealth as well as natural disasters. Natural disasters result from the ongoing geological and meteorological processes on our planet, increasingly exacerbated by human presence and behavior. Stealth disasters, on the other hand, are caused by humans, but involve the natural systems that support us. Examples of stealth disasters are climate change, loss of soils, acidification of the oceans, desertification, and loss of groundwater resources. Civilization is a complex system. It has emergent properties, and a tuning parameter—a parameter that is "tuned" until the unexpected happens. The tuning parameter for populations is the number of members relative to the capacities that support them. Because of our sheer numbers, we are driving the stealth disasters, and we will be affected more severely by natural disasters than we have been in the past on a less densely populated planet. To guide our thinking about geoethical issues, we propose a (hypothetical) world organization modeled after the Centers for Disease Control (CDC) in the U.S., and call it the Center for Disaster Control for Planet Earth (CDCPE). This center would have a scientific body to provide impartial facts and uncertainties, an engineering body to propose and implement technical solutions, a negotiating body to balance the realities of political, economic, religious and cultural values, and an enforcement body that is responsive to all of the inputs. How shall we start?