Environmental cultural value and global environmental change: By nature, of nature, for nature

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Date: November 16, 2020

Abstract

Global climate change has given rise to a growing threat of extinction of mankind, yet the current approach and solutions appear to be insufficient to combat it effectively. We have critically reviewed and discussed solutions for the problem. Our key message in this short paper is that enterprises are the main cause of the global environmental problem but underestimating their role in solving the problem could be a terrible mistake because they have a great amount of potential for solving it. We propose an environmental cultural value because it can shape human progress towards “environmentalism”. The new environmental cultural value includes two mutually intersecting attributes. First, money cannot be traded for environmental deficits. Second, an environmental embellishment value needs to become a new “measure of profit”, priced at least on par with monetary value. Perceiving and agreeing to a new environmental cultural values-based approach is hard, but vital. We assert that an environmental cultural value transition and/or transformation in enterprises may take time and several mutually interacting conditions: a gracious and receptive attitude, no prejudice, a large vision, and common interests. The insights of this

paper can illustrate some policy implementations to engage and harness corporations imbued with environmental cultural values for addressing global environmental climate change.

“I only feel angry when I see waste. When I see people throwing away things we could use.”

—**Mother Teresa** (1910-1997), *A Gift for God*, 1975

The small shop at the “Goc pho”, or “street corner”, associated with iced tea and coffee is a typical cultural space for the Vietnamese people. To us, the space is full of warmth, creativity, and daily news. In late October 2020, most of the stories in the Goc pho are about storms and floods in the Northern and North Central provinces in Vietnam. Heavy rains have triggered severe flooding and landslides, leaving at least 100 dead and 22 missing and have influenced the lives of many million people ^{1,2} (Figure 1). Climate change seriously affects Vietnam yearly, giving rise to the death of about 950 people alongside the loss of 1.5% GDP ³. At a global scale, in 2019, the estimated damage caused by the climate phenomenon was roughly 100 billion dollars ⁴.

Figure 1. Thua Thien Hue Province is flooded ¹.

Climate change has driven human groups into extinction, and this worst scenario may happen to us again ⁵. Since the Pigou theory was introduced, a Pigou tax and carbon trading scheme have been discussed for almost a century. But the situation following the acid rains in Detroit in the 1970s has not improved. Over the past two decades, indicators of climate change have worsened, warning of the magnitude of the earth's irreversible state if strong action is not taken ⁶. Earth's temperature has risen beyond the level of reduced control intervention. Scientists' projections of climate change have come true. The Sustainable Development Goals (SDGs) (Figure 2) included an emergency plan; unfortunately, this option, despite a very high consensus, faced failure soon after being applauded ^{7,8}. In 2016, the Trump Administration withdrew from the Paris Accord, COP 21, one of the most important agreements on climate change mitigation, contributing to the failure of the Sustainable Development Goals ⁸, showing that hope for the salvation of the world is gradually fading. Further, the United States Environmental Protection Agency (USEPA) was threatened with administrative intervention and lack of funds. The journals *Science*, *Nature*, and *NEJM* have made editorial comments about the Trump Administration's disregard for science, one of the biggest victims of which are environmental sustainability programs ⁹. Without a doubt, humans seem to be taking the wrong approach to solving this global environmental problem.

Figure 2. 17 Sustainable Development Goals (SDGs). Source: www.sdg.un.org.

Enterprise-induced production activities are mainly responsible for global climate change and environmental pollution ^{10,11}, yet the carbon emission trade and/or carbon tax-based approach to addressing climate change has recently been criticized because it may exacerbate the issue ^{12–16}. The fact is that carbon emissions trade is insufficient to help combat CO₂ emissions reduction, and is even a legal excuse for enterprises to increase exploitation and make environmental pollution worse. For example, it is estimated that global CO₂ emissions caused by enterprises have increased by almost 90% since 1970 (Figure 3) ¹⁷. In addition, there is a trend for some enterprises to be deceptive, pretending to protect the environment. For instance, in 2014, international and Cambodian organizations accused the Hoang Anh Gia Lai group of taking away their lands and destroying their forests. The incident was announced by international news outlets such as *The Guardian*, *Voice of America*, and *Cambodia Daily*. Another instance is the A Cuong Mineral Group, headquartered in Bac Giang Province, which had to compensate for illegally leaking their unfiltered wastewater into nature in 2015. In one of our latest published studies (2020), we used a

web data crawler tool to discover and count the enterprise-related events of damaging versus protecting the environment in some newspapers in the period 2012-2019 in Vietnam. We found that the number of environmental damage events (52 total events) is greater than the number of environmental protection events (20 total events). Furthermore, some enterprises that belong to the environmental protection industry (forestry, environment industry) are also involved in events of environmental destruction ¹⁸.

Figure 3. Growth in global carbon emission. Source: www.ourworldindata.org

Enterprises are the main cause of global environmental change; underestimating their role in solving the problem would be a terrible mistake ¹⁹. Some environmental protection activities and/or initiatives that include the responsible participation of enterprises have been implemented in many parts of the world. For example, in the U.S., the Tesla electric car company, one of the most climate-conscious automakers, has been ranked a top company in terms of zero carbon

emissions from its products ²⁰. The outdoor apparel company, Patagonia, is making clothes with organic cotton, hemp, and recycled nylon and polyester, and their goal is to reduce adverse environmental impacts in terms of the materials used to make their products (www.patagonia.com). In Sweden, the world's largest furniture retailer, Ikea, has demonstrated that it makes a positive impact on the world's climate (www.ikea.com) ¹⁹. The International Union for Conservation of Nature (IUCN) Vietnam, with the Vietnam Business for Environment (VB4E) initiatives (www.vb4e.com), is running many projects that engage enterprises to participate in projects that cover a variety of environmental protection fields including plastic waste, forest restoration, education, sustainable tourism, renewable energy, biodiversity, and coastal and island protection (Figure 4). The involvement of enterprises in reducing environmental pollution and mitigating climate change can increase the chance of success for several reasons. First, they can afford to partially alter policies. Second, they hold many resources and capital. Third, they have strong mechanisms for seeking and instituting solutions effectively. Finally, they have more strong economic incentives to thrive a socially responsible way in an increasingly competitive world ¹⁸.

Figure 4. Biodiversity conservation project. Source: www.vb4e.com

What is the difference between environment-damaging enterprises and environment-protecting ones? Our answer lies in environmental cultural values (Figure 5). Market failure is strongly associated with enterprises. Given a growing demand to save the environment, enterprises must change their core cultural value from "exploitation" to "construction". The transition in corporate cultural values is foundational for changing corporate behavior in environmental protection practices ²¹ since cultural values can shape human progress ²². In the past five decades, the world has witnessed humans maximizing the exploitation of environmental resources for growth—but in the next five decades, humans must protect the environment to survive and thrive. The fourth industrial revolution has gradually transformed human cultural values. The societal change from "monetarism" to "environmentalism" is an inevitable trend. According to Harrison, our world has 10 human cultures ²². We propose that an environmental cultural value be the eleventh human culture. The new environmental cultural value proposed here embraces two mutually intersecting attributes. First, money is no substitute for environmental deficits. Second, environmental embellishment needs to become a new "measure of profit", priced at least on a par with monetary value. The new environmental cultural value-based approach addresses the carbon emission trade-related shortcomings and creates a new direction for adopting a new profit measure unit of enterprises. For example, when planning for a factory or a production project, unlike the old approach that considers how much environmental loss we can bear, the new one considers how much environmental profit we can gain. Recognizing and agreeing to this new approach is difficult, but vital. Realizing the environmental value will determine whether Harrison's set of progressive values will continue to be of value; humankind will face the threat of extinction if the environment continues to be damaged to an irreparable level.

Figure 5. A symbol of environmental cultural value. Source: <https://indianfolk.com>

George Bernard Shaw, an Irish playwright, critic, polemicist, and political activist stated that “Progress is impossible without change, and those who cannot change their minds cannot change anything.” In this sense, the transformation of environmental cultural values in enterprises is essentially a mindset change attributable to a process of adaption and adoption of new core values^{23–25}. As such, it will take time and require some conditions. First, the elimination of prejudice and an open-minded attitude are important factors because they can help enable humans to step outside their comfort zones or “core values” to learn and share environmental cultural values (Figure 6)^{25,26}. This would be followed by a gracious attitude, which is often missing in negotiations among enterprises, governments, policymakers, etc. At this point, we are reminded of the famous statement from Mother Teresa: “When we judge someone, we don't have time to love them”. Lacking a gracious attitude or approach will always be a barrier to any compromise in the way to find a realistically comprehensive solution to climate change. Climate change is a global problem that transcends all national boundaries and may span centuries, so enterprises need a large

general vision of core interests and benefits. When setting larger and longer-term goals, it is natural that small conflicts or obstacles could be easily overlooked and prejudices would be reduced gradually, which would create more opportunities for enterprises to comfortably adopt and adapt the new approach.

Figure 6. Mindsponge mechanism transforms mindset ²⁵.

In summary, global environmental change increasingly threatens the extinction of mankind. Enterprises and environmental cultural values are the pillars on which to address this environmental issue. Enterprises produce environmental pollution, but they have a great deal of potential for solving the problem. As long as cultural values and environmental values are well connected, we would have hope in addressing global climate change effectively. The environmental cultural value transition and/or transformation in enterprises may take time and require several key mutually interacting conditions such as a gracious and receptive attitude, no prejudice, big vision, and shared interests. In this regard, we propose some key directions to tackle global environmental changes. First and foremost, it is essential to build the environmental cultural values based-solution ecosystem (Figure 7) in which interdisciplinary solutions at multiple scales would be integrated. Second, it is important to more deeply engage enterprises in policy design,

social media, and science, which would help gradually nurture and empower human values imbued with environmental culture. Third, in the digital age, it is paramount to have a strong database system^{18,27}, which would help monitor and assess desirable program goals and objectives. Finally, upgrading enterprises' infrastructure system associated with advanced technologies should be a highly fundamental priority for the long-term solutions to mitigate the environmental climate change challenge worldwide^{28,29}.

Figure 7. A house-shaped solution ecosystem for environmental change

Notes. Along with cultural values/customs, socioeconomic motivations and legal law are of important means shaping the environment-protecting mindset and behaviors. Those approaches are evaluated under the lens of dimensions of willingness-to-do, effectiveness, cost, and application scales

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