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The Barriers present in more developed countries and less developed countries slowing the implementation of sustainability

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THE BARRIERS PRESENT IN MORE DEVELOPED COUNTRIES
AND LESS DEVELOPED COUNTRIES SLOWING THE
IMPLEMENTATION OF SUSTAINABILITY

Final thesis satisfying
a requirement of
a Bachelor of Arts
in
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UNIVERSITY OF NEVADA
Las Vegas

by

Luke Giovine

Spring 1996

Thesis Advisor: Dennis Soden
ABSTRACT

THE BARRIERS PRESENT IN MORE DEVELOPED COUNTRIES AND LESS DEVELOPED COUNTRIES SLOWING THE IMPLEMENTATION OF SUSTAINABILITY

BY Luke Giovine

In 1996 the natural resource base of the world is being depleted at a rate far below the sustainable level. This is very evident in less developed countries (LDC), where raw limited natural resources are being poorly utilized and/or exported to more developed countries (MDC). The More Developed Countries such as the United States, Japan, and Germany use a high amount of natural resources and energy to maintain their material Standard Of Living (SOL), and this is at rates above what their own country can sustain with its own natural resources within its own borders. Both MDC's and LDC's are contributing to the decline of the earth's natural resources, the over-burdening the natural waste assimilation cycle, and the destruction of natural habitats. It is the MDC that hold global power in the form of technology, military might, and financial power, and they have the ability to be the forerunner in creating and implementing policies that would move themselves and the world toward a sustainable society worldwide. There are barriers that exist today in both MDC and LDC that prevent us from moving to a more sustainable society.

In this paper I hope to identify these barriers preventing sustainable development in MDC's and LDC's, and propose possible solutions to those barriers.
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I must thank my mother for she gave me the freedom and guidance that formed my beliefs, and also love...(now it's your turn!)
Introduction

In an environmentally and economically sustainable society, the society's energy and material usages need to meet three conditions:

1. The rates of renewable resources do not exceed the rate of regeneration.
2. The rates of non-renewable resources do not exceed the rate at which sustainable renewable resources are developed.
3. The rate of pollution emission does not exceed the assimilation capacity of the natural environment.

(Barth, classroom, env430)

All three of these criteria are being superseded in the efforts to obtain resources for the high material SOL in MDC and for the meeting of basic needs for the people in LDC.

"Globally, we are losing a minimum of 15 million acres of prime agricultural land to overuse and mismanagement every year. Desertification is threatening about one-third of the world's land surface, or 16 million square miles. Tropical rain forests, repositories of immense biological wealth, are being destroyed at the rate of 25 million acres a year. Through a combination of ignorance, greed, and neglect, we may be condemning several million species of plants and animals to the awful finality of extinction by the turn of the century." (page 127, Global resources). This blatant decline in the earth's environmental system is threatening the productivity and viability of it's land. The implementation of the sustainability concepts mentioned above would be common if the depletion of natural
resources and the destruction of the lands used were limited to within
country's own borders, within a corporation's own profits, or within an
individual's backyard. This internalization of the externalities
would cause the loss of monetary benefit to the environmental abuser.
The term externalities as described by Jim Macneill, "often arise from
the absence of clear rights to the property in question. Because of
their fluidity, it is very difficult for anyone to hold proprietary
rights to a particular piece of air or river. With no owner to
control access and profit from the resources's preservation and
responsible use, it is liable to be plundered by all and sundry.
(Macneill, 1991)

The idea of being responsible for one's own actions is a
prerequisite to the achievement of sustainability. Rarely do people
internalized the externalities they create, and often the beneficiary
is not held accountable for the full cost of externalities. The
responsibility for externalities rarely influences our actions;
therefore, they tend to be ignored, and are often lost in the global
commons. The system we have amassed through a lack of responsible
management often imposes cost upon someone other then the user of the
product, and creates profiteers that are insensitive to the needs of
their surroundings and ignore the cost to the environment and future
residence. This has created an unequal import/export of natural
resources and externalities locally, globally, spatially, and
temporally. The factories of products that create high volumes of
pollutants or the waste from the production is being placed in areas
that are willing to accept them due to economical pressures.
"Economically underdeveloped countries are often targeted as export markets for toxic and dangerous products, such as pesticides, herbicides and pharmaceuticals, which have been banned or restricted in Western countries. Often entire toxic industries, or at least their hazardous and most polluting stages of production, are transferred from wealthy nations to poorer ones where environmental regulations are weak, and cheap and uninformed labour abundant. (Keohane, pg144)

By looking at situations that lead to environmental degradation, depletion of natural resources, and overloading of the natural waste assimilation process, I hope to describe the barriers that exist which stop us from achieving an environmental and economical sustainable development in MDC and LDC.

BARRIERS TO SUSTAINABILITY

Barriers to Environmental Sustainability in MDC

The approach of MDC's to the use of natural resources is deeply embedded in attitudes of it's population. As children we are taught to improve ourselves through manners, knowledge, physical prowess and social skills, and somewhere between our transformation from childhood to adulthood this idea becomes mutated into bettering our physical surroundings (i.e. nice car, house, toys, etc...). This is demonstrated in the Dominant World View (DWV) which states:

1. Nature is there to promote man.  
   (Economy prevails over environmental considerations.)
2. We Care only for the self, and are unconcerned for future generations, lack consideration for the use of present resources.
3. We accept risks with little concern over the consequences; and when a crisis occurs, then a change may be considered, but the basic belief is that technology will solve any problems.

4. We see no limit to growth. Resources and population are not a problem in our lifetimes. We see no end to produce-consume pattern, no end to resources.

5. The Status Quo is fine, and everything is o.k. with the way life and business is conducted. We are not doing any damage that can't be fixed

6. Things are done by the old politics, where decisions are made by experts, the economy is operated by the free market without intrusion by the government and the profits by the elite will trickle down.

   (Milbrath, 1984)

This DWV or Dominant Social Paradigm is what shapes our view and guides our actions and one of the effects of this is to create an ever increasing Standard of Living (SOL) in MDC's. "This SOL (in MDC) has increased to such a point that it cannot be realized by 90% of earth's population. Some 70% of the world's population lives at a per capita energy consumption level one-quarter of that of Western Europe, and one-sixth of that of the United States." (page 30 energy for t.w.). We maintain an Americanized ideal of what constitutes a good life, and use that to promote trade with LDC's for their mineral rights in their own countries, in an attempt to boost our own resources to maintain our SOL. We have reached the point where we need to import high
quantities of minerals. "The American standard of Living is dependent upon nonfuel minerals. Currently, the United States economy requires four billion tons of new mineral supplies annually, or about 41,000 pounds per person. With six percent of the world's population, the United States consumes about thirty percent of the world's mineral production. (Jones, pg 220)

Many of the attitudes in the U.S. toward the use of natural resources have been simplified to the belief that one merely purchases products off the store shelves when one feels they has the need to add to their collection of processions. Although some of the mind-sets are changing, the majority of the people in MDC's still do high volume purchasing and deposing as an integral part of their daily life.

The "American dream" of a high standard of living for all that has been forged throughout American history, has become the "MDC's dream", and this dream is dangled in front of LDC as a barging chip by MDC. The belief in the American dream still thrives and has spread it's desires throughout the world. But the search for the American dream has manifested itself into the reality that too much of anything can be bad and the limits of earth's tolerance toward pollution, high natural resource use, and natural habitat destruction are being passed, showing the limitations of earth's natural cycles to accommodate the actions of the human species. And yet LDC are still lead to believe that they can obtain the levels of MDC. Thijs de la Court, in Beyond Brundtland stated that, "To bring developing countries' energy up to MDC's levels by the year 2025 would require increasing present global energy use by a factor of five. The planetary ecosystem could not stand this, especially if the increases
were based on non-renewable fossil fuels. Threats of global warming and acidification of the environment most probably rule out even a doubling of energy use based on present mixes of primary sources.\[\text{\cite{Court, pg. 58}}\]

By attempting to maintain the high SOL in the United States, we have created a strain on the natural resources of the United States and on the world. Because most of the natural resources have a Unit Place Value, raw materials can only be moved once before the price makes it unfeasible to be moved again and it is generally from LDC's to MDC's. This has created a one way street for the flow of natural resources. A difference between MDC and LDC stresses on the world resources is that the MDC have the technology, wealth, and access to the natural resources needed to meet it's country's needs, but at the present rate of consumption their needs extent beyond sustainability within their boundaries, so MDC's needs eventually effect LDC's needs.

The high SOL that generates high volumes of waste and depletes natural resources is not only draining on the capability of the MDC to meet their needs, but also because MDC augment their natural resource supply by acquiring the resources from LDC, the ability of LDC to developed becomes hampered. With LDC, common problems are they lack the knowledge and technology to efficiently use their resources and are faced with an increasing population that is needed to make up for their lack of technology in their labor intensive societies.

Barriers to Developmental Sustainability in LDC

While the high SOL in MDC puts tremendous stress on the world's natural resources, in LDC their actions too have similar effects on the local lands and natural resources. For example, the effects of
over-population and wasteful means of procuring natural resources are devastating the environment of LDC's. It was stated in Beyond Interdependence, "Forty years ago, Ethiopia had a 30% forest cover; twelve years ago that had fallen to 4%; today it is close to 1%. Until this century, India's forests covered more than half the country. Today, they are down to 14%... In 1988 tropical forests were disappearing at a rate estimated conservatively at over 20 million hectares per year. (MacNeill, page 9). These are huge declines in vital natural resources are mainly do to exporting and over-harvesting by the increasing population in need of basic sustain. Noted by Nathan Keyfitz, and according to projections by the United Nations Population Division, the population of LDC, especially India, "in the next 35 years (to 2025) will see a further increase to 8.5 billion people. Of the projected increase of some 3.2 billion, the United Nations finds that less than 200 million will be in the developed countries; at least three billion- that is, 95 percent- will be in the less developed countries (Nathan Keyfit, pg. 119). When we look at the reasons for high increases in populations, we find that the reasons can range from needing workers for the family farm, to the high rate of mortality in births, or because birth control and abortions are uncommon or unacceptable to their belief system. S.K. Roy describes the problem as, "A family (in LDC) could well be content with two children, but four becomes the minimum when one family member had to concentrate on finding fuelwood and one on fetching water. The number rises in relation to infant mortality and adult survival to ensure old-age support. Virtually all third world countries have passed the point where any further pressure on the
natural resource base must be preceded by massive regeneration and emergency conservation measures (Roy, pg 163).

Little, inappropriate, or no advanced technologies are utilized in LDC’s to aid in replenishing renewable resources or finding substitutes for non-renewable resources that are readily available in MDC. This means much of LDC resources used locally go to meeting basic day to day needs of survival. The natural resources used to meet their most basic needs are commonly utilized through wasteful methods. "High birth rates in the countryside have forced many subsistence farmers onto marginal lands. In the Indian state of Rajasthan, arid soils are being rapidly depleted by intensive cultivation. The children of Javanese peasants, unable to make a living on subdivided plots of inherited land, have cleared mountainous terrain to grow crops, at the cost of much wasted labor and ecological damage, In brazil peasants from overpopulated regions have destroyed millions of acres of rains forest in an attempt to eke out a living from soil that is essentially unsuitable for farming. (Nathan Keyfitz, pg. 120). They will continue to have to depend on renewable resources that are already limiting their development, because they lack high intensity energy available to MDC. This dependency on renewable natural resources already is causing them to destroy their land by constantly harvesting new growth, depleting the land of vital nutrients essential for renewing the natural resource. This constant depletion is destroying habitat of man, animal, and plant.

The most common cause of extinction in species is the demolition of habitat. The balance of animal territory is a unique phenomena: Most species need a defined amount of space to survive, in
this area they feed and breed. The destruction of habitat and the retreating animals results in habitats with populations too dense for survival or too small to support enough population to breed. Some species of animal and plant are so unique that they may live in a single tree or a lone meadow and the destruction of that spot means the destruction of a species of planet earth.

This is a perpetually worsening condition as poor management and inappropriate technologies are applied, it degrades the land making it less productive with each yield. The declining natural resource and the soil erosion, made worse from the flooding because the loss of habitat, also add to the declining natural resources available for an exponential increasing and expanding population.

The increasing burden of densely populated areas, and high resource use has put tremendous pressures on the natural waste assimilation cycles of the earth. "Population has increased to a point that the natural cycles air, water, earth cannot assimilate the waste generated. " (Udall, 1963). The lack of advance environmentally and economically sustainable technology only lowers the possible sustainable carrying capacity of the already desecrated LDC's.

This result stemming from over population and poor management (no access to appropriate technology, uncontrolled use of natural resources, and no integrated waste system) only adds to the destruction of habitats and the depletion of natural resources. This, in combination with the export of materials to MDC's, has placed the LDC's resources in danger of being totally depleted, and their land desecrated.

Common rhetoric says that the U.S and other MDC have been
contributing to the development and advancement of LDC, but contrary to this general belief, the companies of MDC exploit the natural resources of LDC at the discretion of MDC's companies. "An example of bias toward LDC's is shown by some MDC's impose levies that favor the importation of raw logs rather than processed products from the tropical LDC's. The MDC's thus gain the value added in the processes of the logs. As a result, the countries (usually a LDC) have to cut far more forest than they otherwise would in order to earn the foreign exchange that they need for development" (page 61, beyond inter).

This type of action uses up much of LDC's natural resources, while not giving them much financial strength, as stated in Beyond Interdependence, "At this moment, governments are moving in the wrong direction on a more equitable distribution of the proceeds of growth between and within nations. ...the cumulative debt of developing countries surpassed one trillion dollars in 1986, and interest payments now exceed 70 billion dollars a year. Net transfers of capital to developing countries turned negative in 1982. The poorer nations transferred over 50 billion dollars to the richer nations in 1989. And that is only what the world bank counts. In addition, today's trade patterns contain a massive transfer of the environmental costs of world GNP to the resource-based economies of developing countries (page 21 beyond inter). This has LDC giving up their natural resources at low prices and accepting environmental cost at low prices this trade makes LDC natural resources poor and pollution rich. "As developed nations enact laws promoting environmental and occupational safety, more and more manufacturers are moving their hazardous and polluting operations to less developed countries, most
of which have either no environmental and worker-safety regulations or little power to enforce those that are on the books." (Ladou, pg 48).

The only reason MDC's are not in the same situation as the LDC's, and have been able to maintain our elevated level of living is that our technology and world power have given us the ability (so far) to obtain the natural resources we need in order to maintain our SOL. But this power and technology has blinded us to the obviously poor conditions of the world. In Beyond Interdependence it states that, "Global warming is a form of feedback from the earth's ecological system to the world's economic system. So is the ozone hole, acid rain in Europe, soil degradation in Africa and Australia, deforestation and species loss in the Amazon. To ignore one system today is to jeopardize the others. The world's economy and earth's ecology are now interlocked.... This raises fundamental questions about how economic and political decisions are made, and their implications for sustainability. (Beyond Interdependence, pg 4)

This attitude, the lack of responsibility, and misplaced moral and ethical reasonings along with our leaps in technology are the very reason why we have been able to maintain this facade. Responsibility must start somewhere, and within the MDC's is the logical place to start because of the control and flexibility that comes with power, technology and our ability to adapt and change.

WHO IS RESPONSIBLE FOR IMPLEMENTING SUSTAINABILITY

The very same reason why MDC can maintain a SOL above their own natural resource base is why they should be responsible for maintaining the viability of the earth; they have the control. To a large extent it is their use of natural resources that creates the
stress. F. H. Bormann writes, "...pressure on our global life support system is closely related to our rush for additional and cheap natural resources. Strip mining for coal has devastated hundreds of square miles of landscape. Demands for more energy force us to go ahead with construction of energy plants, both fossil and nuclear, before we can see the full implications of what we are doing." (Bormann, 1992). The United States, along with the other MDC's, have a responsibility toward the world because they process the means in political, military, resources, technology, finances, and knowledge to influence the actions of others and be flexible with themselves when initiating change to a less destructive lifestyle.

But an inanimate object can't be responsible, therefore the individuals of a country must be responsible. We have lived with the pressures of the American dream for so long that to think of it as being the wrong path is unsettling, but we must change our direction and re-evaluate our beliefs and our lifestyles. The frontiersman's spirit of exploration, abundant natural resources, and the Industrial Revolution made the United States one of the most powerful countries on the planet, but now what is vital to the survival of the human species is the management of the planet. To initiate a managerial umbrella over the earth's well being, in Post's (1991) writings, he outlines the need for a managerial system, "The ecological challenge requires managers to formulate strategies, for the present and the future, that (1) make the most efficient use of scarce resources; (2) reduce wastes that pollute the environment; and (3) keep industrial production and other human activities within the limits set by nature's ecological systems. (pg.34)
To change our direction we must change ourselves, in the past the motivation influencing a change in our ways was a reward of spoils or a crisis, but today the change in attitude, the taking of responsibility needs the motivation of what if truly right and good for the world. Where are the moral and ethical responsibility of each individual toward the world and it's present and future species? Are There Moral and Ethical Considerations?

The human species are faced with a unique problem that differs from any other species on the face of the earth. We have conscious thought. We can remember the past, make predictions about the future, and relate the present to each of those time periods. The importance of this is that we process the power to control our surroundings and change our future, and learn from our past. We make conscious decisions that fundamentally effect the environmental, giving pushes and tugs that can negatively or positively effect other species of the earth. As expressed in Beyond Interdependence, "Throughout history, the scale at which people transformed energy and materials has been minuscule in comparison with nature, recently, however, this has changed and the relationship between human society and the planet has been transformed profoundly. Human activities have become so huge that in many instances they are of the same scale as fundamental natural processes.(MacNeill, 1991, pg.8)

We have to consciously face the consequences of our actions. If we don't, we must and live with the knowledge that the consequences were predictable and therefore avoidable. The MDC's are overwhelmingly materialistic compared to the whole world, and this puts a strain on the resources all around the world, with MDC's
purchasing resources liberally from the LDC's to support their materialism. This strain is shrinking the undisturbed lands, and affecting other countries development. Through the loss of these lands, along with escalating pollution, we are disrupting a delicate evolving balance which has been in motion for millions of years. In Beyond Interdependence, it is pointed out that "Many believe that the most serious consequence of disappearing forests and other wildlands is the loss of habitat for species and the acceleration and irreversible distruction of genetic diversity (MacNeill, pg.120). Human activity has greatly increased the natural rate of extinction to the point that we may be losing much more than we can or will ever realize.

F. H. Bormann suggest that, "the American dream, based as it is on the concept of unlimited space and resources, has run aground on the natural limits of the earth."(pg. 740). Even if the world could not run out of resources, for humans to destroy the environment for other species of the world out of a perceived notion of superior right to life over animals or future beings, has to be ethically and morally wrong. If this cannot be understood by the people of the world, there may be little hope existing for us.

Presently we are living with many of the consequences of our past actions, such as over-population, natural resource depletion, pollution in the air, water and soil, and loss of vital natural habitats. In Beyond Interdependence, the pollution problem is summed up as those, "that were once local are now regional and even global in scale (e.g., acid rain, involving the entire continents of North America and Europe). Environmental effects that once appeared
simple and trivial are seen as complex and substantial, slowly changing ecological systems critical to economic development and to life itself (e.g., the dispersion of chemicals in soils and water and there concentration in the food chain) (MacNeill, pg.8).

Until the last hundred years, most of the results were localized to the area where the decisions were made how to live and how to use the natural resources, but this has changed drastically; now the consequences have expanded, spreading throughout the environment at harmful levels of concentration, no longer being assimilated by earth's natural systems before they travel away from the source. The effects of over-population, natural resource use, and pollution traverse the imaginary boundaries of civilization. So, we faced not only with the pollution and resource depletion within individual communities, but also the accumulating effects upon the whole world. Post describes the danger from pollution, "Present dangers exist at two levels: (1) local environmental damage, such as toxic waste dumping, that leaves areas of the earth unable to support living organisms; and (2) global systems of climate, atmospheric protection, and food resources that are breaking down as the result of cumulative pollution. Depletion of the ozone layer, destruction of the rain forests, and desertification of land from topsoil loss are but a few of the ominous global transformations now underway (Post, pg 35). Because of the attitudes that are prevalent in the D.W.V., lack of responsibility, and the inability to see our moral and ethical obligations toward the earth and its inhabitants, the present economical use and the short term private benefit in both MDC's and LDC's take precedence over the intrinsic value of nature and the long
term public benefit. The immediate results of this private beneficiary system the depletion of non-renewable resources, a high rate of natural resources use beyond regeneration rate, and the increasing deterioration of the environment causing the loss of suitable habitat. The long term results are the loss of energy and mineral sources, nonproducing lands, the loss of animal and plant species, and loss of future generations ability to sustain a decent level of living.

It is becoming increasingly obvious that the actions of the human species is vastly and adversely effecting the sustainability of natural resources and the assimilation of waste. As we reach the carrying capacity of humans at their present rates of consumption, the ability to achieve a sustainable society or even ignore our effect on the planet becomes impossible, and the moral and ethical responsibility of the human race toward the planet earth should be seriously in question.

Solutions to the Barriers

The most vital change that must occur in the world is a change in individual behavior. In MDC the individual gives their power to control to an inanimate process, and that process in turn makes decision that mold the future of the individual. The process has created an environment of pollution, rapid loss of habitats, excessive non-renewable and renewable resource use, and this is threatening the integrity of the producing earth. This process of corporate and government procedures are the methods that MDC uses to acquire the resources its need. We need to change how the system we have created
reacts, even though it is reacting to our wants and desires. This primarily involves changing the attitudes of how people think life should be lived.

If a sustainable society is to be achieved in either society, then a change must happen in the basic way life is lived in both MDC's and LDC's. Two major changes needed by the individuals in MDC are: a change in attitudes that involves taking responsibility for the effects of ones actions, and changing in the moral and ethical responsibility toward the world and the future world.

The Dominant World View that is securely in place in the attitudes of many people needs to be altered to a view of the world which looks objectively at the situations and takes the environment into consideration. As described in the New World View (NWV), mankind is an interdependent part of nature:

1. Humans are not separate from nature, and a loss in nature is a loss to man.
2. Nature is not for mankind alone, but all the species of the earth.
3. Humans place, as sentient beings, in the world is to manage it and help it and all species flourish.
4. Need to realize many resources are finite with no replacement possible.
5. The production and consumption or disposal of material goods cannot keep increasing.
6. Mankind must use nature sustainably.
7. The major function of the states are to preserve human freedom that does not adversely effect the rights and abilities of other human and other species to survive.
8. All of mankind's actions effect the ecosystem.

(milbrath, 1994)

A change in attitude can be accomplished by educating people on the effects of their actions to their surroundings, and how inaction is as damaging as the action once you have given your power to the process. This change to the attitudes of the world will take more than education. To make a change as contrary to today's belief, as the changes from DWV to NWV, involves individuals being convinced, prodded, or forced to make the change. This possibly involves a global body enforcing a national body enforcing the individual, to abide by the necessary fundamental changes in our day to day lives.

People need to realize that the traditional American dream is no longer beneficial to mankind, environment, or future generations. The attitude of "more is better" that has prevailed in MDC's, has created a society with a SOL so high that only a small percentage of the earth's population can possibly obtain it. Lifestyle changes such as, resource conservation that will serve to reduce waste and cause a reduction in resource use, (i.e. reusable containers, refusal to buy short lived merchandise, full recycling). For example, in Oregon there is the Recycling Opportunity Act that has a 5 step procedure for waste recycling; 1. Reduction of waste at the source, this involves individuals and industry. 2. Reusing the resource for the same purpose, involving only the cleaning of the product. 3. Recycling the product to be used again. 4. Recover any energy for the resource, such as burning the resource for energy, or composting the resource for it's energy. 5. The last resort is to bury any remnants of the recycled, unusable resource. This is an example of individuals
seeing how their treatment of their surroundings was wrong, first they changed themselves, and the change traveled up through the community and into the government, there becoming law (and then traveled back down, hopefully changing the percentage of the people it missed on the way up). Until these type of individual changes happen, the changes needed to protect our future will not happen.

Once the people are willing to change and adapt to new lifestyles, changes in the community that will have a positive effect on the environment (therefore be beneficial to the individual) can be adapted easily. Simply changes, but ones involving personal change such as, mass transit that effectively decrease pollution, conserve natural resources, and decrease waste, and ecological land use planning that involves urban land use management, can best set up our cities to reduce the environmental effect of large concentrated populations. New communities can fit into the ecological limits, so there is little or no stress on the system. This has to be done with using our ability to predict the results of our actions on the future. These changes will decrease the strain on natural resources, the same natural resources business and government recklessly acquire from around the world. People, corporations, and governments will have to get together and create a plan that will allow the businesses to start making product that have as long as possible life spans, and produce safe reusable containers that the government does not feel impelled to prohibit their use. The change in people and the community will change in our need for natural resources and will cause changes in the actions of the corporations and governments.

The real cost to the environment of this highly disposable SOL
must be demonstrated in the cost of living. Meaning the present and future cost of our uses must be integrated into the price. "The practice of using less developed nations as a dumping ground for untreated factory waste is but one of many forms the export of industrial hazards can take. Industries whose markets in developed countries are shrinking because of environmental concerns are vigorously promoting their products in the less health-conscious Third World. (Ladou, pg 48).

In LDC's, the method of survival in a society which lacks proper technology and structured management of it's resources is resulting in the devastation of their lands. Their attitude is entrenched in basic survival with food, energy, and shelter as their needs. To change this behavior, other methods for survival need to be integrated into their system. The management of population, management of natural resources, and later, education on sustainability are necessities to achieve sustainable development. The solution lays in the involvement of MDC's without realizing immediate gains, and the changing of attitudes in many multinational corporations from the DWV to the NWV. At the core of the solution, we must stop allowing greed and ignorance to be the dictator our policies. The solution for when restrictions become too great in their own country, is to travel to places that are desperate for financial help, but at who's cost?

To combat this action, the regulations and laws that apply to the corporations in their respective countries must be extended beyond their borders to any region that is affected by their presence. "The Host countries, hungry for jobs and foreign capital, cannot be expected to make the first moves to end unsafe and polluting
practices—and they often resent outside pressure to do so. Poorer nations take the position that only after they have attained the standard of living that rich countries enjoy will they adopt the restrictive environmental policies of the First World. (Ladou, pg 53).

Taking on Responsibility in MDC

People have to realize that how a country conducts itself is a reflection of what the people are demanding. When people strive for a higher SOL, the corporations try to fill that desire. So every individual must control their country’s needs by controlling their own needs. They need to take responsibility for the workings of their government and their corporations. The responsibility that each person must accept has to be prevalent in the individuals that control the corporate actions.

The actions of the corporation can not be based solely on the isolated profit margin. A corporation must internalize all externalities to define the true cost of it's products to the world. Exploitation by corporations of poorer countries because the cost of minerals, natural resources, and labour is a fraction of the cost in MDC's, cannot be allowed. A world wide fair market value for all goods and services must be universally applied and maintained. This, in conjunction with a management system for all natural resources must be established with each country having incentives to control their corporations. This needs to include management of natural resources use and regeneration, technology applied appropriately, population control, and the rights to the best technology available for any area.

The world cannot support the stress of LDC becoming industrialized. Great amounts of energy and natural resources were
used to industrialized MDC, and the cost to the environment was devastating with the damaging effects still lingering. But LDC's can be helped to help themselves with appropriate technology and education. One of the goals of world management is to have each region reach a sustainable level of development that is designed from the surrounding culture and natural resources. All places are not alike and need not be alike, but how much responsibility do MDC's have to regions lacking in a sound natural resource base?

The moral and ethical responsibilities seem to be a subject only for philosophy courses and in the past, philosophers. Possibly if the people of MDC's knew why many of the products are cheap, (i.e. child labour, slave labour, exploitation of foreign natural resources, uninternalized costs of externalities, exported pollution) it would awaken our moral and ethical responsibilities from the dark hidden recesses of our minds. We can not change our past actions, but we can start with our present actions by planning for the future and by taking responsibility for the present in the present. All around the world people are striving to survive and yet in the U.S. alone, we are consuming 30% of the world mined resources. We complain about over-population in LDC's, and yet we exploit their resources to help maintain our high SOL which is as damaging as LDC's over-population, poor management, and lack of technology.

Do we have a moral and ethical obligation to the less advantaged societies? At a minimum we have an obligation not to take away the resources they need for development. We need to be careful not to overrun cultures with our idea of what constitutes a good life. The entire world does not need to be an industrial mecca, but if a culture
chooses a less resource intensive society, it does not mean that their natural resources should be exploited and diverted to a higher resource intensive society. All countries must develop and implement a management program for their own people, natural resources, waste, and land use. This program must be followed by the corporations and individuals regardless of diminished margins of profit and lowering of the SOL in the present.

Do we have a moral and ethical obligation toward future generations in regards to having a sustainable society? In the past there has been little consideration for future generations. This is reflected in the amount of pollution and waste which we are faced with today. The intensity of use and the generation of waste has skyrocketed with the exponentially increasing populations of LDC and the high standard of living experienced in MDC's. These effects were previously usually localized, but now have spread beyond international borders, affecting the world globally.

Previous actions resulting in mass species extinction, deforestation, degradation of the natural elements, over-population, and global warming demonstrate what we can expect in the future. We, as the only sentient species on earth, have the ability to control and manage ourselves and our environment. As soon as we can all become educated on the effects of our action, we can start managing our interaction with the ecosystem. This management includes, personal management, communal management, business and Governmental management, and global management of all the societies. And eventual this will all be needed, but first we have to define and promote the change that is needed in each individual that demonstrates that he/she is
conscious of his/her actions, and that they have morals and ethics that befit a conscious sentient creature of the plant earth.

CONCLUSION

What I have tried to accomplish in this paper is to demonstrate the importance of the concept of an environmental sustainable development, which can mean economical sustainable development in the long term, and to point out the barriers that persistently bar our way to achieving it. The term sustainable has been bounced around, being defined then redefine to fit one propose or another, losing it's immense importance to the continual survival of the diverse species populating the planet, and the cultures within those species. By using common sense it should be quite obvious that the world has a finite amount of space fit for habitation, a finite amount of non-renewable resources, a limit to regeneration of renewable resources, and a limit to the amount of waste and pollution that the natural cycles can assimilate before the things we take for granted, such as clean air, water, and earth become unusable. As the non-renewable resources are depleted, the ability to achieve advancements in sustainable development become less likely. The further from a sustainable developing society we become, the further from a self-sufficient society we become, and therefore further from a sustainable world. The longer we wait, the more difficult it will be to make the adjustments necessary to obtain this goal. The loss of viability in the environment is dangerous for both MDC's and LDC's, and to ignore these limits with continual abuse has it's cataclysmic time restrictions. With the continued disregard for the warning
signs, we tread not only downward on earth's viability but also we tread down the moral and ethical standards. At what point do we care so little about our place among the species of the earth and the future generation, and think only of ourselves that we totally demoralize the concept of life and civilization?

The United States is a powerful nation, but it has become a nation that requires an abundant amount of natural resources and energy to continue functioning at it's current rate. If we wanted to be, we could probably be the last surviving race of humans on earth, we could continue on this rate of consumption until we physically have to fight over the last of the natural resources. Or, instead, we could develop new policies, attitudes, and habits that will lead to a sustainable natural resources base. Problems we are faced with, depleted resources due to high SOL, over-population and waste generated from the high use of natural resources and densely populated areas, these problem all require a change, a change in our day to day life, a change in the American dream, change in MDC's and a change in LDC's. We can not afford to fix the symptoms of a stressed planet, we must look past the pollution, and past the deserts, to see the cause of our problem. Too many people using too much of the natural resources at too high of a consumption rate.

There are constant calls for less government involvement in the goings on of the middleman between the producing biosystem and the consumer community, but history has shown us how the equation, land = money, has balanced out. How can it be ethically correct to let individual profiteers wring the land dry of it's ability to produce. The worst they manage the land, the greater the cost to the ecosystem
and to those who populate the ecosystem. We, as people of the community, can no longer stand by and watch the viability of our ecosystem's land be scalped and bleached for all it's worth just for an easier profit. The cost for not internalizing externalities should be greater than the cost of internalizing the externalities.

It is hard to care about the environment if your family is starving. But if you appreciate the beauty, the magnitude, the benefit, the need, and the advantages that a healthy environment brings, then it is very hard to watch it being abuse and destroyed for monetary gains or out of ignorance. Ideologically, the answer is simple - use the environment as you would use a garden that was your only means of food - cultivate it for maximum use while not destroying the integrity of the soil. If the needs of the gardener are extending beyond the capability of the garden, realize that something must be done to change the needs of the gardener. That may be a reduction in population, a change in your standard of living, adaptation of new methodology Something....

In John Carroll's words:

"Western industrial society, and American society in particular, has difficulty in avoiding neat but fatally artificial, unrealistic separations and divisions of problems and peoples, Unless "blinders" presently in place are removed, unless conditioned mindsets towards the world and towards other people's conception of life are removed, development, sustained or otherwise, is doomed to failure."

(Roy, pg 168)

Many of our world problems are associated with the MDC's destruction of the environment for profit and our determination to
remain in ignorant denial perpetuates this problem. We, in a MDC's society, acknowledge little beyond what is amenable to us. Unfortunately what is often acceptable within our societies has little to do with what is ethical or even truly good for us and the world. So we trudge through daily existence, avoiding critical thought, when even just employing more common sense could enhance sustainability, which in turn would allow us to see how the world can function for the benefit of all. MDC must start by demonstrating sustainability within our own boundaries, create policies toward that design, and change our pseudo-policy of energy and resource grabbing from around the world. Otherwise how we can rationalize dictating the policy of other nations as to their use of their natural resources and/or the raping of the worlds commons; such as, the polluting of the air and oceans, and mineral/resource raids of the oceans and antarctic. Due to our period of industrialization we have desecrated much of the resources that we've touched. If the policy of "Don't do what we do, do as we say to do" is an example of the logic behind our policy making, then we had better re-examine the process and the policies we are currently observing.

We need to re-evaluate the morals and ethics in our different societies if these morals and ethics allow for the devastation to the earth's ecosystem that is occurring today. Once we decide to change our attitudes, we can start altering our behavior, interacting with the environment to keep it flourishing and healthy. The change in our behavior has to occur at all levels of societies. If changes do not occur, the results of our action and inactions will result in massive decline in quality and quantity of the life we and other species enjoy.
REFERENCES


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