Save the world versus man-made disaster: A cultural perspective

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Abstract. This review article examines two sides of disaster that are inherently part of human life. From a cultural perspective, disasters can be divided into two main groups, namely natural disasters that are 'given' and disasters caused by human activities that do not respect the natural environment. The stewardship of nature is closely related to 1) human behavior, 2) worldview, 3) awareness, and 4) caring. These four aspects can be examined from a cultural perspective which in turn will foster a new awareness for humans as the inhabitants of the earth. 'Save the World' is a motto that persuades humans to safeguard the earth and the environment, while 'Man-Made Disaster' is a human condemnation of some other group of humans that have created environmental damage that directly or indirectly leads to disaster. The two sides of this phenomenon will be discussed reciprocally in this article, to see the common thread in which the cultural approach can be a recipient of these two poles. In other words save the world versus human-made disaster will be discussed from a cultural perspective.

1. Introduction

In general, disaster is defined as a sudden accident or a cataclysm that causes great damage or loss of life. It is then common to simply to call such events natural catastrophes. According to the United Nations Office for Disaster Risk Reduction (UNISDR), a disaster can be defined as "a serious disruption of the functioning of a community or society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope with using its own resources" [1].

Under this wider definition, disaster can be divided into two groups. Firstly, ‘given’ disasters, which are caused by natural factors or phenomena outside the control of human beings; secondly, disasters where the causa prima is allegedly caused by mistakes (human error) or through the failure of humans to interact with or use nature wisely.

A disaster is an event that has negative impacts not only at the same time of its occurrence but also entails a series of consequences which continue to be felt after the acute disaster event, for an indefinite length of time. According to the Badan Nasional Penanggulangan Bencana (national disaster management agency of Indonesia) there are three categories of disaster: 1) natural disaster, 2) non-natural disaster, and 3) social disaster. The first category or aspect comprises all types of disaster-related to natural phenomena, second includes all disasters relating to the human-made environment and human health (e.g. plagues), and the third comprises all disasters related to the consequences of social conflict. The three disaster types will be described further later on in this article.
Figure 1. Types of Disaster

An event, whether it is caused by natural factors, non-natural factors or human factors, or any combination of these, which has resulted in human casualties, environmental damage, and property loss, will also have psychological impacts, such trauma. Disasters occurring in an area can certainly affect the lives of people in general, even those who are direct casualties, shifting their lives from normal conditions to abnormal ones, due to both physical and psychological disruption.

The discourse of cultural perspective about the disaster can adopt an interdisciplinary approach to explore the cultural dimensions in this field. Focused discussions about theoretical considerations and practical point of view can lead to a better understanding of the importance of culture in overcoming hazards and disasters.

Based on the description above, the focus of this review article review is on the exploration of cultural perspectives on the disaster, something that is inherently a part of human life.

2. Definition and Type of Disaster
In line with the United Nations Office for Disaster Risk Reduction (UNISDR), in Undang-Undang RI (the Law of the Republic of Indonesia) Number 24 Year 2007 on Disaster Management, the definition of disaster is as follows: a disaster is an event or series of events that threaten and disrupt the lives and livelihoods of people caused by both natural factors and/or non-natural factors and human factors resulting in the emergence of human casualties, environmental damage, property loss, and psychological impact. Furthermore, the concept of natural disasters, non-natural disasters, and social disasters are described as follows.

a. Natural disaster: a disaster caused by one or a series of natural events such as earthquakes, tsunamis, volcanoes, floods, droughts, hurricanes, and landslides.
b. Non-natural disaster: a disaster caused by one or a series of non-natural events that might include failing technology, failing modernization, epidemics, and disease outbreaks.
c. Social disaster: a disaster caused by one or a series of human-caused events that encompass social conflicts between groups or between communities, including terrorism.

In a cultural context, primitive societies often perceive disasters as related to a punishment from God, especially in the case of natural disasters. Meanwhile, non-natural and social disasters are generally believed to be caused by human actions and anthropogenic factors. Furthermore, it is widely held that humans as inhabitants of the earth must be responsible for caring for the earth for the common good.

3. People and Their Environment
Humans and their environment are two things that are inseparable from one another. Humans interact with components of the physical environment, both biotic (animals and plants) as well as with abiotic components (soil, water, rocks and others). Humans also interact with each other within a complex social environment and develop values and norms to regulate such interactions. Through these interactions, humans produce culture in various forms such as language, technology, traditions, social norms and so forth.
It is a common perception that when humans were not familiar with (had not yet developed) modern technology, human relationships with other environmental components were still running in harmony. In addition to the fact that the human population was still relatively small, many human communities maintained their environment and their take of natural resources was not excessive, so that nature was maintained without significant damage to the natural resource base. However, along with the development of technology, and the increasing number and needs of human beings, the human point of view tended to shift from being nature guardians to an exploitative-min-set, with the excessive extraction of natural resources.

As a result of these changing human paradigms, the environment is changing. Degradation of biosphere integrity is worsened by the pervasive presence of contaminants released by human activity to all environments including the oceans and fresh water system, the atmosphere, the land and soil, and even the cryosphere.

Man is a living creature of God’s creation with all its functions and potential, and subject to the rule of natural laws, experiencing birth, growth, development, and death, and so on. Human beings are intrinsically related to and interact with nature and their environment in a reciprocal relationship, which can be either positive or negative. Causing serious damage to the Earth’s life support system ultimately brings adverse effect for humans, such as the development of novel diseases, and an increase in the frequency and severity of so-called ‘natural disasters.

3.1 Correlation between Humans and the Environment

There is a very close relationship of dependence between humans and their environment. People throughout their life always interact with the environment in which each human being resides. The environment includes the vast natural estate of planet Earth and everything in it. In the ecosystem, there are abiotic components, in general, are environmental factors that affect living things including soil, air or gases that form the atmosphere, water, light, temperature or temperature, while the biotic components include: producers, consumers, and decomposers. Within this natural environment, man lives in an ecosystem circle that is a unit or a functional unit of living beings with the wider. Human life has been shaped by and is intrinsically very dependent on the state of plants, animals, and the surrounding physical environment.

The environment can change the process of interaction with human life. Many environmental changes occur in urban areas when compared to rural areas where the human population is fewer dense and lifestyle is often more (or closer to) primitive. Environmental change affects various aspects of human life. Changes in the human environment can disturb ecological balances, leading to reduced functionality of some environmental components.

Both human intervention and natural factors that occur can cause environmental changes. The impacts of the change are not necessarily the same, and may fall outside of previous human experiences. However, it is reasonable to suppose that with the high thinking and reasoning ability of humans, with their cultural heritage and social institutions, as well as growing knowledge, humans should be capable of facing and overcoming the challenges.

Environmental changes have had and will have both positive and negative impacts on human life. The development of agriculture and domestication of plants and animals is, over most of human history, widely considered to have had most beneficial impacts on human population; urbanization has tended to prompt the flourishing of culture, from the earliest recorded civilization. While many natural phenomena can affect the environment in (at least temporarily) disastrous ways (e.g. volcanic eruption), there is growing evidence of negative impacts from human activities which tend to reduce the ability of the natural environment to support human life. Examples of negative impacts of anthropogenic environmental change include: a) land becoming barren and bare due to erosion after legal or illegal logging and deforestation; b) flooding in residential areas due to changes in waterway management (e.g. canalization) and reduced water absorption/permeability in the water catchment areas due to land-use change including the construction of residential buildings, office, and shops; c) degradation of aquatic ecosystems due to pollution, and also related to d) the continued use of artificial
fertilizer and pesticides that not only lead to contamination but also in the long run tend to reduce soil fertility.

There is a little if any doubt that, if unchecked, sooner or later this multi-dimensional ‘improper environmental maintenance’ will cause disaster for humans. Example of positive efforts to mitigate environmental impacts does exist. For example, replanting tree after logging timber for human use, applying technology to increase productivity sustainably, replanting tree after forest fires to restore water catchment areas and preventing erosion.

3.2 Human Environment and Culture
Humans live, grow, and thrive in their natural and social-cultural environment. In the natural environment, humans live in an ecosystem that is a unit with biotic and abiotic components. Abiotic components are generally environmental factors which affecting living things, among others:
1. Land: the abode of human and animals, the land is is a place to grow plants, where plants obtain nutrients and minerals to meet their own needs and this provides food for the animal in the food chain.
2. Atmosphere: the air or gases that make up the atmosphere include the oxygen which is needed to breathe, and the carbon dioxide needed by plants for the process of photosynthesis.
3. Water: necessary for all life on earth, and the dwelling place of many living creatures dwelling in water; the evaporation and precipitation of water affects all terrestrial life and (natural or human-managed) ecological communities.
4. Light: sunlight affects the state of many living things and is the direct or indirect source of most energy on earth, including in particular fossil fuels, biomass, solar, and wind energy (but excluding tidal energy and geothermal energy).
5. Temperature: an environmental factor that has a great influence on most living creatures. Each living being has a thermal tolerance which limits the temperature range within which they can live. While many factors affect local temperature, global temperature is regulated by the energy balance between heat received (from sunlight) and radiated to space.

The biotic components of the Earth system include three guilds. Each performs functions which, when combined, result in a nutrient cycle. These three guilds are:
1. Producers: this group is comprised of living thing organism that can produce food from inorganic substances, mostly (but not all) through the process of photosynthesis. Included in this group are plants and algae have chlorophyll.
2. Consumers: this group of living organisms uses or eat organic substances or foods made by the producers, either directly or through the food chain. Human and indeed all animals belong to this group.
3. Decomposers: organisms that consume the remains of a living organism that have died, as well as other organic material. Through the work of this guild, complex organic compounds are decomposed into inorganic substances which can be reused by the producers to form new organic compounds. Most bacteria and fungi belong to this group.

3.3 Human Influence on Natural Environment.
Let us trace the history of human civilization on this earth, and we will see the efforts of human striving for the sake of survival, as well as tp to perfect and improve their welfare. As early humans wandered, they lived as hunter-gatherers, searching for fruits and tubers in the forests. They did not know about cultivation or farming and lived in small groups, often sheltering in caves. When the game began to decrease, they would move in search of a place where there were still enough game animals to feed. But such a way of life could not meet the needs of increasing populations.

In some tropical area, the advent of agriculture probably began with a realization that it was possible, and indeed quite simple, to planet tubers or other plants known as food in natural or human-made clearings, a practice continued to this day in some areas of Sulawesi. Such people made houses of wood, roofed with leaves. When soil fertility and crop yields, they moved on to find new places to
clear so that they could grow their crops. These people always paid attention to the sources of fresh water, choosing places near the springs, river or lakes. In addition to crop farming, they began to domesticate animals.

Some groups began to live settled life-style; through experience, they improved the volume and reliability of crop yields, for example with the discovery of the rice system. At this stage, the human had already begun to alter the nature of the natural environment significantly. It seems that humans, originally by and large lived lifestyle adapted where they found themselves. However, even in ‘primitive’ societies, there is increasing archaeological evidence that humans have changed all the biological communities in which they have live.

Compared to the jungle, where the population is small and primitive, the altered nature of the human environment is especially evident in cities. While many individual humans benefit from the altered environment resulting from changes in lifestyle and technology, especially those viewed as ‘progress’ or ‘development’, many of these changes can reduce the natural ability of their environment to support their lives, now or in the future generations.

4. Humans with Social-Cultural Environment
Humans live in a cultural environment that is influenced by many internal and external factors. Culture is crucial to the way humans think, and possibly vice versa. Therefore, the socio-cultural environment has a strong influence on how humans interpret nature and the natural environment.

Man and nature are closely related. Most belief system state that humans should make wise use of or take good care of nature. Well-preserved nature provides for the fulfillment of human need. If humans neglected to maintain their natural environment, nature would become unfriendly and disaster would be likely to follow.

The evolution of intelligence, technological innovation and the stage of civilization evolved steadily in line with the power of human exploration, both in physical form and even more in creativity and imagination. However, it seems that the space of human motion has its limits, because as a natural being man remains subject to the laws of nature. Therefore, in the midst of current technological advances, there are still a great many world-views and human responses to the environment. Some confusion arises from the various understandings of the relationship between human and the world around them, such as:
1. The idea of cosmogony, namely the idea that man must adapt to nature because nature itself knows best.
2. The concept of determinism, namely the idea that the natural environment determines human development. One of the most famous figures is Charles Darwin with his theory of evolution. He argues that living things (plants, animals, and humans) are continuously evolving through time. In this developments process there is a struggle for existence of leading to natural selection, and the survival of the fittest. In the process of development, natural factors are very decisive.
3. Possibilism takes the position that the environment sets certain constraints or limitations, but the social condition otherwise determines culture; nature is not a decisive factor but a control factor, limiting or supporting the opportunities or the possibility of outcomes driven by human activities and culture.
4. Technological Optimism comes from the concept of "human ecological dominance” which means humans are the dominant factor in the environment. With the development of human science and technological engineering, man can control, organize, process, and direct the environment. In this world-view, the ingenuity of humans and advances in science and technology will enable humanity to develop fixes for environmental problems.
5. Religious perspective. By major religious beliefs, humans and the universe were both created by God; humanity is not the ruler of nature, but just a steward. The human relationship with nature is one of responsibility within a relationship between creatures that are subject to the laws of nature as established by God.
5. Man as a Social Being
Man cannot live alone. In his life, he needs others to communicate and interact. It is inconceivable for humans to live in their landscape. Imagine if we live alone or shunned by our friends? That means humans need interaction with other humans because man is naturally a social being. That is, humans have the need, ability, and habit to communicate and interact with other humans. These interactions then give birth to specific procedures for doing something and looking at something. That is the basis of real culture.

Based on this perceived need for interaction, human began to live in groups, and in normal human life ‘grouping’ with others is a need that must be met. Throughout life, a group people can meet the individual and communal needs for communication, security, order, justice, cooperation, and to gain prosperity. Through communication, humans can convey ideas or ideas to others. They can share and relieve their feelings through communication.

For communication and interaction, humans develop language and culture. In addition to communication, humans also need security offered by in groups. If they live independently, they will be more vulnerable. In the settlement environment, humans tend to form a security system oriented towards outside threats as well as internal regulation (e.g. neighborhood care). A group also enables cooperation between members, so it also allows humans to undertake larger, more complex projects and live more prosperously. The media support various abilities in the form of language and go beyond basic needs such as communication-related to the ability to work together. Human language can also express intangible concepts and enable the exchange of information and culture with other human groups.

The level of community integration forms the basis for community recovery and reconstruction capabilities, and at the same time shows that good local knowledge of the social and physical environment determines the community’s ability to reduce short- and long-term losses [2]. Community behavior against natural disasters will test human resilience to adapt to the sudden change caused by the destruction of the physical spaces.

6. Cultural Perspectives to Save the Environment
The environment is the unity of all things, power, circumstances and living things, including human beings and their behavior, which affects the viability of life and the well-being of other living beings within a given space [3]. The most important thing in a ‘save the environment’ paradigm is the human viewpoint of saving the environment itself.

Humans as the rulers or stewards of the environment on earth play a major role in determining environmental sustainability. Human beings as God’s creatures of intelligence can change the face of the world from the pattern of simple life to the modern form as it is today. But unfortunately, what humans often do is not balanced with the idea of the future, and in particular the life of the next generation life. Much progress achieved by humans has already brought with its adverse impacts on the sustainability of their environment. Some widespread examples include: a) pollution (air pollution, water, soil, and sound), e.g. from industrial parks; b) floods, due to the poor drainage or sewage systems, watershed and forest destruction, and c) landslides, as a direct result of forest destruction.

The practical steps to tackle environmental problems include 1) establish standard rules governing the requirements for the establishment of a factory or industry; 2) ensure appropriate location of industrial site; 3) minimize pollution from industrial processes including those from raw materials, chemical reactions, water use, fumes/emissions, storage and transportation of-of raw materials and finished goods, as well as implementing wastewater remediation; 4) manage water resources on a rolling basis with attention to all aspects of water treatment; 5) regulate land use through a balanced master plan for municipal development; 6) encourage planting to supply on-going/future needs, and 7) improve the socio-economic environment to raise community standards of living to meet communication, education and everyday livelihood needs [4].

The Guidelines for the Implementation of Population and Environmental Education stated that environmental education should be life-long, both through formal channels (schools, higher education)
and outside the school, in the informal sector [3]. The social environment is a relationship of interaction between humans, where one and other should become harmoniously interwoven.

7. Some Types of Disaster
In recent years the people of the world have witnessed some heart-breaking events happening in front of them. The cause of the disaster may be natural and, due to the consequences of human behavior. It is a fact that humanity has frequently created catastrophes that have devastated the environment and taken lives. The 10 worst man-made disasters of all time are difficult to determine with so many to choose from. However, excluding the loss of life resulting from war, terrorism or transportation disasters, this list includes incidents that have severely affected people and the environment. The ten worst disasters according to www.disasterium.com are listed as table 1.

| No | Worst Events | Impacts | Remarks |
|----|--------------|---------|---------|
| 1  | Killer Fog, London, UK [Winte, 1952] | Smoke laced with sulfur dioxide, nitrogen oxides and soot left London encased in a black cloud of near total darkness. Over 12,000 people were killed. | During cold weather, residents burned more coal in their fireplaces to alleviate the chill. |
| 2  | The Al-Mishraq Fire, Iraq (June 24, 2005) | The release of sulfur dioxide into the atmosphere, which can kill people and also creates acid rain which destroys crops. | This fire started at an Iraqi sulfur plant and burned for about a month. |
| 3  | The Nuclear Power Plant Meltdown in Chernobyl, Russia (April 26, 1986) | Atmospheric release of radioactive material. Estimated impacts include around 100,000 fatal cancers. Recorded impacts: countless children with congenital disabilities, a sharp increase in cancer issues. | In 1952 however, this pollution took a tragic turn. This winter, the weather was cold and residents burned more coal in their fireplaces to alleviate the chill, and killed over 12,000 people. |
| 4  | The Kuwait Oil Fires (1991) | The largest oil spill in history. Considerable environmental damage (some long-term) and health impacts. | Following the invasion of Kuwait, Hussein sent men to blow up the Kuwait oil wells. Over 600 were set ablaze and burned for over seven months. |
| 5  | The Destruction of the Aral Sea | Once one of the four largest lakes in the world. The sea has shrunk by 90%. Salt and sandstorms due to the devastation kill plant life and have negative consequences for 100’s of miles around. | In the 1960’s, the Soviet Union diverted the waters from the rivers that fed the Aral Sea to irrigation projects. |
| 6  | The Exxon Valdez Oil Spill, Alaska (March 24, 1989) | Around of 500 miles of the Prince William Sound coastline were polluted. Over a quarter million birds were killed and countless other wildlife. | When the Exxon Valdez tanker collided with the Bligh Reef, over 11 million gallons of oil were spilled. Over 11,000 people aided in the clean-up process. |
| 7  | Dioxin Pollution, Meda, Italy (July 10, 1976) | A cloud of dioxin, one of the most toxic chemicals known to man, was released into the atmosphere. Many children were affected by the serious skin disease chloracne from the accident. | A reactor in the ICMESA chemical company exploded. No one died as a direct result of the accident. |
| 8  | The Love Canal, Niagara Falls (1940’s) | Leakage from 21,000 tons of toxic industrial waste buried below the surface of the town by a local company cause many women to have miscarriages and give birth to babies with congenital disabilities many people became ill. | There was a strange smell in the area around the Love Canal near Niagara Falls, and residents noticed an odd seepage leaking into their yards. |
| 9  | The Union Carbide Gas Leak, Bhopal, India (December 2, 1984) | Over 500,000 were exposed and there were around 15,000 deaths at that time, more than 20,000 deaths from gas-related diseases since then. | The pesticide plants leaked methyl isocyanate gas and other poisonous toxins into the atmosphere. |
The Three Mile Island Nuclear Explosion, Harrisburg, PA, USA (March 28, 1979)

Little radiation was released thanks to a working containment system. Livestock death, premature deaths, congenital disabilities have been attributed to the nuclear meltdown. The nuclear reactor experienced a partial core meltdown. This accident became the rallying call for fears about the nuclear power industry.

These are just a few examples which demonstrate the importance of shifting human perspectives. Without high awareness, a human can cause damage on earth and even create disasters. These 10 ‘worst man-made disasters of all time and many others not listed above have had negative impacts on the environment for decades after they occurred. Although some disasters are associated with a poor industrial control in developing countries, the example in Table 1 demonstrate that even in developed countries with (supposedly stringent) regulation, disaster can strike.

8. Cultural Perspectives on Disaster Mitigation

Disaster mitigation aims to reduce the severity of disasters which cannot (or have not been) totally avoided. Mitigation plans generally include measures of protection against or anticipation of the risks from a disaster that may occur or has occurred in a particular place. Disaster migration can be discussed from various perspectives, such as socioeconomics, infrastructure, health, sanitation, environment, etc.; it can also be discussed in the context of cultural perspectives frame.

Through the cultural perspectives, disaster can be divided into two main groups, they are natural disasters that are ‘given’ and disasters caused by human activities. The latter is often rooted in a lack of environmental stewardship. As outlined previously, the respect for and stewardship of the natural environment is closely related to the following aspects:

1. Human behavior
   Internal and external factors influence human behavior, and in particular the cultural background of the society in which an individual is born and develops. Behavior is generally initiated and embedded from the home environment. It then becomes a tradition in society. The embedding of environmentally appropriate behavior should start from childhood in the family environment, such as clean living, not littering in any place, and loving the natural world in a child’s surroundings.

2. Worldview
   Everyone has their worldview. A person’s view of life can be gained from experience, education, and sharing information with others. The worldview forms a person and vice versa. Looking at the various disasters that have occurred on this earth can open one’s horizons about the importance of saving the world.

3. Awareness
   Awareness can help in avoiding as well as overcoming disaster or implementing effective mitigation actions. The many non-natural disasters are caused by human mismanagement of the natural and built environment. Illegal logging, excessive mining of sand and corals, and many other
destructive activities can cause disasters such as landslides and flooding. Similarly, inadequate measures to prevent, remEDIATE, or otherwise manage industrial emission and waste disposal can damage nature and indeed can also have direct impacts on humans.

4. Caring.
Caring for the environment should be the joint responsibility of a community. The dominant paradigm says that man must conquer nature and not vice versa; however human beings are intrinsically reliant on nature, and thus needs to take care of our common life-support system, this common earth on which we all live. Caring for the environment is built through human behavior, worldview, and awareness as mentioned earlier. The role of government is to provide a framework which prompts people to care for the environment, and if necessary enforce regulations and impose sanctions to ensure certain standards of care for the environment at a societal level.

The four factors mentioned above should be harmonized through a joint commitment, so that the earth's inhabitants can minimize the possibility of disasters, especially disasters that are non-natural, or have anthropogenic component. Some aspects of such a framework are outlined in Table 2.

| No | Kind of Disaster | Causes | Assessment/Action before | Assessment/Action after |
|----|------------------|--------|--------------------------|-------------------------|
| 1  | Natural          | ‘Given’ | -                        | addressing trauma through a cultural approach |
| 2  | Non-natural      | Human Factor | encouraging skills to understand the disaster | - |
| 3  | Social           | Multi-factors (politic/Economy) | encouraging skills to understand the disaster | addressing trauma through a cultural approach |

9. Earth Day
One of the goals of Earth Day is to raise awareness and human appreciation of this earth the one planet inhabited by all humans. The first Earth Day was announced by a US Senator named Gaylord Nelson in 1970. Nelson was an environmental teacher. Commemorated internationally in many countries nowadays more than 175, Earth Day Celebrations have since been held on 22 April. Coordinated globally by the Earth Day Network, these Earth Day commemorations highlight the need to raise human awareness of the earth for our survival as a species. At once a celebration and a warning, Earth Day is a call reaching out through every nation’s culture to change the attitudes and encourage all people to join in saving this earth.

10. Concluding Remarks
Humans have an important influence on the survival of natural ecosystems and altered human habitats; policies and actions which affect the relationship of humans with the environment are very crucial for the future of the environment and human life. Thus, it can be concluded that a cultural approach is to educate the public about how important we all are to maintain and care for the environment. Our ability to realize this deep connection with our planets will determine our relationships with other humans and with our environment. Humans must protect the environment for the sake of human survival in the future. Developing such a mindset requires early habituation. Natural disasters are mostly unavoidable. However, every event can provide experience to humans on minimizing impact and coping. A natural disaster can cause positive or negative changes in community behavior. Disaster can simultaneously strengthen solidarity and create conflict within society. Natural disasters sometimes bring to the surface problems that have been buried in the
community so that they can be addressed, especially with facilitation by people who are trained to solve them.

Various community experiences which are stored in the collective memory, and are still trying to survive can be valuable in this context. In other words, culture as the whole of society's knowledge can be viewed as a social artifact; it should be used to understand and interpret experience and environment in a holistic manner, and become the framework of a foundation for developing and manifesting appropriate behavior in the face of change.

From a cultural perspective it seems that there is a difference between natural and human-made disasters where in the latter case humans (whether through ignorance, negligence, accident, or deliberate disregards for the consequences) are responsible for human suffering and environmental damage at the scale of a disaster. The cultural approach can be used after natural disasters to address human trauma, while (wholly or partially) human-made disasters and social disasters can be led to change which raise awareness of the importance of protecting the environment as evidenced by the aftermath of such disasters which have taken place around us.

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