

The Human-Environment Relationship

What are the different philosophical approaches to human-environment relationships? by Kate Cowan

The longstanding relationship between humans and the environment is complex; it has the potential to be both harmonious and mutually beneficial, but also problematic. This is because the nature of human-environment relationships is shaped by the way in which humans choose to value the environment. As a result, the assignment of value influences the ways in which humans interact with the environment. Whilst some modes of use can be viewed as harmonious and sustainable, others are damaging and unsustainable, not only to the environment, but indirectly to the human population.

The different philosophical approaches which help us understand these relationships are based on how **value** is ascribed to different components of the living Earth.

Environmental philosophy tends to classify the human-environment relationship across a spectrum, which ranges from extreme anthropocentrism to extreme ecocentrism. The ways in which humans think of and relate to the natural world is considered to be **human-centred** or **environment-centred**. The term **anthropocentric** may be used when referring to a human-centred relationship.

Nature-centred relationships can be described as **ecocentric**. Either end of the spectrum can be considered as opposing, but the fact that a spectrum exists means that a person can have beliefs that are a mix of prioritising human needs and prioritising the environment or ecological systems. The influence of these beliefs can be considered by examining the basis by which societies and individuals make decisions about interactions with the environment.

The differences in ways of viewing the human-environment relationship lead to different conceptions of whether certain policies and practices are deemed to be 'sustainable'. Many policies and practices that claim to encourage sustainable development are developed from an anthropocentric viewpoint, in that they prioritise human needs.

However, from an ecocentric point of view, the sustainability of these policies is debatable – they may not be seen as *truly* sustainable. Can we ever find a 'middle ground' between these two beliefs? What will the implications on the environment and societies be?

Value

Whether the relationship is considered anthropocentric or ecocentric depends on the type of value that is, or is not, ascribed to various elements of the natural world. Value, in its most simple sense, is the usefulness, worth or importance of something; philosophically, the word 'value' can be considered in different ways.

Instrumental value is the value that things have due to their actual or potential usefulness. For example, instrumental value can be given to coral, mangrove and tropical rainforest ecosystems due to the many goods and services that they provide for humans, which may bring economic benefits as well as enhancing quality of life as humans extract from the ecosystem.

Intrinsic value is when someone or something has a value in itself, for its own sake. Something can be attributed with intrinsic value when there is reason for it to be appreciated or protected because of its own qualities, regardless of any instrumental value it may bring to humans, such as when many humans value the endemic species of island biodiversity hotspots such as the Galapagos Islands, Madagascar or Borneo for their unique nature, despite the fact that they are unlikely to benefit from the existence of such creatures.

A subtle variation of intrinsic value is **inherent value**: this considers that in order for something to exist while being of value to someone or something for its own sake (intrinsic value), it also needs to have one or more valuers - the kind of value that something has because people have benefitted from actively appreciating it, such as when seeing the beauty in a forest's flora and fauna or enjoying the experience of being there. When inherent value is placed on something, it is because humans believe that it should be preserved, not because of its potential usefulness or economic value, but simply because of its beauty, uniqueness or cultural significance.

Human-Centred Human-Environment Relationships

In anthropocentric relationships, **humans** are considered to be the *sole bearers* of **intrinsic** value, whereas other living things are deemed to have a role in sustaining or enhancing human existence. From an anthropocentric point of view, the **environment** has **instrumental** value and it is seen as a resource that can be exploited for human use.

Anthropocentric views and practices are widespread and dominant in much of society today, especially in developed and rapidly developing economies. This includes countries throughout Europe and North America and many well-established economies and emerging nations in South American, Asia, Oceania and parts of Africa.

Manifestations of anthropocentric practices are observable in nations extracting and making use of natural resources (materials or substances occurring in nature than can be exploited for economic gain), such as tropical rainforest timber and resins, and provisions from ocean fisheries. It is partly through this exploitation of the environment that such countries have been able to develop and sustain their economies and standards of living.

Not *all* people and communities throughout these regions adhere to and believe in an anthropocentric worldview. Some believe that anthropocentrism is at the foundation of all problems troubling the Earth's biosphere at present. Some people residing in nations dominated by anthropocentric practice, therefore, opt for a lifestyle which places more emphasis on the intrinsic or inherent importance of certain elements of the environment. While they may still see potential instrumental value in the environment, they appreciate the gains that such instrumental value can bring to human lifestyles and well-being.

Others may feel surrounded by anthropocentric practices, and despite disagreement with such attitudes and actions, they may have little choice other than to go along with them in a society which places emphasis on nature's goods and services as commodities for human consumption. It is therefore incorrect to suggest that human perception and use of the environment is uniform throughout a given area and to assume that human *actions* always reflect human *beliefs*.

Although anthropocentric practices are associated with extraction of resources from nature, and may on occasion be associated with over-exploitation and land degradation, many places have numerous policies and agreements in place that aim to reduce environmental degradation and aim for sustainability. Critics, however, argue that these efforts are most likely to serve human interests rather than those of the plants and animals that exist in the natural environment. For example when sustainable replanting schemes are carried out in tropical rainforest zones, but with an aim to maintain the forests so that humans may continue to benefit from them in the future. This therefore suggests that sustainable development initiatives may be considered, at least in part, as anthropocentric, as in benefitting the environment, they will benefit humans.

There are different degrees to which a person, community or nation may be described as being anthropocentric, and much complexity exists in the spectrum of approaches to relationships, meaning that patterns of where anthropocentric human-environment relationships prevail and to what degree are not clear-cut.

Nature-Centred Human-Environment Relationships

An ecocentric human-environment relationship recognises **intrinsic** value in *all living things*. Ecocentrism is founded on the belief that there is equality in intrinsic value across human and non-human nature. It encourages people to care for and respect all living entities, not just humans.

Societies and people who believe in nature-centred human-environment relationships are far less widespread geographically and are less dominant overall in today's world than those who take a human-centred stance. It is mainly spiritual cultures which see all elements of the natural world, humans included, as having intrinsic value, including Buddhists and Jains – both with a relatively small following comparative to other world religions.

Another example includes Native Americans, who make up less than 1% of the USA's population. Such societies manage their environment and resources by adopting minimalist, non-wasteful approaches to the use of the land. They treat the Earth and its flora and fauna with respect, seeing and revering its spiritual value.

Their actions are minimally detrimental to the environment. Although the reach of such groups is comparatively small, many believe that their ecocentric ways of viewing the human-environment relationship could be seen as a way of framing our understanding of sustainable development.

Those who take an ecocentric view may see anthropocentrism as the cause of pressing world issues such as human overpopulation, global warming and reduction in biodiversity. The belief is that survival and well-being of any part of the natural environment, humans included, is dependent on the well-being of the 'whole'. In following an ecocentric approach, humans should extract from and use the Earth in a minimalistic way which only serves their *needs* rather than *wants*.

Case Studies

Spiritual approaches of Buddhists, Jains and Native Americans exemplify how and why intrinsic value is assigned to the environment. They recognise the **interconnectedness** of all creation, and that all living entities are assigned **intrinsic** value. They believe that sustainability depends on spiritual awareness and acceptance of responsibility.

In addition, the case of Chek Jawa, a preserved wetland in Singapore, can be considered as one based on inherent value, and the Southeast Asian transboundary haze issue as an example based on instrumental environmental value in the world today.

Buddhist, Jain and Native American Human-Environment Relationships

Spiritualism is becoming increasingly noticed as an important aspect of environmental awareness and conservation. 'Spiritual Ecology' recognises the **interconnectedness** of all creation, and all living entities are assigned **intrinsic** value. Those in support of the idea of Spiritual Ecology are aware of the benefits to the human-environment relationship it can bring, arguing that sustainability depends on spiritual awareness and acceptance of responsibility. They refer to the sustainable and environmentally-friendly experiences and practices of Buddhists, Jains and Native Americans to point out that a repositioning of our belief system could be the key to alleviating the big issues facing the world today (such as human overpopulation, global warming and reduction in biodiversity, and the potential harm to the living world that they bring now and in the future).

Buddhism

Buddhism is a religion which follows the teachings of the Buddha (The Enlightened One), Siddharta Gautama, who lived in north India in the 6th Century B.C. Buddhism has a fairly large global following in excess of 500 million followers, or around 7% of the world's population. It is said to be the fastest growing religion in the West. Most Buddhists currently reside in Southeast Asia, with over 98% living in South Asia and the Asia-Pacific region. Buddhism upholds the belief that all living things are interrelated in an ecosystem, and it is by this interrelation that humans exist. Buddhism encourages compassionate, non-indulgent and non-wasteful lifestyles. Engaged Buddhism is an ecology movement which endeavours to apply insights from Buddhist teachings to inform social, economic, political and environmental issues. 'Ecology Monks' provide moral and practical guidance on environmental issues to communities in Thailand. They prioritise the preservation of forests, water sources and wildlife. They not only see intrinsic value in plants, trees and animals, but in humans too. Besides protecting nature, these monks are concerned with alleviating human suffering, seeing the depletion of natural resources as a factor contributing towards this suffering.

Figure 1 Buddhist monks ordaining a tree in Thailand



http://postsfromthepath.com/wordpress/media/tree_ordination.jpg

Ordination of Thailand Trees

In a practice which began in Thailand and has spread to Laos, Sri Lanka and Nepal, Buddhist monks 'ordain' trees to stop illegal logging. Phrakru Pitak Nanthakhun, a Buddhist monk in Nan Province, north-east Thailand, has led 'ordaining' ceremonies to protect trees for over 25 years.

Phrakru believes that by ordaining the trees they become sacred, and nobody would want to destroy them, which will help to bring an end to deforestation and environmental degeneration. Monks and villagers involved in the ceremonies tie orange monks' robes around the trees, with the idea of encouraging people to assign the same level of respect to 'blessed' trees as they do the Buddhist monks (see **Figure 1**). The monks are held in high esteem in Thailand, so the potential they have to influence communities is significant. Their action has drawn media attention and raised consciousness throughout the nation.

Generally, in Thailand the environment is seen to have instrumental value and is an important part of the economy. The rate of deforestation in Thailand is higher than any other Asian country, besides Nepal and possibly Borneo (Hirsch, 1993, cited in Darlington, 1998). Phrakru Pitak Nanthakhun was led to his work as he witnessed his small village being negatively affected by deforestation as a result of being encouraged to grow cash crops. Logging, both legal and illegal, was rife in the village as forests were being clear-felled so that maize could be planted for sale. The soil was damaged and therefore further clear-cutting was required. The district became very poor as a result.

Phrakru made efforts to educate the locals, but the destruction continued. In 1990, a symbolic 'tree ordination' ceremony was first carried out to make people aware of the environmental responsibility that humans have. It was intended that such ceremonies would incite spiritual commitment to environmental conservation from the locals, reminding them that nature should be considered as equal to humans and deserving of respect.

Phrakru also continued to train villagers about environmental issues and pass on knowledge to others so they too could promote environmental awareness and economic alternatives to maize. Protected community forests were designated and local farmers were encouraged

to plant crops to support subsistence rather than for sale. With the action of the ecology monks, the environment vs. economy debate is no longer merely seen as a political debate – it now has a moral streak too. The Buddhist ecology movement is still growing and people are becoming more aware of the actions of the monks.

Native Americans

Native Americans partake in practices which in some ways are similar to those of Jains and Buddhists. Native Americans have inhabited the land of North America for tens of thousands of years. Around 0.9% of the USA's population identified as Native American in 2010. Native Americans believe that nature is sacred and that they are part of it – any harm inflicted on a part of the natural network would harm the whole. They developed environmentally sustainable hunting and gathering methods – only taking what they need from the Earth to sustain themselves. It is unsurprising that the attitudes and practices of Native Americans came into conflict with the Europeans who colonised North America in the 19th Century. The Europeans saw the value of the land and its creatures as instrumental and exploited land and nature – a practice that was foreign and viewed as disrespectful by the indigenous population.

The Plains Indians

Native Americans associated with the Great Plains and prairies of central USA and south central Canada, lived in harmony with the environment in the 19th Century. They revered their life source: the deer and buffalo who roamed the Great Plains. They lived off the land in an extractive but non-wasteful way. They were nomadic hunters, hunting game such as elk and pronghorn (American antelope) and following buffalo herds. The Plains Indians, such as the Blackfoot, Cheyenne and Sioux Tribes, operated in way which meant that if a creature was sacrificed for use, it was not wasted - they used buffalo as a means of food, but also used their hides, horns and hair for clothing, tipi construction, weapons, cooking utensils, tools and ornaments – living off the animals in every sense – even using their hides and a canvas on which to create art, used to celebrate and revere the creatures.

Although the philosophies by which Native American cultures live and have lived are unlikely to influence any great portion of society towards an ecocentric approach, their lifestyle provides a good example of how environmental entities can be viewed as having intrinsic value which is to be revered, and the practices which sustained many tribes for many centuries suggests that ecocentric approaches *can* provide a route towards sustainability. But how likely is it that the philosophical approaches of Buddhists, Jains and Native Americans will become widespread and make a difference to environmental sustainability and human welfare in the future?

Jainism

Jainism is an ancient Indian religion of which the core principles are non-violence and respect to *all* living beings. Jainism has a small following relative to other religions, with around 6-7 million adherents globally, many of which still reside in India, accounting for about 0.37% of the country's population. As well as abiding by the tenet of *ahimsa* (non-violence and reverence for all life), Jains practice non-absolutism, which encourages open-mindedness and acknowledgement of and respect for different beliefs and perspectives, and non-possessiveness, which shuns a materialistic, over-exploitative, polluting and wasteful lifestyle, and instead favours one in which only what is truly necessary is taken from the Earth. Jainism is a compassionate religion, empathising with all life on Earth; Jaina are vegetarian and concerned with animal welfare, even known to strain drinking water to avoid harming even the smallest life forms. Similarly to Buddhists, the Jaina community believe in the interrelatedness of all life forms – that all of nature is inextricably bound. As such, if humans do not care for nature, then they do not care for themselves. They believe that as a highly-evolved life form, humans hold a great moral responsibility for the dealings they have with the natural world.

Chek Jawa

Chek Jawa is a cape and 100-hectare intertidal wetland area situated on the south-eastern point of Pulau Ubin, an island off the north-east coast of Singapore. Singapore is an entirely urban small island nation with a population approaching 5.8 million and a land area of 697 km². The city-state's population has grown by over 25% in the last decade and the population growth rate stood at +1.86% in 2016. The nation is highly developed with a Gross Domestic Product (GDP) (at purchasing power parity) per capita of US\$85,300 and a (Human Development Index) HDI score of 0.912. Chek Jawa is unique in Singapore – it has a rich and diverse collection of several ecosystems and it is one of the few places left in the nation with a natural rocky shore, providing a home for many plants and animals that are no longer common elsewhere on the island. Chek Jawa was reserved for reclamation in 1992 with plans for the reclamation to take place in 2001.

Singapore's Urban Redevelopment Authority (URA) released a 'Concept Plan' in 1991 which outlined the intention to reclaim Pulau Ubin when the nation's population reached 4 million to provide space for housing for hundreds of thousands of people. The URA's decadal Concept Plans are seen as vital in catering for all land use needs within the constraints of a small and densely populated land area.

Before Chek Jawa's reclamation was initiated, conservationist volunteers carried out a survey which revealed the immense level of biodiversity within the area. Seeing value in the wetlands, the conservationists submitted a report and, along with other interest groups, petitioned to the government for their plans to reclaim this intertidal zone to be reconsidered. In 2001, in response to the campaign, the government agreed to leave Chek Jawa untouched, deferring reclamation for as long as Pulau Ubin and surrounds were not required for development. Since then, conservation of the area has been carried out and supported by the Ministry of National Development, the National Parks Board, the National Biodiversity Centre, the Nature Society of Singapore and various other groups and volunteers.

The conservation and appreciation of Chek Jawa shows how **inherent** value can be assigned to the environment. The area is not seen as a resource to be exploited for its wares in the most traditional sense of the word, but to be admired and bring joy through its perceived beauty and ecological uniqueness. Guided tours of Chek Jawa are carried out, or visitors are allowed to explore the wetlands unaccompanied. Tens of thousands of visitors have flocked to see the area since it came to the public's attention in the early 2000s. The human use and enjoyment of this area has been supported by the Singapore Government who invested S\$7 million in various visitor amenities which aided accessibility and enjoyment.

Chek Jawa provides a good example of a human-environment relationship, arguably in which both humans and the environment can benefit. But how long can this last?

Ascribing inherent value to nature can be problematic as humans 'enjoy' the valued environment, despite best efforts to preserve and protect the environment damage over time is almost inevitable. Increasing pressures also exist to use the land, which is in very short-supply, to cater for what many may consider to be a more pressing need for the population of Singapore than enjoyment of an interesting and unique natural environment – that is, having a place to live and providing space for the infrastructure essential to social and economic development.

If Singapore's population has grown by 25% in the last decade and is still growing each year, it may become unrealistic to continue protecting the wetlands. Singapore's population density is already in excess of 6,000 persons per km²; can the choice of assigning such value to Chek Jawa for humans to enjoy be rationalised? Land reclamation will only increase the available land area by 15% and projected population growth and housing demand may well outstrip this availability. Would it be worth it? Once such land was reclaimed, this unique area of overlapping ecosystems would be lost forever.

Singapore is a nation with a reputation for successful environmental management, but the extent to which efforts place humans at the centre rather than the environment is open to discussion. Whilst the URA has

become increasingly aware of the ways in which 'green spaces' can contribute to higher qualities of life for city dwellers, the Government takes a pragmatic approach to nature conservation and therefore the current situation which protects Chek Jawa may be revisited and reviewed in the future if needs arise. Is there anything that could stop such a situation from coming about?

The Transboundary Haze in Southeast Asia

Transboundary smoke haze from land and forest fires during the traditional dry season from June to October has presented great problems in the Southeast Asian nations for the past few decades. The smoke, which can create a thick haze which lasts for weeks, affects several countries throughout the Southeast Asian region, with differing levels of severity.

The haze is caused mainly by land clearing and 'slash and burn' practices in Indonesia, predominantly in Sumatra and Kalimantan. Illegal agricultural fires created by slash and burn are instigated to clear the land, quickly, easily and at a minimal cost, so that timber can be sold for pulp and land can be sold and used for activities such as palm oil production. The smoke created by the slash and burn can be carried over to neighbouring countries by prevailing winds.

Indonesia is categorised as a NIC (Newly Industrialised Country) with a GDP per capita PPP of US\$11,633 in 2016 and a medium HDI score of 0.684. The country has the third largest area of tropical rainforest on Earth, with approximately 68% of its landmass covered by forests. Deforestation rates in Indonesia are high, estimated at over 1 million hectares per year. This rapid deforestation has mainly been driven by the growth of agri-business, especially palm oil plantations. Once cleared, Indonesia's forests and the space they can provide for monoculture give them instrumental value.

The country makes 11% of its \$5.7bn export earnings from palm oil and looks set to increase these earnings in the future. However, while Indonesia slashes and burns, the transboundary haze problem continues with the pollution having adverse effects on human health and livelihoods, causing contention within the Southeast Asian region.

Besides the haze being detrimental to human health and wellbeing, animal species are also adversely affected. Indonesia is a biologically diverse country, with the western portion of the Indo-Malayan archipelago being designated as a biodiversity hotspot (Sundaland) due to its many endangered and endemic species. The orangutans, native to this region, are known to suffer respiratory problems and fevers as a result of the fires; some have to flee the area and become dehydrated in the search for fresh water whilst others are burnt. Fires are steadily decreasing the habitats available for the orangutans, tigers and other endangered species in the region, forcing them into smaller land areas, threatening their survival and reproductive capabilities.

Helen Varkkey, an academic expert on the transboundary haze issue, highlights the irony that nearby countries Singapore and Malaysia are amongst the worst affected by the haze. The palm oil industry is important in both Indonesia and Malaysia and between them the countries produce around 90% of the world's oil palm supply, whilst Singapore is an important player in refinement of the product. Therefore, these countries all have a vested interest stemming from the instrumental value of this land, to ensure that the lucrative palm oil industry continues to thrive. Varkkey suggests that this vested interest seems to be holding back efforts to alleviate the issue, favouring economic growth over social development and protection of the environment.

Even within the anthropocentric approach towards the environment in Indonesia, there have been efforts to move towards sustainability in palm oil production, such as the International Roundtable on Sustainable Palm Oil (est. 2001), which encourages sustainable plantation practises.

Singapore has also worked with Indonesian farmers to encourage sustainable practices, with campaigns targeting consumers to 'vote with their wallets' to show distaste towards the harmful practices creating the forest fires in Indonesia. Whilst people are becoming more aware of the environmental issues associated with the transboundary haze problem in Southeast Asia, the extent to which people have made efforts to alleviate the issue, and also to which efforts have perhaps been hampered, are probably driven more by worries for the impacts that the issues have or will have on humans, than they are by environmental concerns.

Indonesian law forbids the use of fire to clear land, but this rule is weakly enforced, and Indonesia was the last country to sign the intergovernmental Agreement on Transboundary Haze Pollution in 2014. What message might this send out about the country's desire and ability to play a part in monitoring and dealing with the problem?

We often consider the environmental consequences of doing something (clearing the forests), but we don't consider the social and economic consequences of ceasing to do something. What are the different ways in which many Indonesians might be affected if they are discouraged from exploiting the environment? To what extent might the belief systems of Indonesians be at odds with their actions?

The case of the transboundary haze in Southeast Asia captures the complexity of anthropocentrism, in that such approaches to the human-environment relationship can influence environmental policies on regional, national and international levels.

In fact, anthropocentrism and human desire to gain from the environment, in the short and longer term, may be the driving force behind the establishment of sustainable development initiatives or, conversely, the reason why such initiatives are weakly enforced and relatively unsuccessful.

Ascribing instrumental value to nature can therefore mean that it is conserved for the aims of sustainability, to fulfil human needs and wants. However, even then, plans for sustainable practices may go by the wayside in the short term as humans seek out economic benefits, regardless or unaware of the costs.

Conclusions

Human-environment relationships can be approached in different ways, ranging from being human-centred (anthropocentric) to nature-centred (ecocentric), although there are varying degrees to which different people and societies assign themselves to the two camps.

The philosophical approach taken towards the human-environment relationship is an important factor in determining the value that is (or isn't) ascribed to humans and/or the environment. Spiritual and cultural traditions, such as those of Buddhists, Jains and Native Americans, illustrate how intrinsic value can be applied to all interrelated parts of the living world. Their thoughts and actions promote a repositioning of human approaches to the environment in a quest for sustainability. This ecocentric approach, however, may be at odds with the need for some people in some parts of the world to give instrumental value to the environment so that they can exploit it for the economic gain that it may bring. This economic gain (they may feel) is essential as a means to live and to support their health and well-being.

The transboundary haze problem affecting Southeast Asia illustrates the importance of the instrumental value of the environment to many nations and people throughout the world, but also the environmental damage and human suffering that exploitation and disregard for the environment can create.

Chek Jawa in Singapore, where inherent value has been given to the biologically diverse wetlands area, was once awaiting reclamation to provide homes for the growing and affluent Singaporean population. This shows how human gain from the environment does not always need to take the form of destruction. At present, the preservation of the area seems to provide Singaporeans with 'the best of both worlds': it allows their strong economy and high quality of life to be maintained, even improved, through their engagement with nature, whilst the wetlands flourish. The conservation of Chek Jawa appears to be a great success and is met with much public support, but given Singapore's changing economic and demographic character, can and will the situation last?

The example of Chek Jawa raises questions over the contradictory nature of placing inherent value on nature, as in doing so, destruction may be inevitable as humans 'enjoy' and appreciate the environment. It also raises the question of whether we can afford to conserve nature for human 'enjoyment' when arguably more pressing and important uses await the inherently valued environment.

Considering how and why different people and societies adhere to different philosophical approaches to the human-environment relationship, and what the impacts of such thought and actions might be, is important in today's world.

Sustainable development as a concept can be interpreted in many ways. The most commonly used definition of sustainable development is that of Brundtland (1987): “[s]ustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

This statement appears to be anthropocentric in that it prioritises the needs of humans.

Anthropocentric approaches can arguably support sustainable practices, but perhaps to fulfil different aims than ecocentric ones. It is unrealistic to expect that the majority of humans can and will change their belief systems so that the environment is no longer seen as having the instrumental value that leads to exploitation when so many have come to rely on it being so.

To what extent do we live in a world where seeing instrumental value in the environment is a necessity? To what extent do the intentions of international agreements on sustainable development tend to be more anthropocentric than ecocentric? Can an anthropocentric approach allow fully for sustainable development to take place? What are *your* views on the human-environment relationship?

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