

Article

The World on Fire: A Buddhist Response to the Environmental Crisis

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Abstract: This paper identifies and responds to the four main objections raised against Buddhist environmentalism. It argues that none of these objections is insurmountable and that, in fact, Buddhists have developed numerous concepts, arguments, and practices which could prove useful for dealing with the most pressing environmental problems we have created. Buddhism is sometimes described by its critics as too detached from worldly concerns to respond to the environmental crisis but the successes of Engaged Buddhism demonstrate otherwise. Although halting climate change will require inter-governmental co-operation and immediate action, we should not underestimate the necessity of grassroots movements for achieving lasting change in our attitudes and behaviours. If meditation can awaken us to the fact of ecological inter-connectedness and to the ultimate drivers of climate change (e.g., greediness and a misplaced sense of entitlement) it can also help us reconnect with nature and expand our circle of moral concern to include plants, animals, and the wider environment.

Keywords: Engaged Buddhism; inter-dependency; contentment; climate change; environmental ethics

Since pre-industrial times the average global temperature has risen by approximately 1 degree Celsius. For years scientists have been warning that time is running out to address climate change and, according to the 2018 IPCC report, at current levels of greenhouse gas emissions, by around 2030 we will have exceeded emissions to remain within 1.5 degrees of warming (IPCC 2018). Failure to stay within this boundary would be likely to have catastrophic consequences for entire ecosystems. Indeed, estimates indicate that an average global temperature rise of 2 degrees Celsius would lead to the near-total loss of all coral reefs (IPCC 2018, p. 8). The urgency of these problems is compounded by the fact that climate change is just part of the wider environmental crisis. With approximately 12 million hectares of tropical rainforest destroyed each year this century (Hansen et al. 2013) and record-high usage of pesticides, freshwater for irrigation, and synthetic nitrogen and phosphorus fertilizer (FAO 2020), is it any wonder that an estimated 1 million species are now threatened with extinction (IPBES 2019, p. 12)?

In the *Ādittapariyāya Sutta* (*The Fire Sermon*) of the Pāli canon, the Buddha describes the entire world as ablaze with the three fires of greed, hatred, and delusion (Bodhi 2000, pp. 1143–44). The Buddha's choice of metaphor and his analysis of suffering as rooted in greed, hatred, and delusion makes *The Fire Sermon* a foundational text for Buddhist environmentalists. It is increasingly clear that greed plays a key role in driving environmental degradation. Thai social and environmental activist Sulak Sivaraksa is an outspoken opponent of the rise of what he calls "the religion of consumerism" (Sivaraksa 2000a). It seems too strong to claim that hatred is fuelling climate change, but widespread indifference towards the natural world is allowing the decimation of habitats, the pollution of oceans, and the erosion of soils to go largely unchecked. Similarly, failure to appreciate the deep interconnectedness of all life results in deluded activity. To imagine that our own flourishing can be attained through the exploitation or disregard of others is short-sighted and the result of wrongly seeing oneself as entirely separable from others.

The enormity and exigency of the environmental crisis might raise questions about the suitability of looking to ancient religious traditions such as Buddhism for solutions. If we are to halt climate change then scientific and technological advances are essential. However, there is increasing recognition across disciplinary boundaries that climate change is, first and foremost, an ethical problem (Gardiner 2004, p. 555). No matter how far we progress in our understanding of climate change, responding to it will necessarily involve value judgements. Are we prepared, both collectively and as individuals, to forego the luxuries we have become accustomed to? Will we prioritise the needs of others (such as the animals pushed to the limits of survival and the already marginalised human communities most at risk from climate change) over our own wants?

The religious scriptures and philosophical texts of Buddhism provide guidance on the type of relationship we should enter into with nature as well as instruction on the attitudes we should cultivate towards it. Whilst challenges can be raised against Buddhism's ability to respond to the environmental crisis, this paper contends that none of these are insurmountable. On the contrary, this paper argues that Buddhist philosophy contains a wealth of concepts and practical strategies for reorienting ourselves towards nature.

However, the applicability of Buddhist scriptures, concepts, and practices to environmental ethics is not always immediately clear and needs, therefore, to be explicated as part of what might be called a "Buddhist eco-constructivist" agenda (Swearer 2006, p. 130–32). Donald Swearer distinguishes between an array of scholarly views on the relationship between Buddhism and environmentalism and calls for a critical appraisal of the resources religious traditions have to offer to environmental philosophy today. He identifies five approaches scholars and practitioners might take towards Buddhist environmentalism: apologeticism, criticism, constructivism, ethicism, and contextualism (Swearer 2006). The first three of these positions are of most relevance to this paper.

Whereas the apologist maintains that the core Buddhist teachings automatically support environmentalism, the critic contrarily argues that the entire project of Buddhist environmentalism rests on a "serious distortion of normative Buddhist teachings and historical traditions" (Swearer 2006, p. 128). Some of the critic's objections to Buddhist environmentalism will be systematically answered in the following sections of this paper by using the constructivist method of applying the tools of critical scholarship, and occasionally reinterpreting ancient Buddhist teachings for a new context, to "uncover ecologically positive elements in Buddhist textual and historical traditions" (Swearer 2006, p. 130). Whilst some might object to the constructivist's approach, fearing that an environmentally-friendly reading of Buddhism superimposes contemporary concerns onto ancient texts, it is important to remember that Buddhism itself eschews all notions of substantiality or permanence: a key part of Buddhist belief, therefore, is that Buddhism itself must evolve and adapt in light of new situations.

It will be argued that contentment with what one has, compassion for all sentient beings, and community with others are the foundations on which Buddhist environmentalism depends and the means by which we can quell the drivers of climate change. More widespread commitment to the ideals of non-violence, equanimity, compassion, and contentment could radically transform our self-conception in relation to nature. Crucially, the adoption of these values does not require an unquestioning acceptance of Buddhist dogma but rather depends on how willing we are to reflect open-mindedly on our moral priorities and to pursue a path towards deeper and more meaningful happiness.

The positive case for Buddhist environmentalism comes out more clearly once objections against it have been satisfactorily answered. This is because whilst some constitute interesting challenges, others are based on a misunderstanding of core Buddhist teachings which, once properly conceived, advance rather than undermine the environmentalist project. Despite the variations between them, the main objections raised so far can be classified in one of four ways: (1) objections on grounds of Buddhist moral quietism, (2) objections on grounds that Buddhism is pessimistic and/or nihilistic, (3) objections on grounds of philosophical inconsistency, and (4) objections on grounds that Buddhist philosophy causes us indiscriminately to identify ourselves with the external world in its entirety. Addressing each

of these in turn will illuminate an alternative vision of our place in the world grounded in contentment, compassion, and community with all beings.

1. Moral Quietism

Claims that Buddhism's emphasis on renunciation and world transcendence leaves it ill-equipped to respond to the environmental crisis (or indeed any ethical issue requiring a practical response) are not uncommon. In fact, it is easy to locate the source of this objection as emerging from the Pāli canon and hagiographical retellings of the Buddha's path to awakening documented in the later tradition. Accounts of the Buddha's quest for *nirvāṇa* (which in Sanskrit literally means *blowing out* and refers to the extinguishment of the three fires of greed, hatred, and delusion identified as the causes of suffering) begin with his renunciation of the household life and his abandonment of his social and familial duties as a prince, husband, and father. In the *Ariyapariyāsenā Sutta* (*The Noble Search*) of the Pāli canon, the Buddha recalls the moment of his renunciation saying "though my mother and father wished otherwise and wept with tearful faces, I shaved off my hair and beard, put on the yellow robe, and went forth from the home life into homelessness" (Ñānamoli and Bodhi 1995, p. 256).

Early Buddhist literature routinely presents monks as escaping from the world and retreating to forest or cave dwellings to practise meditation in complete isolation, free from all disturbances. Another Pāli text, the *Nāga Sutta*, indicates that disengagement from the world and its demands is not only appropriate for those on the path to awakening but also for those who have already attained it. Finding himself harangued by monks, nuns, lay followers, kings, ministers, and sectarians, the Buddha contemplates his unhappy condition and decides to gather his few belongings and wander into the forest alone "without having addressed his attendants [and] without having taken leave of the community of monks" (Bhikkhu 2011, pp. 88–91).

The pre-eminent importance of detachment from and transcendence over the phenomenal world in Indian philosophy and religion has made some environmental philosophers, including J. B. Callicott, suspicious of the idea of Buddhist environmentalism. He argues that "environmental ethics . . . requires an ethical attitude towards nature which is world-affirming" but that Indian philosophies display an "autistic indifference to natural phenomena [which] does not provide . . . the sort of affirmative, actively engaged moral attitude toward nature required for a proper environmental ethic" (Callicott 1987, p. 125). Another long-standing contributor to scholarship on Buddhism and the environment, Ian Harris, has likewise questioned whether Buddhism's soteriological objectives leave space for positive evaluations of the natural world. He maintains that Buddhist environmentalists have introduced "an implicit teleological principle . . . even when this is at odds with the dysteleological character of the canonical literary tradition" (Harris 1995, p. 205). He continues: "traditional Buddhist cosmology . . . effectively negate[s] the need for environmental activism, yet a positive agenda for change is precisely the position of ecoBuddhism" (Harris 1995, p. 205).

Several points can be made in response to this objection but chief amongst them is that although Buddhism has always viewed renunciation as an important means of spiritual development, by far the greater emphasis has been on cultivating a sense of community. This point is particularly stressed by Buddhists who have spent prolonged periods in solitary retreat and for whom the experience acts as a catalyst for activism on re-entering society. The remarkable biography of Jetsunma Tenzin Palmo (who launched a programme of feminist activism after having spent the period 1976–1988 living in almost constant isolation in the Himalayas) confirms that many Buddhists view retreat not as an end in itself but as a means to more compassionate worldly engagement. For Jetsunma Tenzin Palmo, the purpose of a retreat is to develop self-understanding for the sake of valuing others more deeply. She believes that "when one begins to understand oneself then one can truly understand others because we are all interrelated . . . That's why, when you meet hermits who have really done a lot of retreat, say twenty-five years, they are not cold and distant" (Mackenzie 1999, pp. 144–45).

Further, there is nothing in the texts to suggest that Buddhism either advocates or engenders the kind of "autistic indifference" towards nature imagined by J. B. Callicott. On the contrary, Buddhist

texts are unambiguous in their presentation of nature as providing the perfect setting for spiritual advancement. The moments of greatest significance in the Buddha's own life occurred in nature. For example, in the *Mahāsaccaka Sutta*, the Buddha explains how the memory of a childhood experience of entering into the first *jhāna* (the first stage of deep meditative absorption) whilst seated beneath a rose-apple tree prompted his realisation that harsh religious austerity would not lead to awakening (Nānamoli and Bodhi 1995, p. 340). The recollection of this experience gave him the confidence to pursue a middle way between austerity and indulgence which culminated in his attainment of full awakening under the Bodhi tree. Traditional representations of the Buddha often depict him moments after his awakening, when, confronted by Māra (the embodiment of demonic forces), he touches the ground and thereby calls upon the earth to witness his spiritual triumph. This is not the behaviour of a person indifferent to nature but that of someone who sees themselves as intimately connected with it.

The Buddha's institution of the *saṅgha* (the community of monks and nuns) means that, in practice, renunciation marks an opportunity to join a community of like-minded others and enjoy a symbiotic relationship with the laity. Far from escaping the bonds of social convention or the demands of practical ethics, participation in the *saṅgha* necessitates a willingness to hold oneself and others accountable and a commitment to uphold and promote the core Buddhist values of non-violence, non-discrimination, self-restraint, compassion, and equanimity.

In recent decades, and in response to accusations of moral quietism, escapism, and even selfishness, Buddhist communities all over the globe, representing an array of traditions (including Theravāda, Tibetan, Zen and Triratna), have united in their purpose of *Engaged Buddhism*. Although the Engaged Buddhist movement finds its origins in thinkers and activists like the Indian social and political reformer Ambedkar (Senauke 2013) and in the Chinese scholar-monk Tàì Xū (Yao and Gombrich 2017, p. 206), Thich Nhat Hahn is today widely thought of as its founder. Thich Nhat Hahn describes the movement in very simple terms as involving two components: awareness and responsiveness. He writes: "the first meaning of Engaged Buddhism is the kind of Buddhism that is present in every moment of our daily life. While you brush your teeth, Buddhism should be there . . . Engaged Buddhism is [also] the kind of wisdom that responds to anything that happens in the here and the now—global warming, climate change, the destruction of the ecosystem, the lack of communication, war, conflict, suicide, divorce" (Hahn 2008). Thich Nhat Hahn encourages us to become more aware of our dependence on the natural world, interpreting the ancient Buddhist teaching of dependent origination in terms of *inter-being*. He believes that such awareness stimulates more respect for nature and helps foster a sense of identity or oneness with it.

Another distinctive feature of the Engaged Buddhist approach to the environmental crisis is that activists are encouraged to situate their activism in the broader context of their lives and to pursue environmentalism as a path to spiritual self-improvement. Thich Nhat Hahn again emphasises the inter-dependence of human, animal, and environmental wellbeing, writing that "the Buddha teaches that to protect the non-human elements is to protect humans and to protect humans is to protect non-human elements" (Hahn 1992). The Dalai Lama has also been a staunch advocate of Engaged Buddhism and the necessity of allowing Buddhist warnings against attachment to permeate one's entire way of life. Writing on the theme of universal responsibility (an idea he has championed for decades) he claims: "The Tibetan Buddhist attitude is one of contentment, and there may be some connection here with our attitude toward the environment. We don't indiscriminately consume. We put a limit on our consumption. We admire simple living and individual responsibility. We have always considered ourselves as part of our environment . . ." (Dalai Lama 1990, pp. 79–80).

As an *engaged* movement, Engaged Buddhism uses ethical theory to achieve positive change. For example, in response to widespread deforestation and illegal logging, monks in Thailand, Myanmar, Vietnam, and Sri Lanka have initiated a symbolic programme of tree ordination. This ceremony, in which monk's robes are tied around tree trunks, aims to deter deforestation by shifting the community's relationship with the forest so that the trees are no longer instrumentalised but revered and respected as teachers of the *Dharma*, i.e., the Buddhist path (Darlington 2000). Elsewhere, Engaged Buddhists

have developed recycling schemes, tree planting networks, and educational programmes designed to help us reconnect with nature (Watts 2009).

2. Pessimism and Nihilism

The centrality of *duḥkha* (variously translated as suffering, unhappiness, or dissatisfaction) to the Buddhist worldview explains why this system of philosophy is so often described as pessimistic. The ubiquity of suffering and the inherent misery of life in *saṃsāra* is a constant theme in the Buddhist literature of every period and every sect. In the *Dhammacakkappavattana Sutta*, the Buddha declares that to exist is to suffer: “Now this, O monks, is the noble truth of suffering—birth is suffering, ageing is suffering, illness is suffering, death is suffering, union with what is displeasing is suffering, separation from what is pleasing is suffering . . . ” (Bodhi 2000, p. 1844).

In combination with its emphasis on suffering, Buddhism’s characterisation of reality as radically unstable and insubstantial has understandably also led to nihilistic interpretations (Burton 2001). The charge of nihilism has been a recurrent one for Buddhists, which both the historical Buddha (e.g., in the *Alagaddūpama Sutta*) and subsequent philosophical traditions have had to deal with (Westerhoff 2016). The modern mindfulness movement is also sometimes accused of fostering unhealthy levels of detachment from one’s problems because it encourages practitioners to focus so much on the idea of radical impermanence. Documenting her own experiences with mindfulness, Sahanika Ratnayake worries that practitioners are being discouraged from engaging “with their experiences in a critical or evaluative manner, and often they’re explicitly instructed to disregard the content of their own thoughts” as the whole exercise “garbs itself in a mantle of value-neutrality” (Ratnayake).

It is true that some Buddhist philosophers (in particular those belonging to the various schools of Mahāyāna) build on the early Buddhist teaching of *no-self* (*anātman*) to argue that the notion of identity over time is incoherent and is, therefore, an illusion. This raises serious questions about the source and nature of our moral responsibilities towards others including whether it is even possible to show compassion towards beings who do not ultimately exist. Similarly, if suffering is inextricable from life in *saṃsāra* and if suffering is experienced more acutely by non-human animals, can Buddhism consistently oppose the mass loss of biodiversity?

However, these objections against the possibility of Buddhist environmentalism are built on serious misunderstandings of Buddhist philosophy and ethics. To begin with, although the first noble truth of the pervasiveness of suffering paints a bleak picture, it cannot be properly appreciated independently of the other noble truths which identify the root cause of suffering, as well as explaining that suffering can be eliminated if cut off at the root and proposing an eight-fold method or path for achieving precisely this. To focus too heavily on the first noble truth is to distort its place in Buddhism. Taken collectively, the four noble truths present an extremely optimistic view of our existential circumstances: although we may experience profound suffering, there is nothing inevitable about these experiences. On the contrary, Buddhism assures its practitioners that diligently following the eight-fold path (of right view, intention, speech, action, livelihood, effort, mindfulness, and concentration) will result in the unsurpassable bliss of awakening.

Some Engaged Buddhists, including the pioneering environmental scholar and activist Joanna Macy, argue that facing up to the prevalence of suffering is vital if we are to respond to this crisis creatively and compassionately. As part of her work, Joanna Macy runs workshops on how to build resilience, courage, and hope in the face of social and environmental injustice. These workshops, previously entitled *Despair and Empowerment Work*, encourage participants not to resist feelings of despair at the destruction of the environment but instead to find solace in the fact we are emotionally moved by it.

Joanna Macy persuasively argues that despair is an important resource for fighting against environmental injustices because it signals an awareness of our impact on nature, without which we will struggle to respond appropriately. As she insightfully remarks: “Of all the dangers we face, from climate chaos to nuclear war, none is so great as the deadening of our response” (Macy).

However, though acknowledging despair may be an important step, it has to be “worked through” and transformed into positive action (Macy 1993, p. 16). One can imagine how feelings of despair might quickly turn to anger at the inaction of governments, at the profiteering of big corporations from environmentally destructive practices, or perhaps at the individuals directly involved in illegal logging, wildlife trafficking, poaching etc. Similarly, the move from anger to violence is all too easy. The challenge for the Buddhist environmentalist, for whom non-violence is a foundational moral principle, is to harness despair to achieve solidarity, community, and warranted hopefulness.

Buddhists have developed meditative techniques specifically for this transformative purpose and Engaged Buddhists view meditation as essential for effective practical action. There are of course many different types of meditation but even the most basic variety (the mindfulness of breathing exercise) can create the conditions for personal restoration and the development of equanimity, thereby helping the practitioner to avoid burnout/compassion fatigue and to find more productive ways of dealing with anger. The cultivation of equanimity during meditation also has the potential to transform our relationship with nature in our everyday lives. If we no longer see ourselves as inherently superior to other sentient beings but instead focus on what we have in common with them (e.g., the desire for happiness and the wish to avoid pain and suffering), altruism and compassion may arise spontaneously. Such was the view of Śāntideva, an eighth-century Madhyamaka philosopher whose *Bodhicaryāvatāra* remains one of the most influential Buddhist texts to this day.

Writing on the perfection of meditative absorption, Śāntideva urges us to practise the *exchange of self with other*—i.e., to imagine walking in somebody else’s shoes—in order to see the world in new ways and respond proactively to suffering. He writes (Crosby and Skilton 2008, pp. 96–98):

“At first one should meditate intently on the equality of oneself and others as follows: ‘All equally experience suffering and happiness. I should look after them as I do myself.’ . . .

I should dispel the suffering of others because it is suffering like my own suffering. I should help others too because of their nature as beings, which is like my own being . . .

When happiness is liked by me and others equally, what is so special about me that I strive for happiness only for myself? . . .

Therefore, in the same way that one desires to protect oneself from affliction, grief, and the like, so an attitude of protectiveness and of compassion should be practised towards the world”. (8.90; 94; 95; 117)

These verses provide powerful grounds for rejecting interpretations of Buddhism as either pessimistic or nihilistic. From the Buddhist perspective, the facts of suffering, impermanence, and insubstantiality (including the insubstantiality of one’s own personal identity) do not undermine, but rather support, positive ethical values such as compassion, empathy, connectivity, and humility. Reflecting on the fundamental equality of oneself and others is a powerful way of dethroning the kind of anthropocentrism that has led to the de-valuing of other species and of recognising ecological inter-connectedness.

Finally, although nature can be brutally competitive, Engaged Buddhists encourage us not to become overwhelmed by the ubiquity of suffering in the natural world but rather to focus on its beauty and diversity. Such is the view of environmentalist and Buddhist practitioner Akuppa who writes: “Appreciation means seeing the world with a warm heart, which is essential if we’re going to sustain our efforts to save it” (Akuppa 2009, p. 115). Without celebrating nature, he argues, we run the risk of undervaluing it, of seeing it only in terms of utility, or as a problem to be solved. An alternative and much more positive approach is to recognise that “this vast net of life, which contains more species than we have yet counted, is worth cherishing not just because it is useful, but because we are part of it and it is part of us” (Akuppa 2009, p. 120).

3. Philosophical Inconsistency

Unlike the charges of quietism and pessimism examined above (charges which arise from mistaking part of Buddhist teaching for the whole of it), the third objection against Buddhist environmentalism is more serious but still not insurmountable. This objection stems from the perceived tension between the Buddhist doctrine of emptiness (*śūnyatā*) on the one hand and the idea of nature's intrinsic value on the other. If Buddhism cannot defend accounts of nature as intrinsically valuable without falling into contradiction, can it successfully challenge the kind of instrumentalist attitudes towards nature which have facilitated much of the environmental degradation we are now witnessing?

Answering this question requires an account of the theory of emptiness. However, it should first be noted that this theory is distinctive to Mahāyāna Buddhism and that, even within Mahāyāna, emptiness is variously interpreted. Given this diversity of interpretations, the present investigation will limit itself to an assessment of the Madhyamaka understanding of emptiness and the ramifications of such an understanding on environmental ethics. Three reasons support the choice of Madhyamaka as a focal point: (1) the founder of Madhyamaka, the second-century figure Nāgārjuna, is the first thinker to have systematically articulated the philosophy of emptiness, (2) accordingly, the influence of Madhyamaka thought on the subsequent development of Mahāyāna Buddhism—particularly on Tibetan and Zen philosophy—cannot be overstated, and, most importantly, (3) despite conceiving of itself as a *middle way* philosophy, the Madhyamaka account of emptiness is in many ways extreme, resulting, as it does, in a metaphysical position which has been described as global anti-realism (Siderits 2015, pp. 143–61). If there is some way for Madhyamaka—arguably the most radical of Buddhist philosophical systems—to accommodate both the idea of emptiness and the idea of nature's intrinsic value, then the third objection can also be set aside.

Emptiness should be at least partly understood as an extension of the early Buddhist theory of no-self (*anātman*) (Westerhoff 2009, p. 153). Whereas *anātman* is the view that there is no metaphysically substantial self or soul grounding our personal identity over time, the theory of emptiness applies this reasoning to every entity and every aspect of our experience, thereby arriving at the view that all phenomena lack (i.e., are empty of) metaphysical substantiality or intrinsic reality. A central feature of Madhyamaka philosophy is the view that intrinsic existence would require complete independence and absolute permanence. Mādhyamikas contend, however, that nothing meets these requirements because everything that exists depends in at least some way on other things for its existence and because everything that exists will at some point cease to exist due to the observable fact of impermanence (Westerhoff 2010b, section 3). This perspective is perfectly encapsulated by Nāgārjuna, who rhetorically asks at *Mūlamadhyamakakārikā* 15.2: “But how could there ever be an intrinsic nature that is a product? For intrinsic nature is not adventitious, nor is it dependent on something else” (Siderits and Katsura 2013, p. 155). In other words, the assertion of emptiness amounts to the same thing as the denial of intrinsic nature/existence.

Conceived thus, it is clear why emptiness seems incompatible with the idea of nature's intrinsic value. As Cummiskey and Hamilton put it: “If there are no essential elements of nature and no intrinsic properties of things, then nothing has intrinsic value . . . Indeed the claim that individuals or species have intrinsic value conceptually presupposes that they have an intrinsic nature . . . If all phenomena are devoid of essence, then all phenomena depend on extrinsic relations; and thus their value cannot depend on their non-existent intrinsic properties. In short, no intrinsic properties entails that there is no intrinsic value” (Cummiskey and Hamilton 2017, pp. 18–22).

Initially, this looks like a powerful argument against the compatibility of emptiness and the ascription of intrinsic value to nature. This criticism, however, does not hold up. In ordinary discourse, to say that something has intrinsic value is not to make a metaphysical claim or to commit to any particular metaphysical view of the thing in question but simply to say that it has a value in and of itself, independent of human interests, and independent of the relationship it bears to other things. If the theory of emptiness precludes nature's intrinsic value just because there is, metaphysically speaking, no such objectively real thing as nature, then by the same logic, we cannot ascribe instrumental value to

nature either without falling into the same trap of presupposing nature's objective reality. To see why this is so, and to properly respond to Cummiskey and Hamilton's objection, it is helpful to invoke one further distinction found in Buddhist philosophy—that between conventional (*saṃvṛti*) and ultimate (*paramārtha*) reality/truth.

As with the theory of emptiness, the theory of two truths is variously interpreted by the different schools of Buddhism. For reasons already given, the focus here will be on how Madhyamaka understands the significance of, and the relationship between, the two truths. Again, just as the emptiness theory emerges from the early Buddhist teaching of no-self, the Madhyamaka account of the two truths takes the early Buddhist analysis of conventional and ultimate truth as its starting point, which it then significantly revises. Mark Siderits explains the conventional/ultimate distinction in early Buddhism as follows: "A statement is conventionally true if and only if it is acceptable to common sense and consistently leads to successful practice. A statement is ultimately true if and only if it corresponds to the facts and neither asserts nor presupposes the existence of any conceptual fictions" (Siderits 2007, p. 56). Of course, different people may have different views about what counts as successful practice but, in the Buddhist worldview, the yardstick of success is always *nirvāṇa*. Does the holding of a certain view conduce to the elimination of suffering and the achievement of awakening?

The arguments for emptiness, however, are designed to show that nothing has intrinsic reality and that there are no ultimately existent things to which ultimate truths could correspond. In other words, as far as Madhyamaka philosophers are concerned, whilst the conventional/ultimate distinction may serve some pragmatic ends, it does not reflect an objective, mind-independent, distinction because nothing is completely independent or objective. This means that, in the final analysis, the distinction between conventional and ultimate truth itself turns out to be a mere convention. Hence, Nāgārjuna's assertion at *Mūlamadhyamakakārikā* 24.10: "The ultimate truth is not taught independently of customary ways of talking or thinking. Not having acquired the ultimate truth, *nirvāṇa* is not attained" (Siderits and Katsura 2013, p. 273). Alternatively, as Siderits expresses it, the Madhyamaka view turns out to be that "the ultimate truth is that there is no ultimate truth" (Siderits 2007, p. 182).

In the absence of any ultimate truth, emptiness, too, transpires to be just another conventionally applicable theory. Nāgārjuna warns of the dangers of reifying emptiness and maintains at *Vigrahavyāvartanī* 29 that emptiness is not, properly speaking, a theory at all (Westerhoff 2010a, p. 29). Instead, the teaching of emptiness is offered as a therapeutic device to quell the fires of greed and attachment. To be effective in this purpose it is not enough for emptiness to be propositionally accepted or rationally endorsed—it must also be psychologically internalised through meditation so that it informs every aspect of a person's life and reshapes their self-conception in relation to the world around them.

Cast against this backdrop, the tension between emptiness and ascribing intrinsic value to nature is less acute. Although emptiness may be incompatible with the idea that nature has *any* metaphysically intrinsic properties, this does not prevent us from viewing the natural world as having a certain value which is not determined by its utility for human ends. For the Madhyamaka, for whom conventional truth is the only type of truth, the question of real significance is whether treating nature as intrinsically valuable leads to more successful outcomes than treating it as merely instrumentally valuable. If success counts as acting to eliminate the suffering of sentient beings, as developing equanimity, and as disrupting one's own sense of self-importance, it seems that the ascription of intrinsic value to nature can be consistent with the Buddhist worldview.

An altogether different response to this third charge, of philosophical inconsistency, would be to concede that Buddhism cannot accommodate the idea of nature's intrinsic value but to maintain that it is nevertheless still able to promote environmentalism. This is the approach taken, for example, by Bhikkhu Anālayo who argues that the philosophical and soteriological framework of early Buddhism relies "on an anthropocentric concern with the environment rather than attributing an intrinsic value to animals or nature" (Anālayo 2019, p. 42). From the traditional Buddhist perspective, humans alone are capable of achieving *nirvāṇa* and are therefore regarded as, at least in some sense, superior to other animals.

However, given the centrality of non-violence to Buddhism, Bhikkhu Anālayo insists that “accepting the idea of some sort of hierarchical superiority of human beings does not mean that compassion and care based on a moral sense of responsibility are being diminished” (Anālayo 2019, p. 39).

Bhikkhu Anālayo also refers to the work of Andrew Light who presents a persuasive case for the legitimacy of some anthropocentric approaches to environmental ethics. Light distinguishes between types of anthropocentrism which might easily, or even necessarily, lead to the destruction of nature, and types which, though assigning a human-based value to nature, do not reduce that value to that of a mere resource (Light 2002, p. 429). Describing his stance as “environmental pragmatism,” Light argues that environmental ethicists’ preoccupation with nature’s intrinsic value may be a distraction to achieving the kind of policy changes necessary for preventing some of the most harmful effects of climate change. He writes: “If environmental philosophers spend most of their time debating non-human-centered forms of value theory, they will arguably never be able to make . . . a contribution [to the resolution of the crisis]” (Light 2002, p. 428). This last point is likely to resonate with Buddhist environmentalists who recognise that Buddhist philosophy has, from the beginning, always had a pragmatic orientation. Indeed, the central message of the famous poisoned arrow parable in the *Cūḷamālukya Sutta* of the Pāli Canon is that we should not become fixated on abstract metaphysical questions but should instead focus on the practical task of eliminating one’s own and other’s suffering (Ñāṇamoli and Bodhi 1995, pp. 533–36). Just as it would be foolish for a man shot with a poisoned arrow to refuse treatment until he knows such details as whether the archer is short or tall, is fair-skinned or of dark complexion, is a villager or a city dweller, so too would it be foolish for the Buddhist environmentalist to become so preoccupied with arguing in support of nature’s intrinsic value that the time for decisive action is lost.

Despite this, as environmentally Engaged Buddhists insist, and as Bhikkhu Anālayo would also admit, our overly instrumentalist attitude towards nature has been a key contributor to environmental degradation. Unless and until we relinquish this unhealthy and unhelpful attitude of domination over nature, the situation will only further deteriorate. Thai Buddhist monk Prayudh Payutto maintains that contemporary society is in the grips of three mistaken beliefs, foremost of which is “that mankind is separate from nature, that mankind must control, conquer, or manipulate nature according to his desire” (Payutto 2000, p. 171). He argues that viewing natural resources solely as tools for our own ends perpetuates competition as opposed to cooperation and that, until we reimagine our relationship with nature, we can be neither truly free nor truly happy. In encouraging us to see the value of nature in its own right Prayudh Payutto also encourages us to see ourselves as somehow *at one* with our environment. He writes: “those who aspire to conquer nature and manipulate it to their needs tend to see nature as an entirely external object . . . Their perception of nature is incomplete and inconsistent. Aspiring to conquer only external nature, they do not consider that internal nature is also a condition which can be conquered. For a correct relationship with nature, we must see our situation in a more profound way, seeing ourselves as part of the whole interrelated natural world, not as separate entities or owners or controllers of nature” (Payutto 2000, p. 176). This brings us to our next point.

4. Misidentification with the External World

A recurrent theme in the writings of Buddhist environmentalists is that humanity is, in fact, one with nature. This idea is also present in the work of deep ecologists like Arne Næss, Aldo Leopold, and others, who argue that it is a mistake to see ourselves as fundamentally separable from nature. For example, Aldo Leopold believes that “we abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect” (Leopold 1968, p. viii). This view is also shared by Buddhist eco-contextualists who recognise that “religious-cultural narratives of place can make a crucial contribution to environmental ethics . . . for stories and traditions of cultural practice have the power to touch the deepest sensibilities of personal and social identity” (Swearer 2006, p. 136). Similarly, Arne Næss argues that self-realisation (by which he means the expansion of one’s field of concern beyond the ego to include concern for all life) occurs when we *identify* with the environment. He argues that accounts of self-realisation which

focus too much on the ego are defective because “our immediate environment, our home (where we belong as children), and the identification with nonhuman living beings are largely ignored. Therefore, I tentatively introduce . . . the concept of the *ecological self*. We may be said to be in, and of, nature from the very beginning of ourselves” (Naess 2008, p. 82).

Despite the centrality of the no-self doctrine in Buddhism, many Engaged Buddhists nevertheless suggest that identification with nature is a means of spiritual self-fulfilment. As Śāntideva maintains in the *Bodhicaryāvatāra*, challenging the ego and expanding one’s moral circle may, in fact, be the most expedient way of achieving personal satisfaction too. Therefore, he states at 9.120 that “Whoever longs to rescue quickly both himself and others should practise the supreme mystery: exchange of self and other” (Crosby and Skilton 2008, p. 99).

Drawing on the idea that the distinction between self and other is superficial, Thich Nhat Hahn encourages us to see ourselves as enjoying a relationship of inter-dependence with our fellow humans, non-human animals, and nature as a whole. Inspired by the deep ecology movement, he writes: “we must begin by being our true selves. To be our true selves means we have to be the forest, be the river, and be the ozone layer. If we visualize ourselves as the forest, we will experience the hopes and fears of the trees. If we don’t do this, the forests will die and we will lose our chance for peace. When we understand that we inter-are with the trees, we will know that it is up to us to make an effort to keep the trees alive” (Hahn 1992).

The idea of inter-dependence has acquired special significance for Buddhist environmentalists, particularly those, such as Joanna Macy, also influenced by the *general systems theory* approach to ecology (Kaza 2019, pp. 145–47). Although there is a close affinity between Mahāyāna Buddhism’s teaching of inter-dependence (which, in the *Avatamsaka Sūtra*, is captured by the image of *Indra’s Jeweled Net* wherein each jewel is reflected in every other jewel, creating a never-ending web of connectedness) and *general systems theory* (which takes a holistic approach to the study of ecosystems), it is important to note that early Buddhist scriptures seem not to share the view that everything is intimately connected with everything else. Rather, although the early Buddhist teaching that existents arise through causation clearly informed subsequent Buddhist thinking on inter-dependency, neither the scope nor the purpose of these teachings is the same. On the one hand, as Bhikkhu Anālayo observes, it makes sense to invoke the teaching of inter-dependency as a way of “inspiring action to preserve a harmonious balance in nature” (Anālayo 2019, p. 44). On the other hand, the aim of early Buddhist teaching is not merely to recognise that everything is dependently originated but to help us “step out of conditionality” and achieve the unconditioned state of *nirvāṇa* (Anālayo 2019, p. 44).

Yet, despite the disagreements between Buddhists of different traditions in their interpretation of the Buddha’s teaching of dependent origination, an increasing number of Buddhist environmentalists, whether from Theravāda or Mahāyāna backgrounds, are emphasising the need to reconnect with nature and see ourselves as inseparable from it. For example, reporting on the work of Thai organisation *Phra Sekhiyadhamma*, which is a network for “development monks,” Bhikkhu Santikaro explains that even the word “environment” has become unhelpful in the Thai context. This is because “the word betrays its Western origins, separating human beings from the rest of nature. In Buddhism, we ought to speak of nature or ecology as inclusive of everything, especially ourselves” (Bhikkhu 2000, p. 211).

However, a key challenge for such a view of our relationship with nature is that it seems to encourage us indiscriminately to identify ourselves with the external world. As beautiful and life-affirming as it may be to feel at one with the magnificent corals and fish populating the Great Barrier Reef, what is to prevent the non-dualist from identifying with the Great Pacific Garbage Patch? Given that many Buddhists endorse the idea of Universal Buddha Nature (i.e., the idea that everyone and everything has the capacity for awakening), what is the basis for celebrating and protecting the one while being outraged and disgusted by the other? Critics of Buddhist environmentalism, such as Ian Harris, for example, argue that Buddhism’s focus on inter-connectedness (particularly as conceived in East Asian traditions such as Hua-Yen) undermines, rather than supports, environmentally conscientious ways of thinking. Harris goes so far as to say that commitment to the principle of

inter-dependence actually “negates [Buddhism’s] social and eco-activist agenda” because “if all depends on all then the black rhino depends on the hydrogen bomb, the rain forest on the waste dump” (Harris 1995, p. 205).

Various things could be said in response to this worry but the first point to note is that the risk of *identifying* with such things as garbage patches, hydrogen bombs, and waste dumps is, surely, strictly theoretical. Presumably even those firmly persuaded by a philosophy of radical non-dualism would not hesitate in their assessment of the 2010 Deepwater Horizon oil spill as a disaster. In practice, non-dualist perspectives only stretch so far.

Buddhist environmentalists nevertheless acknowledge the value of establishing appropriate and emotionally sustainable relationships with environmentally harmful entities, practices, or organisations. As Stephanie Kaza notes, although it is normal to experience feelings of fear, discouragement, helplessness etc., in the face of climate change, we must recognise these feelings as “part of the practice field” and as providing opportunities for developing equanimity and resilience. Crucial as it is to work for environmental protection, Kaza also argues that we need to strike the balance between engagement and detachment. She writes: “Embracing this means wasting less energy in resistance and accepting how deeply aligned we are with patterns of nature . . . Rather than resisting the frustrations and setbacks of climate policy, one simply keeps going, leaning into the commitment of the practice. With this orientation, all elements of climate change are part of the practice field—damaging hurricanes, political trade-offs, denial campaigns, climate refugees” (Kaza 2019, pp. 154–55).

Feelings of *oneness* with nature can promote solidarity with, and compassion for, marine life impacted by huge oil spills without necessitating a similar sense of emotional connectedness with the heavy-duty drills used for its extraction. Moreover, as Buddhist non-dualists would themselves concede, metaphysical indistinguishability is not at all the same thing as phenomenological indistinguishability. That is, our experiences and our relationships with objects of natural beauty are often very different from those we have with human-made objects, even if both are metaphysically alike and even if both can perform the same functions. Indeed, despite contending at *Mūlamadhyamakakārikā* 25.19 that “there is no distinction whatsoever between *saṃsāra* and *nirvāṇa*” Nāgārjuna is nevertheless one of the most powerful advocates of the Buddhist path because he believes that recognising the sameness of these states is key to transforming our whole way of being in the world (Siderits and Katsura 2013, p. 302). Similarly, if Harris is correct in claiming that the thoroughgoing inter-dependence of all things makes it impossible metaphysically to distinguish between the rain forest and the waste dump, it does not follow that distinctions of all kinds are impossible. Experientially the rain forest and the waste dump could not be more different: the one inspiring awe, wonder, and appreciation; the other disgust and, perhaps, a sense of collective failure.

A second option available to the non-dualist facing the charge of misidentification is to appeal once again to the distinction between the two truths. Supposing that the non-dualist is right, the lack of any ultimate (i.e., metaphysically significant) difference between the Great Barrier Reef and the Great Pacific Garbage Patch tells us nothing about the kind of attitude it would be appropriate to adopt towards each of these respectively for ordinary, everyday, and practical purposes. If the overarching goal of Buddhist philosophy, meditation, and practice is to eliminate as much suffering as possible by overcoming attachment and greed, then there is clearly a strong case for viewing our creation of the Great Pacific Garbage Patch as deeply regrettable. Comprising approximately 80,000 tons of plastic, spread over an area three times the size of France, the Great Pacific Garbage Patch is both a symptom and a cause of much suffering (Lebreton et al. 2018). Marine debris is known to have affected at least 690 different species, 17% of which are on the IUCN’s red list of near threatened and above (Gall and Thompson 2015). It thus floats as a painful reminder of the extent of human greed and the degree of our mindless habits of consumption.

Consequently, as Engaged Buddhists and deep ecologists suggest, coming to see ourselves as part of the natural world and as participants in a community of other beings may help us achieve positive change for the environment. The need to internalise the teaching of inter-dependency, of allowing it to

transform one's entire way of engaging with the world, comes through in one of the Dalai Lama's ecological poems. He writes: "Being attentive to the nature/Of interdependence of all creatures,/Both animate and inanimate,/We should never slacken our efforts/To preserve and conserve the harmony of nature" (Dalai Lama 2009, p. 31). In short, and in keeping with its focus on the practical task of reducing the suffering of all beings, Buddhism need not promote indiscriminate identification with *all* external objects but can instead encourage us to be selective so that we can dispassionately meet the demands morality places upon us.

5. Ancient Resources for Urgent Problems

Having responded to the four objections most frequently made against Buddhist environmentalism, the final part of this paper will make the positive case for developing the ideas of inter-dependency, equanimity, community, contentment, and compassion to improve our relationship with the environment. Of course, Buddhism is by no means the only philosophical or religious system to have emphasised these values and nor is it a monolithic, or unified, tradition. Indeed, as Yao and Gombrich remark, "if one observes contemporary Buddhism across the globe, at first sight, it appears bewilderingly varied" (Yao and Gombrich 2017, p. 205). To reflect these variations some scholars have decided as a point of principle to cease referring to Buddhism and to speak instead of Buddhisms (Flanagan 2017, p. 116). Yet, for all their differences, there is still a common stock of Buddhist beliefs (such as no-self, impermanence, and the ubiquity of suffering) from which Buddhism's stance on the environment emerges.

The concepts of environmental stewardship and community with the rest of creation also feature in the Abrahamic faiths, including in Pope Francis's encyclical *Laudato si'*. However, in the struggle against climate change, it makes sense to use all possible available resources and to appeal to a range of cultures, traditions, and perspectives. Buddhism is well positioned to articulate a cogent package of practical tools and philosophical arguments which are capable of radically reshaping attitudes towards the environment and which may be persuasive to both secular and spiritual individuals. The main outstanding question, though, is whether recourse to ancient traditions like Buddhism will help us respond as quickly as we must to problems as urgent as climate change.

In a famous Pāli text called the *Kālāma Sutta*, the Buddha advises the Kālāma community not to accept doctrine—including Buddhist doctrine—on authority but to test it for themselves (Bodhi 2012, pp. 279–83). This advice is helpful for deciding which aspects of Buddhist belief might contribute to the formulation of an environmental ethic suitable for the 21st century. For example, although it is not possible fully to separate the philosophical from the religious components of Buddhism, it is clear that the truth of some doctrines (e.g., inter-dependency) can be established by standard empirical methods, and entirely without recourse to the supernatural, whereas others cannot (e.g., karma and rebirth). Today, Engaged Buddhists all over the world, and from a range of different Buddhist traditions, are looking for new ways to apply ancient texts and practices to new and extremely serious environmental problems.

Despite our inflated sense of self-importance and entitlement, all the evidence points towards our dependence on other forms of life. Indeed, for all our technological brilliance, it presently remains the case that our food security is threatened by the decline in insect numbers. Failure to accept our dependence on others is not only arrogant but self-injurious as it prevents us from being sufficiently mindful of our conduct and its consequences. However, it is not enough simply to become cognisant of our dependence on the natural world. We also have to find ways of changing our behaviours, and of sustaining those changes.

As an eminently practical philosophy, Buddhism has developed various meditation techniques which facilitate the psychological internalisation of these beliefs (Burton 2010). These meditative practices are also designed to help practitioners expand their sense of community and widen their circle of moral concern. The *mettā bhāvanā* technique (i.e., the cultivation of loving-kindness) aims specifically at engendering active compassion for all sentient beings in the universe and at directing good-will

towards them. Some Buddhist non-dualists, like the eighth century T'ien-t'ai philosopher Chan-jan, go even further and argue that inanimate parts of nature such as rocks, mountains, rivers, plants etc., also contain the seeds of Buddhahood (LaFleur 2000, p. 110). Such inclusiveness is important because it deters the meditator from nurturing unhelpful reactive attitudes towards those responsible for environmental destruction. Instead, because those who perfect the practice of meditation see all life as inter-dependent, they view those who exploit the environment not purely as opponents but also as worthy recipients of compassion. This is because to exploit the environment is not only to harm animals and plants but also to injure oneself.

This last point may not be immediately obvious, especially to those who have made their fortunes from harnessing (and exploiting) natural resources and are, at least ostensibly, contented in life. Could Buddhist insights persuade even committed hedonists of the need to reconsider the meaning and conditions of contentment and, in so doing, to recast their relationship with nature? From the Buddhist perspective, the full flourishing of human nature (which occurs at the attainment of *nirvāṇa*) depends on the quelling, rather than on the satisfaction, of desire. Buddhist scriptures depict excessive wealth, material comforts, and the notion of personal ownership (be it of physical possessions or intellectual property) as major sources of anxiety. Rather than expend our energy on acquiring and retaining things we do not really need, Buddhism encourages people to value simplicity and to share their resources as a way of achieving a deeper sense of contentment. If freed from the anxiety of jealously guarding our possessions perhaps we would be more open to thinking about what counts as the fair distribution of resources and whom amongst us (both human and non-human) needs special protection from the threats of climate change.

Unfortunately, it seems increasingly the case that traditional Buddhist societies are confusing the ideas of *industrialisation* and *development*. For example, documenting the impacts of tourism, industrialisation, urbanisation, and globalisation on economic growth and the environment in Southeast Asia, Brahmasrene and Lee note that total emissions for this region have increased 17 times since 1950 (Brahmasrene and Lee 2017, p. 362). They conclude that “urbanization and industrialization are the likely causes of CO₂ emissions in the region, while tourism appears to be indirectly related to CO₂ emissions” (Brahmasrene and Lee 2017, p. 368). Thai social activist Sulak Sivaraksa maintains that “from the Buddhist point of view, the generally recognized goals of development are completely backward ... In Buddhism ... the goals of development are perceived differently. From the usual standpoint, when desires are increased and satisfied, development can proceed. From the Buddhist standpoint, when there are fewer desires there can be greater development. It is the reduction of desires that constitutes development. This is the opposite of the materialist notion that dominates our conventional thinking” (Sivaraksa 2000b, p. 183). Again, as the Thai scholar Pipob Udomittipong has pointed out, it is no coincidence that shortly after drafting its first *National Economic Development Plan* the Thai government prohibited Buddhist monks from preaching the traditional value of *santutthi* (which means contentment with what one has) (Udomittipong 2000, p. 191).

To reiterate what has been pointed out already, Buddhism is certainly not alone in promoting the values of community with all beings, contentment, and compassion. Nor are Buddhist environmentalists alone in pointing out the urgency and necessity of upholding these values if we are to minimise further ecological disaster. Nevertheless, Buddhism does have distinctive contributions to make to environmental philosophy and activism. As the contributions of Buddhists from the many different schools and periods noted above indicate, concern for the environment and for determining our proper place in the world is a feature of Buddhist thought and practice which can to be further explored and elicited by those eager to use every available resource for responding to the many different causes of environmental destruction. Despite serious philosophical disagreement on questions of metaphysics, Buddhists from every tradition and region (Thai, Tibetan, Zen, Western etc.,) are coming together as one to advance the Engaged Buddhist movement. If, as Thich Nhat Hahn insists, participation in this movement does not require any prior commitment to Buddhist dogma but demands only a willingness to reflect anew on one's relationship with nature (and to see that humans are neither separate from,

nor superior to, the environment), then Engaged Buddhism can appeal just as much to secular and modernist as to religious and traditionalist society.

Finally, because responding to climate change and mitigating its damaging effects requires effective inter-governmental co-operation and immediate action, one might still question the role Buddhism can play in dealing with this crisis. It is abundantly clear that grassroots movements *alone* are inadequate to the task ahead, but it also seems just as clear that policy change will not happen spontaneously or without pressure from collectives and the community at large. Engaged Buddhism by no means constitutes a comprehensive solution to the problems we face but it can certainly contribute something. If the 2018 IPCC report is correct, we have a very short time-scale on which to avert the most catastrophic consequences of climate change and we need both drastic and lasting behavioural changes. In combination with improved, and much more widespread, education on the inter-connectedness and fragility of ecosystems, Buddhist philosophy and meditational practices have the capacity to transform how the next generation thinks about, and relates to, nature. Crucially, in emphasising contentment over acquisitiveness as a means to happiness and deep fulfilment, the Engaged Buddhist path strives to deliver environmentally beneficial results without demanding that we deny ourselves anything of true value or sacrifice our own wellbeing.

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References

- Akappa. 2009. *Saving the Earth: A Buddhist View*. Cambridge: Windhorse Publications.
- Anālayo, Bhikkhu. 2019. *Mindfully Facing Climate Change*. Barre: Barre Center for Buddhist Studies.
- Bhikkhu, Santikaro. 2000. *Dhamma Walk around Songkhla Lake*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- Bhikkhu, Ānandajoti. 2011. Nāga Sutta. In *Exalted Utterances*, 3rd ed. Available online: <https://www.ancient-buddhist-texts.net/English-Texts/Exalted-Utterances/Exalted-Utterances.pdf> (accessed on 21 July 2020).
- Bodhi, Bhikkhu. 2000. Ādittapariyāya Sutta; Dhammacakkappavattana Sutta. In *The Connected Discourses of the Buddha*. Boston: Wisdom Publications.
- Bodhi, Bhikkhu. 2012. Kālāma Sutta. In *The Numerical Discourses of the Buddha*. Boston: Wisdom Publications.
- Brahmasrene, Tantarape, and Jung Wan Lee. 2017. Assessing the Dynamic Impact of Tourism, Industrialization, Urbanization, and Globalization on Growth and Environment in Southeast Asia. *International Journal of Sustainable Development* 24: 362–71. [\[CrossRef\]](#)
- Burton, David. 2001. Is Madhyamaka Buddhism Really the Middle Way? Emptiness and the Problem of Nihilism. *Contemporary Buddhism* 2: 178–90. [\[CrossRef\]](#)
- Burton, David. 2010. Curing diseases of belief and desire: Buddhist philosophical therapy. *Royal Institute of Philosophy Supplements* 66: 187–217. [\[CrossRef\]](#)
- Callicott, J. Baird. 1987. Conceptual Resources for Environmental Ethics in Asian Traditions of Thought: A Propaedeutic. *Philosophy East and West* 37: 115–30. [\[CrossRef\]](#)
- Crosby, Kate, and Andrew Skilton. 2008. *The Bodhicaryāvatāra by Śāntideva*. Oxford and New York: Oxford University.
- Cummiskey, David, and Alex Hamilton. 2017. Dependent Origination, Emptiness, and the Value of Nature. *Journal of Buddhist Ethics* 24: 1–37.
- Dalai Lama. 1990. *My Tibet*. London: Thames and Hudson.
- Dalai Lama. 2009. The Sheltering Tree of Interdependence: A Buddhist Monk's Reflections on Ecological Responsibility. In *A Buddhist Response to the Climate Emergency*. Edited by John Stanley, David Loy and Gyurme Dorje. Boston: Wisdom Publications.

- Darlington, Susan. 2000. *Tree Ordination in Thailand*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- FAO. 2020. *FAOSTAT Database*. Available online: <http://www.fao.org/faostat/en/#data> (accessed on 21 July 2020).
- Flanagan, Owen. 2017. Negative Dialectics in Comparative Philosophy: The Case of Buddhist Free Will Quietism. In *Buddhist Perspectives on Free Will: Agentless Agency?* Edited by Rick Repetti. Abingdon: Routledge.
- Gall, Sarah, and Richard. C Thompson. 2015. The impact of debris on marine life. *Marine Pollution Bulletin*. 92: 170–79. [[CrossRef](#)] [[PubMed](#)]
- Gardiner, Stephen M. 2004. Ethics and Global Climate Change. *Ethics* 114: 555–600. [[CrossRef](#)]
- Hansen, Matthew C., Peter V. Potapov, Rebecca Moore, Matthew Hancher, Svetlana A. Turubanova, Alexandra Tyukavina, Anil Komareddy, Alexey V. Egorov, Louise Parsons Chini, Christopher Owen Justice, and et al. 2013. High-resolution global maps of 21st-century forest cover change. *Science* 342: 850–53. [[CrossRef](#)] [[PubMed](#)]
- Harris, Ian. 1995. Buddhist Environmental Ethics and Detraditionalization: The Case of EcoBuddhism. *Religion* 24: 199–211. [[CrossRef](#)]
- IPBES. 2019. *Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Bonn: IPBES Secretariat.
- IPCC. 2018. Summary for Policymakers. In: Global Warming of 1.5 °C. An IPCC Special Report on the Impacts of Global Warming of 1.5 °C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty. Available online: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf (accessed on 21 July 2020).
- Kaza, Stephanie. 2019. *Green Buddhism: Practice and Compassionate Action in Uncertain Times*. Shambhala: Boulder.
- LaFleur, William. 2000. *Enlightenment for Plants and Trees*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- Lebreton, Laurent C.M., Boyan Slat, Francesco F. Ferrari, Bruno Sainte-Rose, Jennifer Aitken, Robert Marthouse, Sara Hajbane, Serena Cunsolo, Anna Schwarz, Aurore Levivier, and et al. 2018. Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic. *Scientific Reports* 8: 1–15. [[CrossRef](#)] [[PubMed](#)]
- Leopold, Aldo. 1968. *A Sand County Almanac*. Oxford: Oxford University Press.
- Light, Andrew. 2002. Contemporary Environmental Ethics from Metaethics to Public Philosophy. *Metaphilosophy* 33: 426–49. [[CrossRef](#)]
- Mackenzie, Vickie. 1999. *Cave in the Snow: A Western Woman's Quest for Enlightenment*. London: Bloomsbury.
- Macy, Joanna Rogers. 1993. *World as Lover World as Self*. London: Rider.
- Macy, Joanna. n.d. Available online: <https://www.joannamacy.net/main> (accessed on 21 July 2020).
- Næss, Arne. 2008. *Ecology of Wisdom*. London: Penguin.
- Ñāṇamoli, Bhikkhu, and Bhikkhu Bodhi. 1995. Ariyapariyasenā Sutta; Alagaddūpama Sutta; Cūḷamālukya Sutta; Mahāsaccaka Sutta. In *The Middle Length Discourses of the Buddha*. Boston: Wisdom Publications.
- Payutto, Prayudh. 2000. *Buddhist Solutions for the Twenty-first Century*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- Ratnayake, Sahanika. n.d. *The Problem of Mindfulness*; Aeon. Available online: <https://aeon.co/essays/mindfulness-is-loaded-with-troubling-metaphysical-assumptions> (accessed on 21 July 2020).
- Senauke, Alan. 2013. *Heirs to Ambedkar—The Rebirth of Engaged Buddhism in India*. Berkeley: Clear View Press.
- Siderits, Mark. 2007. *Buddhism as Philosophy: An Introduction*. Surrey: Ashgate.
- Siderits, Mark. 2015. *Personal Identity and Buddhist Philosophy: Empty Persons*, 2nd ed. Surrey: Ashgate.
- Siderits, Mark, and Shōryū Katsura. 2013. *Mūlamadhyamakakārikā/ Nāgārjuna's Middle Way*. Boston: Wisdom Publications.
- Sivaraksa, Sulak. 2000a. The Religion of Consumerism. In *Dharma Rain: Sources of Buddhist Environmentalism*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- Sivaraksa, Sulak. 2000b. *Development As If People Mattered in Dharma Rain: Sources of Buddhist Environmentalism*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- Swearer, Donald. 2006. An Assessment of Buddhist Eco-Philosophy. *The Harvard Theological Review* 99: 123–37. [[CrossRef](#)]

- Hahn, Thich Nhat. 1992. Dharma Talk: Protecting the Environment. *The Mindfulness Bell* 7. Available online: <https://www.mindfulnessbell.org/archive/2016/03/dharma-talk-protecting-the-environment-3?rq=environment> (accessed on 21 July 2020).
- Hahn, Thich Nhat. 2008. Dharma Talk: History of Engaged Buddhism. *The Mindfulness Bell*. 49. Available online: <https://www.mindfulnessbell.org/archive/2015/02/dharma-talk-history-of-engaged-buddhism-2?rq=engaged> (accessed on 21 July 2020).
- Udomittipong, Pipob. 2000. *Thailand's Ecology Monks*. Edited by Stephanie Kaza and Kenneth Kraft. Boston: Shambhala.
- Watts, Jan. 2009. *Plastic Bottles Reborn as Blankets in Buddhist Recycling Centre*. London: The Guardian, Available online: <https://www.theguardian.com/environment/blog/2009/oct/07/recycling-buddhist-china> (accessed on 21 July 2020).
- Westerhoff, Jan. 2009. *Nagarjuna's Madhyamaka: A Philosophical Introduction*. Oxford: Oxford University Press.
- Westerhoff, Jan. 2010a. *Vigrahavyāvartanī/ The Dispeller of Disputes by Nāgārjuna*. Oxford and New York: Oxford University Press.
- Westerhoff, Jan. 2010b. *Nāgārjuna*; Stanford: Stanford Encyclopedia of Philosophy. Available online: <https://plato.stanford.edu/entries/nagarjuna/> (accessed on 21 July 2020).
- Westerhoff, Jan. 2016. On the Nihilist Interpretation of Madhyamaka. *Journal of Indian Philosophy* 44: 337–76. [CrossRef]
- Yao, Yu-Shuang, and Richard Gombrich. 2017. Christianity as Model and Analogue in the Formation of the 'Humanistic' Buddhism of Tàì Xū and the Hsīng Yún. *Buddhist Studies Review* 34: 205–37. [CrossRef]



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