

THE TOUCH THE EARTH FORUM GUIDE TO ECOBUDDHISM

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TRANSFORM YOURSELF, TRANSFORM THE WORLD

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INTRODUCTION

The earth, its soils, atmosphere, water and life have been transformed by a pestilence of people, seven billion of them, armed with knowledge and technology, and stimulated by materialism and greed. So great are the changes wrought by humans that they have become, in sum, a geological force perhaps defining a new epoch, the Anthropocene. Buddhism has always maintained a close relationship with the earth and its great variety of life. At the time of the Buddha's awakening, Mara, Lord of the Self, demanded a witness to the Buddha's claim. In response, the Buddha simply reached down with his right hand and touched the earth (bhumisparsha mudra). Free of anger, desire and conceited ignorance, the earth served as an enlightened witness to the Buddha's awakening. When the Buddha touched the earth, the earth also touched him and the duality of earth and Buddha fell away. By touching the earth, the Buddha acknowledged the earth, became inseparable from it and demonstrated his oneness with the earth. That oneness extends to us, to every sentient being. We are one with the Buddha and one with the earth. Unfortunately, it seems we have forgotten or no longer experience our oneness with the earth; instead, we have allowed ignorance, aggression and desire to pervert this fundamental relationship and threaten the soil, water, air and life of our planet. It is hoped that this small text may lead some to the great teachers and their words, help to reestablish our oneness with the earth, learn to care for all sentient beings and to pursue a sustainable life style.

The relationship between buddhism and the environment is unique.

The Dharma is exacting but it is not against nature. . . . The man or woman who seeks enlightenment is in tune with the the fundamental structure of the universe. Even though the world seems to be ruled by the violence of Mara and his army, it is the compassionate Buddha who is most truly in tune with the basic laws of existence.

Karen Armstrong, 2001.

For the Buddhist the shift is an awakening to earth as an extension of one's own body wherein the dichotomy of self and other dissolves. Lin Jensen, 2010.

Saskatchewan ecologist Stan Rowe (1990) described humans as being “of” and yet “in” nature, products of nature and part of nature at the same time. Can we, each of us, ever have that sense of being one with the earth, of and in the earth? Without the duality of us and earth, we can come to see the earth as part of us and our selves as part of the earth. To harm the earth is to harm our selves; to protect the earth is to protect the precious human life and lives of all sentient beings. We must awaken to being grounded in the earth. As Tenzin Wangyal Rinpoche of the Bön tradition says, *“When earth is balanced in us, we feel stable, grounded, confident. We are neither too heavy nor too airy. We are rooted in our experience . . . grounded in pure being.”*

Can we make being grounded in the earth part of our buddhist practice? Can we begin to see the earth, each sentient being and the interconnectedness of life, the universe, in ourselves? Will it ever pain us to see the abuse and destruction wrought on our old generous friend? Does a buddhist perspective offer special insights or workable solutions to environmental issues? These are some of the questions that have prompted this simple effort at assembling sources, lists, pithy comments (that buddhists love), and my own thoughts and experience. “Ecobuddhism Condensed” might be a better title as I have tried to pull together a lot of material and present it in a way that is hopefully succinct, accessible and useful. There is much here to reflect on and return to again and again. The reader must know that my own knowledge, experience and insight is very limited; I ask for your indulgence and patience in offering this compilation, which reflects my interests, needs and biases. This effort is to assist individuals who wish to learn more about our troubled environment, buddhism and ecobuddhism, as well as groups who may wish to organize discussions and practice focusing on buddhism and environmental issues. The Touch The Earth Forum Guide is a work in progress and will certainly evolve with time, insight and experience, and contributions.

The Buddha taught for his times. He did not foresee seven billion people on a finite planet, the advance of destructive technology, or the scale of desire that has led to our present situation of environmental degradation, extinction of plants and animals, exploitation and destruction of common resources, global warming, sea level rise, disappearance of living reefs and plankton, spread of diseases, and the host of other symptoms of a decaying planet. But the Buddha’s teachings are timeless and have much to offer humankind twenty-six hundred years later. They are applicable to our times.

This Guide is dedicated to my precious teacher, the Very Venerable Khenchen Thrangu Rinpoche, who inspired and encouraged my activities.

HISTORY AND SOURCES

It can be argued that the roots of ecobuddhism are as deep as buddhism itself. The Buddha’s awakening was profound and complete, leaving one amazed at how congruent his insights and teachings are with modern knowledge of the environment. Perhaps more important is the realization that the human heart/mind remains

unchanged from the time of the Buddha to now. The Buddha awakened to the origins of anger, ignorance and desire; we can identify these mind states as the roots of our modern global environmental crisis. However, something more is taking shape, coming to our consciousness and entering into our thoughts and discussions; this may have to do with the globalization of exploitive capitalism, the rapid spread of buddhism and the formation of hundreds of local sanghas whose members are quite aware that human kind is on a path of destruction and that the dharma may hold answers.

1) Gary Snyder

Ecobuddhism can trace its origins to the American poet, essayist and environmentalist, Gary Snyder. His life in the mountains and forests of the Pacific Northwest, and as a scholar and buddhist came together to inform his craft. Through him the knowledge of the scientist, shaker and skinner, wobbler, writer of haiku, anthropologist and mountain climber meld with the wisdom of the Zen practitioner to provide unique insights served with an authentic voice. His body of work, focus on bioregionalism and sense of place, and mix of science and art, is an inspiration and guide that has had a great influence on me and many others. Snyder's writing, and life, is a very good beginning point for any ecobuddhist (Snyder 1959, 1992, 1995, 1996. 2007, 2009; Barnhill 2010). His famous "Smoky the Bear Sutra" (2007) displays Snyder's playful humor and insightful knowledge of buddhism, science and environmental issues.

SMOKEY THE BEAR SUTRA

Once in the Jurassic about 150 million years ago, the Great Sun Buddha in this corner of the Infinite Void gave a discourse to all the assembled elements and energies: to the standing beings, the walking beings, the flying beings, and the sitting beings--even the grasses, to the number of thirteen billion, each one born from a seed, assembled there: a Discourse concerning Enlightenment on the planet Earth.

"In some future time, there will be a continent called America. It will have great centers of power called such as Pyramid Lake, Walden Pond, Mt. Rainier, Big Sur, Everglades, and so forth; and powerful nerves and channels such as Columbia River, Mississippi River, and Grand Canyon. The human race in that era will get into troubles all over its head, and practically wreck everything in spite of its own strong intelligent Buddha-nature."

"The twisting strata of the great mountains and the pulsings of volcanoes are my love burning deep in the earth. My obstinate compassion is schist and basalt and granite, to be mountains, to bring down the rain. In that future American Era I shall enter a new form; to cure the world of loveless knowledge that seeks with blind hunger: and mindless rage eating food that will not fill it."

And he showed himself in his true form of

SMOKEY THE BEAR

A handsome smokey-colored brown bear standing on his hind legs, showing that he is aroused and watchful.

Bearing in his right paw the Shovel that digs to the truth beneath appearances; cuts the roots of useless attachments, and flings damp sand on the fires of greed and war;

His left paw in the mudra of Comradely Display--indicating that all creatures have the full right to live to their limits and that of deer, rabbits, chipmunks, snakes, dandelions, and lizards all grow in the realm of the Dharma;

Wearing the blue work overalls symbolic of slaves and laborers, the countless men oppressed by a civilization that claims to save but often destroys;

Wearing the broad-brimmed hat of the west, symbolic of the forces that guard the wilderness, which is the Natural State of the Dharma and the true path of man on Earth:

all true paths lead through mountains--

With a halo of smoke and flame behind, the forest fires of the kali-yuga, fires caused by the stupidity of those who think things can be gained and lost whereas in truth all is contained vast and free in the Blue Sky and Green Earth of One Mind;

Round-bellied to show his kind nature and that the great earth has food enough for everyone who loves her and trusts her;

Trampling underfoot wasteful freeways and needless suburbs, smashing the worms of capitalism and totalitarianism;

Indicating the task: his followers, becoming free of cars, houses, canned foods, universities, and shoes, master the Three Mysteries of their own Body, Speech, and Mind; and fearlessly chop down the rotten trees and prune out the sick limbs of this country America and then burn the leftover trash.

Wrathful but calm. Austere but Comic. Smokey the Bear will illuminate those who would help him; but for those who would hinder or slander him...

HE WILL PUT THEM OUT.

Thus his great Mantra:

Namah samanta vajranam chanda maharoshana Sphataya hum traka ham mam

"I DEDICATE MYSELF TO THE UNIVERSAL DIAMOND BE THIS RAGING FURY BE DESTROYED"

And he will protect those who love the woods and rivers, Gods and animals, hobos and madmen, prisoners and sick people, musicians, playful women, and hopeful children:

And if anyone is threatened by advertising, air pollution, television, or the police, they should chant **SMOKEY THE BEAR'S WAR SPELL:**

DROWN THEIR BUTTS

CRUSH THEIR BUTTS

DROWN THEIR BUTTS

CRUSH THEIR BUTTS

And SMOKEY THE BEAR will surely appear to put the enemy out with his vajra-shovel.

Now those who recite this Sutra and then try to put it in practice will accumulate merit as countless as the sands of Arizona and Nevada.

Will help save the planet Earth from total oil slick.

Will enter the age of harmony of man and nature.

Will win the tender love and caresses of men, women, and beasts.

Will always have ripened blackberries to eat and a sunny spot under a pine tree to sit at.

AND IN THE END WILL WIN HIGHEST PERFECT ENLIGHTENMENT

...thus we have heard...

(may be reproduced free forever)

2) Arne Naess

The Deep Ecology of Norwegian philosopher Arne Naess has been a parallel development with ecobuddhism, incorporating individual transformation and elements of buddhism with the nearly mystical “friluftsliv” environmentalism of Norway (Drengson and Devall 2008). From his fjelfield mountain cabin, Naess has penned dozens of books and articles that have influenced every environmental movement, especially those that advocate a comprehensive change in one’s life style and world view. Naess has been a force on Joanna Macy and Bill McKibben. In recognition, McKibben (2006) titled one of his books *Deep Economics*. The Principles of the Deep Ecology Movement as defined by Arne Naess and George Sessions are working statements (Sessions 1995) to be elaborated with our own versions of deep ecology and our own understandings of key concepts, and they require that we think through the consequences of acting from these principles.

Principles of Deep Ecology

1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: inherent worth; intrinsic value; inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.
2. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.
4. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
5. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
6. Policies must therefore be changed. The changes in policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
7. The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes.

3) Stan Rowe & Wes Jackson

Stan Rowe, former ecologist at the University of Saskatchewan, saw need for a spiritual awakening in our relationship with the environment. With real insight, he identified the environmental crisis as our failure to grasp what it means to be “in and of the environment” (1990). This failure leads to a disconnect between ourselves and our home, with a loss of our humanity. Environmental issues have to Rowe, a preacher’s son, a significant ethical component. Rowe’s insights greatly influenced Wes Jackson (1994), plant breeder and director of the Land Institute, Salina, Kansas. A talented essayist, Jackson’s life work, the search for perennial grains and development of tith free agriculture, is a wonderful example of right livelihood that makes no separation between science and poetry. This later point will be explore later.

4) Elders

Of course we are always indebted to our elders, John Muir (Muir 1965), Aldo Leopold (1949), Rachael Carson (1962), David Suzuki (Suzuki 1989; Suzuki and Harrington 2012) and Gaylord Nelson (Christofferson 2004), without whom there would be no Sierra Club, land ethic, environmental movements, or Earth Day, respectively. These elders saw the need for an ethical approach to air, water, land and wildlife, and defined the role and responsibility of the knowledgable activist. Perhaps you have others for this list. Who are your environmental elders?

5) Teachers & Sources in Many Forms

In 1990 Allan Badiner published his visionary collection of relevant articles with a clever title, *Dharma Gaia*, an homage to James Lovelock and a play on Bodhi Gaya, where the Buddha achieved enlightenment. Recognition of buddhism’s relationships to ecology may be traced back into the 1960s. A review of this history and other important academic articles is provided by editors Mary Tucker and Duncan Williams 1997 *Buddhism and Ecology*. Stephanie Kaza and Kenneth Kraft edited the 2000 reader, *Dharma Rain*, to include a wide variety of source material, enough to get any new ecobuddhist started. Kaza has also made a very useful 2012 webonar presentation on buddhism and environmentalism available through www.greenfaith.org. It may be obvious but still important to note that the web has become an excellent source for information, contacts, and ideas on buddhism and environmentalism. This will become evident as we continue.

The first decade of the millennia witnessed significant developments in the relationship between the environment, or ecology, and buddhism, spirituality in general (Vaughn-Lee 2013). We hear new voices raising the alarm on global warming and habitat destruction. These voices include lamas, roshis, rinpoches, bhikkhus and bhikkhunis,

the important teachers and enlightened mentors. This was followed by meetings, workshops, websites, books and articles exploring what soon became “ecobuddhism”.

An Aspirational Prayer to Avert Global Warming

May the blessings of the exalted sources of refuge -
The Buddha, his teachings, and community, the Three
Precious Jewels,
And the spiritual teacher, meditation deities, and
protectors of the Buddhist teachings, the Three
Roots -
Fully pacify the terrors of illness, famine, and war,
Along with chaotic disturbances of the four elements:
The imminent and terrifying danger that the whole
world will become a great wasteland,
As temperature imbalance causes the solid glaciers of
snow mountain massifs to melt and contract,
Afflicting lakes and rivers, so that primeval forests and
beautiful trees near their deaths!

May the sublime endowments of good fortune and
spiritual and temporal well-being flourish,
And may all beings nurture one another lovingly and
kindly,
So that their joy may fully blossom!
May all their aims be fulfilled, in accordance with the
sacred teachings!

Thrangu Rinpoche composed this powerful aspirational prayer in 2006 and then encouraged biologist John Stanley and his wife Diane, both students of Dudjom Rinpoche, to establish a buddhist ecology web site. www.ecobuddhism.org was launched in 2008 with the help of philosopher and Zen teacher, David Loy, and Nyingma scholar, Gyurme Dorje. The web site is organized into three sections - science, wisdom and solutions - with collections of articles, audiocasts and videos under each heading. It includes the Buddhist Declaration on Climate Change and is affiliated with www.350.org, Bill McKibben’s organization to fight global warming. The ecobuddhism.org web site is an excellent resource and may be the first use of the word “ecobuddhism”.

John Stanley, David Loy and Gyurme Dorje assembled articles and contributions from scientists, environmentalists, Western and Asian buddhist leaders, including the heads of the four major Tibetan Buddhist sects, dealing with global warming. This resulted in the informative and inspiring 2009 book, *A Buddhist Response to The Climate Emergency*, the first book read and discussed by the Touch the Earth Forum.

6) Joanna Macy (to be researched)

7) H.H. the 14th Dalai Lama

The spiritual head of the Gelug tradition and Tibetan buddhism, H.H. the 14th Dalai Lama, Tenzing Gyatso, began teaching on the environment as early as 1986, and likely earlier. His life long interest in science keeps him informed on environmental issues and he has described himself as an ecologist (Dalai Lama's Environmental Summit, Portland, May 8-10, 2013). No buddhist leader is more highly regarded or listened to than His Holiness and therefore his messages on environmental issues are of great importance. Most noteworthy are the Mind and Life Symposiums organized and sponsored by the Dalai Lama. Mind and Life XXIII, Oct. 17 - 21, 2011, Ecology, Ethics and Interdependence focused on global warming and environmental issues, and buddhist teachings and ethics. The highly recommended webcast is available through www.dalailama.com. Click on Audio & Video and scroll to the date of the event. There are 10 sessions, each about 2 hours in length, that present real expertise and challenging thought. This is also an excellent site for his other teachings. We are very fortunate as the Dalai Lama is a great scholar and an enlightened thinker willing to share his knowledge and experience with us through a long list of books. Three in particular stand out in their application to ecobuddhism (2005, 2009, 2011).

8) HH the 17th Karmapa

“Protect the earth. Live simply. Act with compassion. Our future depends on it.” This simple statement packs a punch. H.H. the 17th Karmapa, Ogyen Trinley Dorje, head of the Kagyu tradition of Tibetan buddhism, asks us to assume the responsibility of protecting the earth and thereby our future. This onerous task is done by examining one's life, intentions, actions, words and livelihoods, and developing compassion for all sentient beings. Still a young man, the Karmapa has been very active in environmental issues and offers a warning regarding our lust for ever newer technologies. “I have the strong feeling that I am connected to the natural elements. Technological devices do not agree with me. I feel most comfortable using natural things. When I use technological devices, my body feels rather uncomfortable, although I have no choice but to use them.” At the 2007 Kagyu Monlam, he made environmental protection a priority, seeking practical results within the Kagyu community. The website, www.khoryug.com communicates his activities, vision and plans including the 108 Solutions for Environmental Protection. More can be found at www.kagyuoffice.org and www.kagyumonlam.org, including the Karmapa's

discussion on vegetarianism and his contribution to the Dalai Lama's Mind and Life XIII. His new book (2013) is a significant contribution to engaged and ecobuddhism.

9) The Zen Teachers

Zen has always had a close link to the environment, especially through poetry, haiku, painting, bonsai and gardening, even though the environment may be metaphorical or contrived for aesthetic purposes. Vietnamese Zen master, Thich Nhat Hanh is forever deceptive; his simplicity, smile and walk become powerful buddhist practices. His words are also powerful as he is a prolific writer and poet, fluent in English. Concise and to the point, his teachings are great sources for developing compassion, mindfulness of the world around us, our role in that world and a buddhist approach to the environment.

When we do walking meditation, we can take each step in gratitude and joy because we know that we're walking on Mother Earth. We can walk with gentle steps, in reverence to the Earth who gave us birth and of whom we are part. We are aware that the earth we're walking on is sacred. With every step we touch the Earth's Bodhisattva, so each step should be loving and peaceful. We should be very respectful because we know we're walking on our mother. If we walk like this, every step will be healing, every step will be nourishing. Walk with reverence That is something we can train ourselves to do. Where ever we walk, in the railway station or the supermarket, we're walking on Mother Earth, so where ever we are becomes a holy sanctuary. (2013)

Earth brings us into life, and nourishes us.

Earth takes us back again.

We are born and will die with every breath.

John Daido Looi, abbot of Zen Mountain Monastery and founder of the Mountain and Rivers Order of Zen, was also a wonderful photographer and important in creating connections with the environment through poetry, photography and aesthetics (2004). The Order's web site is an important source for Looi's teachings on the environment, as is *Teachings of the Earth - Zen and the Environment* (2007).

Susan Murphy Roshi (2014) of the Zen Open Circle, Sydney, Australia, has been thinking ecobuddhism for a number of years. As a writer, producer, film director and resident Zen teacher, she emphasizes the "need to find a story that can carry us into forming a new relationship with the Earth." To Murphy, western society is in denial and at the stage of "this-is-happening-but-it-can't-be-happening."

The industrialized world set in motion by the West has no bedrock story to help explain the looming environmental crisis with climate change at its heart. The ancient stories that underpin our sense of reality held warnings - about a dualistic splitting of consciousness; about greed that consumes the world and our selves at the same time; about the danger of overreaching inherent in each ambitious new technology; and about apocalyptic collapse of the human world.

Murphy, www.ecobuddhism.org/wisdom.

To shake us into new ways of relating to the earth, Murphy Roshi employs Zen koans. Often described as mental puzzles or riddles, they help us move beyond our dualistic-in-the-box constructions and “close the gap we had forced between self and all that is.”

The crisis facing us all right now is a tremendous koan set for us by the earth, speaking to us plainly but in words we cannot yet fully comprehend, caught as we are in the past that cannot conceive of this emergency. To respond we need to free ourselves from a too narrow sense of self and an unquestioned assumption of self-entitled priority as a species.

Murphy, www.ecobuddhism.org/wisdom.

To “kickstart” this response Murphy suggests working with the following koan: “Once a woman raised a goose inside a bottle. When the goose was grown, she wanted to get it out. How to free the goose without breaking the bottle?

How do you break free of the human mindset that has trapped us, become toxic and begun eating the earth alive? Now that question is still too full of the thinking that created the problem. There’s a self-imposed barrier in proposing a problem or breaking free, since original freedom might well be discoverable as the very nature of the one who asks. To get down to that you have to let go of all you think you know about glass, bottles and goose.

Murphy, www.ecobuddhism.org/wisdom.

Here is another koan she uses, attributed to 9th century Chinese Zen Master Yunmen: “Medicine and sickness heal each other. The whole world is medicine. Where do you find your self? She notes, “There is no environment as opposed to self.”

I can’t resist. If we truly experience oneness with the earth, so that our dualistic separation disappears, healing the earth heals us, healing us heals the earth. The inner and the outer are one, the same, developing one is to develop the other. Our buddhist practice is a point of beginning to heal ourselves and the earth. But these are only words, so easy to come by.

Fresh access to a flexible, non-fixated, creative and playful state of mind, born as the whole earth and, like it, at home in an open-ended, unfinished universe - this is what every koan calls up.

The fight for the restoration of a whole earth demands nothing less.

Murphy 2014, 238

Her enthusiasm and insights have stimulated my simple koan, collected from an Ice-Age Trail brochure, “the gift of glaciers.” To me it has special resonance as our Rocky Mountain glaciers are disappearing quickly and are so important to our river hydrology. But there are layers dealing with the mind and the self.

For me there are many other sources in Zen and Chan buddhism yet to be explored. Strong voices have emerged such as David Loy, and Lin Jensen’s 2010 *Deep Down Things* is a joy of insight. Richard Payne has edited a collection of insightful and useful articles, 2010 *How Much is Enough?*, largely from the perspective of the Japanese Pure Land tradition. Our ignorance and confusion about the nature of samsara and nirvana can be greatly cleared away if we come to see our earth as the Pure Land of Amida Buddha. Of course from this perspective we come to realize that the destruction of our earthly environment is actually the pollution and destruction of the Pure Land of Amida Buddha. The Pure Land tradition of China and Japan is rich with sutra sources that teach of interconnectedness, bodhisattva activity, the Paramitas and so much more.

10) Sensei Bernie Glassman

Zen Master Bernie Glassman, founder of Greystone Enterprises which provides employment and housing for street people, and the Zen Peacemakers Order, is an important figure in the development of socially engaged buddhism. Through his activism and books he has defined what it means to be a Peacemaker and to engage in the practice of “bearing witness”. His work has an easy application to ecobuddhism and should be examined for insight and application to environmental issues. Precepts of the Zen Peacemaker Order are listed below (1998).

Three Refuges of a Zen Peacemaker:

Inviting all creations into the mandala of my practice and vowing to serve them,
I take refuge in:

Oneness, the awakening nature of all beings.

Diversity, the ocean of wisdom and compassion.

Harmony, the interdependence of all creations.

Three Tenets of a Zen Peacemaker:

Taking refuge and entering the stream of Engaged Spirituality,

I vow to live a life of:

Not-knowing, thereby giving up fixed ideas about myself and the universe.

Bearing witness to the joy and suffering of the world.

Healing myself and others.

Four Commitments of a Peacemaker

I commit myself to a culture of nonviolence and reverence for life;

I commit myself to a culture of solidarity and a just economic order;

I commit myself to a culture of tolerance and a life based on truthfulness; and

I commit myself to a culture of equal rights and partnership between men and women.

Ten Percepts of a Zen Peacemaker

Being mindful of the interdependence of Oneness and Diveristy, and wishing to actualize my vow, I engage in the spiritual practices of:

1. Recognizing that I am not separate from all that is.

This is the precept of Non-Killing.

2. Being satisfied with what I have.

This is the precept of Non-Stealing.

3. Encountering all creations with respect and dignity.

This is the precept of Chaste Conduct.

4. Listening and speaking from the heart.

This is the precept of Non-Lying.

5. Cultivating a mind that sees clearly.

This is the precept of Not Being Ignorant.

6. Unconditionally accepting what each moment has to offer.
This is the precept of Not Talking About Others Errors and Faults.
7. Speaking what I perceive to be the truth without guilt or blame.
This is the precept of Not Elevating Oneself and Blaming Others.
8. Using all of the ingredients of my life.
This is the precept of Not Being Stingy.
9. Transforming suffering into wisdom.
This is the precept of Not Being Angry.
10. Honoring my life as an instrument of peacemaking.
This is the precept of Not Thinking Ill of the Three Treasures.

The three tenets of the Zen Peacemakers - not knowing, bearing witness and healing - seem to have a special resonance for ecobuddhism. Appreciating their full importance will likely require much further practice on my part.

11) The Touch the Earth Forum

For years, many of these influences had been operating on me, from reading *Silent Spring* and Gary Snyder in the 1960s to teaching paleoecology at the University of Alberta and deepening my practice. My wonderful teacher, Thrangu Rinpoche, supported my thoughts concerning buddhism and the environment, and encouraged me to continue in this direction with my activities and practice. During his 2010 Edmonton visit, Thrangu Rinpoche provided a public teaching on environmentalism. This gave me an opportunity to collect e mail addresses from those who wished to form an ecobuddhism group.

Environmental destruction is the single greatest problem facing humanity. With this impetus the Touch the Earth Forum began in the fall of 2010 as a way to explore buddhist perspectives on environmental issues, such as sustainability, biodiversity, and degradation of soil, air and water. We believe buddhism has a unique understanding of the environment that is practical, spiritual and yet fits the science. As deep ecology it works on the inner self and outer world, and engenders compassion and responsibility towards all sentient beings.

The Touch the Earth Forum takes its name from the Buddha's powerful symbolic act with the earth serving as witness to his enlightenment, and defeating Mara and his forces of desire, ignorance, fear and anger, a fine guide for the Forum's intentions. The Forum is about buddhism and we encourage those with other spiritual interests to explore their own traditions. The Forum is not affiliated with any one sect or school of buddhism. It welcomes all

buddhist practitioners, whatever their experience. There are no membership fees, officers or elections. We are an evolving community that emphasizes personal practice along with our role in the larger society of sentient beings. The Forum has evolved to accommodate those who wish to engage in book discussion and those who wish to have a more activist role.

12) One Earth Sangha

Other ecobuddhist groups are now active in developing and teaching the unique buddhist approaches to the environment. The Vipassana meditation centres of Gaia House, U.K., and Spirit Rock, CA, along with a collective of Vipassana teachers have founded One Earth Sangha www.oneearthsangha.org. In addition to promoting an annual Earth Care Week for the first week in October, they have defined 16 core dharma principles to address climate change. Visit their web site for much more discussion on the core practices and information.

Sixteen Core Practices to Address Climate Change

1. Reverence for life.
2. Happiness stems from helping others.
3. We suffer when we cling.
4. The ethical imperative - all beings matter.
5. Interconnectedness and interdependency.
6. Renunciation, simplicity.
7. Understanding the relationship between the First and Second Noble Truths and climate disruption and our capacity to learn to work with difficult states of mind.
8. Opening to suffering as a vehicle for awakening.
9. The interconnectedness of inner and outer, the individual and the connective.
10. Connection to diversity and justice issues.
11. Buddhism as an agent for social change.
12. Adhitthana or determination.
13. This precious human birth is an opportunity.
14. Love is the greatest motivator.
15. The sangha - and other forms of social support - are essential.
16. The Bodhisattva is an inspiring figure for our times.

WHAT HAVE WE HAVE LEARNED

The Touch the Earth Forum has met monthly over the past four years covering a wide range of material that prompted enthusiastic discussions. This experience provided an opportunity to define what we and others have called ecobuddhism and examine how this perspective may be applied to environmental issues. From this experience I have gleaned topics that were frequently written about and discussed, that define more or less what we have learned. Your buddhist practice of study, contemplation and meditation will hopefully enable you to go beyond what I offer here.

1) Ecobuddhism as Practice

The Karmapa had an impact on the Forum from the first meeting, when we viewed his 2008 teachings from Boulder, Colorado, "Healing the Environment Through the Mind of Awakening". (Available on DVD "Karmapa in America 2008" at www.karmapafoundation.org). His Holiness emphasized the interdependent nature of the mind, what he calls the inner world, and the environment, or what he calls the outer world. The fundamental uncontrived nature of the mind and the uncontrived nature of the outer elements of the world exist together in a state of equality; fundamentally these two are the same. Working on behalf of the environment, one encounters intense hardships. The most important thing for us to do, he advises, is to bring peace, comfort and ease to our minds. With this we will be able to accept difficult circumstances, such as disappointments or burn out, when they arise, and we will be able to overcome them. Our minds, however, are continually engaging in contrivances of thoughts and projections of our mind. It is our thoughts that serve as the long term causes of all our hardships in the outer world. Therefore, we need to deal with our minds before we deal with the problems of the outer world. A new positive environment requires a positive, gentle, unconfused mind. This teaching is further developed by the Karmapa (2013).

All the teachers emphasize this same key point - our environmental activism must go hand in hand with our inner practice. Before we serve to heal the world we must learn to heal ourselves. Without a strong practice our activism may become aggressive, actually strengthen our ego and emphasize our mistaken dualistic relationship with the world. This would only add further confusion and hinder any efforts to heal the environment. We must come to see ecobuddhism as a practice in its own right, not something distinct or separate from dharma practice. This is a challenge as to my knowledge there are no traditional pujas or sadhnas, rituals or practices specifically designed for ecobuddhist practice. When asked about specific practices, Thrangu Rinpoche emphasized the Chenrezig (bodhisattva of compassion) sadhna. Healing can only come about through compassion and identifying with other sentient beings and the earth itself.

Perhaps we could look into the practices and ritual activities of First Nations cultures. Their subsistence and exploitive economies were sustained over thousands of years. Leveling mechanisms that reduced the accumulation of wealth in the hands of a few were part of their cultures and they spoke against greed, emphasizing humility and sharing instead. Susan Murphy Roshi notes that buddhism has tended to converse deeply with indigenous traditions where ever it traveled - Taoism in China, Shintoism in Japan and Bön in Tibet. She is working closely with the Aboriginal peoples of Australia.

The traditional sweat lodge experience may be a starting point as it certainly develops an acute sense of awareness not unlike meditation. Although First Nations relationship to the environment is complex and may conflict with that of many environmentalists (Nadasdy 2005), we increasingly see First Nations in the front lines of environmental issues. For two examples, visit www.motherearthwaterwalk.com and www.healingwalk.org. No cultural group has been more betrayed by corporate greed and government indifference or asked to survive on contaminated water in an abused landscape.

How does one practice ecobuddhism? Perhaps we must ask how does one practice buddhism? The teachers begin by emphasizing the three avenues of engagement, body, speech and mind. Thrangu Rinpoche teaches study, contemplation and meditation. To study, one may read sutras, commentaries and texts by learned teachers. Audio and video presentations are now available, also distant learning courses allow one to engage the greatest modern teachers. For ecobuddhists the possibility for study is greatly increased to also include a wide range of books and journals dealing with climate change, pollution, habitat loss, conservation, fisheries policies, small scale banking, non-growth economics, geo-engineering, and on and on. Then there are magazines, web sites and blogs competing for our attention. Contemplation refers to using one's knowledge, to think about or reflect upon what one has learned, to integrate it into your daily activities, including work, to discuss it, teach it, debate it or write about it. That's why this form of practice is also called speech as it refers to communication in many forms. Finally, one should practice by examining the mind through meditation. One may take basic meditation instruction through a qualified teacher and through disciplined application progress to zazen, vipassana, dzochen or mahamudra that enable one to really examine and experience the true nature of reality, thoughts, emotions and the mind. Study, contemplation and meditation fully engage our lives, like the deep ecology described by Arne Naess. When asked during a public talk about how one should help the crusade against global warming, Bill McKibben, answered, "demonstrate, teach and practice." His advice is remarkably close to body, speech and mind, although by "practice" he means trading in the Hummer for a bicycle, or installing solar panels and reducing your air travel.

From the outset the Forum has emphasized individual meditation practice. Each meeting begins with 20 minutes of shamatha or mindfulness meditation, followed by 10 minutes of tonglen practice. Tonglen meditation is an ideal way to heal oneself and by doing so strengthen our ability to work with the environment and others. Eventually, it can be adopted to become an ecobuddhist practice by visualizing and then taking in on the in breath some damaged aspect of the environment, a polluted stream, a clear cut block, pharmaceuticals in drinking water or an

endangered species. Transform the damaged environment or endangered species and breath out clean water, a treed forest block or numerous individuals in a healthy habitat.

Establishing a strong individual buddhist practice is key to ecobuddhism.

2) Mindfulness is Everywhere

Shamatha, or tranquility meditation, takes many forms but which ever one is practiced they all have the effect of stabilizing the mind in order to establish mindfulness (Hanh 2008; Chodron 2013). Mindfulness now appears everywhere as a recommended practice with consequences in many applications, including education, government, economics, and environmentalism. This is very evident in the thinking of economist Jeffrey Sachs, Director, The Earth Institute, Columbia University (2011). He offers solutions and remedies to fix our economic, political and environmental problems. First on his list is the need for a mindful society where responsibility extends to ourselves, those around us and our sense of community involvement and political life. He outlines three steps to mindfulness, 1) need to study sources of our happiness and that of others; 2) need for a reflective or meditative approach; and 3) need to put mindfulness into practice.

“Mindfulness, I suggest is crucial, in eight dimensions of our lives:

mindfulness of the self: personal moderation to escape mass consumerism;

mindfulness of work: the balance of work and pleasure;

mindfulness of knowledge: the cultivation of education;

mindfulness of others: the exercise of compassion and cooperation;

mindfulness of nature: the conservation of world ecosystems;

mindfulness of the future: the responsibility to save for the future;

mindfulness of politics: the cultivation of public deliberation and shared values for collective action through political institutions; and

mindfulness of the world: the acceptance of diversity as a path to peace.

But to Sachs, most importantly is mindfulness of others, “We have become a country [America] of strangers.”

Lets look a bit more closely at Sachs’s topic of mindful politics. He advocates “seven habits of highly effective government”: 1) set clear goals and bench marks; 2) mobilize expertise; 3) make multiyear plans; 4) be mindful of the far future; 5) end corporatocracy by providing public campaign financing, provide free media time, ban contributions from lobbying firms, stop the revolving door of lobbyists becoming politicians and politicians becoming lobbyists, and take away the “trough of special rewards”; 6) restore public management; and 7) decentralize.

To Sachs a mindful society is transformed into one of greater compassion, increased community service, reduced greed and consumption, greater ethical responsibility and higher efficiency. These all have great impact on the natural and social environment. So much of environmentalism focuses on the political process, balancing the long term needs of the planet with the short term requirements of seeking and staying in power. These mostly seem quite contradictory. Sachs and others note that increasingly policy and decisions are in the hands of globalized corporations who are so able to influence the political process. No where is this more evident than in Alberta, which is increasingly being described as an “petro state”. But I digress and must mindfully move to our next topic.

3) Food

While meditation is a fundamental practice of buddhism, to develop mindfulness and awareness there may be other activities that benefit our lives, open us to the world around us, and generate compassion and ethical behavior. One activity we are very familiar with, likely on a daily basis, is eating. Our relationship to food and the rituals and beliefs that attend what we select to eat, how we prepare it and the social/cultural beliefs that surround food are all important. Increasingly, though, we are becoming aware of the environmental impact of our food, how it’s produced, what food choices we make, how it’s prepared and the circumstances of eating. There is much we can learn about buddhism and food by considering the life of the Buddha.

Twenty-six hundred years ago a young Shakyas prince from northern India left his home, family, wealth and power, and undertook a quest for enlightenment, seeking release from the cycle of birth, sickness, old age and death. For six years Gautama Shakyamuni traveled without a roof over his head and mastered the austerities, which saw the body as a hindrance to knowledge. Frustrated, weak and exhausted from subsisting daily on only a few grains of rice and drops of water he recognized that the body was not the enemy, that a healthy body was an aid to his search for enlightenment. When his disciples saw that his begging bowl was full of food they felt betrayed and abandoned him. A bowl of sweetened milk-cooked rice from the daughter of a cow-herd fortified him before meditating beneath the canopy of a pipal tree. His meditation would not cease until he had awakened, achieved enlightenment.

The story of Buddha’s life and enlightenment can be read over and over. With each reading there are new discoveries to be made and depths of understanding to achieve, even from an ecological or “green” perspective. For example, an important buddhist practice is to contemplate and meditate on the “four things that turn the mind toward dharma” (Thrangu Rinpoche 2011). These are 1) reflections on precious human birth, 2) impermanence of all things and the inevitability of death, 3) karma and its effects, and 4) the pervasive suffering of samsara. Lets look a bit more at the first – a precious human birth. It is only from the human realm that sentient beings can attain enlightenment. Trungpa Rinpoche taught that the human realm was the realm of “paying off the mortgage;” there was just enough suffering to generate dissatisfaction with samsara, the motivation to do something about it and the opportunity to practice the dharma. Gampopa pointed out the need for a human body so you may hear,

contemplate and meditate on the teachings. Without the precious human birth, study, contemplation and meditation are not possible; there can be no enlightenment. The Buddha recognized this when he rejected the austerities and began to eat again. The issue is not the food, which caused his disciples to leave, it's really a matter of understanding and acceptance of the middle way between desire and rejection, gluttony and starvation. You could say it was the Buddha's disciples, who shunned him, who were attached to food, or lack thereof.

Food sustains human life, it enables us to practice and it has long been a substantial topic in buddhism. The Buddha, who is said to have died of tainted food, commented on food and eating habits in the sutras and many highly accomplished practitioners have emphasized food preparation, serving and eating as a great opportunity for practice. Even today Theravadin monks carry their begging bowls to local villages as a practice that is to benefit both the monk who receives the food and the lay villager who receives the merit from the practice of selfless giving. Zen master Dogen, in his *Instructions for the Zen Cook* (1983) saw the "tenzo" or meal manager for the monks as a key position for practice. He quotes from a monastic administrative guide, "Put your awakened mind to work, making a constant effort to serve meals full of variety that are appropriate to the need and the occasion, and that will enable everyone to practice with their bodies and minds with the least hindrance." Dogen writes, "In preparing food for the community, it is crucial not to grumble about the quality of the ingredients, but rather to cultivate a temper which sees and respects them fully for what they are." And "A dish is not necessarily superior because you have prepared it with choice ingredients, nor is a soup inferior because you have made it with ordinary greens. When handling and selecting greens, do so wholeheartedly, with a pure mind, and without trying to evaluate their quality, in the same way you would prepare a splendid feast."

Although Dogen's instructions develop mindfulness and equanimity, this 13th century master did not have to contend with artificial colors and flavors, additives, preservatives, stabilizers, trans fats, bleaching, hormones, warehouse ripening, transgenetics, food channels and celebrity chefs that are all part of our modern food industry. Our challenge is to practice humility, equanimity and mindfulness, and still seek out the best food to nourish our bodies and practice. Modern Zen practitioners in Dogen's lineage have made great efforts to produce simple, nutritious dishes that nourish the body and enhance one's practice. One only has to look at the success of Ed Brown's 1970 *The Tassajara Breadbook*. Since then, Tassajara cooking has become a minor industry with Brown's most recent (2009), *The Complete Tassajara Cookbook*, sitting on my kitchen shelf. Brown writes, "The way we eat, the way we do anything, is an expression of our consciousness, an expression of who we are. Thoughts arise about what we'd like to eat; feelings come and go, moving us to choose one food or another; beliefs tell us what's right and what's wrong with our eating habits." Eating becomes an important practice. The *3 Bowls Vegetarian Recipes* (Farrey and O'Hara 2000) is adapted to the "jihatsu" or three bowl eating to be done in the meditation hall.

Thrangu Rinpoche's Shree Mangal Dvip boarding school in Kathmandu has taken a lead in linking good quality food with education and buddhist practice. Their web site www.veggiyana.org presents the exciting developments being made to assure that the school children have the best quality food from sustainable local sources. Their

motto “Strong bodies make strong minds” takes us back to our earlier discussion of the Buddha’s discovery of proper nourishment and enlightenment.

Of course many of us get too much food and obesity has become a global problem. Vietnamese Zen master Thich Nhat Hanh and his student, Harvard nutritionist Lilian Cheung, have published a buddhist approach to eating, mindfulness and life as an answer to dealing with obesity.

Our mindfulness will lead us to adopt lifestyle choices that are not only good for ourselves but also good for our planet. We will realize we cannot attain well-being by ourselves. Our well-being is intimately dependent on the well-being of others. Our health is dependent on the health of the planet, and the health of our planet depends on us. We all need to consume and act in such a way that the health of our planet is preserved for our children, our grandchildren, and all future generations. We cannot focus on ourselves if a future is to be possible. We need to maintain the well-being of all. Each of us can contribute by mindfully taking care of ourselves – and our home, planet Earth – for future generations to come. Hanh and Cheung 2010

Physician, Jan Chozen Bays Roshi has also published a mindful eating guide that comes with a CD of guided exercises and established The Center for Mindful Eating www.CenterforMindfulEating.org (2010). Francis Moore Lappé’s 1971 *Diet For a Small Planet* was a huge success that challenged our eating habits and set us on a path that was healthier and more sustainable. Following in her mother’s footsteps, Anna Lappé has now (2010) published *Diet for a Hot Planet* and established the Small Planet Institute. More than an up date of her mother’s book, Anna critiques industrial food and looks at food in light of the threat of global warming. Here are her Seven Principles of a Climate-Friendly Diet.

- 1) Reach for real food: Use the “rule of thumb” trick to limit the additives in your food and Marion Nestle’s strategy to stick to the outer supermarket aisles to avoid processed food when you can.
- 2) Put plants on your plate: Move plants too the middle of your plate. If you choose animal products, go for those raised humanely and sustainably, looking for the organic seal or grass-fed certification.
- 3) Don’t panic; go organic: Look for foods that have been produced without industrial chemicals and other high energy inputs. Hunt for the USDA organic seal or talk to your food producer directly to find out about their practices.
- 4) Lean towards local: Support your local-food economy: Visit your locally stocked supermarkets, check out your nearest farmer’s market, or join a CSA. Supporting our networks of small-scale farmers and local businesses is a key way to ensure that we have climate-friendly food today and tomorrow.

- 5) Finish your peas . . . the ice caps are melting: Pay attention to your food waste. In school? Push for institutional composting. Work at a restaurant or a catering outfit? Inquire about recycling and reuse programs. Connect with others in your community to uncover innovative ways to waste less and enjoy more local foods.
- 6) Send packaging packing: Think creatively, from bringing your own bag to the store to buying reusable containers for your leftovers and coming up with tasty ways to make them into new meals. Perhaps the simplest of all the steps, this is also among the most difficult. We inhabit a throwaway world; trying to change our throwaway habits can be difficult.
- 7) DIY (Do It Yourself) food: One of the best ways to bring climate-friendly food into your life is to reclaim your own power to cook, grow, and create your own food.

Switching to a vegetarian or vegan diet is advocated by many as the answer to the earth's woes; this is not without justifiable merit. Animal protein sources sit atop the trophic pyramid or food chain and therefore require high inputs of energy, labour, antibiotics, water, waste disposal and land. Adding insult is the generation and release of huge quantities of methane, a green house gas many times more effective than carbon dioxide, from animal orifices. Eating from lower on the food chain, namely plants, can provide a more sustainable, energy efficient and healthier diet with significant positive global impacts to land, water, feed options and methane emissions. Meat eating requires taking the life of a sentient being, violating one of the buddhist precepts. Various explanations and rationalizations have been advanced to account for the persistence of meat eating among buddhists. Some individuals, including the Dalai Lama, cannot remain healthy on a meat free diet. I too belong in that category, although I have significantly reduced my meat consumption. During the course of human evolutionary history meat was a necessary component in human diets. This is due to our large calorie requiring brain, which receives the greatest number of calories of any organ of the human body. Our intelligence came with a price, that being a diet of high quality, high calorie meat. I personally take a page from Gary Snyder and First Nations peoples - if you do eat meat, do so mindful of the life that was given, act respectfully by consuming only what you need and sharing the kill with family and friends. A trophy on the wall cannot justify the kill.

The choices we make in what we eat have a great impact on the world around us. Eliminating meat from our diets even for one or two days a week, a small gesture, moves us towards a more sustainable food system. No where is the choice more evident than in our consumption of sea food. The food industry no longer fishes, it mines the seas. From bottom troweling to drift netting we are systematically stripping the oceans of edible protein, a large fraction of which ends up as animal protein fed to cattle. Catch returns are in decline for prized species; many, such as sharks and bluefin tuna, have been fished to near extinction, and so we are marketed second rate, so called rough species, as substitutes. In response, the Suzuki Foundation www.suzukifoundation.ca provides Suzuki's Top 10 Sustainable Seafood Picks, www.SeaChoice.org provides similar information. Although some farmed species are recommended, I personally take the environmental threats of marine fish farming seriously and recognize that fresh water sea food farming can be an even worse option. Ponds use copious quantities of fresh water and when the

harvest is complete the waste water rich in nutrients, nitrates and phosphates, and antibiotics is often indiscriminately released to the environment. Unless carbon dioxide emissions are reduced significantly in the immediate future, the acidification of the oceans will continue and may eventually eliminate even fish or shellfish farming as a sustainable option.

The use of a meal prayer can become an important reminder of our relationship to food, the earth and the Buddha. I've not responded well to the meal prayers commonly used in buddhism where food is presented as an offering to the Buddha. Instead, I wish to recognize the source of what I eat and express my gratitude for what I have received. But I also wish to acknowledge that at some point I will join the cycle of death and decomposition becoming the food for other sentient beings. I'm happy to be able to participate in this cycle.

"I give my thanks to the four elements, earth, air, fire and water, and all the living things that support my life, knowing full well that I'll be able to return the favor."

Thubten Chodron's students at Sravasti Abbey, Washington, recite this daily.

1. I contemplate how much positive potential I have accumulated in order to receive this food given by others.
2. I contemplate my practice, constantly trying to improve it.
3. I contemplate my mind, cautiously guarding it from wrongdoing, greed and other defilements.
4. I contemplate this food, treating it as wondrous medicine to nourish my body.
5. I contemplate the aim of Buddhahood, accepting and consuming this food in order to accomplish it

Somten Palmo suggests this prayer:

"Today may we appreciate this food and remember those who are hungry.

May we appreciate our family and friends and remember those who are alone.

May we appreciate our health and remember those who are sick.

May we appreciate the freedoms we have and remember those who suffer injustice and tyranny."

Food clearly links our precious human birth, the nourishment of our bodies, our buddhist practice, our aspirations to help sentient beings and the earth. What a tragedy it would be if the earth and the oceans became so abused, so depleted, that sustaining human life was not possible. A toxic atmosphere, eroded and salinized soils, and badly contaminated water are already the situation in many parts of the world. Increasingly, land is being removed from food production due to these factors and drought. Without a productive protective planet that is capable of nurturing human life achieving Buddhahood is impossible. Right action and right intent, parts of the Eight Fold Path, are required if the earth is to sustain precious human life.

3) Interdependency

We are all in process, unfolding, unfurling into each other. Everything that is happening to me is happening to you and many things that are happening to us are happening to the manatees and the bees, too. Mary Pipher 2013, p.

American Zen master, Bernie Glassman sees buddhist enlightenment as experiencing the “oneness of life.” Taking a different approach, biologist and naturalist Bernd Heinrich (2013) discusses how phage viruses infect bacteria, transferring DNA from the infected cell to the genome of another. He then moves to whole organisms.

In the case of corals, . . . whole cells from one organism live and multiply, but semi-interdependently, inside other cells. Similarly, the cells of some giant clams contain green algae, and like all green cells, these fix carbon dioxide into the carbon compound that first built themselves and then also feed their clam host. And what applies to cells living in other cells, and to whole cells inside cells of other organisms, applies also to whole organisms living in the bodies of other organisms, such as protozoa and bacteria living in the digestive tracts of termites, elephants, and numerous other members of the animal kingdom. Such symbioses also extend to the organization of ecosystems, and ultimately to the interdependence of millions of organisms - the whole biosphere of earth.

Following on Heinrich’s observations, it is now known that each of us have more cells, about 10 trillion, of bacteria, fungus, mites, round worms and other life forms living in or on us than we have as our own body cells, which are in fact also symbionts. Indeed, the line between us and others or other things is arbitrary prompting Thich Nhat Hanh to speak of “interbeing” (2008, p. 81) and leading to the formation of his Tien Hiep Order of Vietnamese buddhism; interbeing is tien hiep in Vietnamese.

There is no phenomenon in the universe that does not intimately concern us, from a pebble resting on the bottom of the ocean to the movement of a galaxy millions of light years away. All phenomena are interdependent. When we think of a speck of dust, a flower, of a human being, our thinking cannot break loose from the idea of a self, of a solid, permanent thing. We see a line drawn between one and many, this and that. When we truly realize the interdependent nature of the dust, the flower, and the human being, we see that unity cannot exist without diversity. Unity and diversity interpenetrate each other freely. Unity is diversity, and diversity is unity. This is the principle of interbeing.

Thich Nhat Hanh’s (1987) “cloud in a sheet of paper” is a marvelous, insightful and fun demonstration of our interconnectedness with all components of the environment that I found humbling and liberating at once. From the cloud came the rain that grew the tree to the wheat in the lunch that was eaten by the logger, they and all of life are at once interconnected in a single sheet of paper.

Some years ago a wonderful Canadian Film Board production took us on an animated ride zooming from inter stellar space to our own backyard and then deep into the microscopic, molecular and atomic worlds. Our

interconnections and interdependency with the cosmos, all of nature, molecules and atoms exists even with changing scales of distance and time. Events that happened millions of years ago or in other parts of our galaxy impinge on us today. Paleontologist Neil Shubin (2013) presents our common history with the cosmos, planets and rocks as well as with the other life forms on the earth evidenced by our shared developmental biology (2008). “Inside every organ, cell, and piece of DNA in our body lie over 3.5 billion years of the history of life. Accordingly, clues to the human story reside within impressions of worms in rock, the DNA of fish, and clumps of algae in a pond.” 2013, p. ix

The interdependency of all life forms with each other and the natural environment is the conclusion and grist of the science of ecology and a key buddhist teaching often explained through the Hindu/buddhist metaphor of Indra’s Net (Cleary 1993). Imagine a net festooned with faceted jewels; each jewel reflecting the image of the adjacent stone, which reflects the image of jewels adjacent to it and those reflect the jewels adjacent to them and on and on. Each jewel in effect reflects the image and light from the infinite number of jewels in all directions on the net. If a jewel were to change color, loose its surface polish or drop off the net changes would occur through the entire net. Every reflected image in every jewel would be different just because of one change. Each jewel image is completely dependent on the other jewels of the net, each jewel’s image is completely interdependent. Any perturbation has effects that run through the entire net. In the same way, introducing an exotic plant species, say purple loosestrife, to Alberta gardens and allowing it’s spread to native wetlands will have a drastic affect on native plants, and the bird species and insect life that depend upon them, and on and on.

The implications of interdependency are manifold, subtle and very congruent with ecological thinking establishing a solid connection between buddhism and environmental issues. However, before we get too “giddy” lets consider the Buddha’s teaching of the Twelve Nidanas or Links of Interdependent Origination which describe the cycle of origination from birth, ignorance, craving, to death.

The Twelve Links of Interdependent Origination:

1. ignorance
2. karmic creation or formation action
3. consciousness
4. name and form
5. the six perceptual entrances
6. contact
7. feeling
8. craving or grasping
9. adoption
10. becoming, or existing
11. rebirth
12. aging and death

This early teaching, part of the First Turning of the Wheel of Dharma, describes the source of suffering and the cycle of samsara, something quite different from how we have been using interdependency. Can interdependency be an extraordinary insight into the natural world, one we wish to understand and adhere to, and simultaneously the source of samsaric suffering?

Evolutionary psychologist and Zen practitioner, David Barash (2014, p.89) notes that the “. . . historical Buddha was more concerned with ending human suffering and encouraging individual enlightenment than with promoting environmental awareness and sensitivity. Instead of reveling in connectedness, traditional buddhist thought focused on the downside of being misled by maya, the illusory sense of the material world’s importance, such that interpenetration and interdependency are things to overcome rather than to embrace.” Modern buddhism as promoted and practiced in the West, Barash observes, has undergone “an intellectual makeover, placing more emphasis on ecological awareness, social sensitivity, and environmental responsibility than the Buddha or his immediate followers appear to have favored.” p. 89 The change from the path of personal awakening and release from suffering to the pursuit of liberation in order to work towards the end of suffering for all sentient beings marks the difference between the First and Second Turning of the Wheel of Dharma, the difference between the Hinayana and the Mahayana traditions of buddhism.

The David Suzuki Foundation has its origins in the activities of Canadian geneticist, environmentalist, author and broadcaster, David Suzuki. In preparation for the 1992 United Nation’s Earth Summit in Ro de Janeiro, five members of the Foundation wrote a Declaration to express the values of the Foundation. The final paramount goal of their declaration is to work from “insecurity to interdependence.” Only through recognizing our interdependency with all living things, and the water, soil, atmosphere and earth and all their components will humans find a secure future on the earth. I find the Suzuki Foundation Declaration of Interdependence very helpful, profound, and am pleased to have signed on to it as a member of the Foundation.

Declaration of Interdependence

This we know

We are the earth, through the plants and animals that nourish us.

We are the rains and the oceans that flow through our veins.

We are the breath of the forests of the land, and the plants of the sea.

We are human animals, related to all other life as descendants of the firstborn cell.

We share with these kin a common history, written in our genes.

We share a common present, filled with uncertainty.

And we share a common future, as yet untold.

We humans are but one of thirty million species weaving the thin layer of life enveloping the world.

The stability of communities of living things depends upon this diversity.

Linked in that web, we are interconnected — using, cleansing, sharing and replenishing the fundamental elements

of life.

Our home, planet Earth, is finite; all life shares its resources and the energy from the sun, and therefore has limits to growth.

For the first time, we have touched those limits.

When we compromise the air, the water, the soil and the variety of life, we steal from the endless future to serve the fleeting present.

This we believe

Humans have become so numerous and our tools so powerful that we have driven fellow creatures to extinction, dammed the great rivers, torn down ancient forests, poisoned the earth, rain and wind, and ripped holes in the sky.

Our science has brought pain as well as joy; our comfort is paid for by the suffering of millions.

We are learning from our mistakes, we are mourning our vanished kin, and we now build a new politics of hope.

We respect and uphold the absolute need for clean air, water and soil.

We see that economic activities that benefit the few while shrinking the inheritance of many are wrong.

And since environmental degradation erodes biological capital forever, full ecological and social cost must enter all equations of development.

We are one brief generation in the long march of time; the future is not ours to erase.

So where knowledge is limited, we will remember all those who will walk after us, and err on the side of caution.

This we resolve

All this that we know and believe must now become the foundation of the way we live.

At this turning point in our relationship with Earth, we work for an evolution: from dominance to partnership; from fragmentation to connection; from insecurity, to interdependence.

An understanding of the interconnectedness of all phenomena reduces our self clinging, generates compassion, and an appreciation for the universe and all life. It also leads one to the truth of causality - I am because you are, and you are because I am. Or Lin Jensen's (2010, p. 82) version, "This being, that becomes. From the arising of this, that arises. This not being, that becomes not. From ceasing of this, that ceases." In other words, due to interbeing there is a deep causality. No act exists in isolation; there are factors attributed to all phenomena. Cause and effect, action and result, this is the truth of karma and why our individual practice, our motivation and intent is so very important if we are to become engaged in environmental issues. Without a clear understanding of interdependency and cause and effect, and an appropriate enlightened attitude, free of grasping and aggression, we can make little progress on environmental issues. The hard truth is that our actions, however well intentioned, may in fact lead to more harm than intended benefit. Buddhist practice and teachings introduce us to a complex outer or relative reality that can only be clarified through removing the veils that cloud our minds, or the poisons that generate harmful emotions and actions.

4) Sentient Beings

The buddhist world is made up of six realms, each occupied by a class of sentient beings, four are formless - gods, demigods, hungry ghosts and hell dwellers; two have form - humans and animals. Together they serve as metaphors for the state of our mind and behavior; moment to moment, day to day we move between these realms as we cycle through samsara. "Sentience" refers to reaction to sensory stimulation. I might react with a "gosh" to a painting, someone else becomes jealous of a lottery winner, a clam might snap its shell shut to flush out sand, a soil nematode swims away from light, while a dieter is never satisfied with their weight. The human realm is occupied by a single species, while the animal realm is "stuffed" with the entire animal kingdom and its enormous variety. There are many who feel that plants might also be considered sentient. Certainly current research, such as that by James Cahill, University of Alberta biologist, indicates that some plants are highly reactive to their environment in a way that suggests sentience. Thai forest monks have carried out ordination ceremonies on trees threatened by clear cutting or poaching for their valuable hardwood. By tying saffron robes around the trunks the monks are identifying individual trees as sentient beings requiring government protection. This practice has become the core of the Chan environmental movement in Thailand, which is well documented by anthropologist Susan Darlington (2012). The recent widespread floods in northern Thailand provide every reason for the importance of the eco-monks and forest protection.

Roughly 9 million species of plants, animals, protists and fungi are known to inhabit the earth. Most are invertebrates, more specifically insects. Estimates suggest there may be an equal number of species yet to be discovered. Each animal exists in a specific habitat and exhibits a unique niche, or life style adaptation. Biological evolution with species extinction, often through replacement, led to the great diversity of plants and animals that presently occupy the earth. However, mass extinctions are known to have occurred at various times in the history of life, triggered by some catastrophic event. A meteorite impact in the Gulf of Mexico likely led to the extinction of the dinosaurs while numerous hypotheses, including human predation, have developed to account for the extinction of the ice-age menagerie at the end of the Pleistocene, about 11,000 years ago. Then, thirty-two genera of megafauna including sloths, mammoths, woolly rhinoceros, giant beaver, mastodon, peccary and giant condor disappeared. Another wave of extinction has already begun as a result of anthropogenic changes such as habitat destruction, harmful invasive species, pollution, climate change, over harvesting, pharmaceuticals, herbicides and pesticides, and so forth. Half of the earth's plant and animal species may disappear by the end of the century (Wilson 2006; Kolbert 2014). One does not have to extrapolate very far before the inevitable extinction of our own species looms. E. O. Wilson has suggested that humans are a suicidal species with a strong death wish and when asked by *The Economist* (2014) to discuss the future of biodiversity he suggested that we are entering the Eremocene, the Age of Loneliness. Murphy Roshi succinctly summarizes our less than exemplary reputation, "Our position as a species is now so untenable that it verges on rudeness to mention it in polite company."

The wave of extinction we are entering will greatly reduce local, regional and global biodiversity (Barnosky et al 2012). Biodiversity is not just some sort of academic issue. Even the most avarice exploitive capitalist would

recognize that the diversity of plants and animals is like having access to a rich investment portfolio, some metals, some health care, manufacturing, municipal bonds, blue chips, retail, vineyards, shipping, and so forth. Biodiversity in natural habitats greatly facilitates what are known as “ecological services” (Cardinale et al. 2012) - oxygen generation, CO₂ sequestration, water purification, food resources, pollination of agricultural crops, recreation, building materials, groundwater infiltration, slope stability, erosion prevention, pharmaceuticals and the list can go on. For those who need a quantified reason for valuing life in all its forms existing in intact natural habitats, bioservices benefitting humanity have been valued in the tens of trillions of dollars per year. It is certainly to our collective advantage to become knowledgeable of the plants and animals we share the planet with, to come to appreciate their great variety, the benefits they provide and the complex interdependencies that exist. This is one of the powers the Buddha acquired upon awakening, the ability to see the enormous variety of sentient beings and their requirements in order to understand the dharma.

Susan Murphy Roshi suggests that biodiversity may actually be adapted as a buddhist practice. She explains below.

Biodiversity is not just a quantitative inventory of species. Far beyond that, it is the communion event of life on the earth - the ecological principle that each life form implies the whole and all the other lives being lived alongside it.

We have recognized the various life forms, named them, committed them to memory, thereby acknowledging our fascination and love for them.

To successfully defend this miracle of biodiversity from our own limitless predation, we have to recover personal awareness of the full nature of mind. . . . We alone can literally mind - hold in mind and consciously care for - this delicate, animated web of numberless relationships, and discover in its mysterious nature the self-same essential nature of our selves. Such a conscious, disciplined, inquiring use of the mind is called a practice. . . . It is actually to practice embracing biodiversity as our selves, our true nature, and to begin to want to actualize the mind.

The extinction of any plant or animal is a loss of our selves.

A practice of such a mind means ceasing to live as if nature were a difficult, threatening force always somewhere out there, and starting to bloom into the awareness that knows nature and the earth to be inseparable from the very nature of the Mind. Susan Murphy www.ecobuddhism.org

5) Bodhisattva as Ecosattva

Selfless activity on behalf of others is a hallmark of buddhism. It begins with the cultivation of bodhicitta, the awakening mind/heart, and the development of loving kindness and compassion for all sentient beings. With a

commitment to develop both bodhicitta and compassion, and to maintain faith in our abilities, we can enter the path of the bodhisattva. Shantideva, an 8th century Indian sage, revealed the classic description of the life of the bodhisattva. Many translations of his *A Guide to the Bodhisattva's Way of Life* are available but the excellent commentaries of Pema Chodron (2005) and Thrangu Rinpoche (2002) are especially helpful. Throughout this wonderful classic text we are reminded that the practice of the bodhisattva is to lead all sentient beings to happiness, to the end of their suffering in samsara. Pema Chodron calls the text "a guidebook for fledgling bodhisattvas, those spiritual warriors who long to alleviate suffering, their own and that of others." This requires proper intention; intelligence; the three disciplines of not causing harm, acquiring virtue and benefitting others; patience; enthusiasm; and wisdom based on an understanding of emptiness. This all sounds like a lot of work, with lots to accomplish, but the path of the bodhisattva is an ever unfolding journey, not to be measured in kilometers or accomplishments and to be traveled with a good deal of relaxed humor as Shantideva, Pema Chodron and Thrangu Rinpoche describe.

Verses 3.21 - 3.34 of Shantideva is the bodhisattva vow. Verses 3.23 and 3.24 are chanted daily by lay practitioners, nuns and monks the world over.

*Just as all the buddhas of the past
Embraced the awakened attitude of mind,
And in the precepts of the bodhisattvas
Step by step abode and trained,*

*Just so, and for the benefit of beings,
I will also have this attitude of mind
And in these precepts, step by step,
I will abide and train myself. (3 times)*

Here is another version of the bodhisattva vow (not attributed to Shantideva).

*Sentient beings are numberless; I vow to save them.
Desires are inexhaustible; I vow to put an end to them.
The Dharmas are boundless: I vow to master them
The Buddha way is unattainable; I vow to attain it.*

These are lofty goals, difficult to fulfill, easy to forget in the face of their magnitude. But buddhist vows, as Shantideva points out, can be like a ceramic jug, once broken it can never be repaired; or the vows can be like a metal jug, any dents can be pounded out and the jug returned to its original state. The bodhisattva vows are of the latter variety, transgressions can be "fessed up" to and one can reapply oneself with new commitment and fervor.

It has been said, “Vows are like the North star that we rely upon to stay on the right path. Like the star, they guide our journey but we will never reach it.”

For me, the bodhisattva had always been an unattainable goal described with levels of praise that had no relevance to the realities of my mediocre practice. However, through Shantideva I began to learn of possibilities that took on environmental significance. Pema Chodron brought it into focus for me.

Some people fall in love with “The Way of the Bodhisattva” the first time they read it, but I wasn’t one of them. Truthfully without my admiration for Patrul Rinpoche [a great accomplished Tibetan buddhist teacher and writer], I wouldn’t have pursued it. Yet once I actually started grappling with its content, the text shook me out of my deep-seated complacency, and I came to appreciate the urgency and relevance of these teachings. With Shantideva’s guidance I realized that ordinary people like us can make a difference in a world desperately in need of help. (2005) p.x

That thought, “that ordinary people like us can make a difference”, says it all. The path of the bodhisattva is open and accessible to all who wish to alleviate the destruction of the environment and the suffering of all forms of life.

What do Bob Dylan, Mohammed Ali, Mother Theresa, Charlie Mingus, Jackie Robinson, Ram Das, Francis of Assisi, Jimmy Carter, James Joyce, Jack Kerouac and Rachael Carlson have in common? To Zen teacher, professor and scholar, Taigen Dan Leighton (2012), they are all bodhisattvas, each exhibiting the various qualities of the familiar archetypal bodhisattvas, such as Avalokitesvara, Manjusri, Samantabhadra or Ksitigarbha (Jizo). But Leighton goes further.

Beyond all the archetypal patterns, the life of a bodhisattva is an ordinary, everyday activity. In simple acts of kindness and gesture of cheerfulness, bodhisattvas are functioning everywhere, not as special, saintly beings, but in helpful ways we barely recognize. The bodhisattvas are not glorified, exotic, unnatural beings, but simply our own best qualities in full flower. p. 305

Bodhisattvas are not merely archetypes. Bodhisattvas are great cosmic beings, helping us all to become bodhisattvas. Bodhisattvas are not who we think they are. Bodhisattvas are simple ordinary beings, making their way back to buddha. Bodhisattvas appear in the nooks and crannies of your life; soon you may start seeing them more clearly. Bodhisattvas are just around the corner. Bodhisattvas are extraordinary wondrous beings, bestowing blessings on all wretched, confused, petty creatures. Bodhisattvas are living in your neighborhood, waiting to say “good morning” to you. Bodhisattvas are just like you and me. Bodhisattvas are kind and gentle. Bodhisattvas are not who we think they are. Bodhisattvas are tough and indefatigable. Bodhisattvas are not limited to a handful of amazing figures or famous people. Bodhisattvas are not limited by what we say they are or are not. We are all bodhisattvas. Bodhisattvas are not who we think they are. We cannot understand how wonderful bodhisattvas are. We are all bodhisattvas. p.306

For our troubled world, Leighton points out that “. . . bodhisattvas help us see ourselves. They also help us appreciate the world around us, and our place in it, including how we may be called to help change society.” “. . . that working on oneself and working on the world are not separate matters.” p. 310.

David Loy, also a Zen teacher and scholar, takes a somewhat different approach to the bodhisattva's path, as a new archetype for social activism. He sees the origins of the global crises in the “fiction of a separate self whose well-being is distinguishable from the well-being of others.” The eco-crisis is a spiritual challenge that calls upon us to realize the nonduality with the earth. “Although living beings are innumerable, the bodhisattva vows to save them all. This commitment flows naturally from realizing that none of those beings is separate from oneself.” Importantly, Loy sees a need for individual transformation and social transformation if we are to achieve change to a just society and a healthy earth. Buddhism, to Loy, plays a key role in bringing the social and personal transformations together. At this point he says, “Enter . . . the bodhisattva.” The bodhisattva path becomes the new archetype for social activism.

Bodhisattva activism has some distinctive characteristics. Buddhism emphasizes interdependence (“We’re all in this together”) and delusion (rather than evil). This implies not only nonviolence (which is usually self-defeating anyway) but a politics based on love (more nondual) rather than reactive anger (which separates us and them). Loy 2012, p. 55

The power and effectiveness of the bodhisattva is attributed to the realization of shunyata, or emptiness - “that dimension in which there is nothing to gain or lose, no getting better or worse” - but to which the bodhisattva has no attachment. 2012, p. 55

For the Buddhist activist, these are the two dimensions of practice - form and emptiness, personal transformation and social transformation, opposite sides of one coin. As Nisargadatta might put it, “Between these two the bodhisattva’s life turns.” Our world needs both [social and individual transformation]. 2012, p. 55

This suggests a final parallel between individual and the collective. Will our species become the collective bodhisattva of the biosphere? Today humanity is challenged to discover the meaning and role it seeks in the ongoing, long-term task of repairing the rupture between us and mother earth. That healing will transform us as much as the biosphere. Loy 2010, p. 267.

New types of bodhisattvas - “ecosattvas” - are needed, who combine the practice of self-transformation with devotion to social and ecological transformation. Yes, we need to write letters and emails to the President, hopefully to influence his decision. But we may also need to consider other strategies if such appeals are ignored, such as nonviolent civil disobedience. That’s because this decision isn’t just about a financial debt ceiling. This is about the Earth’s carbon ceiling. This is about humanity’s survival ceiling. As the Earth is our witness.

The idea of an “ecosattva,” an activist whose energies and compassionate action are directed towards the earth, seems to be growing. Stephanie Kaza believes the term comes from the Green Buddhists of the San Francisco Zen Center and the Marin County Green Gulch Farms. The Farm’s website identifies an Ecosattva Group described as an environmental awareness and education group dedicated to ecoliteracy in their community. I so like this term that I often use it when addressing Forum members. An ecosattva is a buddhist practitioner whose practice is dedicated to alleviating the suffering of the earth and the sentient beings that make up the biosphere. This can take many forms from scientific research to public education, promotion of local garden produce to meditation retreats, and so forth. But in the spirit of Lawrence Ferlinghetti’s lines below, the bodhisattva and ecosattvas are deeply committed to the living world; there is no escape and much to do:

Instead of trying to escape reality,
plunge into the flesh of the world.

This sentiment is well demonstrated by former NASA top climate scientist James Hansen, who first modeled the warming earth (1981) and delivered the results to a hostile U.S. Government, which subsequently made every effort to silence his troubling conclusions. Hansen (2009) discussed how he “changed over the . . . years, especially after my wife, Anniek, and I had our first grandchildren.” Newspapers began referring to him as the “grandfather of global warming.” “But gradually, my perception of being a ‘witness’ changed, leading to a hard decision: I did not want my grandchildren, someday in the future to look back and say, ‘Opa understood what was happening, but did not make it clear.’” Seeing his new responsibilities as an activist, Hansen left government, moved from pure science to assuming a public role in helping establish policy and has joined Columbia University’s Earth Institute. I frequently visit his web site www.columbia.edu/~jeh1/ and urge you to do so as well. You’ll see a picture of Hansen, surrounded by his family, including the grandchildren that so changed his activities. Scroll down and you’ll find another legacy of papers and presentations that have shifted from pure science to include the needs of youth, now and in the future, and all sentient beings. His outstanding paper (Hansen et al. 2013) put the concern for youth at the center of the global warming scenario and serves as a source of expert analysis and data available to anyone who has a need either out of interest or application. It is freely available on the open source, peer reviewed web journal PLOS ONE. In his new role Hansen’s circle of activity has moved from research scientist talking to a small learned community to grandchildren, then on to young people and eventually anyone confronting the realities of a future warming earth. His motivation is selfless and he has used his knowledge, skills and livelihood to assist anyone and all of us alike in grasping the uncertain future. Hansen is a perfect example of an ecosattva, and one of my heroes.

6) Stress and Burn Out

While being a graduate student in Tucson, I loved to scan the unspoiled slopes of the Santa Catalina Mountains of southern Arizona. The light, weather, time of day and season created an endless variety of scenes, patterns and colors. Returning after years away, I was shocked and hurt to see a road scar on the side of the mountain to reach a private mansion. How could anyone be so unthinking and uncaring to deface a whole mountain side? What or who gave them the right to create such destruction? I felt hurt and betrayed, and the experience has not disappeared with time, neither has the road scar. I'm sure we have all felt this way when we discover the destruction wrought on the landscape or the cruelty perpetrated on an endangered species. We have visceral responses to the environmental destruction we witness or hear about. It is discouraging, frustrating, and often makes us question our motives, our capabilities, and discipline. Giving up may cross our minds. We may catch ourselves thinking, what point is there to work so hard to protect the environment when we consistently lose, when the best soil disappears under a by-pass highway or Asian carp are destined to displace native species? Being an environmentalist can be heart breaking and lonely work that tries our patience and commitment. Stress, depression, and burn out are common and can lead to self destructive behavior, even suicide. Joanna Macy identifies the numbing of the soul and mind, due to the constant failure of hard work to bring about change, as the greatest danger as it deadens our responses to the world around us, which leads to apathy and diversions such as consumerism.

Buddhism is known as the Middle Way path. The Buddha taught that attachment is the source of suffering whether it be attachment to wealth and fame or to the austerities he practiced early in his search for spiritual knowledge. It was his discovery of the middle way, non-attachment to extremes, that led to his awakening. For our practice, suffering and pain in response to environmental degradation is not to be replaced with nothingness or nihilism, saying "since nothing matters why should we keep trying." Here is the tricky part, suffering develops in response to our self attachment to success and accomplishment just as well as well as rejection and resistance, and our inability to do anything. If we desire praise, personal reward or public acknowledgement we are setting ourselves up for disappointment. Likely our disappointment will be proportional to the strength of our desire. But to say that nothing can be done or that nothing matters is to become attached to the other extreme. This too will lead to suffering. The proper attitude to adopt lies in the middle way, where we are free of expectations and where there is nothing to become attached to and therefore no suffering.

Taking on the role and responsibilities of a bodhisattva, or ecosattva, is not for the faint of heart. One feels an urgency to accomplish as much as possible, to preserve habitats, protect rare species, clean up drinking water, change the habits of an unresponsive public or promote corporate ethics. Once a functioning natural ecosystem has been bulldozed or covered with oil it no longer functions and there is no opportunity to turn back. Once a species disappears evolution is not going to create it again. Environmentalists often become the target of competing interests. Called tree huggers, extremists, ecoterrorists and outside agitators, we have heard government ministers accuse environmentalists of all sort of motives, even making threats towards them to reduce

their effectiveness and diminish their influence. It is a huge up hill battle that takes its toll on the mind, body, and spirit. Johanna Macy feels the soul crushing defeats to an individual are akin to grieving a death and are a form of co-lateral damage potentially more impactful than the environmental destruction itself. “The loss of certainty that there will be a future is, I believe, the pivotal psychological reality of our time.”

The crisis that threatens our planet, . . . derives from a mistake about our place in the order of things. It is the delusion that the self is so separate and fragile that we must delineate and defend its boundaries; that it is so small and so needy that we must endlessly acquire and endlessly consume; and that as an individuals, corporations, nation states, or a species, we can be immune to what we do to other beings. Macy 2013

Following on such strong remarks, Pema Chodron’s words seem soothing, “Don’t worry about results; just open your heart in an inconceivable way that benefits everyone you encounter. Don’t worry whether or not it’s doable.” (2005) p. 15. In commenting on Shantideva verse 7.67, Chodron notes “The subject here is the importance of moderation and rest. Before making any commitments, we can consider our capabilities and learn to pace ourselves. We sentient beings, habitually drive ourselves or flop, both of which lead to burnout. The key to remaining eager and inspired on the bodhisattva path is knowing when to take a break.”

Shantideva, verse 8.108

*The ocean-like immensity of joy
Arising when all beings will be freed,
Will this not be enough? Will this not satisfy?
The wish for my own freedom, what is that to me?*

Pema Chodron comments, “I’ve benefitted greatly from Shantideva’s advice to start with little cares and minor challenges and let daring unfold naturally. This isn’t playing safe; it’s the wisdom of starting with what’s doable and expanding our courage a little bit at a time.” H.H. the Dalai Lama offered the same advice when asked about burn out during the Portland Environmental Summit, 2013. “Work on what you can realistically accomplish,” he said; “Don’t take on too much and become disappointed or disillusioned.”

The bodhisattva is the super hero of mahayana buddhism described in detail in the rich sutra literature. Bodhisattvas practice the six paramitas, or perfections of generosity, discipline, patience, enthusiasm, meditation and wisdom. Wisdom follows from an intellectual and experiential examination of the emptiness of all phenomena.

Shantideva, verse 9.34

*When real and nonreal both
Are absent from before the mind,
Nothing else remains for the mind to do
But rest in perfect peace, from concepts free.*

Chodron teaches, “Ultimately the key to happiness and freedom from suffering is a direct experience of emptiness or suchness of all experience. . . . There is no better use of a human life than to realize the unfabricated non-conceptual freshness of the mind. This is the source of all wisdom and all compassion.”

The Prajnaparamita Sutra provides the most complete exploration of emptiness and the bodhisattva. While the sutra and commentaries are thousands of pages in length, the most condensed version, the Heart Sutra, is widely studied and chanted daily by many buddhist sects. Numerous commentaries have been written on this enigmatic, mystical text, famous for its statement, “Form is emptiness; Emptiness is form.” It is the realization of emptiness that provides the bodhisattva with limitless energy, commitment and joy as every situation becomes charged with potential. Importantly, it also means that success in eliminating suffering and bringing happiness to all sentient beings is neither discernible or measurable. To return to Johanna Macy’s comments, our confused dualistic belief in a self and fixed reality leads us to want to evaluate and judge our success in dealing with environmental issues. This is a source of our suffering that can lead to exhaustion and depression. But it is solvable as one develops a practice; and while I might follow a buddhist practice, Bill McKibben (2013), struck by their selfless altruistic activity, turned to keeping honey bees as his practice. Mary Pipher (2013) turned to baking, parties and live music while battling the Keystone pipeline route through Nebraska.. I love her conclusion - “Hope is not about outcome, but a process.”

7) The Science and Technology

Growing up, I became a rock hound. I was going to be the first seventh grader to be a millionaire prospector. As the years followed, every fossil, landform, outcrop, rock and mineral became a point of total fascination. With three degrees in geology my fascination only deepened and continues to this day. Just don’t drive with me through the mountains. With all the arm waving and distractions such as passing road-cuts with their veins, strata and faults, going off the road is a real possibility. Aside from the science and aesthetics the land also provides a connection to deep time, billions of years and the unimaginable forces that ripped apart continents and slammed them together again, all on a global scale. One becomes humbled and joyful for being able to experience the earth as a very old, very big, very strong, very patient friend. This is an excellent friend who provides us with the space, water, gasses, and nutrients that support life, in all its diversity; protects us from cosmic radiation; gives us day and night; four seasons; and provides gravity to keep us grounded. The scale is cosmic buddhism and my friend’s activity is that of a bodhisattva supporting sentient beings. So why would I make a distinction between science and buddhism, between science and poetry. The three represent different ways to describe the world around us. The same world.

As he lay dying, the Buddha, exhorted by his followers to reveal the final truths, charged them to work out their own fates. He had taught all that was necessary for individual awakening; it was up to each of them as it is with each of us to practice and experience the teachings in our own ways, in the context of our own lives, to be mindful and

examine the outcome. The Buddha was teaching scientific methodology, more specifically, observation and experimentation. In all aspects of buddhism we come to develop the skills of observation and logical analysis. At Portland's Environmental Summit, I was particularly taken with the Dalai Lama's logical rigor, his call for experimentation as a practice and his love of science. These certainly hold my attention and, I believe, make buddhism an excellent lens through which one can view environmental issues.

Late in his life, paleontologist Stephen J. Gould wrote on the two worlds of science and religion (1999), as well as science and art (2000). He saw little need for conflict as long as each stays in its own domain; science explains how things are, religion deals with why, ultimate meaning and ethics. Of the world religions, David Barash (2014) sees buddhism as the most compatible with science methodology and discoveries; biology is placed front and centre. Taking buddhism and science to another level, Barash presents a Science Sutra, fleshed out in his book *Buddhist Biology*.

The Science Sutra: Not-self (anatman), impermanence (anitya), and interconnectedness (pratitya-samutpada) are built into the very structure of the world, and all living things - including human beings - are no exception. p. 27.

Barash goes further, noting that buddhism and biology interact with the world through the suffering that exists for all sentient beings and through causality or karma. Ahimsa or do no harm is a first principle of a joint ethic between buddhism and science. Not-self, impermanence, interconnectedness, suffering, karma and ahimsa provide the basis for modern, socially motivated engaged buddhism as well as environmental buddhism.

A human being is an animal, a part of nature. But we single ourselves out from the rest of nature. We classify other animals and living beings as nature, acting as if we ourselves are not part of it. Then we pose the question, "How should we deal with Nature?" We should deal with nature the way we deal with ourselves! We should not harm ourselves; we should not harm nature. Harming nature is harming ourselves, and vice versa Human beings and nature are inseparable. Therefore, by not caring properly for any one of these, we harm them all. Thich Nhat Hanh 1985, quoted in Barash 2014, p.128

In response, Barash adds, "Here we see an important point: modern, engaged Buddhism involves not only recognizing our interconnectedness to the natural world, but also encouraging a responsibility to care for properly for our fellow creatures as well as their and our environment. It is modern and thus a new wrinkle in Buddhism, but one that has discernible antecedents." p. 129.

I've been quite taken with Barash's *Buddhist Biology* and recommend it for its strong approach to science and buddhism. But what ever approach one takes to environmental issues it is still important to know at some level the science behind the issues. Environmental issues are complex; they take place in a complex world of chemistry, biology, soil science, taxonomy or fluid mechanics, to name a few, as well as in a societal context influenced by economics, politics of ideology, psychology or dogma as religion, among others. While one may initially respond to

an environmental crisis emotionally or from an aesthetic perspective, there is an intellectual responsibility to learn about the issues as best as one can. To not know the issues and yet attempt to inform others or intervene in some way may cause a great deal of trouble and unintended hardship. The history of environmental action is full of great motives gone bad because of a lack of knowledge; here are two examples of what I mean. The resettlement of caribou into the Purcell Mountains of British Columbia to reestablish a population ended with disastrous results (CBC News, Oct 11, 2012). Stress, the animal's lack of familiarity with the new terrain and failure to recognize critical herd size led to the deaths of 15 of 19 caribou before winter set in. The importation of cordgrass (*Spartina alterniflora*) from the Atlantic coast of North America to coastal China for erosion control has resulted in the destruction of the native coastal plant and animal communities (Nature 2013, v. 499, p.392-393). Knowledge becomes skillful means, compassion the motivation. Together they should guide our activities as environmentalists, and as ecobuddhists.

Unfortunately, science has become politicized and cleverly disguised in order to put a "green" face on activities and decisions. Politicians/industrial leaders have appropriated the science for their messages all the while silencing scientists, questioning their results and distorting their conclusions. This process is well known in Canada where government scientists have been muzzled and environmental research shut down (Turner 2013). Yet we hear politicians/industrial leaders such as the Minister of Natural Resources, Government of Canada, speak of data or science based decision making. Huge amounts of money have been spent by global corporations to generate disinformation (Mann 2012, Mooney 2005). Scientists who have no research careers or who have never published a peer reviewed paper are employed or propped up to make inaccurate and distorted statements. Buzz words like "clean" coal are invented and used as if there were such a thing as clean coal. I think that's called an "oxymoron." What about the debate over "tar" sands versus "oil" sands, or "fatal self inflicted injury" to hide the fact of high suicide rates among tar sand workers (Nikiforuk 2010). In reality, to be an effective environmentalist requires a big heart/mind but it also requires a questioning nature, a curiosity driven intellect, a bit of cynicism and a thick skin.

Why does habitat fragmentation influence breeding patterns in birds and increase the likelihood of extinction of woodland caribou? How do green house gases (GHG) cause heating of the atmosphere? Does the future of nuclear energy lie in use of thorium rather than uranium as a fuel? What's the deal with 350 ppm? How might global warming affect Medusozoa populations? There is a never ending stream of questions, each one leading to another, and another. No one person, let alone a room full of experts could be expected to know the answers to all the questions. But in my mind the issue is not the specific answer but respect for science and its application to describe situations, and seek explanations and solutions. Buddhism has indeed been paired against science as if there were a contest over which one provides the most authentic, appropriate and meaningful approach to the world (White 2014). As already discussed, there should be no battle. When a student asked which was better, science or buddhism, Kathar Rinpoche taught that there should be no problem as science and buddhist represent two nonconflicting ways of describing the same world. I have already suggested that poetry may also be included as a way of describing the world, poetry serving for a whole variety of artistic and creative endeavors that extend and enhance our understanding and appreciation of the world around us.

A monk once asked the venerable old master Joshu, who lived in China from 778 to 897, what Zen was really about. Joshu answered: "The cypress tree in the garden."

He could just as well have said: the ponderosa with the wind blowing through, or the shivering cottonwood. Many of us bounce from city to city in the course of our lives. But the trees show another way: not searching broadly but deeply, including what we need right where we are. Perhaps it's no wonder Zen has taken root here. The mountains, trees, and wind may be all the guidance we need. (Henry Shukman, New Mexico, Jan. 2014, p. 50)

The last university seminar I taught focused on the "sense of place," the importance of place in our well being, notions of self, and relationships with the natural and social worlds. After lots of reading and discussion we concluded that "sense of place" is fundamental to sustainable living and healing the earth. But how to develop a "sense of place" when so many of us are recent immigrants or transient. Perhaps the words of Santa Fe Zen teacher Henry Shukman give us some insight, "The Mountains, trees and wind may be all the guidance we need." This follows advice our class synthesized from the most thoughtful authorities we read. We can start developing a "sense of place" by learning the names of the plants and animals that we live with, that surround us and make up our environment. This knowledge base, in turn, leads to an ethical response making us feel responsible for their well being and the protection of their habitat. We become an environmentalist when we feel and assume a sense of responsibility for a place. This same approach has been promoted by Canadian artist Robert Bateman through his "Know Your Neighbors" project directed towards developing an environmental ethic among young people. Get out in the field with your handbook of plants, bird guide or rock hammer. This is a very important activity for children and adults, helping to establish generational bonds with each other and the environment, and fighting the "nature deficit disorder" (Louv 2005, 2011).

The impacts of global warming, the course of environmental destruction and the threat of species extinction require efforts more than what a limited number of specialized scientists can provide. There is need for hundreds, thousands, of knowledgeable citizen scientists to appear and offer their eyes and ears, legs and minds to carefully document what is happening to our planet and its plants and animals. Recording phenological events can measure the progressive impact of climate change on plants; collecting and identifying bivalves from your cottage lake can monitor the spread of zebra mussels; counting the beautiful black and orange monarch butterflies documents their possible extinction; or recording who comes to your back yard bird feeder provides an important record of habitat change and new species. This is bodhisattva activity born out of compassion for all sentient beings that establishes our deep connection with the living environment. The field work of the naturalist has traditionally been a joyful activity; unfortunately that may be changing as the impacts on our new climate and environment exploitation mount. No one wishes to bear witness to the loss of a species.

Knowledge and technology have enabled humans to adapt to every corner of the planet. Being a biocultural animal means that even our evolution is intimately linked to our technological achievements. Use of fire to cook food led to changes in the shape of our skulls, while the creation of fur clothing led to the large broad faces of Inuit

populations of the arctic. Yet technology, which differs from science, is often implicated in many of our environmental crises. We place a huge value on the development of new technology, the creation of new technological products, and their marketing and sales. Our culture embraces technology and technological change, and sees them at the core of our well being and our notion of progress and quality of life. We are quite willing to drop all reason and caution to employ new technological fixes. The field of geo-engineering proposes technological changes to the earth, oceans and atmosphere as the solution to our environmental problems. Sulphur can be released into the upper atmosphere mimicking the action of volcanoes to reduce global temperatures; or iron filings can be dumped into the oceans to stimulate algal blooms and reducing dissolved CO₂. In some cases we know the outcome will be harmful, like the formation of sulphuric acid rain, and in other cases we can't predict the outcome but are fascinated by the possible application. While we make claims that we control our technologies, the fact is, we eventually lose control and the technologies begin to control us. To paraphrase Albert Einstein - why would we employ that that got us into the trouble in order to get us out of the trouble? Technology is applied science and can generate great good, like my magnetic induction stove top, but technology is very much part of our culture and as such it is infused with our cultural values. What was benign in serving our apparent needs can quickly be employed to further the rape of the planet. The need for economic growth, for example, at the expense of the environment, is a cultural value achieved through application of new technologies. Eventually, what becomes important is the application of technology; it appears that we lose perspective as the application becomes more important to us and our cultural values than the outcome. Please enjoy science but be very wary of technology!

There is an abundance of journals, books and websites that deal with all aspects of the environment. To keep current with the issue of global warming visit www.ipcc.ch. This is the site for the Intergovernment Panel on Climate Change, which provides state of the art information and synthesis on climate change and global warming. Other sources range from economics to engineering, linguistics to marketing, garbology to wetland ecology, public policy to case law, and much more. Much more than any of us could ever hope to read, necessitating collaboration on most environmental issues. Working in groups on research projects, designing the project and appropriate methodology, collecting the relevant information, completing the analysis, writing up the results and disseminating the outcome can be a challenge. It provides an excellent buddhist practice allowing one to perfect their patience, ethical conduct, enthusiastic application, generosity and mindfulness. Hopefully, wisdom and a good heart will be revealed as well.

8) Communication - Poetry

Who better to begin with than Gary Snyder and the unique insights he provides as a buddhist and poet.

The making of poems and traditions of deliberate attention to consciousness are both as old as humankind. Meditation looks inward, poetry holds forth. One is for oneself, the other is for the world. One enters the moment,

the other shares it. But in practice it is never entirely clear which is doing which. In any case, we do know that in spite of the contemporary public perception of “poetry” and “meditation” as special, exotic, and difficult, they are both as old and as common as grass. The one begins with people sitting still and reflecting, and the other with people making up songs and stories and performing them. 1995, p. 109

The White Pony, a paperback anthology (Payne 1960) introduced me to Chinese buddhist/tao - nature poetry and I've been hooked on it ever since. Best known are the Cold Mountain poems attributed to the 8th century Chinese hermit Han Shan. Rich with objective images of nature, his images also serve as metaphors for the path of dharma. Nature serves the dharma and the dharma illuminates nature.

The mountains are so cold
not just now but every year
crowded ridges breathe in snow
sunless forests breathe out mist
nothing grows until Grain Ears
leaves fall before Autumn Begins
a lost traveler here
looks in vain for the sky

(Red Pine, trans. 2000)

In the mountains it's cold
Always been cold, not just this year.
Jagged scarps forever snowed in
Woods in the dark ravines spitting mist.
Grass is still sprouting at the end of June,
Leaves begin to fall in early August.
And here am I, high on mountains,
Peering and peering, but I can't even see the sky.

(Gary Snyder, trans. 2009)

Several translations of the Cold Mountain poems are available. Above are two versions of the same Han Shan description of the mountains; that below, by Han Shan, strongly evokes mahayana teachings.

Green water in the stream in the pass,
white water rising from the clear-welling spring . . .
Han Shan's moon's a flower, white as well . . .
So the darkest secret, the spirit by itself illumines:
gaze into the emptiness: to the ends of the earth . . .
You're alone, with all within.

(Seaton, trans. 2009)

Poems of other Chinese hermit monks have been collected and published (Hinton 2002; Red Pine and O'Connor 1998; Seaton 2006). What impresses the reader is how modern the work of these poets sounds even though they were written centuries ago in a distant land.

Japan joins China with a long tradition of buddhist - nature poetry (Hamill and Seaton 2007; Stryk and Ikemoto 1981; LaFleur 2003; Watson 1991; Arntzen 1986). Perhaps my favorite collection (Hoffman 1986), explores death and the impermanence of all things. The 12th century buddhist poet-priest, Saigyō served as a foundation for the great 17th century haiku master Bashō (Yuasa 1966; Ueda 1970; Hamill 1999). Haiku has long been recognized as a unique and disciplined practice distilling nature and insight into three lines of 5, 7 and 5 syllables. Below, Bashō's treats the eye and the nose in the most evocative manner, and something more contemporary by Jerry Ball.

The orchid's perfume	summer evening ---
clings to the butterfly's wings	a park ranger's brief lecture
like temple incense	about wild flowers
Bashō (Sam Hamill 1999)	J. Ball (Clark Strand 1997)

Many books on haiku are available, some are anthologies of old and new verses (Donegan 2008), and some are writer guides (Higginson 1985; Strand 1997). Contemporary haiku is alive and well (van den Heuvel 1999), and an excellent ecobuddhist practice with great potential to increase awareness and lure us into the moment, bringing nature and insight together. Haiku workshops would be a useful group activity. Even I have tried my hand at making haiku.

scent of clover	a rusty hawk hunts
heavy in the fading light	the roadside wilderness
a nervous deer pauses	of twisting flowers

Every day, priests minutely examine the Law
And endlessly chant complicated sutras.
Before doing that, though they should learn
How to read the love letters sent by the wind and rain,
the snow and moon.

"Rain, the Snow and Moon" by 15th century Zen monk Ikkyū (Arntzen 1986) displays a common theme - the contrast between buddhist scripture, ritual and institution, and the real teachings and practice to be found in nature. Western poetic traditions, from Wordsworth to Whitman, are also deeply rooted in nature but we are now witnessing an emerging western ecobuddhist sensibility. Buddhist practitioner Janet Rodney's poem "Bardo of Writing" is published in Andrew Schelling's 2005 anthology of buddhist poetry.

It can be said poets
talked too much
wrote too long,
listening to the sound
of their voices.

This was my offering
to have written little,
&
heard the sounds
of the world.

The sounds of the world may be the call of birds or the roar of bull dozers. Juxtaposed, Chuck Rybak (2013) has provided a sober commentary on “The Nature of Man.”

Pelicans meet in parliament
on the rocks. A bird leaves the flock
to plane the surface-water’s sky,
wing-spread firmament, double
bird to watching eyes.

Men arrive, heave
advancing earth back into the Pleistocene lake
sone by stone
until a rock is lifted, thrown
at the pelicans, just to see.

Lets end this discussion with a poem from Gary Snyder (1992) “How Poetry Comes to Me.”

It comes blundering over the
Boulders at night, it stays
Frightened outside the
Range of my campfire
I go to meet it at the
Edge of the light

9) Communication - Prose and Essay

The long success of Thoreau's *Walden* or Aldo Leopold's *A Sand County Almanac* makes them virtual bibles for environmentalism. This is due in large part to their literary qualities. These are beautifully crafted books, the writing carrying the critical and subtle insights of the authors as well as capturing a strong sense of place. If Gary Snyder is the "father" of ecobuddhism it is more likely because of his well crafted essays than his widely acknowledged skill as a poet. Indeed, if one wishes to learn the craft of essay writing, Snyder would be an excellent exemplar.

There is no question that the message of environmentalism and ecobuddhism is greatly furthered through the art and craft of effective communication. In the broad sense this could be poetry, film, painting, dance, music, whatever. Global warming has already become a genre of literature with a special issue of *Granta* (2003), Roger Gottlieb's short stories (2011), three dystrophic novels of Margaret Atwood (2003, 2009, 2013) that deal with the consequences of science and technology run rampant over nature, and the apocalyptic novel of Peter Heller (2012) set in a hot Colorado. Writing is seen as a useful exercise for self development with many guides and self help aids available. Dinty Moore (2002) finds writing opened him to the path of buddhism, making him especially "aware of the simple wisdom of mindfulness and non-attachment presented in the Buddha's Four Noble Truths." Reading and writing has always been part of my life but only with retirement have I been able to get away from the "academic approach" to writing and to start seeking my own voice and experiment with style. But I have long recognized the power of writing, making one focus and bring clarity to otherwise diffuse or jumbled ideas, experiences, responses and thoughts. This is certainly true in ecobuddhism. There is considerable benefit in jotting down one's thoughts and impressions, saving them and then approaching them again in the future. Our heart/minds and intellects do change through time and writing becomes an insightful measure. Writing provides a discipline that is often linked to the discipline of meditation in developing mindfulness and awareness of the world around us and the awakening of our heart/mind.

Following his awakening the Buddha seemed uncertain about what to do next. In response to the demands of his disciples the Buddha became a teacher. No activity makes greater demands on communication skills than teaching and the Buddha recognized that each of his followers might require a different style or approach to learning the dharma. The Abhidharma texts indicate that there are 84,000 approaches to the dharma. Perhaps it's already evident but I believe we have ethical responsibilities (Broome 2012) to work towards a sustainable environment and lifestyle, and this requires communication and teaching, even at a basic level. Ecobuddhism has a responsibility to communicate the unique buddhist approaches to environmental issues. This requires learning, practice and a range of activities to inform others drawing upon a variety of outlets, from books to video, public speaking to working with civic groups. It is my hope that the Touch the Earth Forum may take an active role in public information, whether directed towards other buddhist or faith groups, or civic and service groups. The Green Buddhists of Green Gulch Farm, Marin, California, have limited their activities to informing their neighbors on environmental issues and possible solutions.

CONCLUDING REMARKS

A conclusion eluded me. I wanted to bring together many of the ideas and themes discussed above but it wasn't until I read James Hansen's recent letter to his granddaughter Sophie, *Quest for the Broken Wing Butterfly*, that my way became clear. The letter is available on Hansen's web site www.columbia.edu/~jeh1/ and of course I urge you to read it as soon as you can. But until then, the letter addresses the declining population of the monarch butterfly and we learn much about the monarch's complex biology and the measures citizen scientist Hansen has done to attract and maintain a local population on his rural property in Pennsylvania. He planted the monarch's required milk weed food source, provided a bench for protection during pupation and he discouraged competing swallow tail butterflies from using the monarch's bush. Then he sought out an explanation for the monarch's decline, herbicide based agriculture that destroys milk weeds, loss of fir tree habitat in Mexico where they winter and global warming that causes frequent drought over their migratory routes. Hansen concludes his letter with an apology, that he and the scientists, the politicians and talents of the fossil fuel industry did nothing to stop CO2 build up, global warming and the destruction of the environment when they might have decades ago. He acknowledges how poorly scientists communicated their knowledge and conclusions to the public. Now he asks Sophie for help to set the record of failure straight.

Even now, as a high school freshman, you and your classmates did not put the world in its present situation - but you have a lot at stake. . . . think of it as Star Wars - but the battle for our planet is being fought on our own planet, not on some distant world. I call it 'Sophie's Planet' because it will soon belong to your generation, young people all around the world. We must help them all understand what is at stake. Never get discouraged - it's an incredible planet.

Hansen's life, right occupation and right intention, and his letter to Sophie bring together the ideas and topics I have tried to develop in this exploration of ecobuddhism. What might they be? We can start with interdependency, that the life of the monarch butterfly is dependent upon what we eat and how we produce it on farms that depend on herbicides, that much of the world relies on coal to generate electricity, that in Mexico fir trees are cut by poor people for fuel and lumber, that drought has limited most open water sources, that we as a culture do not place value on the life of a beautiful yet lowly creature. Environmental action as practice, the development of the enlightened compassionate wise mind/heart, the work of the citizen scientist, mindful observation, joy at the beauty of the world, sorrow and frustration with failures, the urgency for clear communication, integrity, the protection of butterflies as sentient beings, sustainable agriculture, becoming a bodhisattva through selfless sustained activity to benefit all life, study and contemplation and more. There is plenty of ground here for our own practice and activity as eco-buddhists.

I can only try to emulate James Hansen in the most feeble way. My five grandchildren have changed my life and opened my mind/heart to all children and youth. They are so smart and know that their future's will be one of desperately trying to adjust to the mess their parents and grandparents left them to deal with. That's a scary prospect because along the way we've also disenfranchised them, undervalued their worth and have encouraged them to embrace mindless consumerism as a source of happiness. Young people are desperate to have a role, a responsibility, a way to take control of their lives and heal their environment. Like Hansen, I wonder what we can do to help young people. Perhaps we can start by first listening to their ideas and concerns, fears and ambitions, and then speaking. Start in your family, listen to your children and grandchildren, talk to them, think about what they tell you, then meditate on it and do something about it. Do what you can to help empower them, to give them confidence and reduce some of the anxiety an uncertain future generates. Help them to discover their compassion and true good nature; give them the knowledge, wisdom and courage to act.

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