

THOMAS BERRY
AND
AN EARTH JURISPRUDENCE

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PROLOGUE

Many people around the world today are deeply concerned about the decline of the planet, its eco-systems and its species-- and on a smaller scale, the deterioration of their local environments and bio-regions. Frustrated at the slow pace of public education and consciousness raising efforts, they see their respective legal systems as "courts of last resort." "We can write stronger laws," they think, "and we can force those who are destroying our planet and damaging our environments to change their ways."

But those on the front lines who are actually trying to do this--the advocacy groups and the environmental lawyers working with them--have a more realistic and more pessimistic perspective. They realize that, while they are winning some battles, they are losing the war to save the planet. They can't compete against the seemingly unlimited resources of those large corporations and governments that see destruction of the environment as "collateral damage" in the struggle to create global economies.

Part of the problem is the biased nature of the legal systems and the corresponding human jurisprudences upon which they are based. They continually promote the interests of the human community while affording no real protection to other species, or to the planet itself. Trying to use a human jurisprudence system to recognize and protect the rights of other species is a bit like sending the fox to guard the chickens.

But what if there were another system and jurisprudence? What if there were an Earth Justice System with its corresponding jurisprudence based upon the concept that the planet and all of its species have rights--and they have those rights by virtue of their existence as component members of a single earth community?

And what if we could build a consensus within and among communities, regions, and nations to recognize these rights and reflect them within their human justice systems?

This is the challenge that the cultural historian, Thomas Berry, presented to a small, international group that met with him in April 2001.

This essay begins with the story of this meeting and moves on to show why an Earth Jurisprudence cannot be simply grafted onto one of our human jurisprudence systems. Then it discusses some of the characteristics of an Earth Jurisprudence and the conceptual framework required to undertake the search for an Earth Jurisprudence. It suggests that we turn to indigenous restorative justice systems for guidance and offers insights from the traditional jurisprudence of the Inuit in the Canadian Arctic. The final part of the essay discusses how an Earth Jurisprudence might be developed and presents the dimensions of the challenge as outlined by Thomas Berry.

1. THE CHALLENGE

The Gaia Earth Jurisprudence Meeting

In April 2001 the London-based Gaia Foundation invited a small group of individuals from various parts of the world to meet with Thomas Berry at a conference centre in Northern Virginia, just outside of Washington, D.C. Our purpose was to discuss the feasibility of developing an Earth Jurisprudence.

We were a diverse group: environmental lawyers from the United States and South Africa; environmental educators and leaders of wilderness experiences from South Africa and the Western United States; community development-types working with indigenous peoples in the Canadian Arctic and the Colombian Amazon; university professors with expertise in environment and aboriginal cultures. "Holding the space" for this discussion were the staff members of the Gaia foundation, a London-based organization dedicated to creating international networks of individuals and groups concerned about the survival of the planet, its species, and its indigenous cultures.

We spent almost four days together, sharing our particular perspectives, experiences and frustrations. As a group we shared Thomas Berry's conviction that the devastation of our planet is currently being protected and fostered by a legal and political establishment that exalts the human community while offering almost no protection for the non-human modes of being. We recognized the need to fight the good fight for the environment in the courtrooms of our respective nations, but we also realized that the cards are stacked against us. We are losing the fight. We can't compete against the endless resources of government bureaucracies and large corporations. We need to level the playing field--to find a way of turning our respective legal systems into justice systems that will recognize and honour the rights of the earth and all of its species. As so, beginning with Thomas Berry's reflections on "the Rights of the Earth," we tried to picture and describe an Earth Jurisprudence.

After extensive discussions, we decided that our effort to reach a consensus on an Earth Jurisprudence was premature. We needed more discussion, more time to reflect upon and absorb the concept of a legal system for the comprehensive Earth community. But we didn't come away empty. We decided to create a website-based forum for further discussion. This would broaden the base of information, invite others into the discussion and help give focus to our on-going discussions. In addition, some of us decided to put our thoughts on an Earth Jurisdiction down in writing and share them with one another. This essay is my attempt to do so.¹

¹ In this essay I do not pretend to speak for any of the other participants at the meeting. Though Thomas Berry is a friend and mentor, I do not intend to portray myself as his interpreter--something he has always done well for himself. This essay reflect my own thoughts and observations

One of the things that became apparent during the meeting was the need for all of us to learn to think outside our normal way of thinking about what a jurisprudence is and how it functions. A few words on this subject before proceeding.

Thinking Outside the Anthropocentric Box

Several years ago, during a discussion with Thomas Berry at his home in Greensboro, North Carolina, I mentioned that there was a rapidly growing interest in my part of the world in an "Earth-based Spirituality." I asked him if he had ever written anything on this subject. He thought for a moment and said, "No I haven't." But then he added, "I have written a paper on *The Spirituality of the Earth* that you might find interesting."

As I have noted above, those of us struggling to understand the thought of Thomas Berry must try to do what he does--step outside the limitations of our anthropocentric frame and view the world from the perspective of the universe itself. We have to reframe² and learn to "think like a mountain," to use Aldo Leopold's term.³ And though this might strike some of us as utterly impossible--How do we as humans not think as humans?--Thomas Berry suggests to us that our capacity to reframe does not mean abandoning our human way of thinking. Rather it means acknowledging a dimension of our thinking that we rarely recognize.

As humans, we are *in relationship* with a living universe and with all of its species. Because we share life with the rest of the planet, we also share consciousness with the planet and its species. Every species has its own unique gifts and strengths. And our great gift and strength as a human species is our human consciousness and its reflective capacity. It is this capacity based upon this relationship that gives us the ability to reframe. Though this way of thinking may strike most of us as quite alien, it is not alien to the way of thinking of many indigenous peoples--a point I will pursue below.

Reframing also extends to the use of language. As we manage to step outside our anthropocentric frame we then have the challenge of how to express ourselves. Thomas Berry has often noted that we lack an adequate language to express the realities that our universe and planet present to us. What we need to do is learn how to express our thoughts in a new way in a different context. Take the concept of "rights" for example--a word that appears frequently in this essay.

² Reframing is a technical term that I use frequently in this essay. A frame is "the context within which we send, receive and interpret messages, establish relationships and view the world." Reframing is the process of stepping outside one's frame--in this essay the human jurisprudence frame--and adopting another frame--the Earth Jurisprudence frame.

³ This term was coined by the forester-ecologist Aldo Leopold. It reflects the dramatic change in his thinking from a "stewardship concept"--our role is to preserve the planet because it is our habitat--to a perspective that man must see himself as a "plain member" of the biotic community. See, John Seed, "Beyond Anthropocentrism" in John Seed, Joanna Macy, Pat Fleming, Arne Naess, *Thinking Like a Mountain: Towards a Council of All Beings*, New Society Publishers, Philadelphia, 1988. p.39.

When we think of rights we usually think of human rights. But when Thomas Berry says that, "Rivers have river rights" or "Fish have fish rights" he is discussing rights in a new context. Rights flow from existence and are structured by the nature of that existence. Just as life is differentiated into species, the needs and rights of various modes of being are differentiated. All rights are also species specific and limited. An insect, for example, has no need for the rights of a fish.

For Thomas Berry, part of this new context of expression is the use of some very ancient ways of expressing ourselves. One of these that plays a key role in Thomas Berry's expression is his use of the concept of "Story".

Our stories represent our worldview. They sustain us, help us structure our world, reflect our values, give expression to our psyches and express our key relationships. But, as Thomas Berry notes, the traditional story of our relationships with the universe and its species has broken down and is now completely dysfunctional. We are between stories--in the midst of creating the New Story.⁴ And, if we succeed, the development of an Earth Jurisprudence will perhaps be the first page of that story.

So let us begin.

1. An Earth Justice System

The word "jurisprudence" comes from two Latin words: "juris" meaning "law and "prudentia" meaning "skill". It means, "a knowledge of, or skill in, law" and refers both to a philosophy or system of law and the skill of practicing law. With its emphasis on skill, a jurisprudence is obviously a tool. But a tool to do what?

Just as a human jurisprudence is a tool to create and maintain a human justice system, so an Earth Jurisprudence is a tool to help create and maintain an Earth Justice System.

What is an Earth Justice System? What does one look like and do?

An Earth Justice System is one that recognizes, honours and protects the rights of the planet earth as a living reality and the rights of all of its species, including the human species, to exist and fulfill mutual self-supporting destinies.

When we ask questions about "the nature of rights" in this essay, we are not simply asking a question about the character or characteristics of rights. We are referring to rights much more literally--as part of nature. "The nature of rights" means those elements of nature that expresses themselves in the form of rights.

There are three characteristics of the rights of the earth. First, they are "primordial"--they are the "first rights" or the "foundational rights" from which all other rights flow.

⁴ Thomas Berry, *The Dream of the Earth*, Sierra Club Books: San Francisco, 1988 p. 123-137.

Second, because they are primordial, they have their own built-in unifying principle--the nature of the Earth-- itself that confers a sense of purpose and direction.

Third, because they are primordial, they are also self-normative. They have a "built-in standard" that sets the standard for rights. They determine what a right is. To put it another way, we don't understand the rights of the Earth through our understanding of human rights; we understand human rights through our understanding of the rights of the Earth.

Thomas Berry has described the characteristics of the rights of the earth in his 10 simple yet eloquent principles: "*The Origin, Differentiation and Role of Rights.*" These might be considered as ...

A Bill of Rights For The Planet Earth

1. Rights originate where existence originates. That which determines existence determines rights.
2. Since it has no further context of existence in the phenomenal order, the universe is self-referent in its being and self-normative in its activities. It is also the primary referent in the being and activities of all derivative modes of being.
3. The universe is a communion of subjects, not a collection of objects. As subjects, the component members of the universe are capable of having rights.
4. The natural world on the planet Earth gets its rights from the same source that humans get their rights, from the universe that brought them into being.
5. Every component of the Earth community has three rights. The right to be, the right to habitat, and the right to fulfill its role in the ever-renewing process of the Earth community.
6. All rights are species specific and limited. Rivers have river rights. Birds have bird rights. Insects have insect rights. Humans have human rights. Difference of rights is qualitative not quantitative. The rights of an insect would be of no use to a tree or fish.
7. Human rights do not cancel out the rights of other modes of being to exist in their natural state. Human property rights are not absolute. Property rights are simply a special relationship between a particular human "owner" and a particular piece of "property" *for the benefit of both.*
8. Species exist in the form of individuals and groupings--flock, herds, schools of fish and so forth. Rights refer to individuals and groupings, not simply in a general way to species.

9. These rights as presented here establish the relationships that the various components of the Earth have toward each other. The planet earth is a single community bound together with interdependent relationships. Every component of the Earth community is immediately or mediately dependent on every other member of the Community for the nourishment and assistance it needs for its own survival. This mutual nourishment, which includes predator-prey relationship, is integral with the role that each component of the Earth has within the comprehensive community of existence.
10. In a special manner humans have not only a need for but a right of access to the natural world, not only to supply their physical needs but also to provide the wonder needed by human intelligence, the beauty needed by human imagination, and the intimacy needed by the human emotions.⁵

"You Can't Get There From Here"

There is an old story about a couple of tourists travelling through the Ozark Mountains who get lost and stop at a gas station to ask directions. The attendant pauses, looks up the road they are travelling and says, "You can't get there from here."

It is almost instinctive for those of us looking to develop an Earth Jurisprudence to start with a human jurisprudence and try and extend it outwards to embrace the rights of the Earth and its species. And while there is no doubt that a human jurisprudence must come to recognize and honour an Earth Justice System and its corresponding jurisprudence, it is not a valid starting point. "You can't get there from here"--for four reasons.

First a human jurisprudence is, by definition, a system of laws designed to recognize the pre-eminence of the human species. One of the definitions for "jurisprudence" offered by the *Oxford Dictionary* is "the science which treats of human laws." It is unlikely that a human jurisprudence can serve as a suitable framework for an Earth Jurisprudence

If our human jurisprudence were inclined to recognize and protect the rights of other species, it would have done so long before now. But it has never done this, not even through environmental legislation that is designed *to protect other species for the benefits they bring to our human species*. Far from protecting the earth and other species in their own right, our human jurisprudence systems have continually protected the rights of the human over and against the rights of the non-human.

Secondly, our human jurisprudence systems, like our Western science and political systems are reductionist in nature. They respond to the needs of individuals,

⁵ Thomas Berry, January 1/01

(including corporations which are given "individual" status) and they are based upon the individual ownership of property. An Earth justice system requires a jurisprudence that recognizes the rights of all species as they interact with one another. It must be holistic in nature and have the capacity to embrace whole eco-systems that can't be reduced to their individual components.

Third, by their very nature, our human jurisprudence systems are adversarial in nature. They pit one individual or corporate entity against another. There are winners or losers--but very few winners and winners. But in the delicate balance of nature, there are no zero-sum games. If one species wins and another other loses, all species ultimately lose. Thus, an Earth Jurisprudence must be foster and promote mutually enhancing benefits and be built upon the principle of mediation (not simply use mediation as tool--as our human jurisprudence systems occasionally do.)

Fourth, our human jurisprudence systems are, in many respects legal systems rather than justice systems. They tend to favour the rich and powerful-- those who can afford to pay for strong legal counsel, for example--over the poor and the weak. They tend to favour the rights of large corporations over the rights of weaker individuals. Given these inherent tendencies within our human jurisprudence systems, it is unlikely that these systems will give voice to those species that have no voice--at least no voice that we can understand.

In making these comments I am not trying to impugn or cast aside all of our human jurisprudence systems. Despite their limitations, in many cases they work quite well--for humans. But it is unlikely that they will work for the interests of the non human species. Thus they do not provide a suitable framework for the development of an Earth Jurisprudence. So where does this leave us? It leaves us in search of an alternative.

2. IN SEARCH OF AN EARTH JURISPRUDENCE

The search for an Earth Jurisprudence is very much like setting out on a journey in unfamiliar territory without an adequate map. As we get ready to embark, we have to ask ourselves some basic questions.

Why do we want to make this journey in the first place? What are those compelling reasons that indicate that we must make this journey now? Where exactly are we going? What exactly are we looking for? How will we recognize it once we see it? How do we have to equip ourselves to find what we are looking for? And how will we use this knowledge to influence our lives, the lives of others and perhaps, even the future of our planet?

During the Gaia Earth Jurisprudence Meeting Thomas Berry gave us an indication of where we might start our search. He noted that, "The various indigenous peoples and remaining wilderness areas of the Earth act as a reference centre for special guidance in achieving a viable mode of human presence on the planet." And so we start with a story from the Canadian Arctic, the land of the Inuit.

The Carver and The Polar Bear

A tourist was visiting a small Inuit community on Baffin Island. As she was walking around the town, she saw an Inuit carver sitting on the ground in front of his house working on a carving. On a small table behind the carver were several samples of his work--a mother and child, a seal, a walrus--all of them beautifully carved in green soapstone.

The tourist paused, watched the carver working on his new creations, and asked, "What are you carving?"

"A polar bear," replied the carver.

After watching him for a few more minutes and looking again at the carvings behind him, the tourist asked, "How do you manage to put such beauty and life and Spirit--the Spirit of a bear for example--into that cold stone?"

The carver thought for a moment, looked up at the tourist and said, "I don't put the Spirit of the bear into the stone. It's already in the stone. I just chip away everything that doesn't look like a bear."

Unlike a human jurisprudence, an Earth Jurisprudence is not a human creation--something that is "man-made." Rather, like the spirit of the bear in the soap stone, it is "natural"--something that already exists in nature. An Earth Jurisprudence is implicit in the laws of nature--or, if you prefer, is an extension of the laws of nature. And just as we do not create the laws of nature but, rather, seek to recognize them and understand their implications, so it is with an Earth Jurisprudence. That's the first lesson of the story.

The second is a little more complicated. Obviously the tourist and the Inuit carver are looking at the act of creation from a different perspective. The tourist looks at the stone as something inanimate--something inert. Therefore she assumes that it is the human act of creation that turns the stone into a beautiful carving. But the carver sees or senses the pre-existing relationships that exist between the stone, the rest of nature and himself. All are living realities interacting upon one another. The Spirit of the bear in the stone reveals itself to the carver. And it is this perspective--the typical perspective of indigenous peoples all over the world--that is, as Thomas Berry suggests, our best guide to the discovery of an Earth Jurisprudence.

In the rest of this essay I will pursue this lead by exploring how a traditional indigenous jurisprudence may lead us to the discovery of an Earth Jurisprudence. But first, a bit of reframing.

If we are to see what the carver sees, somehow we must understand and learn to share his perspective. So what are those elements of the traditional indigenous worldview that provide such a different perspective or frame? And are they still relevant today?

In recent years we have seen a convergence of ideas that have emerged from two distinct streams of thought: from the stream of traditional indigenous thinking and from the stream of modern science, specifically what has been called by some, "The New Science".

From the indigenous stream and the traditions of aboriginal peoples we have the concepts of the sacredness of the land, the seasons, the "kinship" relationship between animals and humans, the dependence of the human on the munificence of the earth, the spirituality of living in harmony with the land and its species, and an ethic of the appropriate use of resources.

From the stream of modern science emerge insights from relativity theory, quantum physics, the uncertainty principle of Heisenberg, living systems theory, cosmology, evolution, ecology, chaos and complexity theories.

Building upon his knowledge of both of these streams, Thomas Berry has developed a new *conceptual framework* based upon what we might call a *dynamic and functional cosmological ecology*. An ecology, (from the Greek "oikos" meaning "household") because it is concerned about the inter-relationships of all species and components within an integrated "Earth Household." Cosmological because it links the origins of the earth and its species to the origins of the universe. Dynamic because it stresses both physical and psychic dimensions of a continually developing universe and planet. And functional, because it is designed to guide our actions into the future.

Thomas Berry has called this new conceptual framework *The New Story*. And while it is difficult to tell this new story--because it is still evolving--certain themes are emerging that seem to form part of the plot line.

Themes of the New Story

About the Earth

The story begins with an understanding of the origins of our planet and its nature.

1. ***The Earth is a single integral community composed of multiple and diverse modes of being.*** It has received its life from the universe which propelled it into existence.
2. The Earth expresses itself in various species and components shares its life with its various species and components. These species and components enter into a relationship with one another to form a mutually enhancing web of life.

Because they share life, *the Earth and its species are not a collection of objects but are, rather, a communion of subjects.*

3. *As an integrated Earth community, the Earth provides an energizing and supportive environment for its species and components.* It does this through its ecosystems--its life-support systems--and manifests this support most visibly in its bio-regions. As a community of subjects, the Earth community has a capacity for self-propagation, self-nourishment, self-education, self-governance, self-healing, and self-fulfillment.

About the nature of Development

As a living organism, the Earth and its species develop in the manner of all other organisms. They have certain inherent developmental tendencies or capacities.

4. *The capacity to differentiate* themselves from other species and assume their own distinct identity--while at the same time fostering the diversity of species.
5. *The capacity of interiority* or consciousness--to become aware of their own identity. As Teilhard de Chardin has noted, the universe has had a psychic-spiritual dimension from the very beginning. This capacity manifests itself most clearly in the ability of the Earth and its species to self-organize.
6. *The capacity to enter into communion* with the Earth and its species and components. This capacity is well expressed by the traditional and seemingly paradoxical aboriginal definition of a community: "an intimate relationship with all living things both animate and inanimate"

About the Human Species

The key to understanding our nature and destiny as a species is to grasp the reality that we are a species "*in relationship*".

7. As a species, man is part of an integrated Earth community. Because he receives his life principle from the Earth, *the Earth and its well-being is primary. Human well-being is derivative.*
8. The dominant characteristic of the human species is our reflective capacity. As Thomas Berry has noted, "human consciousness is the universe reflecting upon itself". *This reflective capacity confers upon us certain ethical and moral responsibilities to care for the planet and the integrated earth community.*

9. ***The full exercise of our reflective capacity requires a new epistemology or way of thinking.*** This epistemology is systems thinking⁶ based upon a dynamic and functional cosmological ecology.

About the Present Situation

We now find ourselves in a dire situation confronting a massive challenge. Our future is in our own hands.

10. ***The Earth in its present mode of existence is being devastated.*** Species are disappearing at an unprecedented rate. The planet's life support systems--water, air, atmosphere, topsoil, forests, oceans are being used up, are dying or are manifesting the symptoms of what might be terminal diseases.
11. ***The impetus for much of the devastation is the desire to develop national and world economies at the expense of the earth community.*** There is very little recognition that all economic development is dependent upon and constrained by the development of Earth itself--which is finite. It is a one-time endowment.
12. ***As a human species, we, along with the rest of the integrated Earth community, are at a critical point of our development.*** We are in a transition out of the Cenozoic Era, that has lasted for the last 65 million years, into a new era. This new era will be either: a Technozoic Age (the mindless

⁶ "The ideas set forth by organismic biologists during the first half of the century helped give birth to a new way of thinking--systems thinking--in terms of connectedness, relationships, context. According to the systems view, the essential properties of an organism, or living system, are properties of the whole which none of the parts have. They arise from the interactions and relationships among the parts. These properties are destroyed when the system is dissected, either physically or theoretically, into isolated elements. Although we can discern individual parts in a system, these parts are not isolated, and the nature of the whole system is always different from the mere sum of its parts...The great shock of twentieth-century science has been that systems cannot be understood by analysis. The properties of the part are not intrinsic properties but can be understood only within the context of the larger whole. Thus the relationship between the parts and the whole has been reversed. In the systems approach the properties of the parts can be understood only from the organization of the whole. Accordingly, systems thinking concentrates not on basic building blocks, but on the basic principles of organization. Systems thinking is "contextual" which is the opposite of analytical thinking. Analysis means taking something apart in order to understand it; systems thinking means putting it into the context of a larger whole." Fritjof Capra, *The Web of Life*, Doubleday, New York, 1996 p. 29-30.

application of technology in pursuit of a wonder-world); or an Ecozoic Age in which the human and non-human live in mutually enhancing relationships.

13. ***Unlike previous devastations of our planet which were natural, the present devastation is man-made.*** The Earth can no longer re-balance the environmental destruction that we are causing. Only we can do that.
14. ***Our challenge as a human species is to recognize the present situation and take steps to stop the damage, heal the planet and ensure its future survival and development, and ours along with it.*** Humans and the earth will go into the future as an integrated Earth community, or we will experience disaster along the way.
15. ***Despite the dire situation in which the Earth and its species find themselves, the situation is not hopeless. We have an unprecedented challenge confronting us--a challenge that has been called "The Great Work."***

"The Great Work now, as we move into the new millenium, is to carry out the transition from a period of human devastation of the Earth to a period when humans would be present to the planet in a mutually beneficial manner."⁷

16. ***An essential element of the Great Work is:***

- 1) ***to recognize the need for, and articulate, an Earth Jurisprudence adequate for the needs of the comprehensive Earth community, and***
- 2) ***to incorporate the principles of an Earth Jurisprudence into our various forms of human jurisprudence.***

To summarize what I've said in this section about the search for Earth Jurisprudence, we are not in the process of creating an Earth Jurisprudence. One already exists. It is inherent in nature and is an extension of the laws of nature. Our challenge is to recognize and respect it. Our ability to do this requires a new way of thinking based upon a different set of assumptions--assumptions that are alien to the thinking of many people within our mainstream western culture.

So where does this leave us? Must we start from scratch articulating an Earth Jurisprudence? Or is there a pre-existing framework that we can start with?

In the following pages I will suggest that we begin by considering indigenous jurisprudences--jurisprudences that pre-date our American, English or European Jurisprudences. To my knowledge, most of these indigenous jurisprudences are similar in that they are based upon the concept of restorative justice. In what follows I will be

⁷ Thomas Berry, *The Great Work*, New York, Bell Tower-Random House, 1999, p. 3.

referring specifically to an Inuit Jurisprudence--because it is the one with which I am most familiar.

3. Restorative Justice--A Possible Framework

One night in late winter of 2001, a few weeks before the Gaia Earth Jurisprudence meeting in Virginia, I was sitting in a hotel room in a small Inuit community in the central Arctic thinking about the upcoming conference and reviewing Thomas Berry's *The Origin, Differentiation and Role of Rights*. I was also thinking about the work I was doing in the community.

I had been spending a lot of time in the region over the course of the winter, visiting communities and working with Inuit residents--mostly elders--trying to help them develop Community Justice Committees. These committees are part of an "alternative justice system"--alternative to the Criminal Justice System with its police, courts, lawyers and correctional institutions. They enable community residents to address many of their own local problems, mostly with younger offenders, and they do so with a very different approach--a traditional approach relying on a concept that has come to be known as "restorative justice".⁸

As I was reflecting upon both these realities, it suddenly occurred to me that there was a natural affinity between the principles of Thomas Berry and the principles of restorative justice as articulated within indigenous jurisprudences. They seem to share the same common ground. An indigenous jurisprudence could help us construct the framework for an Earth Jurisprudence.

A Jurisprudence Based on Survival, Healing and Restoration

When the Canadian Inuit first came in off the land in the 1950s and early 1960s⁹, they experienced a justice system totally different from the one they were used to. The new system was based on a series of laws written down in a book. When one of those laws was broken, the individual had to be punished. The people who protected the laws were Qallunaat (White) RCMP officers, Qallunaat judges, and Qallunaat correctional officers running prisons in far away communities--none of whom could speak the Inuit language,

⁸ There is a renewed interest in these traditional approaches not only in the Arctic but across Canada and in other parts of the world as well. Aboriginal peoples often represent a significant portion of inmate populations in prisons, far beyond their representative numbers in the general population. Clearly the Criminal justice system is not meeting the needs of aboriginal communities. The large majority of crimes committed by aboriginal people are alcohol related and/or can be linked to significant social problems--problems that the Criminal Justice System seems unable to address.

⁹ Because of problems of starvation and health--particularly tuberculosis--the government of Canada convinced the Inuit to move in off the land and settle in communities. This transition occurred within a period of a very few years. Though it provided benefits--welfare, rudimentary housing, schooling and health care--it also resulted in social and cultural disruption.

Inuktitut. This new system--which has remained pretty much the same over the last 50 years-- was very different from the one they were used to.

During their life on the land, (Western science estimates the Inuit have inhabited the Arctic for several thousand years), the Inuit had one overwhelming concern--survival. Because they lived in what is probably the most severe environment on the planet, every person had to contribute to that survival. They had laws and lived according to a code of conduct and a jurisprudence that was designed to ensure that survival.¹⁰

When someone committed an offense, the offense was not seen as the breaking of a law but, rather, it was seen as the severing of a relationship with other members of the community. If the offense was not dealt with, the offender could jeopardize the survival of the group. So every effort was made to get the individual to admit his failings, change behaviour, and restore his relationship with the group (hence the modern day term, "restorative justice.") This process usually involved: mediation, especially through the intervention of elders or camp leaders; healing--the internal acknowledgement of the offense and an apology to the group and, in particular to the person offended; and restitution--beginning with a change in behaviour and often ritualized by some public effort or compensation to the victim or the group to "heal the relationship".

There are three aspects of Inuit jurisprudence that seem particularly relevant to our conversation about an Earth Jurisprudence.

First, "the community" was not simply the human community but included the non-human world. Particularly through their hunting activities, the Inuit became one with their environment and the animals they hunted. This unity conferred certain moral obligations.

"Inuit emphasize that the core of the relationship between humans and animals is human recognition that an equity exists with animals as participating members of a shared environment...Through a life that unifies the land, the animals and the community past and present, the Inuk hunter acquires, reconstructs, and lives out a world-image which provides both security in his own identify and direction for his behaviour. He does not hunt only to eat, but also to structure his community, and ultimately to build a cognitive model of the world by which he is defined and directed. To be *inummarik* (the process of becoming a genuine person), is to be

¹⁰ "We are told today that Inuit never had laws or *maligait* ("things that have to be followed"). Why? Because they are not written on paper. When I think of paper I think you can tear it up and the laws are gone. The *maligait* of the Inuit are not on paper. They are inside peoples' heads and they will not disappear or be torn to pieces. Even if a person dies, the *maligait* will not disappear. It is part of a person. It is what makes a person strong." Quotation from the Inuit Elder Mariano Aupilaarjuk in *Perspectives on Traditional Law : Interviewing Inuit Elders*, by Mariano Aupilaarjuk, Marie Tulimaaq, Akisu Joamie, Emile Imaruittuq, Lucassie Nutaraaluk, Nunavut Arctic College, Iqaluit, Nunavut, 1999 P. 14.

actively engaged in lifelong cycles of interaction with, and cognitive interpretation of, the human and the non-human environment.¹¹

Second, there is limited value to punishment *per se*, and it was not used except in extreme cases--where the life of the group or its survival was threatened.¹² The problem with punishment was that it could easily lead to resentment and further alienation--holding the potential for threatening group survival. Thus the emphasis in Inuit jurisprudence was not punishment of the individual but an attempt to get the offender to change his or her behaviour so that relationships could be restored.¹³

Third, as we reflect on Inuit Restorative Justice today, we can see that efforts to renew the concept and approach do not mean there is a effort to give up on modern society, return to the land and live in snow houses while hunting with hand-held harpoons. Instead there is an effort to help the restorative justice approach find its place in modern society. In practice this means there are two different systems based upon two different forms of jurisprudence running parallel in modern Nunavut communities. The Qallunaat Criminal Justice System continues to provide an important function by handling the more violent offences--rape, murder, offences of violence-- and incarcerating people in correctional institutions outside the community. The traditional Inuit community Justice System deals with simpler offenses, youth crimes, and places a strong emphasis on prevention, education and early intervention. Both systems are required. The challenge will be to let the Community Justice System grow and develop as a true alternative system without allowing it co-opted by the more dominant Criminal Justice System. Hopefully in time it will influence the larger more dominant system and integrate within it some of the values and principles from traditional Inuit society--something that already seems to be occurring.¹⁴

Lessons for Indigenous Jurisprudence

What do indigenous forms of jurisprudence have to teach us about an Earth Jurisprudence? A great deal. They help us define a purpose for an Earth Jurisprudence and provide a rationale for our search.

¹¹ Arlene Stairs and George Wenzel, "I Am I And the Environment: Inuit Hunting, Community, and Identity." *The Journal of Indigenous Studies*, Winter 1992, 3:1, p 4 and 6.

¹² See Chapter Nine, "Murder" in *Perspectives on Traditional Law*, p. 157-179.

¹³ In this regard , there is a striking resemblance to Old Testament concepts of sin as a 'hardness of heart' and the New Testament concept of *metanoia*--a Greek word meaning "a shift or mind "or "a change of heart" and is often translated as "repentance".

¹⁴ In the fall of 2001 The Federal Government is introducing a new Youth Community Justice Act to replace the existing Young Offenders Act. The new act places a much stronger emphasis on diversion and the use of "extra-judicial measures."

Survival

In the past, indigenous peoples were concerned about their physical survival. Today, threatened by dominating cultures, indigenous people are concerned with physical, cultural and spiritual survival.

In like manner, many of us today feel that our planet is being devastated and we, too are facing a struggle for survival. We need an Earth Jurisprudence that will help us focus very directly on the survival of our planet, our survival as a species and the survival of all other species. Survival is the dominant motivating force behind the search for an Earth Jurisprudence. If we were not concerned about survival, we would not be concerned about developing an Earth jurisprudence in the first place. Unfortunately, our various forms of human jurisprudence simply assume our survival. Survival is a given and it is "business as usual."

Our Relationship with the Other Than Human World .

All forms of indigenous jurisprudence are founded upon a relationship with the planet and other species. This relationship is fundamental and extends to the recognition of rights of other than human species. Unfortunately, our form of human jurisprudence sees ourselves as being at the top of a pyramid of species, calling the shots, and acting in our own best interests. Other species have no rights.

We need an Earth Jurisprudence that will help us redefine our role as a species and reintegrate ourselves within an integrated community of species.

From Punishment to Restoration

When it comes to protecting the environment, our human jurisprudences are focused on punishing the offender. In many cases our laws are weak. And even when they are strong, the protection of our environment becomes a game of "beating the system". Often, when they lose, the losers simply pack up and move shop to a "friendlier" location. Punishment is quite ineffective in the world of national and global economies. In addition, punishment seems to reinforce the importance of the human species and does little to foster the rights of the other than human species. Yet, punishment seems to be the only tool we know how to use.

Though we must continue to develop strong environmental laws to control those who damage the environment, punishment over the longer term, has limited value. We are fighting a losing battle. In a world where the survival of our planet is at stake, we need an Earth Jurisprudence that will create a new vision and be based upon healing and restoration. Our task is one of consciousness raising and convincing the human community to take concerted action for the benefit of the earth community.

A Change of Heart

We learn from indigenous jurisprudences that a change of heart in offenders is essential for the survival of the group. The same is true when it comes to the survival of the planet--only the change of heart must occur on an individual, local, national and international level. It must be a corporate change of heart, a change of heart on the parts of governments, a change of heart within our major educational and religious institutions. And this change of heart will not come about simply by articulating an Earth Jurisprudence, any more than it has come about through articulating human jurisprudences.

In our information age, where people are continually bombarded with information and images, we tend to place great store in the power of information to change attitudes. But, as John Seed has noted, apathy does not stem from ignorance or indifference--or from a lack of information. We undoubtedly know far more about the devastation of our planet than any group of people that have ever populated this planet. We are aware of the devastation of our planet at the deepest level. But, as Seed notes, "We do not face it, do not integrate it, for fear of experiencing the despair that such information provokes. We fear it may overwhelm us. Moreover, our society has constructed taboos against the communication and expression of such anguish."¹⁵ Seed notes that we need to enter into healing processes and grief-work to remove the obstacles that keep us from experiencing our interconnectedness with all life. And we must do this on a massive scale.

Mediation: The Road To common Ground

As we have seen, indigenous people concerned with survival cannot afford to have winners and losers. That's why mediation is held in such high regard.

Never was mediation more needed today than in the area of economic development. There is a constant struggle for supremacy between pro-development and anti-development forces. This is quite apparent in the resource-rich area of Northern Canada where I live and work--and in many other similar areas around the globe.

On the one side are those who are unabashed advocates of economic development. We have some of the highest unemployment rates in the country and significant poverty. The proponents of development--international oil, gas and mining companies--promise jobs, business opportunities and equity positions in resource extraction projects.

On the other side are those who are wary of development. In the North, with its traditional boom-bust cycles of resource extraction, they have seen it all before. They are concerned about damage to the environment, the usual increase in social problems that comes with high paying jobs, the loss of culture, and the transitory nature of unskilled jobs that disappear when the boom ends.

¹⁵ John Seed, Joanna Macy, Pat Fleming, Arne Naess, *Thinking like a Mountain: Towards a Council of all Beings*, New Society Publishers, Philadelphia, 1988 p 8.

A mediated approach within the context of an Earth Jurisprudence would recognize the need for a common ground. But the common ground would not simply be a saw-off between the two camps of humans--a mid point between the pro-development and anti-development forces. It would be new common ground.

It would be a common ground between the rights of humans and the rights of the other than human world. It would acknowledge that caribou and whales and rivers have rights and must have a voice. It would recognize that the Earth is a one-time gift with limited carrying capacity and resilience

Perhaps most important of all, it would be a common ground that reframes the whole discussion about the nature of economic development. It would link economic development inseparably with the development of the natural world--the two go hand in hand, guided by the same principles.

In her book, *The Nature of Economies*, Jane Jacobs makes this point very strongly

"I'm convinced that economic life is ruled by processes and principles that we didn't invent and can't transcend, whether we like it or not, and that the more we learn of these processes and the better we respect them, the better our economies will get along."

One of her characters misinterprets her point (the whole book is a dialogue among four people) and thinks she means that economic development is simply a matter of imitating nature. Another character, Jane Jacob's alter-ego, clarifies the point.

"I'm afraid I haven't been clear," he said. "Economic development isn't a matter of imitating nature. Rather, economic development is a matter of using the same universal principles that the rest of nature uses. The alternative isn't to develop some other way; some other way doesn't exist...Economic development is a version of natural development."¹⁶

As a friend of mine likes to say, "Those who are in a dispute and are seeking common ground must start by realizing that they are standing on it." Mediation can become the tool that helps find the new common ground between economic development and Earth development, between the rights of the Earth and the rights of man.

An Earth Jurisprudence as An Ethic

Within our human jurisprudences we make a distinction between our knowledge of written laws and our decision to follow or not to follow the laws. It's a two-step process. This distinction between knowledge and decision-making does not seem to exist within traditional aboriginal jurisprudences, or at least it is quite blurred. The laws are part of a body of traditional knowledge (the Inuit call this knowledge *Inuit Qaujimanituqangit*, or

¹⁶ Jane Jacobs, *The Nature of Economies*, Random House: Toronto, 2000 p 11 and 31.

"IQ" for short). By the very act of knowing, the laws become internalized. Among the Inuit, as the Elder Mariano Aupilaarjuk has noted, "It (the *maligait* or law) becomes part of a person. It's what makes a person strong." It is the knowledge and practice of this knowledge that makes a person a true Inuk. In addition, the knowledge of the laws brings with it consequent moral responsibilities. The knowledge is an ethic.

One of the implications of developing an Earth Jurisprudence is the need to accept it on its own terms--not to evaluate it from the point of view of a human jurisprudence. Just as our science accepts the fundamental laws of nature as "givens" without challenging them. (we do not challenge the validity of the law of gravity for example), so the laws of an Earth Justice System and its corresponding jurisprudence must be accepted as a "given." Because recognition of an Earth Jurisprudence is also an ethic, it necessarily limits some of our individual rights in the best interests of the rights of the Earth community as a whole. This was the point Aldo Leopold made many years ago in his discussion of a "land ethic."

"An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from anti-social conduct. These are two definitions of one thing. The thing has its origin in the tendency of interdependent individuals or groups to evolve modes of co-operation. The ecologists call these symbioses. Politics and economics are advanced symbioses in which the original free-for-all competition has been replaced, in part, by cooperative mechanisms with an ethical content.¹⁷

The Support of the Community

One of the dominant features of restorative justice in indigenous cultures is the value that the offender places on the community. If he or she did not value the community, if they did not see the community as a means of ensuring their own survival, if they did not sense that the community would accept them again and support them, there would be no change of heart, no "return" to the community.

One of the great risks that we face in trying to establish an Earth Jurisprudence is a sense of despair: that we are fighting a lost cause, that it is already too late, that we have already passed the point of no return, that there is no hope. Our human jurisprudences, with their emphasis on individual rights and responsibilities, help to reinforce the concept that we are individually responsible for our actions and that no matter what happens we are "on our own." This is one of the reasons that Thomas Berry, without downplaying the critical nature of the present situation, points to the work of other people who have not lost hope and are accepting the challenge to pursue "The Great Work".¹⁸ We are an

¹⁷ Aldo Leopold, *A Sand County Almanac*, Ballantine Books, New York, 1949. p 238.

¹⁸ Joanna Macy and Molly Young Brown take up this theme and refer to the present period in history as the time of "The Great Turning"--the time of transition from the Industrial Growth Society to a Life-Sustaining Society. They acknowledge those many people and organizations around the world who are

integrated community of concerned earth residents, entering into relationships with all living things, both animate and inanimate, sustaining and supporting one another.

4. "GETTING THERE FROM HERE": DEVELOPING AN EARTH JURISPRUDENCE

How will Earth Jurisprudence develop?

It seems logical to expect that Earth Jurisprudence will develop the way nature itself develops, through a process of differentiation, subjectivity and communion. The process might look something like this.

As a growing number of individuals and groups around the world become more and more concerned about the devastation of our planet, they will begin to press for action. As they do, they will become increasingly concerned about the inability of their existing legal systems to deal with the devastation. Spurred on by meetings and conferences (like the Earth Gaia meeting in Virginia), the need for an Earth Jurisprudence will begin to be discussed. A movement will begin to develop--in much the same way that other movements developed--equality for women, racial integration, the environmental movement, the recognition of rights for the gay community, and so forth. In time, elements of a jurisprudence will begin to emerge and differentiate themselves from existing human jurisprudence systems.

As the elements of the Earth Jurisprudence become stronger, they will begin to define themselves more specifically within a distinct system. Our consciousness level will increase. For periods of time there will be two parallel jurisprudences existing together, running side by side, one of them a human jurisprudence, the other, an alternative system-- an Earth Jurisprudence. Periodically they may fly further apart; at other times they may come closer together. There will be "moments of grace" when a sort of integration takes place and the rights of the other than human species begin to be recognized within the human jurisprudence systems¹⁹

As the situation on our planet becomes more desperate,, the two systems may begin to merge or at least establish a more permanent symbiotic relationship. We will become more and more part of the Earth Jurisprudence System; it will become more and more

involved in this transition. They point to three areas of major activity: 1) actions to slow the damage to Earth and its beings; 2) analysis of structural causes and creation of structural alternatives, and 3) a fundamental shift in worldview and values. See: Joanna Macy and Molly Young Brown, *Coming Back To Life: Practices To Reconnect Our Lives, Our World*, New Society Publishers, Gabriola Island, B.C. 1998. P. 17.

¹⁹ Such a moment may have occurred in 1982 when the General Assembly of the United Nations passed the "World Charter for Nations" --a document that Thomas Berry calls "our best formal statement of our human relation with the planet." Because of its significance, I have incorporated it as an appendix to this essay.

part of us. The process will continue as it always has--becoming more complex, continuing to differentiate, grow in consciousness and self identity, and enter into new relationships--part of the on-going cycle of life.

Though we might be able to map out intellectually the steps that might lead to the development of an Earth Jurisprudence, we are reminded, in the words of Alfred Korzybski, that "The map is not the territory." The reality is far more complex. Development of an Earth Jurisprudence is part of a much greater, a much more radical transformation that is facing us as a species.

Understanding the Challenge.

In his book, *The Great Work*, Thomas Berry has summed up in a single sentence the nature of the challenge we now face at this precarious moment in time. It seems appropriate, in this essay on *Thomas Berry and an Earth Jurisdiction*, to turn to his own words. They will serve as a synthesis of what has been said and will point to the path ahead.

"We might describe the challenge before us by the following sentence. The historical mission of our times is TO RE-INVENT THE HUMAN...

- at the species level,
- with critical reflection
- within the community of life-systems
- in a time developmental context,
- by means of story and shared dream experience."²⁰

"To Reinvent the Human"

More than any other living forms, we have the capacity to reinvent ourselves to redefine our role and re-establish relationships in the greater scheme of things--and accept more responsibility for the world in which we live.

"At the Species Level"

We must find our primary source of guidance in the inherent tendencies of our genetic coding. These tendencies are derived from the larger community of the Earth and eventually from the Universe itself.

The need to re-think our situation at the species level applies to all aspects of our life. As regards law, we need a jurisprudence that will provide for the legal rights

²⁰ *The Great Work* p 159-165. In this section, when possible, I have quoted from Thomas Berry directly. In other parts I have added my own reflections to focus more specifically on the implications of the parts of his sentence for an Earth Jurisprudence

of geological and biological as well as human components of the Earth community.

"With Critical Reflexion"

We need to proceed with critical competence, bringing to the task the very best of our science, critical skills and traditional wisdoms. Our technological approaches must be based upon the "natural technology" and developmental principles of the Earth itself. And we must avoid an unrealistic romantic attraction to a world that can be violent and dangerous as well as beautiful.

In terms of an Earth Jurisprudence, our critical reflection must draw freely from the strengths of indigenous and human jurisprudences. But it must have the capacity to respond to emergent needs and the voices of the Earth and its species.

"Within the Community of Life-Systems"

This is the primary requirement for reinventing the human. We must re-define our role within an integrated community of relationships and life-support systems. We must do this with inquiry into our changing role in the universe and our planet. We must do this at a local and regional level as a participant in the life cycles of bioregions.

In terms of an Earth Jurisprudence, the challenge is to find a way of integrating and reconciling the respective rights of all species and components and find appropriate forums for mediation and dispute resolution.

"In a Time-Developmental Context"

We cannot know who we are or what is expected of us unless we know where we came from and who came along with us on our journey. The story is important for our own identity and for an understanding of our role in an integrated earth community. Essential in our understanding is the need for awareness of how development occurs through differentiation, subjectivity or consciousness and communion. Today our world seems to be moving toward monoculture and uniformity instead of differentiation and diversity; a deadening of our consciousness and divorce from our history; and the pursuit of competition rather than cooperation and communion.

In terms of the development of an Earth Jurisprudence, the destruction of the developmental processes leaves us floundering in terms of who we are and what our role is as the consciousness of the planet that is our home. If we cannot identify with an integrated earth community, if we have become orphans in the earth household and can't regain a sense of family, we have no desire to protect the rights of the earth and other species. Thus a critical element in the

development of the Earth household is to regain a sense of our past so we will have some understanding of our future.

"By means of story and shared dream experience."

Though our science and technology are critical in helping us understand our role in the universe, they are not enough. The journey into the depths of our psychic history and the rediscovery of our primordial relationships is, in the last analysis a spiritual journey akin to the shamanic journeys of old. It can only be accessed through a shared dream experience and constant reflection on and telling of the Story--both the Old Story and the New Story. For we are indeed on a journey but find ourselves between stories. And we have to reinvent ourselves--to discover the full meaning of Teilhard de Chardin's words: " We are not human beings on a spiritual journey; we are spiritual beings on a human journey."

We can do much to help formulate an Earth Jurisprudence. But ultimately we do not create an Earth Jurisprudence. The development of an Earth Jurisprudence is a revelatory experience. Like the polar bear in the soapstone, the Earth reveals to us the components and dimensions of its own jurisprudence. Our role is to learn how to hear the Story--and take copious notes.

Thomas Berry has shared with us many gifts: a sense of wonder in the mysteries of the universe, a capacity to dream dreams, and a sense of self-identity as member of an Earth household. He has confronted us with the devastation that we are wreaking on the planet, But he has also reminded us of where we have come from and where we might be going--and whom we must be travelling with. He has given us a sense of hope.

Though his scholarship, his wisdom and his life-long commitment he has helped us discover the Dream of the Earth and invited us to share in the dream. One of his greatest legacies has been preparing us to set off down the road in search of an Earth Jurisprudence.

APPENDIX

The World Charter for Nature (1982)

UN GA RES 37/7

The General Assembly,

Reaffirming the fundamental purposes of the United Nations, in particular the maintenance of international peace and security, the development of friendly relations among nations and the achievement of international cooperation in solving international problems of an economic, social, cultural, technical, intellectual or humanitarian character,

Aware that:

- (a) Mankind is a part of nature and life depends on the uninterrupted functioning of natural systems which ensure the supply of energy and nutrients,
- (b) Civilization is rooted in nature, which has shaped human culture and influenced all artistic and scientific achievements, and living in harmony with nature gives man the best opportunities for the development of his creativity, and for rest and recreation,

Convinced that:

- (a) Every form of life is unique, warranting respect regardless of its worth to man, and, to accord other organisms such recognition, man must be guided by a moral code of action,
- (b) Man can alter nature and exhaust natural resources by his action or its consequences and, therefore, must fully recognize the urgency of maintaining the stability and quality of nature and of conserving natural resources,

Persuaded that:

- (a) Lasting benefits from nature depend upon the maintenance of essential ecological processes and life support systems, and upon the diversity of life forms, which are jeopardized through excessive exploitation and habitat destruction by man,
- (b) The degradation of natural systems owing to excessive consumption and misuse of natural resources, as well as to failure to establish an appropriate economic order among peoples and among States, leads to the breakdown of the economic, social and political framework of civilization,

(c) Competition for scarce resources creates conflicts, whereas the conservation of nature and natural resources contributes to justice and the maintenance of peace and cannot be achieved until mankind learns to live in peace and to forsake war and armaments,

Reaffirming that man must acquire the knowledge to maintain and enhance his ability to use natural resources in a manner which ensures the preservation of the species and ecosystems for the benefit of present and future generations,

Firmly convinced of the need for appropriate measures, at the national and international, individual and collective, and private and public levels, to protect nature and promote international co-operation in this field,

Adopts, to these ends, the present World Charter for Nature, which proclaims the following principles of conservation by which all human conduct affecting nature is to be guided and judged.

I. GENERAL PRINCIPLES

1. Nature shall be respected and its essential processes shall not be impaired.
2. The genetic viability on the earth shall not be compromised; the population levels of all life forms, wild and domesticated, must be at least sufficient for their survival, and to this end necessary habitat shall be safeguarded.
3. All areas of the earth, both land and sea, shall be subject to these principles of conservation; special protection shall be given to unique areas, to representative samples of all the different types of ecosystems and to the habitat of rare or endangered species.
4. Ecosystems and organisms, as well as the land, marine and atmospheric resources that are utilized by man, shall be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist.
5. Nature shall be secured against degradation caused by warfare or other hostile activities.

II. FUNCTIONS

6. In the decision-making process it shall be recognized that man's needs can be met only by ensuring the proper functioning of natural systems and by respecting the principles set forth in the present Charter.
7. In the planning and implementation of social and economic development activities, due account shall be taken of the fact that the conservation of nature is an integral part of those activities.

8. In formulating long-term plans for economic development, population growth and the improvement of standards of living, due account shall be taken of the long-term capacity of natural systems to ensure the subsistence and settlement of the populations concerned, recognizing that this capacity may be enhanced through science and technology.

9. The allocation of areas of the earth to various uses shall be planned and due account shall be taken of the physical constraints, the biological productivity and diversity and the natural beauty of the areas concerned.

10. Natural resources shall not be wasted, but used with a restraint appropriate to the principles set forth in the present Charter, in accordance with the following rules:

(a) Living resources shall not be utilized in excess of their natural capacity for regeneration;

(b) The productivity of soils shall be maintained or enhanced through measures which safeguard their long-term fertility and the process of organic decomposition, and prevent erosion and all other forms of degradation;

(c) Resources, including water, which are not consumed as they are used shall be reused or recycled;

(d) Non-renewable resources which are consumed as they are used shall be exploited with restraint, taking into account their abundance, their rational possibilities of converting them for consumption, and the compatibility of their exploitation with the functioning of natural systems.

11. Activities which might have an impact on nature shall be controlled, and the best available technologies that minimize significant risks to nature or other adverse effects shall be used; in particular:

(a) Activities which are likely to cause irreversible damage to nature shall be avoided;

(b) Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed;

(c) Activities which may disturb nature shall be preceded by assessment of their consequences, and environmental impact studies of development projects shall be conducted sufficiently in advance, and if they are to be undertaken, such activities shall be planned and carried out so as to minimize potential adverse effects;

(d) Agriculture, grazing, forestry and fisheries practices shall be adapted to the natural characteristics and constraints of given areas;

(e) Areas degraded by human activities shall be rehabilitated for purposes in accord with their natural potential and compatible with the well-being of affected populations.

12. Discharge of pollutants into natural systems shall be avoided and:

(a) Where this is not feasible, such pollutants shall be treated at the source, using the best practicable means available;

(b) Special precautions shall be taken to prevent discharge of radioactive or toxic wastes.

13. Measures intended to prevent, control or limit natural disasters, infestations and diseases shall be specifically directed to the causes of these scourges and shall avoid averse side-effects on nature.

III. IMPLEMENTATION

14. The principles set forth in the present Charter shall be reflected in the law and practice of each State, as well as at the international level.

15. Knowledge of nature shall be broadly disseminated by all possible means, particularly by ecological education as an integral part of general education.

16. All planning shall include, among its essential elements, the formulation of strategies for the conservation of nature, the establishment of inventories of ecosystems and assessments of the effects on nature of proposed policies and activities; all of these elements shall be disclosed to the public by appropriate means in time to permit effective consultation and participation.

17. Funds, programmes and administrative structures necessary to achieve the objective of the conservation of nature shall be provided.

18. Constant efforts shall be made to increase knowledge of nature by scientific research and to disseminate such knowledge unimpeded by restrictions of any kind.

19. The status of natural processes, ecosystems and species shall be closely monitored to enable early detection of degradation or threat, ensure timely intervention and facilitate the evaluation of conservation policies and methods.

20. Military activities damaging to nature shall be avoided.

21. States and, to the extent they are able, other public authorities, international organizations, individuals, groups and corporations shall:

(a) Co-operate in the task of conserving nature through common activities and other relevant actions, including information exchange and consultations;

(b) Establish standards for products and other manufacturing processes that may have adverse effects on nature, as well as agreed methodologies for assessing these effects;

(c) Implement the applicable international legal provisions for the conservation of nature and the protection of the environment;

(d) Ensure that activities within their jurisdictions or control do not cause damage to the natural systems located within other States or in the areas beyond the limits of national jurisdiction;

(e) Safeguard and conserve nature in areas beyond national jurisdiction.

22. Taking fully into account the sovereignty of States over their natural resources, each State shall give effect to the provisions of the present Charter through its competent organs and in co-operation with other States.

23. All persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment, and shall have access to means of redress when their environment has suffered damage or degradation.

24. Each person has a duty to act in accordance with the provisions of the present Charter, acting individually, in association with others or through participation in the political process, each person shall strive to ensure that the objectives and requirements of the present Charter are met.

