Silva Carelica 46

FOREST ETHICS INSPIRED BY THE JOHANNESBURG SUMMIT 2002

Antti Erkkilä and Paavo Pelkonen (eds.)

JOENSUUN YLIOPISTO
METSÄTIETEELLINEN TIEDEKUNTA

UNIVERSITY OF JOENSUU
FACULTY OF FORESTRY
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Preface

We acknowledge the importance of ethics for sustainable development, and therefore we emphasise the need to consider ethics in the implementation of Agenda 21.

The above sentence is from Paragraph 6 of the Plan of Implementation adopted at the World Summit on Sustainable Development, Johannesburg, South Africa, August 26 – September 4, 2002. The roots of this publication also can be found in Johannesburg, where on August 29, 2002 the Governments of Finland and Indonesia organised a Panel for Global Forest Ethics. The ethical and cultural dimensions of sustainable development were discussed by the Panel. The University of Joensuu had the privilege to be among the initiators of this Panel, which was co-chaired by the Finnish Minister for the Environment Jouni Backman and his Indonesian counterpart Nabiel Makarim. The keynote address presented by Professor Reijo E. Heinonen and co-authored by Professors Paavo Pelkonen and Olli Saastamoinen emphasised the need for a global forest ethics network. In Finland the process toward the Panel for Global Forest Ethics was facilitated by Ms. Hanna Rinkineva, Councellor of the Ministry for Foreign Affairs.

We hope that this publication, inspired by the Johannesburg Summit, promotes interdisciplinary discussions and research on the ethical dimensions of forestry and forest industries.

We would like to especially acknowledge the contribution of Mr. David Gritten and Mr. Mark Richman for their expertise in the English language. The layout of this publication was finalised by Ms. Leena Konttinen at the University of Joensuu, Office of Press and Information.

Joensuu, October 24, 2004

Antti Erkkilä and Paavo Pelkonen

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Jouni Backman
Minister of the Environment of Finland

**Chairperson at the Panel for Global Forest Ethics,
the World Summit on Sustainable Development (WSSD),
Johannesburg, August 29, 2002**

Excellencies, ladies and gentlemen, dear friends,

it is a great pleasure for me, on behalf of Finland, to welcome you to this small informal discussion on a very important topic for all of us, global forest ethics. The question of forest ethic is rooted already in the decisions of Rio, but there has not been real discussion on the subject.

We all present here represent countries with a great interest in forests and their conservation, management and sustainable use. Our different types of forests represent a variety of different functions and values in our societies and for our peoples.

At our age, economic, cultural and ethical values are increasingly interconnected. Internationally, there is a growing conviction that ethic plays a decisive role in integrating sustainable practices for development. Globalisation needs a global ethic.

International processes on forests – and here I refer to the Intergovernmental Panel and Forum on Forests, IPF and IFF, and their successor, the United Nations Forum on Forests – already include references to the ethical values of forests. As forests play a crucial role in the sustainable management of natural resources, we find it necessary to intensify the discussion and research on the ethical basis of the decision-making concerning forests.

In the search for global forest ethics we must endeavour to find the universal principles and norms, which help us take care of the various values systems, avoid the instrumentalisation and harmonise our approach. In many discussions, one usually neglects the ethical challenge and dilutes it in arguing who is paying this or that. As long as we undermine the discussion in this way we make it difficult to see the global forest problems in a holistic way.

The governments will review the effectiveness of the international arrangements on forests in 2005. This review will cover the United Nations Forum on Forests and its partnership arrangement, the Collaborative Partnership on Forests. It is obvious that the need and possibilities for legally binding instrument will also be considered.

We hope that this panel could be the start for intensified discussion and networking on global forest ethic. This process could make a major contribution to the harmonisation of values and increase of mutual understanding in combining ethical, scientific and political approaches to the global forest strategy. Therefore, I would like to encourage you to freely express yourselves in the following discussion.

Hon. Minister Nabiel Makarim, Indonesia (left), Hon. Minister Jouni Backman, Finland (middle) and Professor Reijo E. Heinonen, University of Joensuu (right) at the panel discussion for Global Forest Ethics, Johannesburg, August 29, 2002. Photo: Erja Tikka.

Reijo E. Heinonen, Paavo Pelkonen, Olli Saastamoinen

NEED FOR A GLOBAL FOREST ETHICS NETWORK[1]

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Introduction

'Interconnectedness' is a catchphrase of our world today. Economists, biologists and politicians employ this term in various guises. But do we see the true nature and scale of how significantly each action impacts on another? Do we perceive human life in its entirety in a holistic way? Can we understand how seemingly concrete areas, such as economics, can be greatly influenced by, for example spirituality?

To comprehend the importance of interconnectedness we must realise that the developing countries have a significant impact on the world's development, although it is not easy to perceive it if we define development solely in the concrete material, economic, social or even security terms. They change the world on also the level of culture and its ethics. The polarisation between rich and poor has resulted in a hardening of attitudes on both sides. The loss of hope has its impact on ethics, social issues, economics and religious attitudes. One of these effects can be seen in the increase of fundamentalist movements. This has resulted in re-interpretation of what terrorism is.

To be able to understand the interconnectedness necessitates evaluating the impact of political and economic decisions on the poor, who are often not represented and therefore voiceless. Although they have no mouthpiece to express their feelings regarding these restrictions, they change the spiritual atmosphere, the ethos of the world community though their suffering. To be able to understand, what interconnectedness means today, it is necessary to learn to interpret the signals of this voiceless world. This means also respect for the diversity of cultures and nature. Many hesitate when asked, if diverse cultures (also in their relationship to forests) can peacefully live together? With

[1] A paper presented at the Panel for Global Forest Ethics, World Summit on Sustainable Development, Johannesburg, August 29, 2002.

the old attitudes it is perhaps impossible, that's why we need a new ethically sustainable way of thinking in order to succeed.

If forests are the lungs of the world, then our planet is now in the throes of a coughing fit. The fragile nature of forests impacts on global ecosystems and therefore on human life. Interconnectedness means that no single group of actors can heal this disease. In the papers concerning discussion on the future of forests in the UN Commission on Sustainable Development the need for a holistic approach to a convention of forests is repeated. One reason why it is so difficult to proceed in this direction, is that the interested parties are regarding the situation with their own interests in mind, rather than dealing with common responsibilities. The lack of cultural perspective including ethical and religious aspects has made many well intentioned approaches superficial and cosmetic. The ethical/moral dimension in its various implications should be taken seriously.

The requirements of the global forest ethic should not be oversimplified. It requires interdisciplinary research which highlights the crucial ethical alternatives underlying hidden under the surface of practical management. Interconnectedness means, that the values of various groups are taken into account. However, naturally not all values, especially those representing selfish, onesided thinking cannot be included in the common agenda. The question is now, what can be accepted as criteria in the evaluation the selfishness and its effects.

If we let the liberal market economy decide, it will dictate that the ethical issues should be utilised to maximise the profits of companies. It means that the ethical dimension is instrumentalised for the purposes of business. This is often the case, when numerous companies are pushing their employees through ethical arguments to maximise profits. But the common good can only be achieved through ethical and moral actions, which is a target in itself and not an instrument for materially exclusive profit making.

In the research on global forest ethics we must endeavour to find the universal principles and norms, which help us to take care of the various values systems and avoid the instrumentalisation. In many discussions we notice, that the usual way to neglect the ethical challenge is to dilute the discussion on the issue, who is paying this or that. As long as we undermine the discussion in this way we make it difficult to see the global forest problems in a holistic way.

In Rio the challenge to change attitudes and values came especially from the side of the NGOs. Did we take this challenge seriously enough? Looking at the agenda here in Johannesburg, we have to admit that we are far from being able to answer definitely 'Yes'. However, looking at

the development of the discussion on global ethics in the 1990s it would be possible to say, with good reasons, 'Yes'.

The global ethic process after Rio

In the 1990s the importance of NGOs increased in the arena of international politics. Crucial to this development was the participation of over a thousand NGOs in the debate on environmental issues in the Rio summit conference. They spoke an alternative language to the governmental representatives and provided more practical alternatives, but also often more spiritual.

The NGOs of India when scrutinising the moral problems afflicting our world today cite Mahatma Gandhi. "We have for everyone's need but not for anyone's greed." It points out, that the basic questions are not technical or economical but ethical. It cannot be claimed, that we lack possibilities to overcome famine and malnutrition. We have the means to do this, if there is enough motivation or as we usually say, the political will.

How can we evaluate the true state, when almost everything is measured in money (although one has to recognise that in environmental and health economics, monetary measurements have also been conducted with some success to make non-market benefits comparable with market ones). How will the change of consciousness, which was demanded in Rio, become a reality? It requires changes at least on three levels.

Firstly, individuals need to be convinced of the increasing importance of morality so that they are motivated to overcome their opinions, which only point out the great difficulties we face. Secondly, communities should hear the voices of different values, coming from articulate, ethically sensitive and committed persons. Thirdly, politicians should be able to risk their career on behalf of a righteous task.

At the same time as the NGOs were challenging the world community on ethical grounds, the participants at Rio were also questioning the interpretation of the concept of sustainable development. In response UNESCO pointed out, that development can be sustainable only as culturally sustainable development. In its report Our Creative Diversity (1995) UNESCO highlighted the problems, which arose from the increase of the fundamentalist movements all over the world. In the first chapter the report demanded the formulation of global ethics as a guidance for the next century. Indeed this work on formulating a

global ethics was already ongoing since the beginning of the 1990s. It is important to note that this coincided with the growth in the role of the NGOs in the field of international politics.

One year after Rio, the Parliament of World's Religions formulated, in its Chicago world conference, a Declaration Toward a Global Ethic (1993), which was soon translated into many languages. The Declaration also demanded, that all professions should formulate their own ethical codes. This could have possibly happened without the challenge of the Chicago Declaration, but it shows that there was a social demand for a new moral awareness. Now not only do we have ethical codes for physicians on the basis of the oath of Hippokrat, but we also have codes for foresters, engineers, mathematicians, lawyers to name but a few.

Now we realise, that specific areas of science and culture need their own analysis from the point of view of ethics. One of these attempts is the book Wissenschaft und Weltethos edited by Hans Küng and Karl-Josef Kuschel (1994), which shows the importance of ethical aspects in various scientific approaches. In order to tackle the problems of forests in a valid way we need to ask, how much of these questions can be solved with help of the values analysis and values education concerning forest ethics.

The task also arose in the UN Forest Forum. In 1997 Ernesto Gahl-Nanneti, from Colombia, emphasised, that most of all "a change in attitudes and values" is vital for sustainable development. The current feelings in this area can be found in the book Crossing the Divide (Picco et al. 2001), initiated by Kofi Annan, in which dialogue is recommended as a valid instrument for an international co-operation on the basis of global ethic. The global ethic discussion has proceeded from smaller groups of experts in the areas of economics (World Economic Forum) and politics (Interaction Council) reaching the UN General Assembly. But still we ask, in what way does this dialogue have an effective impact in finding a common commitment to ethically sustainable development.

Complementarity of cultures as a basis for sustainable development

Through dialogue we realise the diversity of cultures, which invariably results in the question: To what level should we accept these strange new values? Here we can get help from the global ethical principles accepted by the representatives of all the cultures and religions. The dialogical process reaching the same level of symbolising the concepts can have

a twofold function: It can actualise common values, if the partners are principally accepting them as cultural heritage, for example the principle 'respect for life', which is found in every religion. Furthermore it can also enrich and deepen the concept of the object – in our case the concept of forest – by serving as mediator for mutually beneficial exchanges.

The culturally inherited sensitivity of indigenous people can be seen as an example of the diversity we meet in a dialogue. Let's think about the well-known speech of the Indian chief "Sitting Bull" to the political leaders of America, in which he described nature in a very strange way to the people of European heritage. For him it was impossible to think, that someone could say that they own the land. Land is something, which cannot be owned, because everything connected with it has symbiotic representations in the human soul. Without lakes, rivers and forests the soul would cease to exist. The land, with its gifts can be used and cultivated, but in a very specific way. The lakes, rivers and forests were respected or worshipped and their gifts were taken with a deep gratitude. Still the question remains how the sustainability in forests can be implemented with well-defined and equitable ownership rights and responsibilities.

The concept of 'respect of life' could show the criteria for a holistic way to understand nature. It would lead from a world of instrumental values, when we see the forests only as products or material for industry to the values, which point out forest as value itself. It is suggested that, the modern concept of sustainability in forestry, covering economic, ecological, social and cultural values, can be seen as recognition of the new attitudes regarding the forests.

In the interests of local people, three categories of values (Allardt 1993) should be taken into consideration: Forests are the source of income (*having* values), they form a natural environment (*loving* values). Forests also provide inspiration for spiritual growth (*being* values). Industry naturally points out things which are instrumental for profit making as 'having' values. NGOs are pointing out the 'being' values in things which have more value in itself. The dilemma could be solved by studying value conflicts and their solutions.

Throughout Finnish history forests have played a central role as a matrix of material, social and spiritual development. The forest has been a source of income, it has created a social environment and in the struggle the spiritual values of the people have developed. When tackling the problems of forest policy we are concerned with the relationship of various values areas. To mention only two specific examples, the

Convention on Biological Diversity (1992) recognises the following categories of values: the intrinsic as well as the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biodiversity and its components. Furthermore the United Nations Conference on Environment and Development (UNCED) Forest Principles demands that "Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations" (Report… 1992). To discover the interconnectedness and complementary character between them we can contribute to the ethical sustainable development and serve as an example for other areas seeking for the harmonious co-operation.

However, the complementary way of realising the diversity of values comes out positively only if there exists a minimum consensus on values and moral principles. It means that the idea of complementarity of cultural different approaches can be realised only on the basis of global ethic.

As a metaphor for dialogue seeking sustainable forest ethics, we can take the concept of an orchestra, specifically a symphony orchestra from the Greek word symphony meaning to sound harmoniously together. The differing cultures including their religious and ethical systems are playing in the same orchestra so long as they have the same score of music, which means the global ethic as a starting point. It is important that no instrument alone can play the music. Not the first violin, not the contrabass, not the trumpets are able to create the beauty of the music of this world. They need the other instruments to realise the idea of the music, its harmonious message. If some of the instruments are not playing, all the other instruments notice this and will challenge them to participate. It is impossible to say which instrument is the most important because everyone is needed.

We think that the recognition of the variety of cultural, social, economic, ecological and political values in relation to forests should provide the starting point for the suggested discussion and development of global forest ethics and promote the anticipated formulation of convention of forests.

The aims of the global forest ethics network

- The global forest ethics network wish to provide models for solving value conflicts based on studies of applying ethic in forest issues.
- It aims to give a more explicit formulation to the ethical principles underlying the four dimensions of sustainability in forestry: cultural, ecological, economic and social.
- It may contribute to the formulation of the anticipated convention of forests in a more harmonious and sustainable way.
- It helps to focus attention on cultural diversity and biodiversity in the formulation of convention of forest out of the concept of complementarity.
- It promotes interdisciplinary research on the ethical dimensions of forestry and forest industries.
- It arranges scientific seminars dealing with ethical, social and economic issues of forest policy, forest education and forest research.

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Introduction

What do 'forest ethics' or 'environmental ethics' mean to people? It would be very difficult to find a description in any encyclopaedia. What is ethics? Ethics, according to the Oxford English Dictionary, is the moral principles which guide a person (Simpson and Weiner 1998). This means that in addition to the appearance, nature, internal structure, and other common characteristics of a social phenomenon, a consideration should also be made of its morality. It is also important to add that to a certain extent forest ethics, like most other types of ethics, belongs to a specific culture, historical period, as well as to global moral principles.

What is the source of the ethics applied to forestry? One source is the many nature-oriented or nature honouring religions or belief systems that have come from the distant past, for example tree and grove worship, the practices of the druids, or other indigenous peoples' beliefs. There are several possible ways to understand these views of nature, but they may be easily expressed in one remark made by the American naturalist, Aldo Leopold, 'harmony between men and land' (Leopold 1949, 207). Another way to express this same view would be to apply the Ten Commandments that are the foundation of Judeo–Christian morality: 'Do not kill … Do not steal, Do not…' (Exodus 20:13–20:16) and transform them into 'Do not kill forest and all that is alive in them, Do not steal timber – a source of life for you and future generations.' One of the two greatest Christian commandments says, 'You shall love your neighbour as yourself' (Matthew 22:39). In this case, what is closer to humankind than nature? What inspires in peace and joy or what rescues and consoles in harsh times? The answer is obvious – Nature!

In a poem, written in 1836, an outstanding Russian poet, Feodor Tyutchev, responded to two contrary views: the traditional religious

belief that then regarded nature as totally dependent on divine will, and the common mechanistic view that regarded nature as just another mechanism, a soulless machine:

> Nature is not what you think her to be:
> She is not a copy, she is not a soulless image –
> She has a soul, she has a freedom,
> She has a love, she has a language… (Tyutchev 1980, 87).

The agenda of the environmentally–philosophical lyrics of Tyutchev in this poem were recognised as being addressed to all who did not respect nature properly. As the poem continues the author concludes the verse in anger; he compares the opponents to his view with a person mute to the music of an organ. His antagonists can not understand nature and alas even their own mother's voice could not excite their soul! The poem was directed at the time it was written against trivialising nature, a view that was supported by the prominent philosophical teaching of the German philosopher, Georg Wilhelm Friedrich Hegel, which regarded nature as somewhat passive, dead, not connected to the creativity of spirit bestowed on humankind. Here and now similar views are still being discussed some 175 years later!

As a follow up to a poetic description of nature, it should be understood that a positive attitude to nature and the wise use of natural resources are cornerstones for civilisation and culture. This can be specifically applied to forests, which form a global environmental framework for the biosphere. This is why many countries have professional codes of forest ethics that explore, in-depth, the idea of reinforcing the institutions that are able to condemn abuse of the forests and to deliver benefits without harming the forests.

Roots of Russian forest ethics

Most plants must bear fruits; otherwise there will be no new generation. Every tree has roots; people often forget this until the tree stops bearing fruits. Then to establish a good crop with fruits, thinking begins on how to remove the tree and its roots. Everything has its own place: when seeing fruits, remember the hidden roots – to prove that the roots are good just look at the fruits. Before discussing forest ethics further, a look at their roots in Russia can only help in understanding the ethical fruits that have developed there.

The forest has had an enormous influence on the character of Russians, their way of life, their worldview, and their religious creed. The early Russian religious and cultural traditions were derived from and linked with the forest, trees, animals, water bodies, and fire. These have found a reflection in almost every sphere of the Russian peoples' lives including the arts, calendar, language, legends, and superstitions. There was a 'taboo' based on superstitions that grew over time into an unwritten code of forest ethics.

Cults of forest, grove, tree, stream, lake, or well spring worship were practiced when proto-Slavs survived by hunting, fishing, and gathering. They recognised forest and water bodies as holy beings that provided them with food and water. At that time there were 'holly groves', or 'sacred lands', large forest areas that were the scene of events described in ominous legends. Those lands were possessed by evil spirits, vampires, witches, and assorted other monsters.

'Holy groves' enjoyed certain advantages because humans were forbidden to make use of them. In Old Russian, the verb *povedati* (to disclose) meant 'to tell', whereas the related verb with the prefix 'za-', like in *zapovedat*, had the meaning 'to tell something to be executed in the future' as well as 'to prohibit' or 'to restrict'. This was the antecedent of many recent terms, such as *zapovednik* – 'nature reserve' and *zakaznik* – 'game reserve', these are all forest areas were hunting, timber harvesting, and similar activities are restricted or prohibited.

> A rich and, indeed, the only source of mythological imagination is the living human word, with its metaphorical and concordant expressions. To show how necessarily and naturally myths and legends are created, one should turn to the history of language (Afanasyev 1865, v.1, 5).

When Christianity was established in *Russ*, the name of Russia in Medieval times, such restrictions on forest use were formalised with great ceremony, including displays of icons and holy relics, public prayers, as well as ecclesiastic injunctions forbidding entrance into the these forests, to cut trees, and to hunt or pursue similar activities. Protection of trees and woodlands was especially necessary in the forests that separated Russ from the steppe lands to the south and west. These forests served to protect the southern border of the country from invasions. A defensive barrier made from felled trees served until the time of Peter the Great (Teplyakov et al. 1998).

Slavs of Russ regarded very old trees with a special trepidation, believing that satyrs and nymphs lived in their thick crowns. The growth cycles of a tree, its fast development in springtime, and its withering in the autumn, convinced Slavs that trees were conscious creatures, with the ability to feel pain, to cry, and even to take revenge. Cutting trees for house building was considered to hasten the deaths of the builders. This is why builders tried to placate the spirits by offering sacrifices of children, captives, and animals. With the introduction of Christianity, the practice of sacrifice was not prohibited, but the new religion asked builders to restrict sacrifice only to animals.

Among all the Eastern Slavs, the cutting of aspen (*Populus tremula* L.) trees was prohibited for house building because they were considered to have holy significance and to possess special powers. Similar restrictions on cutting spruce (*Picea* spp.) trees for building were also applied. The power of the aspen comes from the leaves that speak when trembling in the wind and thus can drive away evil spirits. According to superstition, if aspen leaves tremble without wind this is very powerful in warding off witches and sorcerers (Zabylin 1880). Because of its powers aspen was believed to prevent illness and insure fertility. These beliefs have for the most part been forgotten, but there is presently a tradition of building wells and saunas from aspen wood. From another view the aspen could be known as a damned tree, since Judas, who had betrayed Jesus Christ, hanged himself upon an aspen tree, according to legend.

Russian peasants also believed that if anyone cut down a lime (*Tilia* spp.) tree, that person would inevitably loose his way in the forest. Byelorussians did not allow the cutting of apple (*Malus* spp.) and peach (*Prunus persica* (L.) Batsch) trees since they offered protection from lightening. Rowan (*Sorbus aucuparia* L.) trees are believed to be able to take revenge. If a rowan tree were broken or cut down by a person, then the person would die or there would be a death in his or her house. A rowan tree could also bring happiness to a home, since a person with bad intentions could never enter a house that was under the protection of a rowan tree. According to legends from the Vologda region, in pine (*Pinus* spp.) and spruce forests there occasionally grew 'impetuous' trees that if used in construction might cause the destruction of the building and the death of its owners. Only wizards could recognise such trees (Astakhova 1979).

Cracked trees or logs were thought not appropriate for building houses, because the result would be that the inhabitants of the house would cough without reason. It was also believed that if one log used in the construction of a well was from a tree damaged by a storm, that log could cause the collapse of the entire structure. A type of modern

proverbs revolving around the soundness of logs probably arose from such superstitions as:

> 'There is too much evil present, if there is a hollow log in a house wall,' or
>
> 'Evil will come, if resin seeps from a log on the outside of a building.'

The quality of logs used in construction is critical to the soundness of wooden buildings of interlocked timber design, because in many cases the failure of a single log can cause the collapse of the structure. Thus, such superstitions were based in fact, and probably helped prevent Russian carpenters from using defective materials.

Many trees and bushes had reputations for miraculous powers. Hazelnut (*Corylus avellana* L.) sticks were used to find water. Magicians used rods made from willow (*Salix* spp.) to find hidden treasures, and recommend that one carry a small willow branch fixed to their clothing to prevent madness. Even now one of the best general remedies for many minor ills is an extract delivered originally from willow bark – acetylsalicylic acid (also known by the brand name Aspirin). Some of the common names of many forest plants contain a warning that reflects their cultural history, such as wolf's berries (*Parish quadrifolia* L.) or owl's poison (*Datura stramonium* L.). New and rediscovered properties of forest plants are becoming increasingly important to modern medicine, and legends and superstitions have aided their modern application.

The pantheon of naturalistic gods or idols of medieval Russ reflect its peoples complete dependence on natural forces. Some forces helped them in their activities, while others impeded them. As an inhabitant of the endless forests, the ancient Slavs recognised that the fantasy creatures they believed lived in forests, swamps, and streams and coexisted with the people not so much as their enemies, but as patrons. They viewed themselves as participants in the life of these gods. This animistic belief system included natural forces and phenomena (sun, fire), inanimate components of the natural world (streams, rocks), living components of the natural world (forests, animals), and human artefacts (axes, bowls).

Among the fables, listed by the Russian folklorist, Aleksandr Afanasyev, are many tales linked with forests and wood, such as the wooden mortar of Baba-Yaga (a fantasy creature, like a witch), a magical woodcutter's axe, a flying wooden boat, and others. A flying boat can be compared with the flying carpets that feature in the myths of treeless Central Asia.

Also for comparison when a hero from forested lands displayed his power, he lifted a large oak (*Quercus* spp.) out of the soil complete with its roots, while an oriental hero moved a mountain. Another interesting comparison that Afanasyev observed was that in myths, a satyr in the forest is usually as tall as a great oak or pine, but in an open field or plain it is only as tall as the grass (Afanasyev 1868, v.2, 330).

Paganism in Russia passed through four distinct phases before Christianity replaced it. In the first phase, Slavs brought their sacrifices to vampires and *beregyny*, evil and kind spirits. In the second phase, they made their sacrifices to Rod and Rozhanitsy, gods of fertility (*rod* means family line, and *rozhanitsy* derives from *rodit*, to give birth to). In the third phase, they adopted a pantheon of gods including Perun, Khors, Mokosh, and Vily. Even after the initial coming of Christianity, in the fourth period, most of the Russian population still respected many of the former gods, both the more recent Perun, who was a dominant figure in the community of gods, and the older Rod and Rozhanitsy, who both first appeared during the Stone Age (Rybakov 1981).

Rod, a god of fertility to the ancient Russian Slavs, later acquired 'subordinates' – Yarilo and Ivan Kupala. Yarilo was a god embodying spring, the awakening of nature after a winter dream. Kupala was a god of summer fertility. His day, on the summer solstice, is still celebrated on or around June 24. On Kupala's Eve (Mid-Summer or St. John's Eve), people made bonfires on hills and rolled blazing wooden wheels down the hillsides. Turning wheels of fire were a symbol of the summer solstice.

The theme of these ceremonies and celebrations did not change even after the year 980 A.D., when Grand Duke Vladimir I 'the Great' Svyetoslavitch of Kiev and Novgorod established a cult of new gods. According to the Russian Chronicles, *Polnoye Sobraniye Russkikh Letopise* (1962, v.2, 67), that year Vladimir raised gods on the top of the hill and out in the courtyard: there was an idol of Perun, made of wood with a silver and golden moustache, as well as idols of Khors, Daj'bog, Stribog, Simargl, and Mokosh. Also mentioned in these chronicles were other gods, such as Veles, Svarog, Rod, and Rozhanitsy.

Eastern Slavs regarded Perun as the lord of thunder and lightning. The oak was his holy tree. The Slavs believed, that Perun, 'god–thunder–maker', was able to transform himself into birds – an eagle, a hawk, or a falcon. Gradually, with greater influence from Christianity, people forgot the pagan gods, remembering only obscurely their personification of natural phenomena and forces, and as symbols of the everyday needs of life (Zabylin 1880, 256).

A flame is a symbol of the home and family happiness in many cultures. In medieval technology, fire was almost exclusively a property of wood, a common and easily manipulated flammable material. Most Slavs respected fire and believed that fire could drive away the evil forces of darkness, gloom, and cold. It was forbidden to spit or throw garbage into fire, or to trample it, because fire could take cruel revenge. A person making fire should do so in complete silence, and without looking over his or her shoulder. For ancient Slavs, the flame was a divinity living in a home's hearth, and the religion of fire required offerings and constant tending (Afanasyev 1865, 1868, 299). A house that did not have a fire in its hearth was assumed lost. People believed in the curative and purifying properties of fire. According to Eastern Slavic legend, fire could drive away the demons of illness. It was very common to jump over the fire (for example at the summer solstice celebration), or drape clothing in the smoke. In spite of the fact that Slavs knew how to make chimneys, they preferred to heat their houses from a central hearth beneath a hole in the ceiling, truly believing in the purifying properties of fire and smoke.

In forested regions the most terrible environmental disaster is fire, be it natural or not. Their fear of forest fire and unknown phenomena in their environment led the Slavs to worship them. Their gods of fire were prominent in their community of pagan gods. Needing to protect life and property the ancient Slav appealed to a diversity of gods, myths, and superstitions. That is why a cult of fire, in several forms, existed in many parts of Russia, from the European region to the Urals and Siberia. Remnants of this cult can be seen in the form of folk tales, as well as familiar riddles, superstitions, legends, songs, sayings, and proverbs relating to culture, trade, and their architecture of wood, many were symbolised in marks and signs displayed on houses and home utensils, and which still may be incorporated into modern designs.

Among the ancient Slavs, a wooden wheel with either four, six, or eight spokes was a symbol of the power of fire and of the sun. The Russian historian, Boris Rybakov considered the sign with six spokes to be the most common, linking not only the sun and fire, but the sky, lightning, and thunder. In Russian architecture, this circle is known as the 'thunder sign'. The Polyane, a Slavic tribe, used this sign as early as the 4th century. In Northern Russian woodcarvings, the 'thunder sign' often appeared with six curved spokes indicating rotation. This particular shape of the 'thunder sign' was thought to protect a house from ball-form lightning.

The entrance to a shop at Spasopeskovsky, a side-street near Arbat Street in Moscow, October 2004. Photo: Victor K. Teplyakov.

In the past, as a symbol of the sun, the 'thunder sign' became very common on spinning wheels, buckets, dishes, jewellery, and other ornaments for attire. It also featured in cult celebrations. Eastern Slavs made the holy bonfires several times a year to celebrate New Year's Eve, Cheesefare Sunday, Georgi the Conqueror's (Yuri) Day, Walpurgis Night, and Ivan Kupala's Eve.

The early Christians assimilated the 'thunder sign' to symbolise the name of Jesus Christ. The letters X and P (the first two letters of the Greek word for Christ) were combined into a monogram within the circle, and thus a wheel with six spokes was created, with the addition of a semi-circle for the letter 'P' (Rybakov 1981). Another explanation for a six-radial 'thunder sign,' a wheel with six spokes, might be derivation from the Old Russian writing of the name of Jesus Christ – Иисус Христос, thus combining the two letters: I and X.

Between 500 and 700 A.D. in South-western Russia, an established form of farming developed in connection with the use of a plough; while in the rest of the vast territory there was only slash-and-burn cultivation. The slash-and-burn system was usually applied to land covered by oak and birch trees, which was more common in the boreal forest zone. The character of slash-and-burn farming is obvious from its name. First, most trees were cut down and loosely piled and left until dry and flammable. Then they were burned. The ashes from the trees fertilised the soil, but the effect was short. In 2–5 years, the soil had lost most of its nutrients, and then the people would move to another woodland site

A closure-up of the thunder sign near Arbat Street in Moscow, October 2004. Photo: Victor K. Teplyakov.

to repeat the arduous cycle of land preparation and tillage. Abandoned agricultural land supported young growth and a dense thicket of forest often developed. There is a special word in most Slavic languages – *pushcha* – for this kind of land, which is still recognisable in some geographical names, such as Byelovezhskaya Pushcha, which is located along the border of Poland and Byelorussia.

> A word arises from something of concern in a group of peoples' way of thinking: a concept that was signified by a word was certainly encountered in daily life; ideas that did not have a place in daily life had no words to describe them. For a historian, any word is a piece of evidence, a commemoration, a fact of peoples' lives, and the more significant in daily life the word is, the more significant is the idea represented. Supplementing each other, the word and the concept together represent a system of people's ideas; they give a true tale about the life of people (Sreznevsky 1887, 104).

The effect of the slash-and-burn agricultural system on lives of people is reflected in the old Russian calendar, and language as well as other

Slavic languages such as Byelorussian, Polish, Ukrainian, and Czech. For example, according to an old Slavic calendar, the month now known as January according to the Gregorian calendar was called *Sechen* (in modern Ukrainian, *Sichen* means 'wood cutter'), indicating the proper time to cut forest. What is now March was called *Berezozol* and is derived from two Russian words *bereza* for 'birch' and *zola* for 'ashes', because soil under birch (*Betula* spp.) forests was more productive for agriculture than soils associated with the evergreen forest that dominates the Russian Plane. *Berezozol* means a time to burn winterkilled trees for their soil enriching ashes (in modern Ukrainian, *Berezen*, in modern Czech, *Brezec*).

The calendar followed the changes of seasons. Months had different names in different parts of the country. In the Russian North, what is now known as March according to the Gregorian calendar was called *Sukhiy*, from Russian *sukhoy* – 'dried', indicating that slashed trees were still drying. Spring comes later in the North, and therefore what is now April was *Berezozol*. The month now known as July, was the month when lime (*Tilia* spp.) trees bloomed and was therefore called *Lipets*, from the Russian *lipa* – 'lime tree', (in modern Ukainian, *Lipen*), and the month when heather (*Calluna vulgaris* L.) bloomed, now called September, was then called *Veresen*, from *veresk* – 'heather', which was very common in the forests and on the forest-steppe. The names of the other months of the old Russian calendar were also derived from a 'nature vocabulary', However, in 1700, Peter the Great replaced the old calendar with a new one, the Julian calendar; this was later changed to the present Georgian calendar in 1918.

Early Slavic farmers were sensitive to their natural environment and very attentive to the cycle of the seasons. Their observations of the variations in the seasons and signs that predicted them were combined with whatever calendar was in use at the time to create a natural calendar of predictions. It was said with regard to the Georgian calendar's April,

> 'If the birch has leaves earlier than the alder (*Alnus* spp.), then the coming summer season will be dry; and if vice versa, then the summer season will be wet.'

Other predictions and precepts included:

> 'When the alder trees are blooming, that is the right time to sow buckwheat.'

> 'Do not sow wheat before the oak leaves appear.'

> 'Rowan blooming in May means there will be a long autumn season.'
>
> 'If the birch and oak trees have not shed their leaves by the end of October, then the coming winter will be hard.'

Similarly, large crops of acorns could predict severe winters, and so on and so forth in this manner.

These examples show that observing nature could provide an advantage for planning work in the countryside. Seeds might be sown at a different time to avoid frost or more firewood might be collected for a coming severe winter. Some of these predictions do not "work" in reference to the modern environment probably due in part to pollution and climate change, but they reflect the way people think based on their experiences and needs (Teplyakov 1992).

In medieval Russ, the tree and the forest were the basis of life. For the ancient Slav, the forest was both a friend and an enemy. As a friend, the forests gave materials for shelter and food. As an adversary, the forests required a great deal of energy to clear away and restrain so as to maintain land for farming or pasture. There was also the threat that forest fires could quickly destroy buildings and property, which had taken years to raise, trade for, or construct. For the ancient Slav the forest was not only a source of raw materials, but also a very significant part of his daily life, his understanding of the universe. Many sayings and superstitions have also been derived from different daily activities, such as farming, house building, and fire making, each of which depended on the diverse resources and benefits from the forests. The forests offered a variety of raw materials and products and gave the Slavs an opportunity to develop exchange and trade with neighbouring peoples. From many points of view, the Russian forest moulded the Russian character and culture.

This extensive excurse through Russian history was made to show the basis of Russian forest ethics and in a broader scope – how the Russian mentality has developed over time. The combination of vast forest areas and industrial developments over about twenty centuries has created and enrooted a philosophy – rather a myth – about the endless forest resources of Russia. This is why, Professor Grigory Kozhevnikov of Moscow State University, an early 20th Century authority on Russian environmental conservation, poignantly pointed out that the words 'nature conservation' seemed very strange to Russian ears. In comparison to Western Europe, Russia had tremendous areas of wilderness; why should it be preserved? In Russia, conservation was initially discussed

only as an option to facilitate another use – for example forest was preserved for later harvest and game was preserved to produce a better trophy (Kozhevnikov 1928).

A code of forest ethics

Initially caring for the natural environment was expressed mostly as a form of restriction, a characteristic of paganism or those ancient religions that personified natural phenomena. For example, in the Russian North plants and animals are traditionally recognised as different kinds of peoples, and moral inter-social norms are applied to them. A kind of fear was the basis for ethical relations being directed to these plant and animal peoples, rather than a recognised responsibility for nature. The source of this fear is rooted in the belief that animals are connected with higher powers or spirit-owners, like the hazel-grouse for a spirit of sky and the bear as the master of the taiga.

These beliefs are still held by many persons throughout the world (Boreiko et al. 1998, Oglethorpe 2002). In contrast, many poets, writers, philosophers, travellers, and other outstanding persons came to understand the forest as a holy creature, a place of inspiration or relaxation, even a cultural essence. Many generations of Russians enjoyed reading poems, novels, short stories, and other books by Alexander Pushkin, Yury Lermontov, Alexander Fet, Feodor Tyutchev, Vitaly Bianki, and many other outstanding artists, composers, geographers, conservationists, and the like. Similar stories, poems, and other forms of art have helped communicate the nature based experiences of other outstanding authors and artists from other regions of the world as well.

The Environment and Society are the fundamental systems that compose reality. About seven to ten major environmental components can be identified (sun, air, water, earth, plants, animals) and also as many social-economical dimensions or sectors of an economy (industry, medicine, agriculture, recreation, mining, energy). The forest sector can be viewed as overlapping both of these systems since it is based on forest functions like: protection, transformation, regulation, and purification. In the modern world, humankind has obtained the enormous power to do with the environment almost whatever it wants, and with this power has come a responsibility for the environment as well as a critical need to harmonise this relationship. Environmental/forest ethics is a key to approaching and solving this problem.

A code of forest ethics is for the public. Such a code should not be difficult to understand. It aims to indirectly teach thoughtful and careful

behaviour and appeals for the public to do things that are good for the forest. It asks people to love the forest. In this case, the forest code of the United Kingdom's Forestry Commission (2002) is a very simple and responsive example:

> "You should also take care at all times in the woodlands and follow the forest code:
>
> Guard against all risk of fire.
> Protect trees, plants and wildlife.
> Leave things as you find them, take nothing away.
> Keep dogs under control.
> Avoid damaging buildings, fences, hedges, walls and signs.
> Leave no litter."

A professional code of forest ethics differs from a code of forest ethics, due to the notion that 'professional' means in this context a 'forester'. Foresters are responsible for the future, since in part they indirectly act as custodians for fresh air, clean water, fertile soil, the stability of the climate, recreational opportunities, and the many other goods and services the forest provides. For the best forest practices, a forestry professional's work should include a participatory component, repeated enhanced training, high standards for decision-making, and extension work.

Since the public in all countries want professional and competent forest management it is necessary to have a professional code of forest ethics. A true professional code has its foundation on three pillars – holism, professionalism, and honesty. To subscribe to and follow such a professional ethical code is a personal matter for a forester, since it is very difficult to enforce any punishment on violators; the forest itself cannot receive apologies or penalise unethical behaviour. Only the forester's own conscience and high moral principles apply. However, public opinion can also be a powerful instrument of inducement.

It appears that Hippocrates developed the first professional code of ethics. Later, other codes of ethics for associations, corporations, guilds, and groups appeared. When joining these groups like medical practitioner, military officer, merchant, teacher, or sailor; the inductee promised to follow certain rules and moral principles concerning personal behaviour and service. It is unfortunate that most of the good consequences initially resulting from these codes were lost over time, and the need for ethical codes was undermined. In the Soviet Union, some surrogates appeared one was in the form of the universal Moral

Code of the Builder of Communism, which was based upon religious morality, like the Judeo–Christian Ten Commandments, there was also a 'faculty oath' at medical universities that had replaced the Hippocratic Oath. It is still evident that real professionals have always followed their own ethical code whether it was written out or not (Teplyakov 1999b).

The Forest Code for the Russian Federation regulates authorities, foresters, forest guards, forest users, and others; but there is no mention specifically of 'ethics' (Forest Code… 1997). This is not unexpected when considering that there was an absence of a true forest policy in Russia during the Soviet Period. There is however a special award, Honoured Forester of the Russian Federation, which is declared by a presidential edict and promotes moral actions in forestry. This award has a high symbolic value for the forest profession (Teplyakov 1999a).

An example of a code of forest ethics that has existed since 1948 comes from the United States. The present version proclaims that:

> "…members of the Society of American Foresters have a deep and enduring love for the land, and are inspired by the profession's historic traditions, such as Gifford Pinchot's utilitarianism and Aldo Leopold's ecological conscience…
>
> The purpose of this Code of Ethics is to protect and serve society by inspiring, guiding, and governing members in the conduct of their professional lives. Compliance with the code demonstrates members' respect for the land and their commitment to the long-term management of ecosystems, and ensures just and honorable professional and human relationships, mutual confidence and respect, and competent service to society" (SAF Code of Ethics 2002).

The Foresters Act from the Canadian Province of British Columbia includes the description that:

> "…the council may make bylaws to do the following: (a) regulating the practice of professional forestry, including establishing (i) standards of practice and codes of ethics and conduct for members…" (Foresters Act 2002).

To have ethics always brings choice, sometimes between bad and worse. Are foresters ready to make these choices? There are a variety of circumstances that can influence foresters to follow or not follow a professional ethical code. Everyone experiences a conflict over the

different options and the perceived results of the choices. There may be some difficult decisions or choices to make, for example between what is right according to a professional code and the responsibility to a family when the professional's salary is grossly insufficient to feed the family or when thieves endanger the family's lives. There is the option of leaving the profession, but in rural areas with little alternative employment this can place the individual and family in a more desperate situation. This is why corruption in some places is very robust, even if the authorities and lawmakers try to improve the situation with stronger regulations.

True foresters should not abuse the public's trust of the forest to them. They should take only that which the forest can spare, efficiently process timber, and replenish what was taken. This is so simple, that it seems common sense, and that is why some think that it is not the solution and end to a very problematic situation. Politicians often act as though only a big conference or summit can solve a problem; this is partially true, because these meetings are often necessary to motivate, greatly needed political action and decisions. It is however the everyday practice and explanation of these decisions over a period of time that is much more difficult.

For example, the as yet to be fulfilled Forest Principles declared at the 1992 Earth Summit in Rio de Janeiro as 'a first global consensus on forests' state that:

> "…countries also decide to keep them under assessment for their adequacy with regard to further international cooperation on forest issues… Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural, and spiritual needs of present and future generations" (Earth Summit 1994, 291–292).

It is a very difficult task to unite different cultures from the North and the South, as well as from the West and the East. In this case it may not be correct to rely on trade relations and other interactions that are the result of a long history of contact between some cultures that have existed for thousands of years, such as the many indigenous communities of the world. There is also discord due to the on going international debate, which is lead by many non-governmental organisations (NGOs) working in the environmental and forestry sectors, over the aims, forms, and instruments of environmental/forest conservation. One and only one, simple example from an extensive collection of conflicts is the question of whether or not to take money from oil and gas companies to

compensate any environmental damage that results from the products they produce.

The forest sector is not Shangri-la or the Land of Cockaigne where "there is no heat or cold, water or fire, wind or rain, snow or lightening … Rather, there is eternally fine, clear weather" (Pleij 2001, 180). The sector has become a national and international battle zone between supporters of economic growth and environmentalists, but is there really a need for this struggle? If there are no global moral principles that constitute a code of forest ethics, then to check individual behaviour a personal internal code should be followed. In the words of the famous American adventurer and writer Earnest Hemingway (1932, 4) "…what is moral is what you feel good after and what is immoral is what you feel bad after."

Strongly underlining this from an indigenous person's point of view:

> "We feel the Earth as if we are within our mother… To heal ourselves we must heal the Planet and to heal the Planet, we must heal ourselves… Our territories and forests are to use more than an economic resource. For us they are life itself and have an integral and spiritual value for our communities. They are fundamental to our social, cultural, spiritual, economic and political survival as distinct peoples" (Dankelman 2002, 44).

Sociology strongly supports these observations. For example, each nation, nationality, or group of people has its own social norms. These norms carry out functions in relation to the way the people interact within the group: as standards of behaviour (requirements, rules, codes …) or as an appropriate responsive behaviour (reaction to another's behaviour). Social norms are guards of human values.

All norms could be classified by the severity of punishment for failing to follow them. Classification of social norms by strictness of punishment is as follows:

(1) habits,
(2) customs,
(3) traditions,
(4) morals,
(5) laws, and
(6) taboos.

The higher the number applied to the norm, the more severe the punishment for defying it (Kravchenko 1999). Where on this scale would a code of forest ethics be placed? To better understand this question, some other relevant issues should be investigated.

Ecological humanism and nature conservation

Modern civilisation lives in confrontation with nature. The result is illness, disaster, and cataclysm. For most of modern society to have the feeling of being an integral part of nature or to return to a harmony with nature will be very difficult. It would take not just five or ten years, but two or three generations might be required to enlighten people through education and everyday contact with nature before most would understand that their environment is an extremely complicated system. In the first quarter of the 20th century, the prominent scientist Vladimir Vernadsky said that on the Earth, humankind and its environment, both animate and inanimate, is in nearly holistic unity, a 'biosphere', and exists under a common natural law (Vernadsky 1989). When humankind no longer had a real understanding of this natural law, this led to the ugly development of modern civilisation, and a shift towards the wrong living practices. Kindness as a principle is not 'one among many…', but the most important practice among all the others that help humankind to survive. Presently, the greatest needs of all are for knowledge about humankind as a complicated composite organism, about the environment as an even more complicated system, and about the relationship between humans and the biosphere on a spiritually aware, not a perfunctory level.

> Nature can create what people cannot: mountains, rivers, forests, and steppes; as well as new species of wildlife and plants. Though people build houses, construct machinery, create statues, and write treatises, nature cannot do this, but nature is infinite (Gumilev 1990, 18).

This is true since over time humankind has extensively explored and dramatically changed the environment, but people have for the most part remained unchanged.

The early 20th Century philosopher Nikolai Berdyaev discussed a type of retribution for humanistic self-affirmation. His assumption was that humans were in self-opposition to everything in the environment,

although they should be in harmony with it. Berdyaev wrote that the humanism that resulted from the European Renaissance period was too individualistic. The new humanism should transcend individuality and lead to valuing existence (being). He believed that European humanism was going to die giving birth to a global humanism (Berdyaev 1991). According to this view, when considering that Western civilisation produced modern technology for timber harvesting and processing, as well as forest management and conservation, then it could also create new forest ethics through global humanism. This could be true if it were not also true that this civilisation has decimated vast forestlands, destroyed many unique cultures, and killed millions of people. In fairness to Western civilisations, examples of both good and bad could also be cited from Eastern civilisations.

Forest ethics is part of environmental humanism. If environmental crisis are to be overcome, a common basis for ethical behaviour should be found. This is because environmental humanism is a modern form of humanism that is concerned also with the development of social equity; the peace movement; the green movement; the animal rights movement; charity; and conservation of biological, cultural, and human diversity.

At the beginning of the last Century, Moscow University Professor, Grigory Kozhevnikov stressed that there are questions that are often very important, which do not directly capture vital concerns and constantly command attention. One of them is the *right of primal nature to exist.* Perhaps, such phrasing as 'right to exist' sounds rather strange when directed to the abstract idea of primal nature, but Kozhevnikov thought that only in this way could this question be raised. Does the natural world have the right of existence in conjunction with the victorious procession of human culture? Before now it was not possible to ask this question. The farther humankind mentally progresses into the depth of time, the clearer the picture of the full rights and power of a pristine environment. There was a time when humans made timid and unsuccessful steps amongst the full, flourishing, and chaotic power of a primordial environment. As cultural activity has increased, humankind has energetically set to the exploitation of nature (Kozhevnikov 1908, 18).

When a discussion about 'old-growth' forests took place in Russia, some foresters (Teplyakov et al. 1999) argued for the introduction of this term into the Russian language, while others like Vladimir Boreiko (2000) concentrated on the most significant values of primal forests. Boreiko pointed out that conservationists still do not include

the existence value of ancient forests among conservation values. He stated that such forests have an inherent right to exist, in addition to their inner value as wildlife communities, regardless of the benefits they give to people; they are valuable themselves. This is a moral category that exists independently from human consciousness like mathematical laws. Boreiko further stated that primal forests are not for the comfort of people; they are not a resource. They have their own distinctive values and true dignity. He described that for ethical reasons forest legislation needs to be extended to the protection of ancient forests. Just because pristine forest is available and can be conquered is not a good reason to triumph over it; this view is at best a narrow economic one that reduces the forest to only a quantity of wood while disregarding the spiritual, cultural, aesthetic, recreational, scientific, as well as most other views. Is it good business to lose a 'Wonderland' and, perhaps, part of ones own soul? Boreiko believes that wilderness protection belongs primarily to the spiritual rather than the material sphere, and by using different approaches such as the liberal, religious, and ethical; the arguments for nature conservation could be dramatically drawn from the narrow view of economic, ecological, and scientific reasoning. Environmental protection is an expression of love for nature, and this feeling brings forth such reactions as caring, responsibility, interest, pity, compassion, admiration, and concern (Boreiko 2000, 2001).

The last point of philosophical dilemma to be mentioned here is whether to cut or not to cut trees. Some disciplines, such as forestry, can support both sides of this point. The basic hypothesis or question – what is forest or how many trees comprise a forest (cf. Lund 2002)? How does clear-cutting figure into this question? On clear-cuts there is no forest by definition; so, should forest ethics formally recognise this as destruction of the environment. From another point of view, when clear-cutting is combined with the planting of new trees or the use of seed-trees as well as other harvesting techniques, there should be a new forest in the clear-cut area soon. Taking into account that selective harvesting is viewed as a more environmentally friendly technique, forest ethics could promote selective harvesting instead of clear-cutting. More examples could also be cited.

In their paper, presented to the Panel for Global Forest Ethics in Johannesburg, Professors Heinonen, Pelkonen, and Saastamoinen (2004) examined the term 'interconnectedness' and asked at first glance very common questions:

> "... do we see the true nature and scale of how significantly each action impacts on another? Do we perceive human life in its entirety in a holistic way? Can we understand how seemingly concrete areas, such as economics, can be greatly influenced by, for example spirituality?"

Upon deeper reflection, these questions seem enormously crucial. Their essence lies in the field of human values and its relation to environmental attitude, as well as the cultural and spiritual understanding of why humankind is here on planet Earth. The follow up questions ask how forest ethics could be applied in this modern world of catastrophes and crises, and how traditional cultural knowledge and modern education (technically advanced) systems could be used to change this situation. Modern world affairs should be relevant to what is going on now as well as what might happen in the future.

A new attitude to the environment is influencing legislation. In these new forms of environmental legislation a healthy environment is considered a human right, and is owed to the environment. Another key component is transparency in the form of complete information about environmental conditions, as well as public participation in environmental impact assessments (EIAs), in addition to special laws consolidating other human rights and the rights of animals; but for most of humankind these are yet to be realised. The famous Russian author, Leo Tolstoy, explained it as self-control (non-violence) through truth. If a truth common to all mankind is not known, then violence must not be used until that truth is found. Applying this to nature, it could be said that since the absolute truth is not yet known, then violence must not be applied to nature.

In many countries of the modern technocratic world, people commonly request knowledge about forests to reduce their estrangement from nature; they would like to understand and to follow the unwritten natural laws. The opportunity that these circumstances provide for the introduction of a code of general forest ethics should not be ignored. A major achievement would be the formulation of forest ethics principles.

First, there is the consideration of a forest's response to any human action. Secondly, the forest's carrying capacity and function should be taken into account.

Third, action should be taken with a holistic view that considers a forest's place in the whole environment, not just works to prevent the destruction of components, like food chains or nutrient cycles.

This could help lead the process of a spiritual renaissance for modern people, by increasing their kindness to living creatures and helping them develop a sense of the delight and joy of a spiritually rich life. Some medical doctors have stated that people can sustain physical and mental health only to the extent that they can sustain contact with a specific reality close to the conditions of their evolution (Shatalova 1998).

Conclusion

Sacred forests, trees, and other indigenous traditional beliefs have created a common basis for forest ethics and a code for forest use. This is especially true in historically forested regions where the people's way of thinking was formed mainly by these beliefs. After the creation of many environmental problems humankind has come to the conclusion that its survival is possible only by living in harmony with nature, namely forests, rivers, mountains, wildlife – the creations of god.

An ethical attitude to forests lies at the intersection of Western and Eastern traditions. The solution of many ecological issues could be found by the West providing more assistance in using some of its scientific and technological achievements; the Orient furthering the spirit of love, kindness, and humanism; and Russia providing its traditional perseverance and gift of self-sacrifice. A synthesis of Western and Oriental humanism could tailor moral maxims from the East and new creations from the West.

As proclaimed at the conclusion of the international school seminar, Ecological Ethics in the 21st Century (Tribune – 7) held in the Ukrainian city of Kiev during May of 2001 (*Gumanitarny…* 2001) there is an urgent need for the creation of a network of specialists in environmental ethics. In addition, more exploration of the relationship between the modern nature conservation movement and forest ethics must be done, as well as attempts made to combine efforts in these matters. To harmonise efforts across nations there is a need to develop a code of global forest ethics based on ethnic memory, indigenous knowledge, global human values, and morality as well as on common sense, kindness, and justice.

To conclude there is a need:

- For a global forest ethics network.
- To understand better the philosophy of what is a forest – not a forest.
- For further formulation of the principles of forest ethics based on environmental humanism.
- For research into the worlds different cultural and ethnological roots of forest ethics.
- To bring the codes of forest ethics from different countries together.
- To apply forest ethics in our everyday lives.

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INDONESIAN FORESTRY AT GLANCE

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Introduction

In Indonesia, during the past government administration (1965–1997), harvesting timber from the tropical rain forest was a strategy aimed at improving the national economy. Natural forest was offered to forestry enterprises for utilisation in the form of concessions. Until 1990 the establishment of wood-processing industries was encouraged. These industries then needed a substantial volume of logs to operate efficiently. Unfortunately the available forest resources could not sustain this level of demand. Therefore the new government has started to regulate the industrial capacity by reducing the annual allowable cut – the maximum amount of timber that is officially approved to be harvested from the country's forests. The result has been increasing incidence of illegal logging. The government has now directed its efforts to save the remaining natural forests.

Government

During the period 1965–1997 the Indonesian government was intensely centralised. Parliament did not operate effectively, because of significant influence over it by the executive branch, which then dominated the government. Because the central executive was very powerful nearly every decision had to come from the capital, Jakarta. This practice also applied to the administration of the forestry sector. Consequently the administration did not operate effectively.

In 1997, the government was changed by a "People Power" movement initiated by university students. The result was a great desire for an overall administrative reform, aimed especially at the eradication of corruption, collusion, and nepotism. In this new era there was a general feeling of freedom, although there was still a good deal of chaos and difficulty involved in defining an issue. In the forestry sector 'the needs of people' was not a new concept, since in 1978, the 8th World Forestry

Congress was organised in Jakarta with a central theme of Forest for People. However, at that time and since, there have also been many difficulties due to the often conflicting interpretations and definitions of how this concept should be applied.

In the year 2000, there was a great shift from the centralised government to a decentralised one. Consequently, the mayors of cities and district heads were given greater power over the management of their regions. Since the decentralisation included much of the control of the forested areas within the regions, the forests became economically important assets for the local governments. To illustrate this economic power it should be noted that in 1998, when power was still concentrated in Jakarta, the Indonesian forestry sector contributed US$ 7.5 billion to the Gross Domestic Product (GDP) (Purnama 2002). Unfortunately the current principles and applications of sustainable forest management at the local level are unfamiliar to the regional decision makers.

Wood industry

During different time periods Indonesia has had policies supporting the establishment of wood-processing industries like sawmills (1970–1980), plywood mills (1980–1990), and particleboard and fibreboard mills (1990–). The result has been a substantial production capacity based on the processing of timber (Table 1) and therefore a huge demand for wood.

Table 1. Production capacity of wood-based industries in Indonesia (Purnama 2002).

Industry	Annual Capacity (million m^3)	Number of Mills
Sawmill	11.0	1 618
Plywood	9.4	107
Matches	6.5	8
Blockboard	2.0	78
Wood chips	1.9	7
Pencil slats	0.1	7
Total	**30.9 m^3**	**1 825**
Pulp	4 tons	6

A comparison of the production of sawn timber and plywood during the period 1990–2000 to the production figures thereafter reveals a large reduction in the output (Table 2). It is evident that the wood-processing industry has been pressured to reduce its production capacity. Due to the government's active participation in the implementation of international environmental agreements it has therefore constrained the supply of wood available for processing by sanctioning new drastically lower annual allowable cuts from natural forests. Non-governmental organisations (NGOs) have also provided pressure by publicly protesting and working against logging activities in natural forests. The industry is trying to counteract the decrease in the supply of logs with increased resource productivity.

Table 2. Average annual production of sawn timber, plywood, and pulp in Indonesia for the period 1990–2000 and the years 2001 and 2002 (Ministry of Forestry 2003ab).

Type of Production	Period 1990–2000 (million m^3)	Year 2001 (million m^3)	Year 2002 (million m^3)
Sawn timber	2.8	0.9	0.4
Plywood	8.1	2.1	1.2
Total	**10.9 m^3**	**3.0 m^3**	**1.6 m^3**
Pulp	n.a	0.7 tons	0.7 tons

The government has also encouraged the industry to acquire eco-label certification; specifically eco-label certification from the International Organization for Standardization (ISO), which would include the designations ISO 9000 for forest products, and ISO 14000 for environmentally friendly processing. This certification would facilitate trade in markets sensitive to environmental issues.

Timber supply

Timber harvesting from natural rain forests is done mainly in the regions of Sumatra, Kalimantan, Sulawesi, Maluku, and Irian Jaya; which are located on outlying islands from the capital, Jakarta, on the Island of Java. In these areas logging is principally done by private companies that

have been granted a forest concession right, *Hak Pengusahaan Hutan* (HPH). On Java, the forest area is mostly composed of plantations dominated by teak (*Tectona grandis* L. f.), pine (*Pinus merkusii* Jungh. & de Vriese), mahogany (*Swietenia macrophylla* King), and other valuable timber species. The plantations are managed by Perum Perhutani, a government enterprise.

In January 2001, a total of 359 concessions were active, compared to January 2003 when there were only 270 concessions active (Purnama 2002). The abandonment of concessions has affected the regulation and evaluation of how the terms of the individual concessions will be implemented, especially relating to sustainable forest management. Many of the areas with lapsed concessions are degraded with very low standing stocks, and only a few valuable trees remaining.

Before the year 1997, the annual volume of logs harvested reached 25 million m^3. Since then the Ministry of Forestry (MOF) has steadily reduced the maximum amount of timber that is officially planned to be harvested from the country's forests. In 2000 the annual allowable cut was set at only 13.8 million m^3, and by 2003 the sanctioned harvest had been reduced to only 6.9 million m^3 (Purnama 2002, Ministry of Forestry 2003ab). These actions indicate the commitment of the Ministry to save the remaining natural forests (Purnama 2003). However, there is still a huge unsatisfied demand for logs both from domestic and international wood processing industries. Unfortunately, this situation provides a great opportunity for illegal logging.

To curb illegal logging, the government implemented the following policies and actions by the end of 2001:

- A Presidential Instruction (No. 5/2001) ordering firmer action against illegal logging in Gunung Leuser National Park and Tanjung Putting National Park.

- A joint ministerial decree by the Minister of Forestry and the Minister of Industry and Trade for a temporary log export ban.

- Cooperation agreements between the Ministry of Forestry, the Police, and the Armed Forces to control the smuggling of logs by land and sea.

- A ministerial decree by the Minister of Forestry issuing a moratorium on the cutting and trading of ramin (Gonystylus spp.), endangered tree species.

- A decree by the Minister of Forestry concerning the Ijin Pemanfaatan Kayu (IPK), a timber utilisation license.

The results of these actions were 1031 cases of illegal logging recorded with 1277 people involved and the seizure of about 318 000 m^3 of timber as well as more than 125 000 logs and other raw materials. The equipment confiscated in association with these illegal logging cases included 39 cutting tools, 6 pieces of heavy equipment, 72 ships, 201 trucks, and 45 motorcycles (Purnama 2002).

To alleviate the large discrepancy between the raw material demand of the wood-processing industry and a sustainable timber supply, the government has established the Industrial Plantation Forest (IPF) programme. By December 2002 a total of 108 IPF units comprising 5.3 million ha had been issued by the government, however, only 115 000 ha had actually been established. The Ministry of Forestry is now making substantial efforts to accelerate the development of plantation forests (Purnama 2002).

The forests on the Island of Java are managed by Perum Perhutani. This enterprise controls 2.4 million ha of land, which includes 1.9 million ha of production forests. In 2002, the enterprise produced from the plantations 670 000 m^3 of teak and 818 000 m^3 of other timber (Purnama, 2002). Perum Perhutani is also responsible for the production of non-wood forest products such as resins, cayaput oil, silk, rattan, bamboo, and honey as well as the production of coffee and coconuts.

Involvement of local people

Due to the low allowable cut issued by the Ministry of Forestry, new agreements for traditional concession activities in natural forests are very limited. In 2002, the emphasis was turned to the needs of the rural people living near forest areas. A new people-oriented programme involved a total of 34 058 households (Purnama 2002). The activities were mostly technical assistance for agro-forestry, social forestry, erosion prevention, and marketing. Social forestry aims to increase the welfare of people living in and around the forest, to make the use of forest resources sustainable, and also to aid the country's internal food security.

Non-governmental organisations

Since 1997, NGOs have significantly increased their activities and scope, and they now cover all aspects of the forestry sector. NGOs now work to examine the appropriateness and effectiveness of government policy as well as industrial action.

On the national level NGOs have critically assessed and publicised the policy of the central government, including the Ministry of Forestry and other ministries associated with the forest. Some NGOs, like the Indonesian Environmental Forum (*Wahana Lingkungan Hidup Indonesia*, WALHI), Telapak Indonesia, the Indonesian Institute for Environment and Forest Management (*Rimbawan Muda Indonesia*, RMI), and the Forest Watch Indonesia (FWI) are also actively observing the implementation and actual effects of forestry sector policies. Some more locally oriented NGOs focus only on issues within their home districts and regions. These organisations are concerned mostly with the policies of local government, but also those policies of the central government that affect their home area. Due to the regional and national level NGOs' efforts the government is now more environmentally sensitive than ever.

Policy priorities

During the period 2002–2004 the Ministry of Forestry has been developing the following high priority programs focusing on:

- reducing illegal logging,
- prevention of forest fires,
- restructuring the forestry sector with emphasis on decentralisation
- conservation and rehabilitation of forest resources (Purnama 2002).

To meet the great challenge of creating a common perception of sustainable forest management, there is on going cooperation between the Ministry of Forestry, the local governments, and the communities. A

common understanding and approach would not only aid the solution of forestry related problems in the country, but also increase the competitiveness of Indonesian forest products in global markets.

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FORESTS ARE NO EXCEPTION

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While the practical aspects of sustainable development are debated in international conferences such as the high profile World Summit on Sustainable Development in Johannesburg, a more theoretical discourse on the philosophy and world view that entails sustainable or unsustainable practices is underway in academia and intellectual circles. Many have the firm conviction that the driving force behind today's global order is accelerating unsustainable trends. As a consequence, the world is veering sharply in the wrong direction.

There is growing concern that ironically, the globalisation process has led to improved communications yet it also increases the possibility of confrontation of civilizations. The apparent contradiction undermines hopes for peace and global stability. This trend has had serious implications for humanity and for the unique ecosystems of the world, the cradle of our earthly life.

Ethics is a common denominator for achieving genuine dialogue, peace, and hence sustainable development. Since these principles are rooted in human instinct they constitute in principle a springboard for dialogue and understanding. Ethics determines the direction of the natural flow of life whereas lust and greed flow counter-wise and need to be properly harnessed through education and thus controlled.

The worldview and motivation supporting each policy and action has an inherent effect on the outcome and result. Specific inspiration determines the worth of our actions. Religion can judge deeds and behavior on the basis of a known value system. In this context, an action may be right or wrong based on its intrinsic impetus or value irrespective of its outcome.

A specific era of contemporary social and political life has been defined by the idea that a secular approach to world affairs should imply a value neutral and non-judgmental methodology based solely on scientific findings and human knowledge. Modernism and postmodernism posited advancement as a self-contained value and therefore anything related to the concept of modernity, any entity that was amenable to change in the process of transformation in scientific theory or political

development and changes or new fashion and lifestyles, anything young and new was attractive and hence good. This approach effectively marginalised and isolated the ethical dimension in political and social discourse.

Man took pride in his conquest of and advances in science and technology and became too readily convinced that this preeminence would ensure his well-being and salvation without resort to anything else. Whether the universal applicability of this concept would fulfill the needs and aspirations of future human generations has been continually contested and questioned. The question whether technology alone can rescue the earth from disintegration is ceaselessly engaging enlightened minds and hearts.

Unsustainable trends

The new millennium brought with it fresh expectations for peace, justice, and sustainable development but also revived questions on unfulfilled commitments, broken promises, and escalating tensions and imbalances in the social, political, and economic arenas. International gatherings and institutions clearly oppose and challenge unilateralism. Yet the imposition of a particular seemingly unrivaled power has meant that in the spheres related to weaponry, entrepreneurship, science, and culture, the American trademark claims the final word.

Rooted in materialistic and ambitious motivations, the current world order functions to enhance unsustainable patterns, insecurity, injustices, and poverty for the majority and incubate violence and hatred among human societies.

The world's biodiversity is no exception to this trend. The alarming rates of biodiversity loss and destruction due to over exploitation, over grazing, over fishing, excessive logging, unrestricted trade, and smuggling are all manifestations of the insatiable greed and unrestricted excess haunting humanity today.

The fact that exploitation of natural resources, particularly the most precious forms like the natural forests have been based upon market demand and not natural capacity and ecological considerations points to the ethical crises that we currently suffer from today. Human demand and greed are qualities stretching to infinitude. In the absence of a clear ethical framework it seems improbable that guidelines, laws, bills, protocols, and conventions would make any difference or change the startling trends which are accelerating in pace and dimension.

In response to increasing and unsustainable trends at the global level, the President of the Islamic Republic of Iran proposed a policy of Dialogue Among Civilizations as opposed to Huntington's prediction of an imminent clash. The international community overwhelmingly welcomed the idea and the succession of subsequent international events in 2001 and afterwards inspired new hopes for understanding and peace in the world.

One of the major topics of dialogue was dedicated to environmental issues and the protection of global ecosystems. The essential role of dialogue, reviving the ethical approach, and integrating the spiritual element in dealing with environmental issues was highlighted in international fora during the UN designated Year of Dialogue Among Civilizations in 2001 and thereafter. Given the grim prevailing international atmosphere, anticipation is high that this trend will continue among the supporters of dialogue and peace.

Defining ethics

When we address the question of how to manage world affairs and natural resources in a sustainable manner, allowing renewable resources to be replenished and for the next generation to enjoy their rights, the issue of environmental ethics surfaces. We can grasp the relevance of environmental ethics for protecting and preserving the world's pristine forests only in the context of the broader definition of ethics. Ethics are of course defined in differing and various terms. They have found a particular dynamic context in each religion, culture, and civilization throughout the ages, while certain universal traits are common to all ethical systems.

The ethical code that determines our behavior and practices is based on a set of infallible and absolute premises without which ethics would not be universally applicable and relevant. This means that in dealing with daily life the ethical individual refers to a set of principles and inner guidance as an integral aspect of making and taking decisions, thus the objective per se cannot be an excuse for the means. A value system defines what is right and what is wrong, the ethical individual employs his or her innate capacity to discern between the two and between what is best from among virtues and what is least harmful among them.

This infers that the ethical approach relies on a code of principles that cannot be compromised or traded at any price. The most evident instance of this is human rights or human dignity. Dignity is the apex of human nature. Ethics comes to the fore to defend this dignity

and prevent the subjugation of humans to degrading circumstances. Slavery in all its modern manifestations is the most common instance where human dignity is compromised. War, foreign domination, and occupation undermine this same human dignity and life, leaving practically no space for the protection of biodiversity and proper management of natural resources and forests.

Global media have sought to shape the mentality of the public in ways that serve the political and economic interests of a few corporate entities. Youth are lured into a culture of carefree and irresponsible behavior. Our media promote an obsession with looks, sculpted bodies and magnificent appearances. Righteousness and sincerity, the truth in its absolute sense is meaningless in today's cultural and political milieu. Lies are consciously promoted to cheat people and enchain their minds and hearts. The objective in all this is to strengthen the dominion of an absolutist and unilateral power that seeks to remain eternally supreme.

Deceptive and conflicting messages roam unrestricted in the information era. The people targeted by this are increasingly disoriented. Who should they follow? What should they believe? Who is sincere and who is the hypocrite of all times?

The ethical approach is closely interrelated with religious convictions, specifically belief in life after death and divine justice in the next world. Today's world of material glitz is characterised by intentional forgetfulness of death. The same death that is a stark reality and which no philosophical school has denied and no mortal has evaded.

Yet this reality is easily ignored by the defiant and arrogant humankind of our times. Remembrance of death is the essence of the ethical approach, for if we realise that life is limited and that we must answer for our behavior and actions, then we might think twice before transgressing human values and brutally harnessing nature to serve our selfish interests.

Responsible behavior will prevail in a society where individuals are held accountable for their actions both in this world and the hereafter. And closely held principles have always proven stronger than legal and regulatory approaches. As an inner driving force, ethics and belief in accountability in the hereafter are factors that insure responsible action of the citizenry.

The religious approach if properly applied can serve as an educative factor to improve social and individual conduct on issues such as consumption patters, biodiversity, and forest conservation policies.

There is also an essential difference between the ethical and material approach to consider in decision making. In the material view short-term profit is centered on the interests of shortsighted selfishness. This

insures personal pleasure and enjoyment irrespective of the plight of others.

The ethical methodology is imbued with love and altruism, the sense of considering others before oneself, the wisdom of not only giving that is extra but sacrificing what one loves and cherishes for the collective well being of the greater society. This is the outstanding forgotten intelligence, the missing link of our era.

Ethical discourse has been challenged by the classic attack of being a pretext for undermining or curtailing individual freedoms. Contrary to the contention that ethics constitutes a threat to freedom and human rights history illustrates these two concepts have been closely manipulated for political and globally ambitious objectives in the absence of this very ethical dimension.

God created humans free and given them the right and capacity to choose their beliefs and lifestyles. They are subsequently charged with undertaking personal responsibility for their actions and behavior. Hence, ethics is imbued with profound meaning in the context of civil rights and liberties. The free individual can decide and responsibly respond to inner, conscience driven convictions and that inherent sense of dignity and righteousness that every individual carries but most seem to deny.

The idolatry of bodies, looks, and pleasure has the final word in the culture propagated by capitalist media. There is no room for ethics, for proper consumption patterns, for environmentally friendly lifestyles in this atmosphere. In order to protect the natural resources, particularly the world's natural forests, the international community needs to overcome the ruthless drive for wealth and power ruling and overwhelming the world today. This compulsion has scant respect for human life and consequently nature has been heedlessly destroyed and oppressed by this worldview as witnessed in global statistics.

Today's ecological crises are deeply rooted in misconceptions and mismanagement. Leaders and governments have not met their commitments and failed in insuring the just access of poor countries to global resources. Poverty, oppression, racism, injustice, militarism, and foreign occupation have swept the world to the verge of explosion. International institutions have been weakened and never before has the light of democracy been diluted to such an extent at the national and international levels. Where are the enlightened souls who cannot tolerate such injustices and indignity?

The tree is sacred

The tree symbolises the connection between earth and sky in religious literature. This is exactly the connection that we have lost. Nature and the tree, if appreciated, play an irreplaceable role in making the spiritual connection. Humans have alienated themselves from nature in their heart and actions, and are burdened by an inner restlessness, severe degradation of the environment and nature as a result.

Increased soil degradation, depletion of freshwater resources, and an alarming upsurge in floods are only a few examples of the negative consequences of forest degradation and overexploitation. This inner restlessness and spiritual degradation has led to the ethical crises looming over human civilization in contemporary times. We need to reflect on the losses which humanity has endured as a result of the unethical and secular approach in world affairs.

The Holy *Qu'ran* refers to the virtuous tree that has its roots in the earth with its branches reaching for the sky as an example for a virtuous word or knowledge (Chapter *Abraham* verse 24). The tree provides numerous benefits and is considered a source of blessings (Chapters *Al Nor* verse 35 and *Al Quasas* verse 30). There are numerous references to life, nature, trees, and biodiversity that highlight the preciousness and interconnectedness of these creations.

Many consider the tree and forests only as simple symbols of nature. In a variety of cultures however we see that the tree is viewed as a complex myriad of miracles of nature. Mystics have endeavored to unravel its secrets to learn from this creature. The trees quench their thirst from unseen springs and waterways, as the spirit needs to quench its thirst in a manner invisible to ordinary eyes. It must also transform its hard and tough bark to very delicate and fine roots that absorb nutrients and water.

In Islamic discourse, particularly its literature and philosophy, there are numerous references to various forms of trees as symbols of life, resurrection, eternal life, dignity, justice, freedom, and benevolence. In fact all symbols of creation and eternity are to be found in the tree. Persian poetry and literature, both contemporary and in classic thought are profoundly influenced by the mystical references to the tree.

It seems that this spiritual connection between man and the tree is meant to channel his connections to the heavens and to ensure that amidst all the ignorance and forgetfulness the tree is here to remind us of our divine origins and of our human responsibilities. It upward growth is reminiscent of the sublime aspirations and spiritual uplifting that humans aspire to.

In this age, marked by a loss of direction the tree grows upward while its roots are firmly implanted in the earth and its branches benevolently bless the same with blossoms, fruits, and numerous benefits. These cycles have only recently been recognised as the services of biodiversity, services that are usually least appreciated by humans who ruthlessly invest in felling of natural forests which are the most precious and diverse natural assets of the world.

Close economic evaluation of forests clarifies that their function and worth for the global community are both more complex and valuable than previously thought. Their destruction and the disruption of these complex ecosystems inflict enormous loss both in the ecological and economic domains.

There is a narration from the Prophet of Islam, Hazrat Mohammad, that indicates the sacredness of the tree in this religion. According to this *hadith*, if you are alive, holding a sapling when the call for resurrection is heard inviting all souls to the Day of Judgment, then you should try to plant that sapling before moving on to respond to the summons. The *hadith* also indicates the worth and importance of life in all its forms. The stark reality is that when we uphold the worth, and right to life for all creatures, we would be able to appreciate human life and dignity and refrain from actions that could undermine that dignity under all circumstances.

Prospects and hopes

The ethical approach is also characterised by hope. In this perspective, truth will prevail in any case, falsehood and oppression will not be sustained and the future belongs to the righteous. It is an important factor in terms of keeping hope in the struggle against darkness, belief in the essence of light and that ultimately masses of people will overcome. This set of notions is instrumental in promoting the cause of justice, peace, and sustainable development in the world.

This is precisely why most religions speak of a savior that is awaited and that would come to bring coherence, hope, and dignity back to humanity in an age when it teeters at the verge of disintegration. This era will be characterised by a loss of direction and orientation in the cultural and social dimension and this generation will be searching for guidance more than ever before witnessed.

The lack of management and leadership in managing global affairs is evident, multilateralism is weakened natural resources and precious ecosystems are at stake. Today more than ever people feel insecure in all

parts of the world. There is a lack of confidence and people need to take faith in a strong leadership.

This is important for the ethical approach. It is essential to believe that ultimately the cause of justice, dignity and upholding the intrinsic value of life and nature will prevail. Muslims, like Christians and Jews and many followers of divine religion believe in the emergence of a savior who will take global affairs decisively in his hands and bring peace and security back to earth.

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FORESTS AND THE CRISIS OF DIPLOMACY IN A WORLD WITH NO ABROAD

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Connectivity

Devastated by its worst floods for decades, China banned logging in 1998. Unregulated felling in the Upper Yangtse had left the valley slopes denuded, and less able to soak up water running off into rivers swollen by heavy rains.

This policy has eased the pressure on China's forests. But it has done nothing to slake the thirst for timber of China's growing, urbanising economy. In Russia, Africa, Amazonia and Southeast Asia, the chainsaw is hard at work, satisfying China's need for building materials and furniture.

China's policy fuelled the civil war in Liberia. The warlords paid their militias from the proceeds of illegal logging. Much of the timber was destined for China. Other perverse consequences of China's self-restraint include fatter profits for the Russian mafia – heavily implicated in illegal logging in Siberia – and faster loss of forest habitat for the orang utan and other threatened species in Indonesia.

Nothing better illustrates the interconnectedness of human affairs today than the way in which forests and their products are bound up with the well being of the single global community to which we all now belong.

The unsustainable exploitation of the forest pours carbon dioxide into the atmosphere, contributing to global climate change. It changes climate locally as well, reducing rainfall downwind, sometimes turning fertile land to desert. It can not only exacerbate flooding but cause soil to erode on a catastrophic scale. In biodiverse tropical forests it squanders our genetic heritage before we have even begun to realise its full value. It even makes it harder to supply clean drinking water: healthy forest purifies the water running through it.

These consequences, in turn, have human costs. There is no greater threat than climate change to a stable world order. The local victims of forest loss are those whose livelihoods depend on the resources and

ecosystem services of the healthy forest. All too often those victims must choose between taking to the road as environmental refugees, or eking a living from slash and burn cultivation, further eroding the forest.

Sovereignty

The management of forests in a globally-connected world poses challenges of a wholly new order for foreign policy.

Forests are not traditionally the domain of diplomats. The primary aim of foreign policy is to provide the external conditions for security. But security for all nations in the twenty first century will depend on whether we can collectively achieve the transition to sustainable development. We will not do that unless we can quickly stabilise the role of forests in the global economy.

Diplomats need to ask how the tools and resources of foreign policy can contribute to this. How can they bring to bear their skills as negotiators and builders of international coalitions, their influence as agenda setters for international institutions and processes, and their ability to persuade governments to invest in those public goods deemed essential for security?

This brings a new and unfamiliar set of questions into the realm of diplomacy. Questions like:

> can we agree and implement a global system of carbon accounting that helps to stabilise the global climate while providing incentives to manage forests sustainably?
>
> can we put in place an international framework to monitor and act effectively against illegal logging, and trafficking in the timber it produces?
>
> can we align the deployment of funds targeted at lifting people as rapidly as possible from poverty with the need to maintain the healthy ecosystems necessary to keep delivering rising real incomes to a growing population?
>
> can we build international partnerships along the supply chain to stop revenues derived from the illegal exploitation of forest or other natural resources paying for conflict and oppression?
>
> can we adjust the rules of global trade to reflect the true costs of deforestation, and – in a system based fundamentally on

> discrimination – discriminate effectivley between forest products that are sustainably produced and those that are not?
>
> how can the benefits from the exploitation of forest resources be equitably shared between those who develop the commercial applications for those resources and build global markets for them, those on whose knowledge the applications depend, and those whose welfare is bound up with the forest?
>
> can groups of nations equitably manage forest, or forest-dependent, ecosystems that straddle their borders?
>
> can mutual shared interest in sustainable stewardship be turned into a stabilising factor in regions prone to conflict? and
>
> how should downstream nations be compensated for damage arising from mismanagement of forests upstream, for example through increased turbidity of rivers or higher risk of flooding?

Many of these questions challenge traditional notions of sovereignty. Governments of countries well-endowed with forest often take exception to being asked to take on international obligations to manage their forest in certain ways. That is why it has proved impossible to negotiate an international convention on forests despite the considerable diplomatic energy that has been invested in the attempt. But if the condition of my forest can affect your interests, how can I credibly claim that it is purely my internal affair?

These forest dilemmas are a window on the deeper crisis of diplomacy in a globalising world. It is no longer possible to deliver the outcomes we need – the outcomes necessary to achieve sustainable development – on the basis of the traditional separation between domestic and foreign policy, and between the sovereignty of one nation and another. If a country's coastline is inundated or its capacity to feed its people collapses as a result of someone else's energy use, that violates their sovereignty as much as an armed attack. If it is legitimate to invade a sovereign nation because it might otherwise become a threat to you in the future, it is legitimate also to call to account those who run their economies in such a way as to threaten climatic harm to others.

Interconnectedness has pitched us into a world where what happens to us is no longer the result of single decisions or actions taken by individual governments or nations. Instead we have to deal increasingly with events that are the emergent consequence of complex interlocking

chains of cause and effect, often reaching blindly across geographical and cultural boundaries.

In such a world the traditional zero sum concept of sovereignty is no longer relevant. Whether we choose to acknowledge it or not, the lines of real influence over events are as tangled as the world wide web. We will only respond effectively to the challenges that threaten us all – terrorism, ecological collapse, crime, disease – if we learn to manage that complexity together – that is, to share sovereignty in the common interest.

The stakes could not be higher. It is falling to this generation to choose between a global open society based on rules equitably agreed, and a fortress world in which gated communities of power and wealth look after their own. Only by building networks of mutuality that embody shared sovereignty can we make the right choice.

Responsibility

Sharing sovereignty is difficult. The European Union is the world's only sustained experiment at doing it. It is an example of what is possible in building shared solutions to shared problems while maintaining the diversity of cultures and nations. It is a model available on an open source basis for application in other settings.

But despite the relative success of the EU, and despite the plethora of multilateral institutions and processes that reach into so many areas of our lives, the effort to build an international framework based on shared sovereignty over the production and protection of global public goods is in crisis. The agenda has been clear for a generation. But on all the big issues of the global commons – climate, ecosystems including forests, freshwater, soil, oceans, fisheries – we are no closer to the outcomes we need. The Millennium Development Goals agreed only four years ago for human development look increasingly out of reach.

This suggests that we need to look deeper into ourselves if we want to organise our choices more effectively to achieve sustainable development. Because of globalisation, those choices affect more people than ever before, across ever-greater distances, sometimes breaching natural limits on the way. Some of those choices carry us across natural limits. And the damage we do to natural systems sooner or later undermines our ability to meet human needs.

So we must learn to take more responsibility for the consequences of our choices: not only the direct, visible consequences for our physical neighbours, but those operating over much greater distances of space and time. We need to globalise responsibility as well as opportunity.

Identity

What we are prepared to take responsibility for is in the end a matter of how we define ourselves in relation to the people and the world around us: our sense of identity. A lesson of history is that we are only willing to make ourselves strongly accountable to the group to which we feel we belong. The more we identify with that group – with our family, community, nation or culture – the more responsibility we are willing to take for its shared success, and for our actions in relation to that success. Those outside the group, those we regard as the 'other', do not qualify for the same level of concern, even if our actions harm them.

The difference now, at this special moment in history, is that there is no 'other' any more. We have connected our interests to such an extent that, whether we like it or not, we have become a single global community. The loss of the world's major forest ecosystems would be a disaster for everyone. If we do too much harm either to other people or to the environment we end up harming ourselves. In such a world, there is no longer any such place as abroad: we are all neighbours. When we look into the mirror in search of ourselves, six billion faces look back at us.

At present, we do not have the language to talk about ourselves or deal with our problems in a way that reflects this. Only if we can design that language based on a deeper sense of shared identity – of communion, to borrow a religious word – will we be able to build the institutions, frame the politics, and develop the cultural reflexes we need. That is as much a moral challenge as a practical one.

So a debate about forest ethics can tell us much more than how to manage the forest. It can help us forge a moral foundation strong enough to support the construction of a shared future in an interconnected world.

The anthropologist Elisabeth Vrba has surmised that over two million years ago a drying climate forced our ancestors from the forest onto the East African savannah. There they learned to walk upright, and began the journey that has led us to the threshold we now face: from a species at the mercy of events to one that must learn to design its own future.

The ethics of the forest are the ethics of shared destiny. They mirror the interconnectedness of the forest ecosystem itself. The world we have created is now just as interconnected. In a sense, the forest is once again all around us. The moment has come for us to return to its embrace.

AUTHORS

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