Alster Model United Nations

FORUM: United Nations Environment Assembly (UNEA)

QUESTION OF: Establishing guidelines for sustainable forestry and mediating the conflict between environmental and economic interests regarding deforestation

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POSITION: Main Chair

"Only when the last tree has died, and the last river been poisoned, and the last fish been caught, will we realize we cannot eat money."
Cree Indian Proverb

INTRODUCTION

Forests are essential to human life on this planet, absorbing carbon dioxide from the atmosphere and providing us with the oxygen we need to survive. Through storing the carbon dioxide, they absorb, including nearly two-fifths of our own fossil-fuel emissions, forests additionally help maintain the global climate. Not only carbon dioxide, forests also absorb and remove pollutants from the air. In the U.S. alone, urban trees are estimated to save 850 lives per year and hence $6.8 billion in total health care costs by removing pollutants from the air. Not only that, forests are a source of fuel, medicine, nutrition, clean water, and (what the layman may not directly consider,) shelter and income. Nearly 1.6 billion people (more than 25% of the global population) depend on resources from the forests for their livelihoods, with 1.2 billion of these people using trees as a means to generate food and income, with these ecosystem services valuing an estimated 33 trillion USD annually, twice the GDP of the USA. Around 300 million people worldwide live in forests worldwide, including an estimated 60 million indigenous people with almost full dependence on the forests for survival. Additionally, forests are cultural and spiritual touchstones for many. For example, the bark and stem of *Lannea kerstingii* are used for dyeing the funeral cloth kuntunkun in Ghana, or the‘oven’ tree *Didelotia africana* in Cameroon is considered sacred and is approached for help with difficult problems (e.g. broken marriages) by healers who are thought to be able to communicate with it.

One cannot forget that forests also provide a habitat for the wildlife, with an approximated 70% of terrestrial animals and plants calling forests their home. Biodiversity is especially rich in tropical rainforests, but forests around the world are home to many species playing important ecological roles: Insects and worms which work nutrients into soil, bees and birds which disseminate pollen and seeds, and keystone species such wolves and big which keep herbivore populations in check.

Despite all this, we lose 32 million acres of forest every year (equivalent to 60 acres per minute) to continuously increasing human consumption, a consumption which would require one and a

half Earths to regenerate at the current standpoint we are in. Between 1990 and 2015, we lost circa 318 million acres of forest, an area the size of South Africa. This consumption is in no way sustainable for the long run.

Up to this point in time, the only viable solution is the implementation of sustainable forestry. Sustainable forestry would allow current access to forest as a resource, while safeguarding the future of forest and access by future generations. This committee shall convene to establish guidelines around sustainable forestry as a compromise between the economic value and the ecological longevity of forests.

We would like to remind the delegates that this research report should be a starting and orientation point for your research but is in no way a complete report on the broad and complex issue. We therefore encourage delegates to conduct their own individualized research.

BACKGROUND INFORMATION

According to the FAO, 80% of world deforestation is caused by agriculture. According to the same report, 33% of agriculture-caused deforestation is a consequence of subsistence agriculture – such as local peasant agriculture in developing countries. Commercial or industrial agriculture (field crops and livestock) cause around 40% of forest loss – to provide space for growing food, fibers, or biofuel (e.g. soybeans, palm oil, beef, rice, maize, cotton and sugar cane). 14% of global deforestation is accredited to livestock. Large areas are needed to both raise livestock and grow its food (largely soy-based). 10% of deforestation can be attributed to new infrastructures, namely: transportation, transformation, and energy generation. 5% of deforestation is attributed to a populational shift, with more people migrating from rural to urban areas. By 2050, an expected 68% of the global population is to live in cities, which leads to exponential growth of housing and consumption sites, challenging the boundaries and spreading out, often leading to deforestation.

Examples of the largest deforestation cases in the world are that of the Amazon rainforest and the rainforests of Indonesia and Malaysia on the island of Kalimantan (Borneo). Since the 1960s, the Amazon forest, aptly named the “lungs” of the planet due to its capacity in carbon storage and oxygen production, has been under threat, and nearly 760 000 km2 (around 20% of its original size) of forest area was lost. Originally, before 1980, large industrial projects such as dams, roads, or mines were the main causes of deforestation in the Amazon region, together with subsistence farming (new infrastructures mentioned as a cause above). However, the current cause responsible for 70-80% of current deforestation in the Amazon is livestock farming, which increased due to the development of intensive livestock production, combined with meat consumption increases in developed countries. The rainforests of Kalimantan, also possessing one of the richest biodiversity reserves in the world alongside the Amazon, is also one of the heaviest deforestation cases in the world, with around 9 million hectares lost between 1990 and 2012, according to FAO. Also, according to FAO, the main cause of this deforestation case is the production of palm oil, with nearly 6 million hectares of palm oil plantations replacing Indonesian forests between 1990 and 2000.

As mentioned in the introduction, there are many aspects to consider when discussing the issue of (eliminating) deforestation and ensuring the future of forests as a globally essential multi-

layered resource and ecosystem. Stating the obvious, the most known ecological consequence of deforestation is its threat to biodiversity. As mentioned before, the forest is home to many rare and fragile species, from mammals to birds, insects, amphibians, or plants. Deforestation places entire ecosystems in danger, creates natural imbalances and puts complex, interconnected ecosystems of various intricate inter-dependencies at risk. In addition to that, deforestation weakens and degrades the soil, which not only becomes poorer on organic matter, but also more resistant to erosion, bad weather, and extreme weather events, due to the removal of tree roots fixing the ground and removal of tree cover which aids the soil in drying out slowly, leading to increasingly fragile soil more vulnerable to natural disasters such as landslides and floods. Costa Rica, for example, loses about 860 million tons of valuable topsoil every year, while the Great Red Island, Madagascar, loses so much soil to erosion (400 tons/ha) that its rivers run blood-red, staining the surrounding Indian Ocean.

Not only from an ecological perspective, but also an economic perspective, as mentioned earlier, forests also provide the livelihoods of nearly 1.6 billion people globally. This means there are many people depending on forests for survival and using them to hunt and gather raw products for their small-scale agriculture processes. However, in developing countries such as Indonesia or Mexico, deforestation disrupts local forest community lives, forcing them to abandon their land and migrate to another place (potentially urban areas, leading to yet another cause of deforestation mentioned above (population shift), as they lose the system that performed valuable but often under-appreciated services like ensuring the regular flow of clean water and protecting the community from flood and drought as it functions similar to a sponge, soaking up rainfall brought by tropical storms while anchoring soils and hence regulating destructive flood and drought cycles. There is not only the issue of forest and indigenous communities using forests for economic gain and causing deforestation, but the issue of how deforestation led by economic motives of larger corporations, governments and/or other entities is affecting how the forest functions as an economic resource for forest communities.

A solution one should focus on, and this Committee as UNEA as well, to bridge this gap between economic profit and saving forests from deforestation is sustainable forestry. The term “sustainable forestry” is defined by the concept of balance, not only that between the disturbances and regeneration of the forest, but also that in considering not only the environment and wildlife, but of forest communities and businesses. Through the conception and implementation of sustainable forestry, the longevity and health of a forest can be safeguarded parallel to businesses and communities profiting from production and sale of forest products. A concept currently applied to work towards the goal of sustainable forestry is sustainable forest management (SFM).

The definition which the Food and Agriculture Organization of the United Nations (FAO) used for SFM is the same one that was developed by the Ministerial Conference on the Protection of Forests in Europe: *The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems.* SFM revolves around managing forests in accordance with the principles of sustainable development, keeping a balance between ecological, economic, and sociocultural aspects involved. Upon successful SFM, not only would the biodiversity and the forest ecosystems be safeguarded and the effects

of climate change be mitigated (what the average person would directly consider as the main purpose and the desired outcome of forest management), but local livelihoods depending on the forest secured, rural poverty of populations in proximity to the forest alleviated.

There are many levels on how to practice sustainable forestry that delegates can explore and discuss. One example is community forestry. Why this example is specifically mentioned in the study guide can be explained by the original definition of community forestry by the Food and Agriculture Organization: *any situation which intimately involves local people in a forestry activity. It embraces a spectrum of situations ranging from woodlots in areas which are short of wood and other forest products for local needs, through the growing of trees at the farm level to provide cash crops and the processing of forest products at the household, artisan or small industry level to generate income, to the activities of forest dwelling communities*. Community forestry involved three main elements: providing "fuel and other goods essential to meeting basic needs at the rural household and community level", providing "food and the environmental stability necessary for continued food production" and generating "income and employment in the rural community", concerning itself with people dependent on forests. Community forestry was incepted to function on a participatory fashion directed towards the needs of the rural poor, to which many indigenous and forest communities belong.

We cannot stop neither the demand for wood, pulp, and other forest resources, which are extremely essential to daily life as it is or stop large and important businesses of such high economic value attempting to meet this demand. Furthermore, we cannot completely stop the demand nor the business of products for which forest area needs to be removed, such as the aforementioned palm oil business, and their contribution to national economy. We also cannot deny not only indigenous communities, but people living and working in forests their need of shelter and food or prevent those living in economic desperation, due to the glaring economic inequality of our time, from illegal logging and poaching, nor can we refuse local indigenous communities their right to practice their culture and spiritual belief.

DEFINITION OF KEY TERMS

Best management practices
management practices that maintain and improve the environmental values of forests, such as biodiversity.

Biodiversity (=biological diversity)
the variety of life found in a place on Earth or, often, the total variety of life on Earth. A common measure of this variety, called species richness, is the count of species in an area.

Certified forest
a forest that is part of a system promoting SFM (sustainable forest management) assessed by a third party.

Community forestry
forestry that engages local community, which embraces a wide spectrum of possible activities.

Conservation
protection, improvement, and wise use of natural resources for present and future generations.

Ecosystem
community of living organisms, their physical environment, and all their interrelationships.

Ecosystem services
products of ecosystems which could directly or indirectly benefit mankind and/or social welfare, e.g. the pollination of crops provided by bees contributes to food production.

Endangered species
a species which is vulnerable to extinction in part of or entirety of its habitat.

Even-aged management
management that is designed to harvest all trees at one time to produce closely-aged area of trees of similar, if not identical characteristics, to be managed as one unit.

Forest management
practice of applying scientific, economic, and social principles to managing a forest for accomplishing specific desired outcomes.

Forest management plans
written guidelines for forest management practices recommended to meet certain objectives in mind.

Habitat
area in which a specific species naturally live, grow, and reproduce.

High-grading
harvesting technique of only the biggest and most valuable trees

Intensive livestock production
livestock farming systems which do not produce their own animal feed, and purchase these from other farming systems.

Marginal land
a land that cannot consistently produce profitable crop due to infertility, drought, or other physical limitations.

Preservation
attempt to keep forests undisturbed by internal and external influences.

Reforestation
replanting a forest on an area where one has been removed.

Soil erosion

a soil degradation in which the topsoil, which is rich in organic matter, is displaced. This reduces the productivity of the crop and/or plants where it has occurred, and potentially also leads to pollution of nearby water bodies. Can be classified into 1) sheet erosion, where a very thin layer is displaced by slight surface runoff or wind, 2) rill erosion, which occurs in small channels that are only a few inches deep, or 3) gully erosion, which occurs in deep obvious channels.

Species
group of organisms that can potentially interbreed to produce fertile, viable offspring.

Sustainable forest management
the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems.

Sustained yield
management of forests with the goal of producing a relatively constant amount of product, such as wood products, revenue, or wildlife.

INVOLVEMENT OF THE UNITED NATIONS IN THE PAST

The United Nations has taken many actions to push towards sustainable forestry as an act in saving our forests for the future. The Earth Summit (The United Nations Conference on Environment and Development or UNCED) 1992 in Rio de Janeiro adopted “The Forest Principles”, a reflection of the understanding of SFM at that point in time. Ever since then, more criteria and indicators have been introduced to assess what SFM has achieved, on a global, regional, national and management unit level, to evaluate the extent on which the practice of SFM on the field has met its own objectives. In 2007, the United Nations General Assembly adopted the Non-Legally Binding Instrument on All Types of Forests, a novel instrument that reflected the strength of international commitment to promote implementation of SFM. The United Nations General Assembly further emphasizes the importance of forests on 2011 as the International Year of Forests to raise awareness on sustainable management, conservation, and sustainable development of all types of forests. The United Nations Conference on Sustainable Development (also named Rio+20) 2012 in Rio de Janeiro stress the importance of improving the livelihoods of people and communities by creating the conditions required to sustainably manage forests. It also recognizes the role of the UN Forum on Forests in addressing forest-related issues in a holistic and integrated manner, and in promoting international policy coordination and cooperation to achieve forest management. In 2014, FAO developed and launched the Sustainable Forest Management Toolbox, which is an online compilation of tools, best practices and examples of the application of sustainable forest management to support countries in its implementation. The importance of sustainable forestry is also again underlined through a specific Sustainable Development Goal. Sustainable Development Goal 15 aims to “protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”. Among others, these are the important milestones that the United Nations have reached in terms of actions towards sustainable forestry.

QUESTIONS DELEGATES SHOULD CONSIDER

Does your country practice sustainable forestry, and if so, to what extent is the practice implemented?

To what extent can the committee, under UNEA's mandate, influence and motivate member states to follow potentially established guidelines on deforestation?

How can the committee create new and improve existing economic incentives for people with financial reliance on forests to practice sustainable forest management?

In what way can the committee economically revalue products that resulted from processes involving deforestation and include this in the established guidelines of sustainable forestry?

How and in cooperation with whom can the committee work towards protecting the economic interests of not only governments and major corporations, but that of indigenous and small forest communities, as well as integrate this in the outcome guideline?

In what way and to what extent can more economically developed member states both directly and indirectly contribute towards the efforts on preventing deforestation in economically developing member states?

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RECOMMENDATION FOR FURTHER READING AND RESEARCH

http://www.cpfweb.org/en/

http://www.fao.org/forest-resources-assessment/en/

http://www.fao.org/state-of-forests/en/

http://www.fao.org/forestry/communication-toolkit/en/

https://www.un.org/esa/forests/documents/un-strategic-plan-for-

forests-2030/index.html

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