ASIAN HORIZONS

Vol. 9, No. 4, December 2015 Pages: 724-740

DEFORESTATION IN THE DEMOCRATIC REPUBLIC OF CONGO AND CLIMATE CHANGE: AN ETHICAL ANALYSIS IN LIGHT OF LAUDATO SÍ

Léocadie Lushombo*

Boston College

Abstract

Deforestation in the Democratic Republic of Congo (DRC) is not only a Congolese and central African issue, but is also a global problem. This paper argues that the destruction of tropical forests influences the planetary climate and presents the ways deforestation directly affects climate change in the world. It describes the historical, social, political, economic, and ecological causes of deforestation in the DRC and assesses the relevant power dynamics in the deforestation process. The paper then analyzes critical ethical issues of deforestation in light of Laudato Sí's insights and the principles of environmental ethics. Finally, this paper argues that any preferential option taken for the poor should not leave them behind; rather it must include them in the dialogue and implementation of new strategies to combat deforestation and climate change. The practice of community forestry is a valuable response to Pope Francis' call for an overall approach to deal with climate change. Ethical analysis in this paper uses the "Three-Stage Method" of James B. Martin-Schramm and Robert L. Stivers of "Cases Studies and Moral Deliberation."

^{*}Léocadie Lushombo is from the Democratic Republic of Congo. At present she is doing her PhD in Theological Ethics at Boston College, USA. She completed her Master in Theological Ethics at the Catholic Theological Union in Chicago and in Sustainable Development at the Universidad Pontificio Comillas in Madrid. She has worked as a Consultant-Trainer in Organizational Development and Institutional Management Reinforcement regarding issues of degradation of environment, gender, and political rights in the perspective of Governance, Gender, and affordable housing programs in the DRC, Cameroon, and Peru. Email: lushombo@bc.edu

Keywords: Climate Change, Community Forests/Forestry, Congo Basin, Deforestation, Differentiate Responsibilities, Global Warming, Greenhouse Gas

Introduction

One of the determining factors of global warming mentioned by Pope Francis in Laudato Sí (LS) is the deforestation in the Democratic Republic of Congo (DRC), particularly in the Northern and Southern provinces of Kivu. It is not only a Congolese-African issue but a global problem. The destruction of tropical forests negatively influences the planetary climate. As Pope Francis explains, tropical forests can help mitigate the problem of climate change. Instead, the increase in carbon dioxide emissions resulting from cutting down the trees is worsening global warming.¹ First, this paper presents the ways deforestation directly affects climate change in the world. It describes the problem of deforestation in the DRC; its social, political and economic causes, as well as the power dynamics in its process. Second, the paper analyzes critical ethical issues of deforestation in light of LS and on the basis of the principles of environmental ethics. The ethical analysis in this work will use the "Three-Stage Method" of James B. Martin-Schramm and Robert L. Stivers of "Cases Studies and Moral Deliberation."² Third, this paper will assess the practice of community forestry that is being used in the DRC to counter the effects of deforestation and climate change. I argue that community forestry is a viable response to Pope Francis' call for an overall approach to deal with climate change issues.

Finally, in line with LS, drawing from the community forestry approach and from the factors affecting deforestation in the Congo Basin, the paper makes a theological contribution reinforcing the importance of applying the principle of participation of local communities to the management of forests on the one hand and the preferential option for the poor on the other hand in fighting deforestation and global warming. Following Pope Francis' stance that in order to overcome climate change, poor countries need to combat poverty, corruption, and promote social development amongst their people (LS, 172), I argue that the effort of overcoming deforestation and its effects on global warming can be effective and efficient only if local communities are empowered and included in the management and protection of their forests.

¹Francis, *Laudato Sí*, http://w2.vatican.va/content/francesco/en/encyclicals/ documents/papa-francesco_20150524_enciclica-laudato-si.html

²James B. Martin-Schramm and Robert L. Stivers, *Christian Environmental Ethics: A Case Method Approach*, Maryknoll, NY: Orbis Books, 2003, 49.

The Problem of Deforestation in the Democratic Republic of Congo (DRC)

According to scientists, the DRC is considered to be a reservoir of biodiversity and a vital regulator of global warming since it accounts for 57% of the total area of the Congo Basin, the second largest forest in the world which is estimated at 200 million ha in size.³ Indeed, if the Congolese forests were to disappear, the Congolese people could surely die not only from ecological disaster but also from famine. To use Pope Francis' expressions, forests are a "common home" for Congolese people, they are "like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us" (LS, 1). The Congo Basin's forests reveal God's creation and are God's gift not only for Central Africa, but also for humanity. Pope Francis confirms this when he argues that "humanity is one people living in a common home... [and] certain places need greater protection because of their importance for the global ecosystem" (LS, 37-38, 155). But, let us look at what is happening to the common home Congo Basin's forests through deforestation in the DRC before developing any ethical analysis.

According to FACET's data (Forêts d'Afrique Centrale Evaluées par Télédétection), deforestation in the DRC has increased from an annual average of 350,000 ha in the period from 2000-2005 (half of this additional surface being at the same time affected by degradation) to 400,000 ha in the period 2005-2010.⁴ Indeed, I can remember, from my own living experience, many consequences of deforestation in the DRC such as multiple landslides and floods in which families often lose children and property. Deforestation in the Eastern DRC was worsened by the movements of refugees of the Rwandam genocide in 1994 who cut down large numbers of trees in this area.

The strategy of the United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) in the DRC mentioned that:

the DRC could lose 15M.ha of its forest cover by 2035 corresponding to the emission of 5.5 G.t CO2 in the atmosphere (based on a conservative assumption of 100t.C per hectare). The average of the annual

³Manueal Ruis Pérez et al., "Loggin in the Congo Basin. A Mult-Country Characterization of Timber Companies," *Forest Ecology and Management* 214 (2005) 223.

⁴Programme ONU-REDD and Forest Carbon Partnership Facility, "Stratégie-Cadre Nationale REDD+ de La République Démocratique Du Congo," Version 3, 2013, 21, https://www.forestcarbonpartnership.org/sites/fcp/files/2013/june2013/ strategie-cadre_nationale_redd_de_la_rdc_version_3.pdf., 22.

deforestation in this period could rise 0.41%, in moderate increase but frequent throughout the period, and the rate of forest cover of the DRC could fall below 60% of the national territory before $2035.^{5}$

This means that half of the Congolese forest will be damaged in 20 years if action is not taken; this situation is partly due to the lack of organization and accountability of the DRC's government.

Pope Francis acknowledges that forests shelter millions of species and are a means for subsistence for poor people. Indeed, in the DRC forests in addition to feeding people, they are a source of life; they maintain soil and protect all the land against erosion, those of the poor as well as the rich (LS, 25, 32, 41). Congolese forests are our relatives referring to St Francis' expressions such as brother Sun and sister Moon.⁶ Since we eat, drink and breathe from the forests, cutting them down constitutes a loss not only of food, but also of health, security, and life. Yet, as Pope Francis states, the Congolese Government's politics, freedom, and justice are overwhelmed by the power structures exploiting its natural resources (LS, 53). This will become evident as I review the factors that cause deforestation in DRC.

Deforestation in DRC: Ethical Analysis and Questions of Justice

Referencing Patriarch Bartholomew, Pope Francis includes deforestation among the sins against creation, ourselves, and God (LS, 8). Dr Dawn M. Nothwehr reinforces the Pope's stance arguing that, "beyond the abuse of God's creation, human-caused global warming and climate change has a human face; and these are moral matters of justice."⁷ Similarly, the church today has listed ecological abuses among the new forms of social sins. How do these considerations apply in the case of deforestation in the DRC? Martin-Schramm and Stivers suggest that the stages of analysis should consider several factors which influence the problem, such as personal factors, power dynamics, factual information, complicating factors, relationships, ethical issues, alternatives, and consequences.⁸ My analysis of the DRC's deforestation only refers to some of these factors.

Stage 1: Ethical Analysis of the Case

In the DRC, the provinces of Northern and Southern Kivu are among those most affected by deforestation and soil degradation.

⁵Programme ONU-REDD, "Stratégie-Cadre," 33-34.

⁶Dawn M. Nothwehr, *Ecological Footprints, An Essential Franciscan Guide for Faith and Sustainable Living*, Collegeville, Minnesota: Liturgical Press, 2012, 88.

⁷Dawn M. Nothwehr, *Ecological Footprints*, 159.

⁸Martin-Schramm and Robert L. Stivers, Christian Environmental Ethics, 49-55.

According to REDD+, this is partly due to the historical, ecological, social, economic, political, and institutional factors.⁹ In light of LS, this paper will only address the four last factors to assess this case.

Social and Economic Factors

The forests in the DRC supply the rural and urban population with food and timber. Nevertheless, as a citizen of the DRC, considering how many trucks continue to carry trees out of the forests' areas for exportation, I have always been concerned by the collective poverty of so many people living around the forests. As Pope Francis argues, the exportation of raw materials, the unbalanced use of natural resources by the industrialized world and the mining multinationals cause much harm to local people and nations in developing countries (LS, 51). Timber in the DRC is overpriced for the majority of the population who cannot afford wood products which are enjoyed by many other countries, whether industrialized or non-industrialized. Raffi Khatchadouian confirms this when he argues that, "wood can be chopped, sliced, and pulverized in countless ways, by any number of middlemen, and large quantities of stolen timber end up in the West as finished products."¹⁰ The extraversion of the wood trade not only harms people's livelihoods, but also the economy of the Basin Congo.

Even though significant progress in certification of forests in the Congo Basin has to be recognized for the shift from no certified forests in 1995 to about 4.8 million hectares of certified concessions in 2010,¹¹ several logging companies are still not respecting national and international certification standards, destroying agricultural systems, polluting water, and causing the disappearance of species like forest elephant, Grauer's Gorilla, and bonobo.¹² Most of the logging activities in the DRC are illegal and according to Lawson, "at least 87% of loggings in the DRC in 2011 were illegal."¹³ Also Johnson Nken et al. reference that, "illegal logging practices, for example, are on the rise... in tandem with increasing timber exports from the

⁹Programme ONU-REDD, "Stratégie-Cadre," 23-26.

¹⁰Raffi Khatchadourian, "The Stolen Forests. Inside the Covert War on Illegal Logging," in *Deviant Globalization: Black Market Economy in the 21st Century*, ed. Nils Gilman, Jesse Goldhammer and Steve Weber, New York: Continuum, 2011, 189.

¹¹Robert Nasi, Alain Billand and Nathalie Vanviliet, "Managing for Timber and Biodiversity in the Congo Basin," *Forest Ecology and Management* 268 (2012) 107.

¹²Janet Nackoney et al., "Impacts of Civil Conflict on Primary Forest Habitat in Northern Democratic Republic of Congo, 1990-2010," *Biological Conservation* 170 (2014) 321.

¹³Sam Lawson, "Illegal Logging in the Democratic Republic of Congo," 21.

region to emerging markets in China."¹⁴ It is important to trace the link between mining markets, violence, and climate change in relation to the degradation of the forests.

There are several direct factors related to human activities which accelerate deforestation and degrade the Forest Canopy and which have negative effects upon the DRC's, the Central African, and the global environment. The first is slashing trees and burning the land as an agricultural method which ends up burning forests. The second is the need for artisanal wood. The third is the use of charcoal made by local people whether for domestic consumption or business in the informal sector. The fourth factor is mining and bushfires caused by army groups and rebels in war zones, but also by mining companies which are accounted among the greater responsible for the degradation of the forests of the Congo Basin.

The above factors echo what Pope Francis talks about when he argues against a model of development based on the intensive use of fossil fuels which is aggravating global warming (LS, 23). Furthermore, the DRC's case of deforestation is a typical example of how social sin plays into deforestation. The economic systems are controlled by the most powerful excluding the powerless from the benefit of the resources which belong to all, while stripping the Congolese forests of their biodiversity and increasing global warming. This exploitation is illustrated by the following analysis of the stakeholders and their interests in deforesting DRC.

Political and Institutional Aspects

Despite the existence of a long-term plan of forest sector reform in the DRC, corruption, lack of controls, fraud, impunity, and lack of transparency continue to characterize logging activities. Industrial logging causes the degradation of biodiversity and massive deforestation, which, following Pope Francis's thought result in the aridity of coral reefs and the decline of vegetation (LS, 41). Moreover, other consequences such as pollution of the Great Lakes region (Burundi, the DRC, Kenya, Rwanda, Tanzania, and Uganda), especially the great lake Kivu, are also major contributors to the problem. As long as these factors are not addressed with a Congolese sustainable plan which counts upon the participation of the local communities, the DRC will be contributing to global warming in increasing its greenhouse-gas emissions.

¹⁴Johnson Nkem et al., "Shaping Forest Safety Nets with Markets: Adaptation to Climate Change under Changing Roles of Tropical Forests in Congo Basin," *Environmental Science & Policy* 13, 6 (October 2010) 499 doi:10.1016/j.envsci.2010.06.004.

The Stratégie-Cadre Nationale REDD+ of the DRC identifies two underlying factors increasing deforestation in the DRC: the influx of refugees, particularly since the Rwandan genocide and the accelerated population growth. I argue that the movements of refugees and displaced people are relevant factors to be analyzed for their negative influence on the environment, but they were not sufficiently emphasized in LS. Yet, I agree with Pope Francis that governments should not blame population growth over other forms of consumerism. For example, the DRC is an under populated country, known for the phenomena of rural migration, and its dense forests are situated in rural areas. People migrate to urban areas looking for access to medical care, education, and employment. Based on these reasons, one cannot argue that population is a relevant cause of deforestation in the DRC.

Impact of Deforestation in the DRC on Global Climate Change

The Congo Basin is located in six countries of Central Africa: Cameroon, Central African Republic, the DRC, the Republic of Congo, Equatorial Guinea, and Gabon.¹⁵ Its carbon footprint is estimated at 200 million ha in size and 20-25 billion metric tons¹⁶ of carbon and is significant in regulating the greenhouse emissions. Millions of people in these countries depend on the forest for food, shelter, and other activities. How forests are managed has a real impact on the amount of CO2 emitted into the atmosphere and therefore on the greenhouse effect.¹⁷ Indeed, forests help to mitigate global warming; they should not be cut down without any strategy for replacing them (LS, 24, 39).

As the case of the DRC demonstrates, currently, scientists estimate that between one-third and one-half of the land surfaces of the globe have been transformed by human activities. Consequences in tropical forests affect the entire cycle of rainfall in the world. David Werth and Roni Avissar concluded that the effects of deforestation were no longer limited to the space in and around the regions but also in mid and high latitudes. As they put it,

Deforestation of Central Africa causes a decrease of precipitation of about 5%-15% in the Great Lakes region [in the US], mostly centered in Illinois with a peak decrease of about 35% in February. It also affects Ukraine and

¹⁶H. Carolyn Peach Brown et al., "Climate Change and Forest Communities: Prospects for Building Institutional Adaptive Capacity in the Congo Basin Forests," *AMBIO* 43, 6 (October 2014) 759-760, doi:10.1007/s13280-014-0493-z.

¹⁷Brown et al., "Climate Change and Forest Communities," 6.

¹⁵Nasi, Billand and Vanviliet, "Managing for Timber and Biodiversity...," 103.

Russia (north of the Black Sea)... The impact of the deforestation of Southeast Asia is mostly felt in China and the Balkan Peninsula, with a decrease of 20%-25% in Western Turkey during a large part of the year.¹⁸

It should be noted that these changes occur especially during certain seasons and that if deforestation reduces the amount of rainfall received in some places, it increases in others.¹⁹

The elimination of these tropical forests, Amazonia, Central Africa or South-West, would significantly increase the level of rain on the southern tip of the Arabian Peninsula. However, the combined effects of deforestation in these three regions result in a considerable loss in winter precipitation in California. Thus, the Amazon basin is a true system of redistribution for climate around the world. Indeed, the tropics receive two-thirds of the total rainfall on Earth. However, when it rains, the water goes from the gaseous state to the liquid state to evaporate again, and these processes accumulate or release heat that makes the tropics the primary source of heat for redistribution on the Earth.²⁰

As Pope Francis brilliantly puts it, "we are not disconnected from the rest of creatures, but joined in a splendid universal communion" (LS, 220). Therefore, it is more than urgent to recognize the bonds that link us together in our common home and demand the participation of all to fight against deforestation in the Congo Basin and the Amazon; this equals to a fight against global warming. The world with its entire ecosystem is truly our common home. In order to protect our common home, it is interesting to look at the "power dynamics" of many stakeholders in the process of deforestation in the DRC and what their key interests are.

Power Dynamics in the Process of Deforestation in the DRC

The first stakeholder who should play the role of regulator for the protection of the environment at national level is the government. While some efforts of the DRC's government to improve the management of the forests through the REDD+ program have to be recognized; most of the time the government's regulation is only juridical without any control and demand for accountability from the part of all other stakeholders. The second stakeholder is the group of

¹⁸Roni Avissar and David Werth, "Global Hydroclimatological Teleconnections Resulting from Tropical Deforestation," *Journal of Hydrometeorology* 6 (April 2005) 140-141.

¹⁹David Werth and Roni Avissar, "The Local and Global Effects of African Deforestation," *Geophysical Research Letters* 32, 12 (2005) 1-4, doi:10.1029/2005GL022969.

²⁰Avissar and Werth, "The Local and Global Effects of African Deforestation," 141.

logging semi-industrials and regional companies, logging international companies, mining, and dealers. As Pope Francis concludes, this second type monopolizes lands at the expense of the local populations forcing the poor to leave their lands without protection (LS, 25). The third type of stakeholder is composed of the indigenous people (the pygmees), the local communities, the local farmers, the artisans, and the local producers of wood. Forestry is the only means of survival for this group; their actions cause damage to nature by their traditional methods of agriculture and wood exploitation. Often, these groups are evicted from their territories, losing their livelihoods. They often do not have power to influence decision-making processes.

The fourth type of stakeholders is composed of international cooperation, institutions for protection of nature, local and international non-governmental organizations (NGO), and churches. They influence decision making but very slowly and unfortunately they can be co-opted by politicians. Yet, they strongly advocate for the protection of nature, the reduction of greenhouse-gas emission, and the rights of local communities. The latter are kept behind, often ignored by the mining and government. In line with Pope Francis's call, I am arguing that in order to fight climate change, local communities should be involved when it comes to negotiating consensus concerning the management of the lands and forests. They can offer relevant approaches to overcome the degradation of forests (LS, 183). Yet, Pope Francis does not sufficiently emphasize the negative consequences caused by the illegal trade of natural resources, mining and logging around the Congo Basin. To illustrate this, Khatchadourian refers to the way the UN's experts coined the conflict in the DRC in 2001 as "conflict timber"²¹ in order to describe in what manner logging interlaces with the conflict. Acknowledging the "conflict timber" phenomena is crucial for making decisions and sanctioning policies that minimize the effects of deforestation and climate change in the Congo Basin and the world. In the DRC, addressing climate change must take into account the fact that climate change issues are consequences of conflicts associated with land acquisition, business and mining practices.²²

The UN Security Council on the Illegal Exploitation of Natural Resources in the Democratic Republic of the Congo has revealed some forms of power which have a serious impact on the degradation

²¹Khatchadourian, "The Stolen Forests. Inside the Covert War on Illegal Logging," 188. ²²Alexander Dunlap and James Fairhead, "The Militarisation and Mrketisation of

²²Alexander Dunlap and James Fairhead, "The Militarisation and Mrketisation of Nature: An Alternative Lens to 'Climate-Conflict,'" *Geopolitics* 19, 4 (October 2, 2014) 938, doi:10.1080/14650045.2014.964864.

of natural resources in the DRC: those of warlords and governments sustaining them in the Great Lake Region. Pope Francis maintains that poor countries provide for industrialized countries at the cost of their economy. In addition, many regional governments cover the cost of wars through trading arms and through killings. Trading arms in mining does not only affect the economy of the region, but also affects humanity and global climate change.

According to the UN Security Council Report S/2012/843, Rwandan and Ugandan governments and armies, for example, are contributing to fund rebels' movements while using profits resulting from the trafficking of Congolese mineral for their countries.²³ The report states that, the "Rwandan exports of tantalum and tungsten have experienced a corresponding increase during 2012, while tin ore exports have decreased."²⁴ Such insecurity constitutes one of the main causes of the displacements of populations who cut down trees for their domestic needs and survival. Displaced people and refugees in the DRC's conflicts "are forced to rely more heavily on their natural surrounding for food and shelter."²⁵ They end up cutting down trees in order to survive. As the DRC's bishops reinforce,

The perpetrators establish a systematic treatment of terror, a strategy of forced displacement of populations to progressively occupy their lands, and the installation of religious fundamentalism outbreaks and terrorist training bases. All this happens in a context of an economic mafia and a military-political racketeering fueled by widespread looting of abundant natural resources: mining, forestry, animal, and oil.²⁶

These power dynamics around wars in mining or "wars of Coltan"²⁷ is one of the things that should be more emphasized in dealing with the degradation of the Congo Basin's biodiversity.

²³United Nations, "Letter Dated 12 November 2012 from the Chair of the Security Council Committee Established Pursuant to Resolution 1533 (2004) Concerning the Democratic Republic of the Congo...," Security Council (November 15, 2012) 4, 01/15/2013, http://www.un.org/sc/committees/1533/egroup.shtml.

²⁴United Nations, "Letter Dated 12 November 2012...," 40.

²⁵Nackoney et al., "Impacts of Civil Conflict on Primary Forest Habitat...," 321.

²⁶ASSEPB (Assemblée des Evêques de la Province Ecclesiastique de Bukavu), "Notre Cri Pour Le Respect Absolu de La Vie Humaine : Message Des évêques de La Province Ecclésiastique de Bukavu. Mon âme Est Rassasiée de Malheur ; et Ma Vie Est Au Bord de L'abîme (Ps 88, 4)," May 25, 2015, paragraph 8, http://www.cenco.cd/index.php?id_art=215.

²⁷Coltan, for example, is the ore used in cell phones, laptops, and other electronic devices. The so called "war of coltan" in the mineral-rich eastern DRC has left millions dead and more than a million women raped.

The mining and the regional governments are complicit, in addition to increasing the greenhouse-gas emissions; they enjoy economic powers and government support at national and regional level. As Alexander Dunlap & James Fairhead posit, addressing climate change needs "a holistic definition of conflict"²⁸ that must include all of the power dynamics of militarization and marketization in mining and logging business in the DRC. Pope Francis acknowledges that developing countries will feel the most the impact of climate change in coming decades (LS, 25). Yet, there is a need for more emphasis on the movements of displaced peoples and refugees due to excessive insecurity in war zones. Besides, we also need to consider the consequences of the degradation of nature as a result of these movements when it comes to differentiated responsibilities about global warming.

Primary Ethical Issue and Moral Problem on which to Focus

The appropriate strategy to resolve these ecological problems has to be a holistic one that considers the national and international levels and the responsibility of each nation and especially the developed nations who use most of the resources of the world. These nations are the worst polluters of the climate as said by the US Conference of Catholic Bishops (USCCB)²⁹ and as reaffirmed by Pope Francis. Indeed, responsibilities need to be identified and differentiated. More accountability rests on those who bear the greater power and who are responsible for the most emission of greenhouse-gas (LS, 176). Thus, Pope Francis calls on all the nations and mostly the greatest polluters to act for ensuring the common good. This does not mean that developing countries themselves do not have their own responsibilities in decreasing greenhouse-gas emissions as it is shown through the DRC's deforestation policies. As Pope Francis puts it, "on the national and local levels, much still needs to be done" (LS, 180). In the following section, I will focus on some alternatives to counter deforestation at a local level, particularly the community forestry approach.

Stage 2: Ethical Assessment — Regional and National Alternatives: Legal Framework and Community Forestry

Martin-Schramm and Stivers argue that the stage of assessment is concerned with moral deliberation. They suggest that, "each

²⁸Dunlap and Fairhead, "The Militarisation and Marketisation of Nature," 955.

²⁹United States Conference of Catholic Bishops, *Global Climate Change : A Plea for Dialogue, Prudence and the Common Good*, Washington, D.C: United States Conference of Catholic Bishops, 2001, 11.

alternative and its related consequences [be] assessed in light of relevant moral norms."³⁰ The latter suggestion aligns with Pope Francis's claim for differentiating responsibilities and his call on governments to practice good governance and implement policies at national and local levels (LS, 176). Following the latter call and claim, binding legal framework and community forestry are worthy of being mentioned as good practices for their potential for making all the stakeholders, including local communities and indigenous people participate in protecting the forests.

Since 2012, the DRC has established a legal framework called "Code Forestier" which should be acknowledged because it can help protect the ecosystem and counterbalance the power structures described in this paper. As Peter Cronkleton et al. put it, drawing from the cases of community forests in Bolivia, Guatemala, India, and the Philippines, "the granting of greater local control over forests through tenure reform has created more opportunities for community forestry and possibilities to improve local livelihoods."³¹ It is important to keep in mind that while Pope Francis recommends the establishment of a legal framework, he also acknowledges that laws may be well framed while remaining dead letter (LS, 53, 142). To illustrate the latter thought, article 109 of the DRC's "Code Forestier," ratified in 2002, recommends that only 30% of production of timber should be exported,³² and the remaining 70% must be processed into planks, beams, plywood, and so on. However, because of the DRC's successive wars related to the Rwandan Genocide and its continued conflicts between Tusti and Hutu, many factories were looted and destroyed resulting in 90% of timber sold as logs in illegal conditions. Although the legal framework is an important starting point, it does not ensure sustainability of forestry. Despite the efforts of the government to regulate the management of the forests in the DRC, its answers remain poor. Researchers estimate that 60% of the total exports of the logging sector in the Congo Basin is exported to European markets, followed by China. Until 2006, DRC's 64% of logs

³⁰Martin-Schramm and Stivers, Christian Environmental Ethics, 55.

³¹Peter Cronkleton et al., "The Devolution of Management Rights and the Co-Management of Community Forests," in *Forests for People: Community Rights and Forest Tenure Reform*, ed. Anne M. Larson, London; Washington: Earthscan, 2010, 43.

³²Assemblée Constituante et Législative-Parlement de Transition, *Loi Portant Code Forestier En République Démocratique Du Congo, Forestier*, vol. 011/2002, 2002, http://www.leganet.cd/Legislation/Droit%20economique/Code%20Forestier/rdcloiforets.pdf

and 89% of sawn wood were exported.³³ Community forestry is being proven as a more sustainable alternative worthy of consideration.

Community forest is conceived as a forest domain whose full rights for use are granted to a local community for a limited or unlimited period of time.³⁴ Local communities are authorized to operate but under ownership, supervision, and control of the governments.³⁵ Even though, using land through "Community forests" represented only nearly 50,000 ha according to article 18 of the DRC's forestry law,³⁶ Lawson stands for the importance of bringing this huge forestry industry under formal control and suggests that one way of bringing about such a control is the existing vision of the Community Forestry.³⁷ I am presenting the vision and practice of the Community Forestry in the DRC not only as a relevant answer to counter deforestation but also as a new way of making the option for the poor and with the poor.

Stage 3: Actions — Community Forests

Martin-Schramm and Stivers state that making a choice for particular actions among a set of alternatives is not an easy task, but some choices have to be made. They suggest the following criteria to consider an action: justification, viability, strategy, and reflection.³⁸ Opting for one action or another must be justified and sustainable; it is also critical that strategies for the success of the action plan may be put in place.

The vision and practices of Community Forestry constitute a relevant means to fight deforestation and consequently to fight climate change. Community Forests may have a positive impact against corruption in the forestry industry and may also contribute to the protection of the ecosystem as well as to reducing global warming. Despite the corruption that characterizes the political and economic system in the DRC, there are many factors to make Community Forestry a successful and influential strategy.

³³Driss Ezzine de Blas and Manuel Ruiz Pérez, "Prospects for Reduced Impact Logging in Central African Logging Concessions," *Forest Ecology and Management* 256 (2008) 1512.

 ³⁴Nasi, Billand, and Vanviliet, "Managing for Timber and Biodiversity...," 105.
 ³⁵Cronkleton et al., "The Devolution of Management Rights...," 43.

³⁶Mapon Matata Ponyo and Bavon Mputu Elima N'SA, Décret Fixant Les Modalités D'attribution Des Concessions Forestières Aux Communautés Locales, Décret, vol. 14/018, 2014, http://faolex.fao.org/docs/pdf/cng140362.pdf.

³⁷Lawson, "Illegal Logging in the Democratic Reublic of the Congo," 3.
³⁸Martin-Schramm and Stivers, *Christian Environmental Ethics*, 61.

The first action which can be taken to reduce deforestation in the efforts of reinforcing community forestry is making the forestry law binding and respected by all the stakeholders. The DRC's government possesses a legal framework attributing the management of local forests to local communities who live close to/from such forests; these are forests that local communities possessed already through their customs and relationships.

The DRC's decree number 14/018 attributing ownership and responsibility for controlling local forests to local communities defines a local community as a group who is traditionally organized on the basis of customs and who is united by clannish, ethnic, or parental solidarity. Such solidarity must be demonstrated as not only cultural, but also ethical foundation for the internal cohesion of the local community. A local community is also characterized by its attachment to a given territory/land which bears a given forest. According to the DRC's "Code Forestier," many requirements must be fulfilled by the community to be granted the legal ownership of the forest including the adhesion to the legal and ethical requirements for the management and protection of the forests. According to article 22 of the same code, any violation to these requirements can be pursued and punished.³⁹

Research held in DRC, RCA, and Cameroon indicates that interactions between state governmental institutions and local communities were performed through international NGO or civil society. However opportunities for local communities and especially for women to participate in decision making and research are very limited.⁴⁰ The weak involvement of local communities endangers any effort to mitigate climate change, and it is important that effective inclusion of local peoples be made. It is important to continue to build the capacities of local communities and indigenous people in understanding their right in the management of forests and allowing them to share their knowledge in mitigating deforestation and climate change.⁴¹

The legal attribution, in granting to the communities the legal ownership, recognizing them as first agents accountable for the forests is a relevant way of raising awareness of the local communities of the need of taking care of our common home which

³⁹Matata Ponyo and Mputu Elima N'SA, Décret Fixant Les Modalités...

⁴⁰Brown et al., "Climate Change and Forest Communities," 763.

⁴¹Brown et al., "Climate Change and Forest Communities," 766–767.

Pope Francis discusses. Organizing people who live in rural areas and who are involved in the use of the forests into "Community Forests" may help to encourage local groups to take the initiative and promote the best practices while avoiding the bad ones.

Furthermore, Community forestry allows excluded and marginalized groups of the society such as women and the pygmies to have a say in the management of the forests and protection of the environment. Several studies have demonstrated that women's voices are lacking in the management of the forests.⁴² In rural Africa, despite women's economic contribution in households through agricultural work and commercialization of products from the forests, their access to land is generally limited and under the control of men.43 For example in Kisangani (oriental province), women account for 4.9% of charcoal producers and for 50.7% of fuelwoods producers.⁴⁴ Yet, women are still counted among the excluded in decision-making concerning the management of forests. Even though community forestry approach may only partially grant to local communities the rights to the management of the forests, researchers acknowledge that it permits co-management and balance of power between stakeholders and "ensure that both conservation and development agendas [be] addressed."⁴⁵ Hence, community forestry, by allowing the participation of excluded groups, is a valuable means for promoting the access to and recognizing the rights of women and indigenous people to the management of the lands.

Other relevant aspects of the Community Forestry is that it does not only allow a more sustainable and participative management of the forests, but it can significantly contribute to reducing poverty, particularly in rural areas. In this sense, Community Forestry is one of the key responses to Pope Francis' call on local, national, and international authorities to eliminate poverty (LS, 175). Théophile Gata Dikulukila, consultant for the Center for Support of Sustainable Management of Tropical Forests (CAGDFT) explains that their work with community forests which focuses mainly on the agricultural

⁴²Y. Mai, E. Mwangi, and M. Wan, "Gender Analysis in Forestry Research: Looking Back and Thinking Ahead," *The International Forestry Review* 13, 2 (2011) 249.

⁴³Y. Mai, E. Mwangi, and M. Wan, "Gender Analysis in Forestry Research," 252.

⁴⁴Jolien Schure, Patrice Levang and Freerk Wiersum, "Producing Woodfuel for Urban Centers in the Democratic Republic of Congo: A Path out of Poverty for Rural Households?" *World Development* 64 (December 2014): 85, doi:10.1016/ j.worlddev.2014.03.013.

⁴⁵Cronkleton et al., "The Devolution of Management Rights...," 44, 62.

practices, permits to value local resources, ecotourism, and the transformation of timbers in legal conditions.⁴⁶ Thus, Community Forestry is one of the key ways of ensuring local, national, and global good governance, first, because it can lead the local communities to become accountable for the management of the forests which are the principal source of their incomes. Second, because it can empower local communities in respecting technical standards in order to protect the biodiversity of the nature.

Additionally, the vision of Community Forestry answers Pope Francis's demand for active participation of all members of the community and suggests new processes which take into account the respect for the local cultures, the rights of people, and their sociohistorical development (LS, 144). Also Pope Francis argues that respect for the dignity of the poor is an ethical imperative for attaining the common good and call on most polluters' countries to help the poor countries in dealing with the negative effect of climate change from which they suffer the most.

While recognizing the need for helping poor countries, which in fact are not poor but impoverished, as the DRC's case demonstrates, I argue that any option taken for the poor should not leave the poor themselves behind, but rather must include them in the dialogue and implementation of new strategies to encounter deforestation and climate change. What the local stakeholders in such impoverished countries need the most is the preferential option with them, not only for them. In order to ensure sustainability of forestry, actions which can be taken by local communities are needed and therefore Community Forestry presents a new way of materializing the theological preferential option for the poor. The Community Forestry, in ensuring that the poor themselves participate in the management and protection of their lands makes not only an option for the poor, but also with the poor.

Conclusion

There are many reasons to save the natural world from destruction, including the survival of humanity. Creation is God's gift that we have to manage as good and accountable stewards. Climate change is a matter of social justice, and the DRC's deforestation strongly shows how everything is interconnected in the planet, how our greenhouse gas emissions are affecting the world and particularly poor people,

⁴⁶Théophile Gata Dikulukila, "Processus de foresterie communautaire," Unpublished, Workshop, Kinshasa/DRC, August 28, 2014.

and why we do have responsibility to act justly in solidarity with other countries. Some countries such as the United States and China have a greater moral responsibility for reducing their disproportionately high levels of CO2 emissions; they ought to compensate developing countries who are suffering the most from their greenhouse emissions. The right to economic development must not be enjoyed at the expense of the environment, other countries, and future generations.

As Pope Francis advises, reducing greenhouse emissions requires honesty, courage, and responsibility not only from the part of the developed countries that emit more greenhouse gases, but also from the part of the developing countries. Responsibilities have to be differentiated, but they must be shared. The best practice of Community Forestry suggests that where there is political will, it is still possible to find answers and to do something, but as Pope Francis says, we all need to act. Christians and non-Christian all have an obligation to care for all of creation, our common home. We need political and pastoral strategies to move people and governments toward harmonizing the needs of human beings and those of the whole ecosystem, building the relationship between human life and moral law in order to create a dignified environment, where people, especially the most impoverished, live with dignity.

We also need pastoral answers to make the principles of participation and preferential option for and with the poor part of our common vision and for the common good. The latter principles must be considered beyond economic and political interests which are undermining our common home. In the DRC's case, there is indeed an urgency to sensitize and educate communities while educating and building capacities of people and government for sustainable actions against climate change. Churches, governmental, and nongovernmental institutions must encourage the advocacy for more solidarity in the use of environmental resources at local, national and international levels.