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STRENGTHENING THE ROLE OF FORESTS IN CLIMATE CHANGE MITIGATION THROUGH THE EUROPEAN UNION FOREST LAW ENFORCEMENT, GOVERNANCE AND TRADE ACTION PLAN

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ABSTRACT

Forests influence climate change by either increasing or decreasing the atmospheric concentration of greenhouse gases. When unsustainably managed, forests can release more greenhouse gases than they can absorb, intensifying their atmospheric concentration with adverse climate and human health outcomes. Several frameworks and institutional arrangements have been adopted globally to help strengthen political commitment and actions to promote the sustainable management of forests and enhance forests' contribution to climate change mitigation. Nevertheless, the destruction of tropical forests is accelerating at an alarming rate, making it an uphill battle to stop forest sector carbon emissions, limit the global average temperature rise to well below 2°C, and build a sustainable and climate-resilient future for all. The continuous release of forest-related emissions indicates that humanity has fallen short of meeting global forest and climate-related goals and, hence, reiterates the need to develop and apply additional tools to support international cooperation on mitigating forest carbon emissions. Considering deforestation's challenge for voluntary frameworks such as the UN Forest Instrument and REDD+, opportunities/actions beyond non-legally binding agreements and principles must be harnessed promptly. Trade-related measures, such as the Forest Law Enforcement, Governance and Trade Action Plan, are relevant in addressing deforestation. Arguably, the Forest Law Enforcement, Governance and Trade Action Plan provides the most appropriate framework for future regional/global forest law reform.

Keywords: Climate Change; Deforestation; Sustainable Forest Management; REDD+; UN Forest Instrument; FLEGT

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**Strengthening the Role of Forests in Climate Change Mitigation through
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1. INTRODUCTION

Forests influence climate change mitigation and adaptation by either increasing or decreasing the atmospheric concentration of greenhouse gases (GHG), such as water vapour (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), and ozone (O₃).¹ With effective laws that can promote sustainable forest management practices, forests can absorb 2 billion tonnes of CO₂/year globally,² thereby, reducing GHG concentration in the atmosphere, which in the end helps in combatting climate change. When trees are, however, cut down, degraded, or burned, forests become a carbon source by releasing more carbon than they absorb, intensifying the atmospheric concentration of GHG,³ with adverse outcomes for climate, health and well-being, biological diversity, and socio-economic and cultural assets.⁴ These data indicate the critical role of forests in climate change mitigation.

Although 96% of global forests are covered by legislation and policies strengthening their sustainable management,⁵ deforestation and forest degradation, promoted by anthropogenic activities and natural disturbances, linger.⁶ Unfortunately, there has been a disappointing surge in the rate of deforestation, especially in the tropics. Forests in the tropics are disappearing at a rate of 13 million hectares/year,⁷ and this loss is equal to the size of Greece. The loss of tropical forests in 2020 was 12.2 million hectares, which is 12% higher than that which was in 2019.⁸ The carbon emissions released from losing 4.2 million hectares were 2.64 gigatons (Gt) CO₂,⁹ making it an uphill battle to limit the global average temperature rise to “well below 2°C and pursue efforts to limit the temperature increase to 1.5°C.”

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- ¹ Kristin Rypdal and others, ‘Introduction to the 2006 Guidelines’ in Simon Eggleston and others (eds), 2006 *IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme* (IPCC 2008) 1.5 [IPCC 2008].
- ² Food and Agriculture Organization, *The State of the World’s Forests 2018 (In Brief) - Forest pathways to sustainable development* (FAO 2018) 15 [The State of the World’s Forests].
- ³ Government of Canada, *The State of Canada’s Forests: Annual Report 2019* (Government of Canada 2019) 35 [Canada 2019].
- ⁴ M.R. Allen and others, ‘Framing and Context’ in Masson-Delmotte and others, *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (IPCC 2018) [IPCC Special Report] 541.
- ⁵ Food and Agriculture Organization, *Global Forest Resources Assessment 2015: How are the world’s forests changing?* (2ed) (FAO 2016) 4 [FRA 2015].
- ⁶ UN Resolution adopted by the Economic and Social Council, E/RES/2017/4, agenda item 18 (k) 3 (2017) [E/RES/2017/4].
- ⁷ European Commission, ‘Combating tropical deforestation: the REDD+ initiative’ <https://ec.europa.eu/clima/eu-action/forests-and-agriculture/combating-tropical-deforestation-redd-initiative_en> accessed 9 November 2021.
- ⁸ Mikaela Weisse and Liz Goldman, ‘Primary Rainforest Destruction Increased 12% from 2019 to 2020’ (Global Forest Watch, 31 March 2021) <<https://www.globalforestwatch.org/blog/data-and-research/global-tree-cover-loss-data-2020/>> accessed 13 November 2021.
- ⁹ *Ibid.*

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Combating deforestation matters for the climate considering the critically important role that forests can play in turning national climate commitments, as signified in the Nationally Determined Contributions (NDC) of State Parties to the Paris Agreement, into action.¹⁰ With projections that the world population will reach 9.8 billion in 2050 and 11.2 billion by 2100,¹¹ meeting future demand for timber products, non-timber forest products and ecosystem services will depend on reform to overturn the current downward trajectory of international forest-related policy and obligations to address new threats from deforestation, especially in the tropics. This paper proposes actions to this end, beyond non-legally binding forest-related policies and obligations.

The current focus of the paper is on trade-related measures such as the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan of the European Union, given deforestation's challenge for non-legally binding forest-related arrangements. The argument proceeds in four parts with a conclusion. Following this introduction, Part II outlines the impacts of deforestation and how these impacts have challenged the current legal framework for addressing global environmental problems such as climate change. Part III then introduces the FLEGT Action Plan, including its demand and supply-side measures. Part IV critically analyzes the theory and practice of FLEGT, arguing that it provides the most appropriate framework for future regional/global forest law reform, followed by conclusive remarks in the last segment.

2. DEFORESTATION AND CLIMATE CHANGE—THE NEXUS OF GLOBAL CONCERN

2.1 Overview of the World's Forests

The Food and Agriculture Organization (FAO) stated that forests occupied 31% of the global land area in 2020,¹² up from 30% that was reported by the United Nations in 2017.¹³ Although 45% of the world's forests are in the tropical domain, over 54 % of the world's forests are owned by the Russian Federation, Brazil, Canada, the United States and China.¹⁴ With regards to its significance, 20% of the global population (around 1.6

¹⁰ Manan Bhan and others, 'Policy Forum: Nationally-determined Climate Commitments of the BRICS: At the forefront of forestry-based climate change mitigation' (2017) 85 *Forest Policy & Economics* 172 [Bhan et al]; R.D. Garrett and others, 'Criteria for Effective Zero-deforestation commitments' (2019) 54 *Global Environmental Change* 135-147.

¹¹ United Nations, 'World population projected to reach 9.8 billion in 2050, and 11.2 billion in 2100' (United Nations, 21 June 2017) <<https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html>> accessed 13 October 2021.

¹² FAO, *Global Forest Resources Assessment 2020: Main report* (FAO 2020) 14 [FRA 2020].

¹³ UN Economic and Social Council, United Nations strategic plan for forests 2017–2030 and quadrennial programme of work of the United Nations Forum on Forests for the period 2017–2020, E/RES/2017/4, 3.

¹⁴ FRA 2020, *supra*, 10-14.

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billion people) depends on forests for food and livelihoods¹⁵ and 80 % of the world's terrestrial biological diversity is available in forests.¹⁶ Additionally, forests provide US\$ 75–100 billion/year through goods and services¹⁷ and regulate climate and water supplies.¹⁸ Even though forests are home to millions of humans as well as floral and fauna species, a single definition of the term “forests” is missing. Understanding the concept of “forests” can, thus, shed light on why deforestation is a threat to the global environment and human survival.

The Intergovernmental Panel on Climate Change (IPCC) acknowledged that certain countries had defined forests and other wooded lands in terms of (i) legal, administrative, or cultural requirements; (ii) land use; (iii) canopy cover; or (iv) carbon density (essentially biomass density).¹⁹ For instance, the Government of Canada describes forests as a minimum area of land of “1 hectare with tree crown cover of more than 25% and with trees that can reach a minimum height of 5 m at maturity *in situ*.”²⁰ According to FAO, “forest” is primarily a definition of land use – while an area of land can be forest even if it does not have trees on it, agricultural and urban areas with tree cover may be considered as land uses other than forest.”²¹ These definitions share one characteristic – forests contain trees and include plantations, mangrove forests, and freshwater swamps. Forests can be naturally generating, artificially generating or other planted forests such as, among others, mangrove, bamboo, palm, rubber, banana, cocoa, and rubber plantations.

2.2 Forests as a Carbon Pool

IPCC data confirm that, like wood products, soils, and atmosphere, forest biomass is a carbon pool – it can accumulate or release carbon,²² which suggests that forests (including the roots, leaves, trunk, branches, and the bark of trees) are carbon sinks/reservoirs or sources. The IPCC defines a carbon sink as any process/mechanism which can remove GHG, an aerosol, or a precursor of GHG from the atmosphere.²³ According to the IPCC, a forest is a carbon sink if it absorbs more carbon than it releases, which is in

¹⁵ UNDESA, The Global Forest Goals Report 2021 (United Nations Forum on Forests Secretariat 2021) 1 [Global Forest Goals Report].

¹⁶ IUCN, ‘Forests and climate change’ (IUCN, February 2021) <<https://www.iucn.org/resources/issues-briefs/forests-and-climate-change>> accessed 20 August 2021.

¹⁷ *Ibid.*

¹⁸ Global Forest Goals Report, *supra*, 9.

¹⁹ Robert T. Watson and others, *IPCC Special Report, Intergovernmental Panel on Climate Change, Summary for Policymakers: Land Use, Land-Use Change, and Forestry* (IPCC 2000) 5 [LULUCF].

²⁰ Andrew Dyk and others, Canada’s National Deforestation Monitoring System: System Description (Natural Resources Canada 2015) 1.

²¹ FRA 2020, *supra*, 21.

²² LULUCF, *supra*, 21.

²³ *Ibid.*

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line with the description that forests are “the largest terrestrial storehouses of carbon.”²⁴

Forests can absorb 2 billion tons of CO₂ / annum²⁵ and store about 229 billion tons of carbon in their vegetation²⁶ through sustainable forest management (SFM) practices, which include forest protection, restoration, reforestation, afforestation, and increased efforts to stop forest degradation.²⁷ The IPCC defines afforestation and reforestation in one of two ways: the conversion of non-forested lands to forests; and the activities of regenerating trees immediately after disturbance or harvesting where no land-use change occurs.²⁸ SFM can increase canopy cover, improve carbon density, and enhance forests’ contributions to livelihoods, poverty eradication, and social development.²⁹ According to the United Nations, SFM aims to “maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations.”³⁰

The Global Forest Goals Report provides an initial summary of progress towards achieving the six Global Forest Goals and their 26 associated targets (as are contained within the United Nations Strategic Plan for Forests 2030).³¹ This report indicates that total forest expansion by afforestation or natural expansion between 2015 and 2020 was 4.7 million ha/year, with the most extensive forest expansion registered in the Asian continent. The report confirms previous findings that forests are the most significant terrestrial carbon sink, absorbing almost 2 billion tons of CO₂ per year.³² Designing and developing domestic strategies and plans, such as legislative and policy actions to implement climate change and forests commitments, is consequently crucial for achieving the Global Forest Goal 1 – reverse the loss of forest cover worldwide through SFM practices.

Tropical forests have enormous carbon storage opportunities. One example is the forest of the Congo Basin, identified as the most extensive tropical peatland complex. Peatlands are carbon-rich ecosystems: they cover only 3% of the earth’s surface and store 1/3 of soil carbon,³³ and can sequester

²⁴ United Nations Forum on Forests, ‘IDF 2016: UN Press Release -Threats to forests could imperil global freshwater supplies’ (United Nations 21 March 2016)
<<https://www.un.org/esa/forests/news/2016/03/threats-to-forests-could-imperil-global-freshwater-supplies/index.html>> accessed 13 May 2021.

²⁵ Global Forest Goals Report, *supra*, 8.

²⁶ A Baccini and others, ‘Estimated carbon dioxide emissions from tropical deforestation improved by carbon-density maps’ (2012) *Nature Climate Change* 1-4, 1.

²⁷ Forest Goals and Targets, *supra*, 4.

²⁸ LULUCF, *supra*, at 6.

²⁹ *Ibid.*

³⁰ United Nations General Assembly, Resolution adopted by the General Assembly on 22 December 2015A/RES/70/199, Seventieth session, Agenda item 20 [UN Forest Instrument] Article 3.

³¹ The Global Forest Goals Report, 9.

³² *Ibid.*

³³ Greta C. Dargie, and others, ‘Age, extent and carbon storage of the central Congo Basin peatland complex’ (2017) 542 *Nature* 86, 86.

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nearly 60 billion tons of carbon per annum.³⁴ Its carbon-sequestration capacity qualifies it as an essential carbon sink, playing a vital role in managing carbon emissions and contributing to global forest goals through strengthened international cooperation. Tropical forests' potential to absorb carbon and mitigate climate change calls for added reforms to help reduce tropical deforestation.

The United Nations defines the concept of carbon "source" to include any process or activity that releases GHG, an aerosol or a GHG precursor into the atmosphere.³⁵ Forests can be a source of atmospheric carbon if less carbon is absorbed than released. The total global forest carbon stock dropped from 668 Gt in 1990 to 662 Gt in 2010, owing to a loss of forest area.³⁶ IPCC data from 1850 to 1998 shows that approximately 270 (+ 30) Gt C was emitted as CO₂ from the burning of fossil fuel and production of cement, and 136 (+ 55) Gt C as a result of land-use change. These emissions have increased the atmospheric content of CO₂ of 176 (+ 10) Gt C.³⁷ Deforestation and forest degradation are activities that can release GHG.

Deforestation is either the conversion of forest land to non-forest land or a decrease in the "canopy cover or carbon density by a given amount or crossing one of a sequence of thresholds."³⁸ Some 10 million hectares of the world's forests are lost every year,³⁹ shooting down the global forest area by millions of hectares of land. As regards forest ecosystem types, tropical forests are vanishing at a rate of 13 million hectares/year,⁴⁰ nearly the size of Greece. Africa was the continent with the highest net loss of forest area between 2010 to 2020, with most of the losses concentrated in Eastern and Southern Africa, where deforestation grew from 1.35 million ha/year in the 1990s to 1.91 million ha/year in 2010–2020,⁴¹ resulting in a degraded environment with reduced chances of building a sustainable and climate-resilient future for all.

An estimated 16.6 million hectares of the forest of the Congo Basin was lost between 2000 and 2014, with agriculture for the production of subsistence and commercial crops contributing to almost 84% of total forest loss.⁴² The Center for International Forestry Research (CIFOR) places the subregion's deforestation rate at 0.17% between 2000 and 2005, compared

³⁴ UN Environment Programme, 'Six countries, one forest, one future' (UN environment programme 21 March 2019) <<https://www.unenvironment.org/news-and-stories/story/six-countries-one-forest-one-future>> accessed 13 August 2020.

³⁵ United Nations Framework Convention on Climate, 177 UNTS 107 (1992) Article 1(9) [UNFCCC].

³⁶ FRA 2020, *supra*, 51.

³⁷ LULUCF, *supra*, 4.

³⁸ *Ibid.*, 6.

³⁹ Forest Goals Report, *supra*, 8.

⁴⁰ European Commission, 'Combatting tropical deforestation: the REDD+ initiative' <https://ec.europa.eu/clima/eu-action/forests-and-agriculture/combatting-tropical-deforestation-redd-initiative_en> accessed 13 November 2021.

⁴¹ FAO, 2020, *supra*, 15.

⁴² Alexandra Tyukavina and others, 'Congo Basin Forest loss by increasing smallholder clearing' (2018) 4:11 Science Advances 1, 3.

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with 0.9% between 1990 and 2000; and forest degradation at 0.09% between 2000 and 2005, and 0.01% between 1990 and 2000.⁴³ So, while forest degradation in the Congo Basin has increased sharply over time, deforestation has reduced. Similarly, the Amazon forests (the largest tropical forest ecosystem globally) remain under massive pressure from anthropogenic activities. Hundreds of thousands of hectares of its forests are cleared yearly,⁴⁴ perhaps because almost 70 million hectares of its forests are free from adequate supervision by a designated public agency, increasing the risk of continued land-grabbing by, among other users, agribusiness corporations.⁴⁵

Deforestation of tropical forests has increased at a startling rate since the COVID-19 pandemic broke out, as local and Indigenous peoples, as well as urban workers and returning migrants retreat deeper into the forest to seek food, fuel, and protection from the adverse impacts of the pandemic.⁴⁶ According to the Global Forest Watch – an online platform with over 100 organizations that contribute the best available data, expertise, technology, and action that empower people to manage better and protect forest landscapes – tropical nations lost 12.2 million hectares of their tree cover in 2020. Of that, 4.2 million hectares (equivalent to the land area of the Netherlands) occurred within humid tropical primary forests, which are exceptionally valuable for carbon storage and biodiversity.⁴⁷ The loss was 12% higher in 2020 than in 2019 and the second consecutive year that tropical primary forest loss worsened.⁴⁸ With the sudden surge in deforestation in the tropics, meeting the Global Forest Goal to halt deforestation and promote SFM may be challenging. But what is driving deforestation?

2.3 Drivers of Deforestation

Deforestation and forest degradation are driven by political and socio-economic forces interacting at the local to the global levels.⁴⁹ In the *State of the World's Forests 2020* report, the FAO identified subsistence and commercial agriculture (for food, feedstock, fibre and biofuel) as the principal direct drivers of deforestation.⁵⁰ The analysis, which was based on

⁴³ Beranger Tchatchou and others, *Deforestation and forest degradation in the Congo Basin* (CIFOR 2015) 12.

⁴⁴ Maretto, Raian V. and others, 'Spatio-Temporal Deep Learning Approach to Map Deforestation in Amazon Rainforest' (2021) 18 IEEE geoscience and remote sensing letters 771, 771.

⁴⁵ Claudia Azevedo-Ramos and Paulo Moutinhob, 'No man's land in the Brazilian Amazon: Could undesignated public forests slow Amazon deforestation?' (2018) 73 Land Use Policy 125, 125-127.

⁴⁶ The Global Forest Goals Report, 4.

⁴⁷ Mikaela Weisse and Liz Goldman, *supra*.

⁴⁸ *Ibid.*

⁴⁹ Eric F Lambin and others, 'The causes of land-use and land-cover change: moving beyond the myths. Global Environmental Change' (2001) 11:4 Global Environmental Change 261; David L. Carr, Laurel Suter, and Alisson Barbieri 'Population dynamics and tropical deforestation: State of the debate and conceptual challenges' (2005) 27:1 Population and Environment 89.

⁵⁰ FAO, *The State of the World's Forests 2020: Forests, biodiversity and people* (FAO and UNEP 2020) 82 [State of the World's Forests 2020].

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national data for 46 tropical and subtropical countries, shows that large-scale commercial agriculture (primarily cattle ranching and cultivation of soy bean and oil palm) is the most prevalent driver of deforestation, accounting for 40% between 2010-2020.⁵¹ Local subsistence agriculture accounted for an estimated 33% of deforestation, urban expansion for 10%, infrastructure for 10% and mining for 7%.⁵² A 2017 study across 74 tropical countries, covering 2.2 billion hectares of forest land, shows that 17% of the forest loss derived from forest fires, 30% from wood-fuel harvest, and 53% from timber harvest.⁵³ Against this backdrop, agricultural expansion and unsustainable logging and timber harvesting constitute the primary drivers of deforestation, forest degradation and correlated biodiversity loss.

The United Nations Strategic Plan for Forest suggests that forests are at risk of illegal or unsustainable logging, unmanaged fires, dust storms, pollution, sandstorms and windstorms, disease, pests, invasive alien species, and fragmentation and the impact of climate change, which threaten the health of forests and their ability to function as productive and resilient ecosystems.⁵⁴ Moreover, continued rapid population growth and rising per capita income are accelerating the global demand for and consumption of forest products and services.⁵⁵ As the review indicates, these activities continue to happen at alarming rates, putting pressure on forests and threatening forests' health and resilience, underscoring the need to urgently find tools to support international cooperation on mitigating forest carbon emissions.

2.4 Deforestation as a Burning Global Issue

Deforestation is a pressing global issue because it reduces carbon density and weakens fights against climate change. For instance, a reasonable percentage of global GHG emissions have been attributed to deforestation and forest degradation, contributing to nearly 11% of CO₂ emissions⁵⁶ and 20% of anthropogenic CO₂ emissions globally.⁵⁷ A 2017 study across numerous countries in the tropics, covering 2.2 billion hectares of forest land, demonstrates that forest degradation generated nearly 2.1 billion tons of CO₂/year between 2005 and 2010.⁵⁸ On sector-specific emissions, the IPCC has acknowledged agriculture, forestry and other land

⁵¹ *Ibid*, 82.

⁵² *Ibid*.

⁵³ TRH Pearson and others, 'Greenhouse gas emissions from tropical forest degradation: an underestimated source' (2017) 12:1 Carbon Balance and Management 1 [TRH Pearson].

⁵⁴ United Nations, Resolution adopted by the Economic and Social Council United Nations strategic plan for forests 2017–2030 and quadrennial programme of work of the United Nations Forum on Forests for the period 2017–2020, 2017 session, Agenda item 18 (k), E/RES/2017/4, (2017) para. 11.

⁵⁵ *Ibid*, para 12.

⁵⁶ Food and Agriculture Organization, 'REDD+ Reducing Emissions from Deforestation and Forest Degradation' (FAO 2021) <<http://www.fao.org/redd/en/>> accessed 13 September 2021.

⁵⁷ G. R. van der Werf and others, 'CO₂ emissions from forest loss' (2009) 2 Nature Geoscience 737, 737.

⁵⁸ *Ibid*, TRH Pearson.

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use activities as important net sources of emissions of GHG, accounting for roughly 23% of total anthropogenic GHG emissions, especially CO₂, N₂O, and CH₄ in the period 2007-2016.⁵⁹ The IPCC estimated tropical deforestation, degradation and forest fire emissions at 1.39 Gt carbon dioxide equivalence (CO₂e) per year from 1997 to 2009.⁶⁰

Carbon emissions from forest fires are very concerning. Despite the low deforestation rate in the country, forest fires have remained Canada's leading source of emissions. The almost 3.5 million hectares of forest burnt in 2017 by practically 7,000 forest fires generated an estimated 217 million tons as total net emissions of CO₂e.⁶¹ While human activities (clearing forests for pasture or crops, transportation corridors, building, recreation and hydroelectric development) in Canada's forests emitted some 20 million tons (Mt) of CO₂e in 2017, forest fires and other natural disturbances contributed to about 237 Mt CO₂e of released emissions in Canada, resulting in net emissions of 217 Mt CO₂e.⁶² In any given year unless something is done to prevent wildfires, forests will remain a crucial source of CO₂ because of the billions of hectares of the area burned annually.

Global Forest Watch data show that the resulting carbon emissions from losing 4.2 million hectares of humid tropical primary forests in 2020 were 2.64 Gt CO₂, which is equivalent to the annual emissions of 570 million vehicles, slightly over twice the number of vehicles on the road in the United States.⁶³ The net loss of forest area has indeed reduced substantially in the past three decades (between 1990 and 2020, forest area decreased from 32.5 percent to 30.8 %).⁶⁴ Yet, this loss represents an estimated net loss of 178 million hectares of forest, an area about Libya's size,⁶⁵ which released billion tons of GHG, making it a difficult fight to "limit the global average temperature rise to well below 2°C" and pursue efforts to limit the increase to 1.5°C and combat climate change.

2.5 Status of Forest Governance – the Global Context

About 96% of the world's forests are covered by legislation and policies supporting sustainable forest management (SFM).⁶⁶ This comprehensive coverage is perhaps motivated by the growth of international forest-related obligations and policies in response to concerns over deforestation and climate change globally. The UN Strategic Plan for Forests 2017-2030 was created by the Member States of the UN Forum on Forests (UNFF) to serve as a global framework for action at all levels. At the heart of this framework

⁵⁹ Masson-Delmotte et al, *supra*, 8.

⁶⁰ *Ibid.*, 828.

⁶¹ Government of Canada, *The State of Canada's Forests: Annual Report 2019* (Government of Canada 2019) 35 [Canada 2019].

⁶² *Ibid.*

⁶³ Mikaela Weisse and Liz Goldman, *supra*.

⁶⁴ State of the World's Forests 2020, *supra*, 10.

⁶⁵ *Ibid.*

⁶⁶ FRA 2015, *supra*, at 4.

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are six Global Forest Goals and Targets.⁶⁷ Goal 1: reverse the loss of the global forest cover through SFM; Goal 2: enhance forest-based economic, social and environmental benefits; Goal 3: increase significantly the area of protected forests worldwide; Goal 4: mobilize and significantly increase financial resources for the implementation of SFM practices; Goal 5: promote governance frameworks to implement SFM; and Goal 6: enhance cooperation, coordination, coherence and synergies on forest-related issues at all levels. These six goals, though universal, they are voluntary.⁶⁸

This UN Forest Instrument, officially known as the Non-Legally Binding Instrument on All Types of Forests, is a framework for international decision-making on forests. Specifically, it was adopted by the UN General Assembly during its 62nd session on 17 December 2007 to serve as a coherent framework for implementing internationally agreed principles for SFM. The UN Forest Instrument aims to strengthen political commitment to achieve the common global objectives on forests and enhance forests' contribution to achieving the 2030 Agenda for Sustainable Development.⁶⁹ An additional mechanism for promoting SFM is REDD+, which stands for "reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries."⁷⁰ REDD+ is a framework within the UN Framework Convention on Climate Change Convention (UNFCCC)⁷¹ and the Paris Agreement⁷² to reduce GHG emissions from deforestation and forest degradation in developing countries.⁷³

To sum up, the Global Forest Goals, the UN Forest Instrument and REDD+ were designed to minimize unprecedented pressure on forests and the climate system by halting deforestation and promoting conservation, restoration, and expansion of all types of forests. These frameworks, though universally recognized, are legally non-binding, meaning States are not legally obligated to comply with their terms. In the context of REDD+, it is up to those developing countries willing to cut deforestation and enhance SFM to implement the principles it contains. By Decision 14/CP.19, State Parties to the UNFCCC decided that data and information relating to anthropogenic forest-related emissions should be provided voluntarily through a technical annex to the biennial update reports. By this, developing countries can establish a REDD+ mechanism and contribute to climate

⁶⁷ Global Forests Goals Report 2021, *supra*, 1.

⁶⁸ *Ibid.*

⁶⁹ UN Forest Instrument, *supra*.

⁷⁰ United Nations, Decision 1CP/16: The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (2010) at para 70 [Decision 1CP/16].

⁷¹ United Nations, United Nations Framework Convention on Climate, 177 UNTS 107 (1992) [UNFCCC].

⁷² United Nations, Decision 1/CP.21, Adoption of the Paris Agreement, Report of the COP on its 21st session, held in Paris from 30 November to 13 December 2015, addendum, FCCC/CP/2015/10 Add.1 (29 January 2016) (2015) at 2.

⁷³ Decision 1CP/16, *supra*, at para 71.

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change mitigation efforts. The discretionary nature of REDD+ is a logical example of an international agreement lacking mandatory elements.

Although compliance is certainly expected, these forest-related frameworks have failed in meeting Global Forest Goal 1 (Target 3), which calls on governments to, by 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally. The year 2020 was intended to be a year that the world changes the course of deforestation and forestry losses. Even after the UN declared 2020 as “nature super year and 21 March 2020 as *the International Day of Forests*,”⁷⁴ the tropics still lost 12.2 million hectares of tree cover in 2020 alone. Of that, 4.2 million hectares occurred within humid tropical primary forests, which are exceptionally valuable for carbon storage and biodiversity.⁷⁵ Inability to reverse forest loss worldwide and the continuous releasing of billions of tons of carbon indicates that humanity has fallen short of meeting the Global Forest Goal 1 and the Paris Agreement Goal.

The UN Strategic Plan for forests shows that achieving the Global Forest Goals and targets would require bold and transformational actions, including all actors at all levels. The 2018 Special Report on the Impacts of Global Warming of 1.5°C stresses pathways limiting global warming to 1.5°C to include deep reductions in emissions of anthropogenic activities such as agriculture, forests, and other land-use sectors.⁷⁶ Hence emissions from agriculture, forests, and other land uses are undermining global efforts to suppress global warming and climate change. Additional tools to support international and regional cooperation on mitigating forest-related emissions are urgently needed. The European Union Forest Law Enforcement, Governance and Trade (FLEGT) is relevant.

3. THE EUROPEAN UNION FLEGT ACTION PLAN

The EU is a key global importer of commodities associated with deforestation, including palm oil (17%), soy (15%), rubber (25%), beef (41%), maize (30%), cocoa (80%), and coffee (60%).⁷⁷ In addition to agricultural products, the 28 EU member states imported 2.13 million tonnes of wood products from the tropics, with a total value of €2.32 billion, in 2019. It was the second successive year of import growth after declining in 2017,⁷⁸ driven mainly by a recovery in imports of certain timber products from Cameroon,

⁷⁴ United Nations, ‘Turn around deforestation in 2020, the ‘Nature Super Year’, says Guterres’ (Climate and Environment, 21 March 2020) <<https://news.un.org/en/story/2020/03/1059852>> accessed 08 December 2021.

⁷⁵ Mikaela Weisse and Liz Goldman, *supra*.

⁷⁶ IPCC Special Report, *supra*, 95.

⁷⁷ European Commission, ‘Studies on EU action to combat deforestation and palm oil’ <https://ec.europa.eu/environment/forests/studies_EUaction_deforestation_palm_oil.htm> accessed 13 May 2021.

⁷⁸ *Ibid*.

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Brazil, Indonesia, and Malaysia.⁷⁹ It seems only logical to say that this trade was between the EU and countries suffering from illegal logging and poor forest governance.⁸⁰ As the analysis indicates, agricultural expansion (for exports) and illegal/unsustainable logging are the primary contributing factors to deforestation. By importing illegally or unsustainably sourced agricultural goods and timber and timber products from countries with alarming deforestation rates, the EU only exacerbates the problem of tropical deforestation (forest loss abroad) and weakens attempts to achieve global forest and climate goals.

3.1 Understanding the FLEGT Action Plan

An EU study indicates that along with environmental degradation, illegal logging creates social problems, harms legitimate businesses and costs governments EUR 7-13 billion in unpaid fees and taxes/year.⁸¹ In order to solve these problems, EU member states adopted, among other initiatives, the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan and the EU “Communication on Stepping up EU Action to Protect and Restore the World’s Forests.” This later legislation, adopted on 23 July 2019, aims to protect and improve the existing forests’ health and significantly increase sustainable and biodiverse forest coverage worldwide.⁸² This is one of five priorities of the EU to encourage products from deforestation-free supply chains,⁸³ including from tropical nations, such as, among others, Brazil. Brazil is a nation with the lion’s share of the world’s tropical rainforests, and where deforestation is quickening along with threats to the communities that depend on Brazil’s portion of the Amazon rainforest.⁸⁴

In 2003 the EU adopted the FLEGT Action Plan with the goal to address illegal logging through seven different actions: (1) support for timber-producing countries; (2) promote trade in legal timber products; (3) public procurement policies; (4) support for private-sector initiatives; (5) investment and finance; (6) use of legislation; and (7) addressing conflict

⁷⁹ Timber Industry News, ‘Growth in EU tropical timber imports continues in 2019’ <<https://www.timberindustrynews.com/growth-eu-tropical-timber-imports-continues-2019/>>accessed 13 August 2021.

⁸⁰ Divine Foundjem Tita and Peter A. Minang, ‘Community forest governance in Cameroon: A review’ (2018) 23 *Ecology and Society* 34; Michel Bruce and others, *What role do forests and governance play in countries’ nationally determined contributions to the Paris Climate Agreement?: Case study from Cameroon* (Fern 2018) 5.

⁸¹ FLEGT.org, ‘About the EU FLEGT Action Plan’ accessed <<http://www.flegt.org/evaluation>> accessed 20 November 2021.

⁸² European Commission, ‘EU Communication (2019) on Stepping up EU Action to Protect and Restore the World’s Forests’ <https://ec.europa.eu/environment/forests/eu_comm_2019.htm> accessed 13 October 2021.

⁸³ *Ibid.*

⁸⁴ Jean-François Exbrayat, Yi Y Liu and Mathew Williams, ‘Impact of deforestation and climate on the Amazon Basin’s above-ground biomass during 1993-2012’ (2017) 7:1 *Scientific reports*, 1561, 1567; Eduardo Souza-Rodrigues, ‘Deforestation in the Amazon: A Unified Framework for Estimation and Policy Analysis’ (2019) 86:6 *The Review of economic studies* 2713.

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timber.⁸⁵ The FLEGT Action Plan amalgamates demand-side measures and supply-side measures. The demand-side measures include the EU Timber Regulation (EUTR), which forbids forestry operators from placing illegally harvested timber and timber products on the EU market. On the other hand, the supply-side measures consist of the FLEGT licensing system, implemented through the conclusion of Voluntary Partnership Agreements (VPAs) between the EU and non-EU timber-producing nations.⁸⁶ These measures constitute the essential elements of the FLEGT Action Plan.

To elaborate, the EUTR is officially known as *Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010*. This legislation took effect on 3 March 2013, and it lays out the obligations of timber operators and traders interested in trading with the EU. According to the European Union Commission, the EUTR is an initiative designed to counter the trade in timber and timber products that were illegally harvested. It does so by prohibiting forest-exporting nations from placing for the “first time of illegally harvested timber and products derived from such timber” on the EU market.⁸⁷ It requires timber traders who place timber products on the EU market for the first time to exercise ‘due diligence’ and keep records of their suppliers and customers.⁸⁸ The due diligence system encompasses specific rules for verifying legality: it “ensures proof of legality through the entire chain of custody from the source to the EU border.”⁸⁹ Hence the due diligence rules obligate operators in VPA countries to carry out a risk-management process to minimize the risk of importing timber or timber products.

A VPA is a trade agreement intended to ensure that timber and timber products from a signatory country that reach the EU market is legal.⁹⁰ VPAs are designed to “build domestic institutions that promote sustainable forest governance and assure the legality of exported timber, and encourage the enactment of legislation that promotes “sustainable” forest governance and assures the “legality” of exported timber and timber products.⁹¹ The EU negotiates a VPA with timber-exporting countries to guarantee that timber and timber products are sustainably and legally obtained. As of 2021, the

⁸⁵ EU FLEGT Facility, ‘What is the EU FLEGT Action Plan?’ (European Forest Institute 2020) <<https://www.euflegt.efi.int/flegt-action-plan>> accessed 13 May 2021.

⁸⁶ FLEGT, ‘FLEGT and VPA countries’ <<https://www.flegtlicence.org/vpa-countries>> accessed 13 July 2021.

⁸⁷ European Union Commission, ‘Timber Regulation’ <https://ec.europa.eu/environment/forests/timber_regulation.htm> accessed 13 May 2021.

⁸⁸ *Ibid.*

⁸⁹ Werner Raza and others, *In-depth Analysis: How can international trade contribute to sustainable forestry and the preservation of the world’s forests through the Green Deal?* (European Union 2020) 10.

⁹⁰ EU FLEGT Facility, ‘What is the EU FLEGT Action Plan?’ (European Forest Institute 2020) <<https://www.euflegt.efi.int/flegt-action-plan>> accessed 19 May 2021.

⁹¹ Christine Overdevest and Jonathan Zeitlin, ‘Experimentalism in transnational forest governance: Implementing European Union Forest Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreements in Indonesia and Ghana’ (2018) 12 *Regulation & Governance* 64, 64.

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European Commission is either negotiating or implementing VPAs with 16 tropical timber-producing countries, with an estimated forest covering the EU land area and contributing to nearly 80% of the tropical timber imports to the EU.⁹²

While Côte d'Ivoire, Democratic Republic of the Congo, Gabon, Laos, Malaysia, and Thailand are still in the negotiation phase of VPAs, Cameroon, Central African Republic, Ghana, Guyana, Honduras, Indonesia, Liberia, Republic of the Congo, and Vietnam have started implementing their VPAs. Indonesia is the lone country that has begun licensing – the first VPA country to issue FLEGT licenses for its timber and timber product destined for the EU market at the point of export.⁹³ By July 2019, Indonesia had issued 104,719 FLEGT paper-based licences, worth USD 2.87 billion in value. The goal is to implement electronic licensing, which, once operational, will enable real-time data reconciliation and streamline licensing procedures.⁹⁴

A FLEGT licence is a document issued by a licencing authority in VPA countries – nations that have ratified a FLEGT VPA with the EU and have an operational FLEGT licencing scheme. A FLEGT licence indicates that a shipment of timber or timber products has been legally produced – that the consignment follows the applicable laws and regulations of the partner nation.⁹⁵ Importantly, FLEGT licences cover all exports of timber products listed in VPAs. They can be issued by designated authorities in VPA countries under a national FLEGT Licensing Schemes and based on a Timber Legality Assurance System (TLAS).⁹⁶ TLAS is a verification system – authenticating the “legality of all relevant wood products. TLAS allows forest enterprises exporting timber from VPA countries to receive FLEGT licenses, thereby assuring them access to the EU timber market.⁹⁷

TLAS comprises (1) a description of the laws and checks that must be complied with before issuing a FLEGT licence; (2) a system to track timber from forest operations to export that excludes timber from illegal sources from the supply chain; (3) a system to verify compliance with the legality elements; (4) “licensing of timber products for export on an approved market participant or individual shipment basis”; and (5) independent monitoring

⁹² EU FLEGT Facility, ‘FLEGT Factsheet: Closing the EU market to illegal timber’ (European Forest Institute 2020) <<https://www.euflegt.efi.int/publications/flegt-factsheets/market-references>> accessed 23 May 2021.

⁹³ FLEGT, ‘FLEGT and VPA countries’ <<https://www.flegtlicence.org/vpa-countries>> accessed 14 May 2021.

⁹⁴ EU FLEGT Facility, ‘Briefing FLEGT licensing: lessons from Indonesia’s experience’ (27 November 2019) <<https://www.euflegt.efi.int/publications/flegt-licensing-lessons-from-indonesia-s-experience>> accessed 14 July 2021.

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ Sophia Carodenuto and Paolo Omar Cerutti, ‘Forest Law Enforcement, Governance and Trade (FLEGT) in Cameroon: Perceived private sector benefits from VPA implementation’ (2014) 48 Forest Policy and Economics 1 [Carodenuto & Cerutti].

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to guarantee potential parties that the verification system is working as prearranged and maintains its credibility.⁹⁸

TLAS is “built around a definition of legality,” agreed upon through a participatory process involving public and private sector stakeholders. TLAS description includes social, economic, and environmental considerations and incorporates robust safeguards and independent audits (or “periodic evaluation”) in VPA countries with a mandate to apply clear rules and procedures to detect system failures.⁹⁹ The independent auditors report to the VPA joint implementation committees, established by the EU and the VPA partner country. Civil society actors ought to also contribute to the objectives of the VPA by helping in conducting unbiased observation to detect forest law enforcement challenges in VPA countries.¹⁰⁰

4. A CRITICAL ANALYSIS OF THE EU FLEGT ACTION PLAN

In July 2014, eleven years after the FLEGT Action Plan was adopted, the European Community released an independent evaluation report.¹⁰¹ Based on a wide-ranging consultation process undertaken by an external consultant through surveys, stakeholder workshops, targeted interviews, and unsolicited stakeholders’ inputs, the report assessed the achievements and shortcomings of the FLEGT Action Plan.

4.1 The FLEGT Action Plan — Benefits

In addition to its comprehensive, innovative, and future-proof nature, the Action plan has improved forest governance in both VPA and non-VPA countries and has reduced poverty and EU import of unsustainably and illegally harvested timber and timber products.¹⁰² Furthermore, the FLEGT Action Plan has raised global awareness of illegal logging and added substantial value to the global efforts to stop deforestation, forest degradation, and biodiversity loss and tackle climate change.¹⁰³

Like the Global Forest Goals, the UN Forest Instrument, and the REDD+ programme, the FLEGT action plan (through its VPAs) does not impose regulations on timber-producing nations who do not see the advantages of becoming a VPA nation. That notwithstanding, the FLEGT policy obliges VPAs countries (those timber-producing countries that have

⁹⁸ FLEGT Briefing Notes, ‘Forest Law Enforcement, Governance and Trade Guidelines for Independent Monitoring’ (FLEGT March 2007) <<https://www.fao.org/3/ax954e/ax954e.pdf>> accessed 13 May 2021.

⁹⁹ EU FLEGT Facility, ‘Briefing FLEGT licensing: lessons from Indonesia’s experience’ (27 November 2019) <<https://www.euflegt.efi.int/publications/flegt-licensing-lessons-from-indonesia-s-experience>> accessed 13 May 2021.

¹⁰⁰ *Ibid.*

¹⁰¹ EU FLEGT Facility, ‘Independent evaluation of the EU FLEGT Action Plan’ (European Forest Institute 2020) <<https://www.euflegt.efi.int/eu-flegt-evaluation>> accessed 13 November 2021.

¹⁰² EU FLEGT Facility, ‘What is the EU FLEGT Action Plan?’ (European Forest Institute 2020) <<https://www.euflegt.efi.int/flegt-action-plan>> accessed 13 May 2021.

¹⁰³ *Ibid.*

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signed (and ratified) VPAs with the EU) to comply with TLAS – the system to verify compliance with the legality definition’s elements and control the supply chain. It also requires timber operators in VPA countries to conduct a risk-assessment process to help minimize the placing of illegally harvested timber on the EU market. FLEGT’s emphasis on a due diligence system and rules verifying the legality of timber and timber products in VPA countries can help bridge the commitment-compliance gap in global forest governance. The fact that VPAs are legally binding upon ratification differentiates FLEGT from the above non-legally binding forest-related instruments.

Besides, a VPA is not just a trade agreement to ensure that timber and timber products are legally and sustainably sourced. It is anticipated that VPAs will have positive environmental, social and cultural impacts as VPA countries begin issuing FLEGT licenses, which underpin different aspects of sustainable development, including reversing deforestation and forests loss – Sustainable Development Goal (SDG) 16 and combating climate change – SDG 13. According to the European Union, VPAs can address SDG 8 (economic growth), SDG 12 (responsible production and consumption), and SDG 15 (life on land).¹⁰⁴ By bringing many interests (national stakeholders from government, civil society and the private sector) to the table to decide the scope of each VPA, the FLEGT Action Plan ensures that voices of forest-dependent people in VPA countries are represented in environmental decision-making, which is in line with the United Nations’ approach to environmental democracy.¹⁰⁵

The VPA monitoring approach is a source of strength of the FLEGT Action Plan. The EU has established a joint committee of representatives from both the EU and VPA partner countries. This committee comprises civil society organizations mandated to, among others, report non-compliance with forest law, monitor progress on transparency commitments and reforms (legal and institutional), check that VPA conflict resolution mechanisms work, assess VPA impacts, provide information to and monitor the work of an independent auditor, and raise complaints regarding failures in the audit.¹⁰⁶ The realized capacities of VPA processes for advancing principles of good forest governance within the Congo Basin Rainforest region¹⁰⁷ and in moving the FLEGT process forward in Ghana and Indonesia have also been highlighted.¹⁰⁸

¹⁰⁴ EU FLEGT Facility, ‘Factsheet VPAs for SDGs’ (30 March 2016)

<<https://www.euflegt.efi.int/publications/vpas-for-sdgs>> accessed 10 November 2021.

¹⁰⁵ Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26. Rev.1, Principle 10.

¹⁰⁶ EU FLEGT Facility, ‘VPA monitoring’ (European Forest Institute 2020)

<<https://www.vpaunpacked.org/vpa-monitoring>> accessed 19 October 2021.

¹⁰⁷ Marshall A Adams and others, ‘A comparative analysis of the institutional capacity of FLEGT VPA in Cameroon, the Central African Republic, Ghana, Liberia, and the Republic of the Congo’ (2020) 112 *Forest Policy and Economics* 1, 1 [Marshall A].

¹⁰⁸ *Ibid.*, 67.

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4.2 The FLEGT Action Plan – Challenges

While this paper argues that it is well-suited to serve as a template for an international or regional forest treaty (as it adds substantial value to the global efforts to stop deforestation and reduce climate change), it must be highlighted that the EU FLEGT Action Plan is far from perfect. Through a Ghanaian case study, Hansen et al. challenged some of the positive assessments made of VPAs. Albeit helping to establish some fora for forest dialogue and enforcement of social responsibility initiatives, VPA implementation in Ghana has failed “to secure forest sustainability and social equity...[or] change the tenure and benefit-sharing arrangement, which by any standard is inequitable.”¹⁰⁹ Complex political and technical issues in some African countries can constrain VPA processes.¹¹⁰

Additional financial resources are crucial for effective VPA processes and in meeting FLEGT goals, including managing forests, reversing deforestation, and accelerating progress towards achieving climate targets. During its 14th meeting, State Parties to the Convention on Biological Diversity highlighted the need to improve access to, among others, financial resources for the conservation and sustainable use of biodiversity.¹¹¹ Although multilateral sources, including the Forest Carbon Partnership Facility, the Forest Investment Program, UN-REDD Program, Global Environment Facility, and the Green Climate Funds are currently funding national strategies to reduce deforestation and promote the sustainable management of forests,¹¹² a substantial increase in financing is needed for implementing SFM practices.¹¹³

On the one hand, the FLEGT Action plan is criticized as being an EU-based initiative that is transported to other contexts, which could increase the likelihood of different interpretations.¹¹⁴ These usher in the issue of legal transplants, defined as “the moving of a rule or a system of law from one country to another or from one people to another.”¹¹⁵ For “transplanted laws

¹⁰⁹ Christian P. Hansen, Rebecca Rutt, and Emmanuel Acheampong, ‘Experimental or business as usual? Implementing the European Union Forest Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreement in Ghana’ (2018) 96 Forest Policy and Economics 75-82.

¹¹⁰ Marshall A, *supra*, 1.

¹¹¹ United Nations, Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity, 14/1. Updated assessment of progress towards selected Aichi Biodiversity Targets and options to accelerate progress para. I.

¹¹² United Nations, Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, (2013), Decision 9/CP.19: Work programme on results-based finance to progress the full implementation of the activities referred to in decision 1/CP.16, paragraph 70.

¹¹³ United Nations, Report of the Intergovernmental Forum on Forests on its fourth session New York, 31 January-11 February 2000, Paragraph 20.

¹¹⁴ Laura van Heeswijk and Esther Turnhout, ‘The discursive structure of FLEGT (Forest Law Enforcement, Governance and Trade): The negotiation and interpretation of legality in the EU and Indonesia’ (2013) 32 Forest Policy and Economics 6, 7 [Heeswijk & Turnhout].

¹¹⁵ A. Watson, *Legal Transplants: An approach to comparative law* (University of Georgia Press 1993) 21.

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to survive there must be a functionality glue to hold it in place.”¹¹⁶ This suggests that legal transplants need to pass the “functionality” test if the transplant must succeed. On the other hand, Wiersum and Elands argue that “the FLEGT/VPA process should not be considered as constituting a process of linear implementation of the EU policy, but rather as an interface process in which the FLEGT policy is adjusted to local realities.”¹¹⁷ Notwithstanding contrary views, the due diligence requirement can, some have argued, ensure that VPAs, which the EU imposes, is less discriminatory or problematic.¹¹⁸

Some criticism of the FLEGT Action plan points to a shift away from environmental sustainability and public participation towards increasing state dominance in designing and implementing the legality standard. The connection with these three discourses (environmental sustainability, public participation, state dominance) is hierarchical, with law enforcement at the apex, as it is considered an indispensable step to strengthen the economic position of the EU and the VPA country, decreasing deforestation and enhancing environmental consideration.¹¹⁹

Unlike strong preferences observed for transparency and accountability considerations, preferences were relatively weaker for issues regarding civil society participation in the Lao VPA process; land rights of forest communities; and livelihood impacts on small-scale operators, family businesses, and forest communities.¹²⁰ Under the FLEGT Action Plan, power is held by government officials, international development partners and donor community, while the civil society organizations, private sector, and actors at the subnational level are substantially less powerful.¹²¹ Instead of leading to fair outcomes as envisaged, FLEGT has strengthened prevailing inequities by tilting the field to the advantage of more giant corporations over smaller companies.¹²²

The above viewpoints suggest that the EU has not adequately delivered its promise to reform forest governance through “fair and legitimate” participation and representation of state and non-state actors. Limited public participation can infer unequal opportunities to influence the VPA process, which runs contrary to a European Council confirmation that VPAs should fortify land tenure and access rights for indigenous peoples

¹¹⁶ A. Watson, ‘Legal Transplants and Law Reform’ (1976) 92 Law Quarterly Review 80; A. Watson, *Legal Transplants: An Approach to Comparative Law* (Scottish Academic Press 1974).

¹¹⁷ K. Freerk Wiersum and Birgit H.M. Elands, ‘Opinions on legality principles considered in the FLEGT/VPA policy in Ghana and Indonesia’ (2013) 32 Forest Policy and Economics 14, 21.

¹¹⁸ Heeswijk & Turnhout, *supra*, 10.

¹¹⁹ *Ibid.*, 11.

¹²⁰ Sabaheta Ramcilovic-Suominen, Marko Lovric, and Irmeli Mustalahti, ‘Mapping policy actor networks and their interests in the FLEGT Voluntary Partnership Agreement in Lao PDR’ (2019) 118 World Development pp 128.

¹²¹ *Ibid.*

¹²² Ahmad Maryudi and others, ‘A Level Playing Field? – What an Environmental Justice Lens Can Tell us about Who Gets Leveled in the Forest Law Enforcement, Governance and Trade Action Plan’ (2020) 33: 7 Soc & Nat Res pp.859, 869-71.

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and other marginalized communities; and strengthen effective participation of all stakeholders, especially indigenous peoples and other non-state actors in policymaking and implementation.¹²³ Given the significance of public participation in environmental decision-making,¹²⁴ current and future VPA countries should endeavour to promote the participation of civil society and other important stakeholders, including indigenous and other local communities in the VPA implementation and monitoring processes.

The EU's 2014 evaluation of the FLEGT Action plan made several recommendations: the need to (1) deliver support (financial, political and otherwise) to VPA countries in a more flexible manner, involving the private sector, (2) improve the monitoring of FLEGT and give more attention to its communication, (3) shift its focus to non-VPA countries and other international alliances in order to address illegal logging globally, (4) clarify its contribution to the objective of sustainable management of forests, and (5) give due attention to obligations deriving from treaties and other international agreements.¹²⁵

5. CONCLUSIONS

Deforestation and climate change are two global issues that can have substantial environmental, social and economic impacts at the local to the global scale and can only be addressed via international cooperation. Deforestation is promoted by, among others, illegally sourced timber and timber products and (subsistence and commercial) agriculture. These activities can undermine the rights of forest (-dependent) communities and opportunities for good governance, for forests to sequester GHG, and for governments to collect taxes. The continuous and consistent loss of forest cover and release of forest carbon demonstrate how minimally effective international efforts such as the UN Forest Instrument and REDD+ framework have preserved tropical forest resources. Additional tools to support international cooperation on mitigating forest carbon emissions are urgently needed.

Considering deforestation's challenge for soft-law mechanisms (including the UN Forest Instrument and REDD+), one possible action that might knock down some of these barriers and, in turn, accelerate progress towards the 2017 Global Objectives on Forests is to promote sustainable forest management (SFM) through trade rules. Trade-related measures such as the Forest Law Enforcement, Governance and Trade (FLEGT) action plan is relevant. This paper argues that FLEGT provides the most appropriate framework for future regional/global forest law reform – FLEGT aims to address illegal logging and imported deforestation through different actions.

¹²³ Lindsay Duffield and Saskia Ozinga, Making forestry fairer (FERN 2014) 12.

¹²⁴ United Nations, Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26. Rev.1, Principle 10.

¹²⁵ EU FLEGT Facility, 'Independent evaluation of the EU FLEGT Action Plan' (European Forest Institute 2020) <<https://www.euflegt.efi.int/eu-flegt-evaluation>> accessed 09 November 2021.

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FLEGT amalgamates demand-side measures (the EU Timber Regulation) and supply-side measures (the FLEGT licensing system and VPAs). While the demand-side measures criminalize the import of unlawfully and unsustainably harvested timber products into the EU Community, the supply-side measures set out the obligations of timber operators in VPA countries. A VPA is a trade agreement negotiated between the EU and timber-exporting countries. It is legally binding with agreed-upon terms that guarantee that VPA countries' timber products are sustainably and legally obtained. The FLEGT Action Plan is unique because it calls on forest-exporting nations to exercise 'due diligence' before placing timber products on the EU market, encouraging trading from deforestation-free supply chains. The overarching goal of the FLEGT policy is to build institutions in interested tropical countries that promote SFM and ensure the legality of exported timber and timber products.

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PRODUCTION SHARING AGREEMENTS: LEARNING LESSONS FROM RUSSIA AND NIGERIA

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ABSTRACT

This paper lays the foundation of what Production Sharing Agreements are, what they were intended to be, and how they have failed to meet the current requirements of the State and, in turn, have ended up exploiting the economic resources of the countries by not giving the State their rightful due. Moreover, this paper highlights the consequences of implementing the Production Sharing Agreements in two major oil producing States namely Nigeria and Russia. Subsequently, an earnest attempt has been made to bring to light the flaws of the Production Sharing Agreements accompanied with the inefficiency of the States to amend their respective laws according to their economic requirements.

Keywords: Oil; Production Sharing Agreements; Nigeria; Russia; Energy Law

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Production Sharing Agreements: Learning Lessons from Russia and Nigeria

1. INTRODUCTION

For a successful petroleum regime, the government must design and implement an appropriate legal regime comprising special petroleum laws, regulations, and model production sharing contracts or model licenses, depending on the government's preference.¹ It should also consider petroleum taxation, State participation in exploitation, treatment of foreign investors and imposition of production restrictions if needed to fulfil international obligations in this respect.² Many governments lacking the technology and fund for oil exploration and exploitation are compelled to turn to Foreign Oil Companies (FOC)³ that hold most of the financial and technical means needed for the exploration and exploitation of petroleum resources. Therefore, an enabling legal and fiscal framework, to act as catalyst, and, more importantly, as surety for the inflow and preservation of new, and typically foreign, investment, must be implemented⁴. This framework creates Petroleum Agreement, thereby creating a legal relationship between the State and the petroleum company that describes the rights and corresponding obligations of each party for each stage of petroleum resources, by aiming to provide security, which will give effect to the symbolic relationship between the parties.⁵ Not to be left out are the establishments of administrative infrastructure comprising a specialized ministry, a petroleum directorate and a supervision entity.⁶

Every State has sovereign powers over their natural resources including hydrocarbon resources existing at the surface or in the sub-surface of its land territory or its continental shelf.⁷ By virtue of these powers, the legislature can make laws authorizing the government of the country to regulate petroleum extraction activities within its jurisdiction. As a rule, ownership of petroleum resources is vested in the State. However, there are exceptions where separate property rights with respect to minerals are acknowledged⁸ and such situations exist in the United States where the landowner is also the owner of the petroleum on the surface of or beneath the land.⁹

States adopt oil policies to develop and establish their domestic petroleum production, for economic and strategic reasons. Economically, domestic production affords States' opportunity to participate in production

¹ Benard Taverne. *'Petroleum, Industry and Governments: An Introduction to Petroleum regulation, economics and government policies'* (2000) Springer Publication, United Kingdom 89.

² *Ibid* p.88.

³ Herein after referred to as FOC.

⁴ O. O. Rewane, *'Creating a comprehensive and Investor Friendly PSA Regime: Where does Russia Keep Going Wrong?'* (2005) 3 OGEL 29.

⁵ *Ibid*.

⁶ *Supra* n.5.

⁷ Art. 1, United Nations Convention of the Continental Shelf 1958 and UNCLOS 1982.

⁸ Benard Taverne. *'Petroleum, Industry and Governments: An Introduction to Petroleum regulation, economics and government policies'* (2000) Springer Publication, United Kingdom 89.

⁹ *Ibid*.

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operations, export surplus oil to increase its balance of payment and yield government tax revenue¹⁰. Strategically, domestic production guarantees energy security of the States to a large extent by diminishing the dependence on foreign oil suppliers making a State economically and politically vulnerable.¹¹ A State setting up its legal regime for petroleum production within must take into account a few aspects of international law because the State may be or may become a party to¹² global or regional conventions e.g., UNCLOS 1982, OPEC, Bilateral Inter-State Agreements, Multilateral Inter-State Agreements, etc. These conventions and treaties impose, *inter alia*, on the member States, restrictions and obligations with respect to petroleum operations under its jurisdiction.¹³

Production Sharing Agreement (PSA) is a contractual arrangement made between a foreign oil company – FCO (contractor) and a designated state enterprise (state party), authorising the contractor to conduct petroleum exploration and exploitation within a certain area (contract area) with the understanding that, from the petroleum subsequently produced, the contractor will be entitled to a portion called profit oil in addition to another portion called recovery oil.¹⁴ PSAs are essentially a sole risk contract for the FOC.

PSAs in the modern form were first introduced in Indonesia on the 18th of August 1966 by Dr. Ibru Sutowo, founder, first President and Director of Pertamina in order to redefine the role of the State and FOCs, which had previously been on a concessionary system.¹⁵ Dr. Ibru Sutowo, in evolving this system, ‘tried to find a system reasonable for Indonesia and yet worthwhile for companies to gamble their money’.¹⁶ In essence, he was looking for a system, which gives Indonesia reasonable profit but, at the same time, puts the responsibility and risk of funding on FOCs. Dr. Ibru Sutowo formulated 5 fundamental principles for future agreements with foreign oil companies, which gained wide acceptance in Indonesia and beyond.¹⁷ These principles are:

1. The State enterprise would have management control.
2. The Contract would be based on production sharing instead of profit sharing.
3. The Contract would bear the production risk and cost recovery would be limited to 40% of the annual production.
4. The remainder production (after cost is deducted) would be split 65/35 in favour of the government.

¹⁰ *Supra* n.10.

¹¹ *Supra*

¹² *Supra*

¹³ B. Taverne, note 92.

¹⁴ Bernard Taverne, ‘Production Sharing Agreements in Principle and Practice’ in David M.R. (Ed) *Upstream Oil and Gas Agreements* (1996) Sweet and Maxwell, London 44.

¹⁵ O.O. Rewane, ‘Creating a Comprehensive and Investor friendly PSA Regime: where does Russia keep going wrong?’ (2005) 3 OGEL 9.

¹⁶ *Ibid*

¹⁷ *Ibid*

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5. Title to equipment purchased by the contractor would pass to the State enterprise upon entry to Indonesia.

Thus, PSA was first introduced in Indonesia in 1966 in response to increasing criticism and hostility towards the concession system at that time.¹⁸ PSAs tend to favour small, poor, developing and transitional countries with potential oil reserves¹⁹ and this is because the countries lack the financial resources and technical expertise to efficiently locate and extract their oil, and therefore, contract with the FOCs to locate and extract the oil on behalf of the State for a share of the production.²⁰

Under the PSA, the FOC is entitled to recoup its capital cost once the project is producing oil, and this is called as the cost oil.²¹ The percentage of capital cost oil that the FOC is allowed to recoup can range from 20 to 100 percent, but 30 to 60 percent is more common.²² The remaining oil, minus royalties and bonuses paid to the State based on the total production, is the profit oil.²³ The ways of calculating the profit oil share can be extremely complex. They can be straight splits of the profit oil, or it can be determined by sliding scales based on the projects' rate of return.²⁴ Outside the profit oil, the government also has royalties, taxes and bonus schemes as a way of increasing direct revenue of the State.²⁵ As a result of these additions, most PSAs provide a total government's take that ranges between 75 to 90 percent of the projects' total revenue.²⁶

The amount of a host government's take under a PSA is a telling factor in whether or not a country is competitive in attracting foreign investment.²⁷ The ability of the host government and its National Oil Company (NOC)²⁸ to work in harmony with the FOC after they have reached to an agreement is very important because the cooperation between the host government, its NOC and the FOC is essential in PSAs as both parties have ownership of the production and management decisions.²⁹ It is noteworthy to state that PSAs are basically regulated by domestic laws. However, this is done in accordance with the international law³⁰ and the comprehensive treaty in this regard is the EECT.³¹

¹⁸ Kristen Bindemann, 'Production Sharing Agreements: An Economic Analysis' (1999) Oxford Institute of Energy Studies 10.

¹⁹ Thomas W Walde, 'The Current Status of International Petroleum Investment: Regulating, Licencing, Taxing and Contracting' (1995) 1:5 CEPMLP Journal.

²⁰ D. Babusiak and others, 'Oil and Gas Exploration and Production Reserves, Costs, Contracts' (2004) 17 Editions Technip 199.

²¹ *Ibid* p.200

²² *Supra* n.21

²³ Nutavoot Pongsiri, 'Partnership in Oil and Gas Production Sharing Contracts' (2004) 17:5 The International Journal of Public Sector Management 432-434.

²⁴ *Ibid*.

²⁵ *Supra*.

²⁶ Bindemann, note 19 p.18

²⁷ King and Spalding LLP, note 13 p. 3.

²⁸ Herein after referred to as NOC

²⁹ *Supra* n.27.

³⁰ Bernard Taverne, note 19 p.54

³¹ European Economic Treaty 1957 Art 18.

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As a result of the economic and political importance of hydrocarbon resources to States, PSAs are formulated to uphold State sovereignty over its natural resources and ensure that the States are not financially involved in petroleum operations as it is a sole risk venture.³² PSAs also aim at providing States lacking financial resources and technical experience to build their domestic petroleum industry by relying on the FOCs to provide them with the needed financial resources and technical capabilities for this purpose as well as transfer of technology by training the national employees and State party personnel.³³ With PSAs, the State can maximise revenue from its hydrocarbon resources through royalties, taxes, bonus schemes and profit oil.³⁴

2. WHAT OIL COMPANIES WANT

Generally, oil companies prefer exclusive licence/ concession to risk contracts and PSA to other types of risk contracts.³⁵ However, in practice, oil companies have no choice in the matter as it is the prerogative of the host government to decide its oil policy. Nevertheless, the FOCs look out for the following interest when negotiating contracts:³⁶

1. A right to oil reserves: FOCs want a deal that guarantees their right to extract the reserves for many years, thus ensuring their future growth and profits. They also want a contract that allows them to 'book' these reserves, including them in their accounts increasing their company value. PSAs like concession contracts permit oil companies to book reserves in their accounts. The importance of this to oil majors should not be underestimated. In 2004, Shell was found to have overstated the size of its 'booked' reserve by over 20% and it lost the faith of the financial market impacting heavily its share price and credit rating.³⁷
2. An opportunity to make large profits: Oil companies make their profit from investing and risking their capital. In some cases, they lose their capital e.g., when they drill a 'dry well'. However, they make good gain when they find large and hugely profitable fields. Oil companies aim for deals that give them a chance to make super profit and PSAs are designed to allow oil companies to achieve very large profits if successful.
3. Predictability of tax and regulation: While oil companies can accept exploration risk (when no oil is found), or price risk (the oil price falls), both being beyond their control, they try to manage 'political risk' by locking in government in binding long term contracts that fix the terms of their investments. PSAs could range from 20 to 40 years with terms

³² *Ibid* p. 57

³³ *Ibid* p. 49-50

³⁴ Bernard Tavern, note 19 p. 45

³⁵ *Ibid* p. 44

³⁶ Greg Muttitt. *Crude Designs: The Rip-Off of Iraq's Oil Wealth*

³⁷ *Ibid*.

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protected from potential change by incoming regimes of the governments.

As a result of these enticing objectives of the PSA, many developing countries and States interested in exerting control over their hydrocarbon resources opt for PSAs as part of their oil development policy. In theory, the objectives of PSAs are quite enticing such that most developing States fall for it, but PSAs leave the States worse off. One underlining objective of PSAs is to revitalize the economy of a State, create employment by training personnel and nationals; but most States find the FOCs wanting in this aspect. PSAs are essentially a risk contract of the FOCs because they bear the exploration and financial risks, while in fact it is the State bearing the risks. States have entrusted their hydrocarbon resources into the hands of FOCs who are very much interested in the exploration and exploitation of the State. More so, the States have no knowledge of how much hydrocarbon they have, and they need to accept what FOCs disclose the amounts to them. It then means, they (FOCs) are very much in control of the resources, and it is a risk worth taking since every investment (and more) will be recovered to the detriment of the State.

PSAs hit the very foundation of the economic revenue of the States. Most States that implement PSAs are heavily dependent on their resources; and, even though they have other sectors, for the most times such sectors are being financed from the oil reserves. Thus, when PSAs are signed by State, they lock the State in for a lengthy period and they freeze the State fiscal and financial policies. Still worse is when the State is running at a loss because of exploration by the FOCs as it is difficult to sustain the economy once the oil revenue is depleted³⁸ and this leads to the phenomenon referred to as Dutch Disease Syndrome³⁹ where the economy is being crippled by over reliance on one sector leading to poverty amongst States.

In the event of dispute between the FOCs and the States, the States are at a disadvantaged situation as only commercial matters are heard. Unfortunately, that States wanting to exert maximum control over their hydrocarbon resources opt for PSAs, but they do not always achieve their desired result looking at the experiences of some States, which have enthusiastically implemented PSAs and were disappointed by the end result.

3. PRODUCTION SHARING AGREEMENTS IN NIGERIA

Nigeria commenced its petroleum industry in 1908⁴⁰ and ever since Nigeria has developed different petroleum development contracts in view

³⁸ India de Soysa, 'The Resource Curse: Ane Civil wars Driven by Rapacity or Paucity? In, Nats Berdal and Malone (Eds), Greed and Grievance: Economic Agendas in Civil Wars (2000) Lynne Rienner Publishers, London.

³⁹ *Ibid*

⁴⁰ M B Umar, 'Legal Issues in the management of Nigeria's Production Sharing Contracts; from a study of the Nigerian National Petroleum Corporation (National Petroleum Management Services) Perspective' (2005) 1 OGEL 1.

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to curing the deficiencies of the existing contractual arrangement or in response to the dynamics of the industry. Concessions were the earliest and only form of such contracts between 1908 and 1969⁴¹. The first Nigerian concession was granted to a German firm: the Nigerian Bitumen Company⁴² and another in 1937 when Shell-BP was granted an exploration right pursuant to the Mineral Oil Ordinances No. 17, 1914⁴³ over the whole mainland of Nigeria comprising 357,000 sq. miles or 925,000 sq. kilometres for a period of 40 years (offshore) and 30 years (onshore) with an option to renew the contracts. The concessionaires were required to pay a yearly rent for the entire term of the concession and royalty, which would most often range between 5-10 shillings towards rent and royalty of 4 Shillings a ton of 2,240 lbs of Crude Oil.⁴⁴ These concessions have been criticised as being 'colonialistic' and exploitative of developing countries⁴⁵, and, in Nigeria, the PSAs were replaced by Joint Operating Agreements (JOAs).

JOAs were introduced pursuant to the Petroleum Act and Nigerian National Petroleum Cooperation (NNPC) Act to ensure State participation, among other things, in the development of Nigeria's petroleum resources through the abolition and conversion of all pre-1969 concessions to joint ventures with the FOCs⁴⁶. Although there have been relative successes with the JOAs, its future was threatened between 1990 and 1992 following increased government's default to meet its cash call obligation to its partners⁴⁷. This situation, according to Micheal Olorunfemi (1997)⁴⁸, was attributed to several factors including:

- (a) A decline in the earnings from crude sales;
- (b) Abolishing of crude oil dedicated accounts hitherto maintained by NNPC for the settlement of cash calls; and
- (c) Non-availability of surplus cash for investment from internal sources. This had negative impact on the tempo of exploration and production activities to a point well below its potentials.

Faced with these challenges and the need to source the required finance to accelerate the tempo and scope of exploration and production activities in the deep offshore and Inland Basin Frontier areas, the government eventually adopted PSAs.

⁴¹ *Ibid*

⁴² *Ibid* p.22

⁴³ Repealed by the Petroleum Act (1969) cap 350 LFN 1990.

⁴⁴ Para 3(1) of the Concession Agreement of Shell BP in 1949 quoted in M.B Umar note 43, p.22

⁴⁵ See the United Nations General Assembly (UNGA) Resolution 1803 (xvii) on Permanent Sovereignty over natural resources; United Nations Charter of Economic Rights and Duties of a State; Resolution No. 90 of the 16th Conference of OPEC held on January 1968, which was re-emphasised in 1971 in a policy statement encouraging members to take necessary steps at controlling their oil industries and participating in existing concessions based on the principle of changing circumstances.

⁴⁶ M B Umar note 43, p. 24

⁴⁷ *Ibid*

⁴⁸ Micheal A Olorunfemi, 'Oil and Gas joint Venture management; a Case for Reforms, Nigerian Petroleum Business, A Handbook. In VE Eromosele (Ed) 1997 68.

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3.1 PSAs

PSA was introduced in Nigeria in 1973, in a contract between the Nigerian National Oil Corporation, the precursor of NNPC and Ashland Oil Nigeria Company for OPL 98/118 for duration of 20 years with renewal for another 5 years⁴⁹. However, it was until 1991 when PSA was widely introduced, and the first rounds of PSAs were executed in 1993 with the second round in 2000⁵⁰. Virtually all PSAs in Nigeria are on deep offshore and Inland Basin contract areas, although there are no legal restrictions against onshore or shallow water PSAs⁵¹.

3.2 Nature of the Contracts⁵²

The contract is a blend of statutory predetermined and contractually negotiated terms between the NNPC and the FOCs. Areas predetermined by the legislation include the government participation, title to petroleum, commerciality, licenses and mining leases, taxation, investment tax credits/allowance, ring fencing, domestic obligations, environmental protection and safety, training of Nigerian personnel, local content, arbitration and applicable law. Areas subject to negotiations include duration, work commitment, relinquishment, insurance, title to equipment, certain rights and obligations of the parties, composition functions and power of the management committee, bonus payments, cost recovery limits, production sharing, accounting procedure, lift obligations and project implementation procedure.

- The NNPC holds all rights in and to the contract area.
- The NNPC appoints the company as a contract with an exclusive right to conduct petroleum operations in the contract area.
- The contract permits the contractor to operate for 30 years: 10 years exploration phase, and 20 years oil mining lease (development/production) phase.
- The contract mandates the contractor to provide funds and guarantees and bears the risks operating cost.
- The contract requires contractors to employ and train Nigerian and encourages local content utilization as a means of achieving technology transfer.
- There is no cap on cost recovery as the contractor is allowed to recover all its operating expenses within 5 years and take an agreed percentage share of the profit.

3.3 The Structure of Nigerian Petroleum

The Nigerian petroleum industry is structured around four key components comprising, the legal framework as its foundation, the regulatory and administrative structure, duly empowered to give effect to

⁴⁹ M B Umar, note 43, p. 13

⁵⁰ *Ibid*

⁵¹ *Ibid*

⁵² M B Umar, note 43, p 29

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the legal provisions, the non-governmental key players and stakeholders, comprising the FOCs indigenous oil companies and, in recent times, the host communities and non-governmental organisations, and, lastly, the various petroleum development contracts and arrangements, which in combination with the relevant legal and regulatory regimes, governs the operations of the industry and the relationship between the parties⁵³.

3.4 The Legal Framework

There are several laws that are applicable to the upstream and downstream sectors of the Nigerian petroleum industry; however, the key legislations applicable to the upstream sector include:

- The Constitution of the Federal Republic of Nigeria 1999, particularly section 44(3), which vests ownership of petroleum resources in the federal Government of Nigeria and, thus, forming the bases of the Nigerian PSAs.
- The Petroleum Act, cap 350 Laws of the Federation of Nigeria (LFN) 1990, together with the Petroleum Regulations, Petroleum (Drilling and Production) Regulations and Petroleum Refining Regulations.
- Nigerian National Petroleum Corporation (NNPC) Act, Cap 320 LFN 1990.
- Petroleum Profits Tax Act (PPTA) as amended, Cap 354 LFN 1990.
- Oil Pipelines Act, cap 338 LFN, 1990 together with Oil and Gas Pipelines Regulations 1995.
- Deep Offshore and Inland Basin Production Sharing Contract Decree (1999).

Although these regulations are enacted for specific objectives, they sometimes overlap. However, the broad objective of these legislations has been summarised as follows:⁵⁴

- i. Assertion of national sovereignty over Nigeria's petroleum resources together with effective control and surveillance of petroleum operations by or on behalf of the federal government.
- ii. The provision of increased revenue to the federal government.
- iii. Supply of domestic needs of petroleum products.
- iv. The acquisition of technology by Nigerian citizens and the development of indigenous manpower.

Despite the advantages of the PSA, there remain serious questions as to whether the existing provisions of the contract as they are. The challenges of implementing the contract do not constitute or are not likely to constitute serious impediments to the realisation of key national objectives for adopting the contract, such as the maximisation of revenue, protection of the environment, transfer of technology including local content utilisation/capacity building, recruitment and training of Nigerians.

⁵³ *Ibid* p. 13

⁵⁴ Martin M Olisa, 'Overview of Nigerian Petroleum Industry' (2001) p. 2.

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4. FINDINGS FROM NNPC WITH IMPLEMENTATION OF PSAs

From the study carried out by M. B Umar⁵⁵ at the legal and insurance department of NNPC/NAPIMS Lagos, Nigeria from April 2004 to September 2004, which focused on the key legal and contractual issues in the management of PSAs from 1993 to 2004 from the perspective of NNPC/NAPIMS, revealed that the NNPC/NAPIMS have been faced with many legal issues and challenges many of which are attributed to the inelegant and apparent deliberate ambiguities prevalent in the provisions of the contract particularly in the 1993 PSC.

These inadequacies legal and contractual provisions have raised many issues in the management of the contract and often with serious implications on the economics of a contract, the efficient and transparent execution of agreed work programmes and other obligations of the contractor and the relationship of the parties. These issues are categorised as follows⁵⁶:

- a) Those relating to the interpretation of certain provisions of the Petroleum Act, other relevant laws, and PSAs; and falling under this category are issues relating to:
 - i. The relinquishment of the contract area
 - ii. The application of back-in rights
 - iii. The development of natural gas
 - iv. Cost recovery under the 1993 PSA-consolidation versus ring-fencing
 - v. The treatment of capital allowance, and
 - vi. The deduction of Home Office overhead charges
- b) The second category deals with the contractor's (FOCs) non-compliance with its obligations as to:
 - i. Transfer of technology including:
 - a. the employment and training of Nigerians
 - b. utilisation of local content
 - ii. Environmental obligations
 - iii. Financial accountability.

It is rather disheartening to know that the issues listed above are eventually all the objectives the State (Nigeria) seeks to achieve by the implementation of PSAs and worse still is that the sorry state of affairs can partially be attributed to the government's negligence in drafting comprehensive contracts and legal frameworks, thereby, creating opportunity for the FOCs to exploit the loopholes to their advantage.

⁵⁵ M B Umar, note 43 p. 6

⁵⁶ *Ibid* p. 9

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5. ISSUES RELATING TO THE INTERPRETATION AND APPLICATION OF SOME LEGAL AND CONTRACTUAL PROVISIONS

5.1 Relinquishment of Contract Area

The question here is whether more than one Oil Mining Lease ‘OML’⁵⁷ should be granted where the 1993 PSA contractor has discovered more than one commercial field in the un-relinquished part of a contract area. The first schedule to the Petroleum Act 1969⁵⁸, and the Petroleum (Drilling and Production) Regulation⁵⁹, provide for the relinquishment of contract area. The PSC⁶⁰ also provides for the exclusion on contract, but somewhat differently. Paragraph 12(1) provides that 10 years after the grant of an Oil Mining Lease, one half of the area of the lease shall be relinquished. Paragraph 19 states that the shape and size of the area to be retained and of the area to be relinquished shall be approved by the minister. Paragraph 2(4) of the Drilling Regulations further provide that where there is provision for the relinquishment or surrender of part of the relevant area of a licence or lease, the relinquishment or surrender shall be such that the retained part is a compact unit as provided under Paragraph (2) and (3). Paragraph (2) provides that the area applied for shall be a compact unit not exceeding in area:

- a. in case of oil exploration license on 5000 sq. miles.
- b. in the case of an oil prospecting license on 1000 sq. miles.
- c. In the case of Oil Mining Lease on 500 sq. miles.

Paragraph (3) states that all Mining Lease deriving from oil prospecting license shall be in compact blocks of unit; and where more than one block or unit is derived, each block or unit shall be subject to a separate and distinct lease. Clause 4 of the 1993 PSC on the other hand provides that, not later than 10 years from the effective date, fifty percent (50%) of the Contract Area shall be excluded. The 50% of the Contract Area to be excluded shall be agreed by both parties and shall not include any part of the Contract Area corresponding to surface areas of any field in which petroleum has been discovered in commercial quantity.

These provisions can produce several and conflicting meanings leading to interpretative issues between the corporation and the FOCs. Some of such meanings include.

- Whether the aggregate of the area to be retained by the contractor comprises the 50% retain exploration area, plus the area corresponding to the surface area in which petroleum has been discovered in commercial quantities; or
- Whether there is anything in the regulations preventing the corporation from applying to the Minister for re-issuance of more than one single licence on the retained part of the Contract Area

⁵⁷ Herein after referred to as OML

⁵⁸ Paragraph 12 and 19

⁵⁹ Paragraph 2

⁶⁰ Clause 4

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where the contractor has discovered more than one commercial field in the Contract Area.

The second issue above assumed significance after huge discoveries like that of SHELL's Bonga⁶¹ and Chevron Texaco's Agbami covering more than single fields. Contractors expected the corporation to apply for more than one OML from the un-relinquished part of the Contract Area. The corporation argued, however, that granting more than a single OML on the retained Contract Area will give undue advantage to the contractors, since they already enjoy a very good profit split ratio of 80% to government's 20% under the contract⁶².

In addressing the issues, Government of Nigeria passed the Oil Prospecting Licence (Conversion to Oil Mining Leases etc.) Regulations 2003, which essentially amended both the Regulations and the PSA by limiting the number of OML to be granted to no more than one OML at a time on a given Contract Area.

5.2 Computation of Home Office Overhead Charges

The 1993 PSA⁶³ provides that the contractor shall include the following percentage on the total annual capital expenditure as Home Office overhead charges in calculating total operating costs:

- First \$200 million 1.00% of CAPEX
- Next \$200 million 0.75% of CAPEX
- Next \$100 million 0.5% of CAPEX
- Above \$500 million 0%

Capital expenditure is defined as "expenditure which are subject to capital allowance under the PTT Act and such expenditures normally have a useful life beyond the year incurred"⁶⁴. Such expenditures are listed in Paragraph (a) to (f). Some of the expenditures mentioned in Paragraph (e) are "pre-production expenditures all cost (including those otherwise falling with non-capital cost described in Paragraph 1 of this Article II) incurred before the first PTT accounting period".

This provision is ambiguous, and it is raising question for determination between the corporation and the FOCs on the interpretation of the phrase "all cost (including those otherwise falling within non-capital cost described in paragraph I of this Article II) incurred before the first PTT accounting period". Does this mean:

- a) All pre-production expenditures comprising those listed under capital costs and non-capital cost? Or

⁶¹ The Bonga field lies a hundred and twenty kilometres off the coast of Nigeria, in water more than a thousand meters deep, and is estimated to contain reserves of more than six hundred million barrels of oil, along with abundant natural gas. The SHELL Nigeria Petroleum development corporation is developing the field on behalf of NNPC. SHELL's joint venture partners are ExxonMobil, AGIP and ELF.

⁶² M B Umar, note 43, pg 56.

⁶³ Clause 13.3

⁶⁴ Article II, paragraph 2 of the accounting procedure (Annex B)

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- b) Pre-production expenditures listed as capital costs and those not listed as non-capital costs?

The issue arose when the corporation realised that the contractors had been including pre-productions costs-intangible drilling costs, geological and geophysical costs, appraisal and development wells as capital cost in computing home office overhead charges.⁶⁵ The corporation claimed their action was based on their interpretation of the above phase which was, pre-production costs “falling within non-capital costs are to be treated as capital costs for which they are entitled to add the home office overhead charges stipulated in Clause 13”.⁶⁶

The corporation disagreed with the interpretation, contending that the contract does not allow the treatment of these pre-production expenditure as capital costs in calculating head office overhead charges because.

- a) Intangible drilling costs, and geological and geophysical costs are specifically listed in Article II K, L, and N as non-capital costs which are chargeable to the current year’s operations
- c) If the intention of the contract were to treat such costs as capital cost, it would have been listed.⁶⁷

The corporation has expunged this anomalous clause from the 2000 PSA.

5.3 Issues Relating to Contractor’s Compliance with The Provisions of the PSA

It is a universal principle of contract that a party to a contract is strictly bound by the contractual obligations without which the contract, no matter how well written, is but a worthless paper. This section examines the extent of the FOC’s non-compliance with some key provisions of the contract and identify the key loopholes in the contract that contributes to the non-compliance.

5.4 Transfer of Technology

The transfer of petroleum technology has been defined as:

“The ability of the developing country to purchase or hire in the international market, the most advanced equipment for exploration and development of its petroleum resources at a fair and reasonable cost. Above all, it should also mean developing its human resources by enabling its citizens to acquire the mental capability and practical experience needed to comprehend the mysteries of modern technology and to manipulate the sophisticated tool” ...⁶⁸ “As a first step, therefore, countries must be able to attract required skill and process from the international market for energy technology. At the same time, the local based

⁶⁵ M B Umar, note 43 p. 69

⁶⁶ *Ibid* p. 70

⁶⁷ *Ibid*

⁶⁸ Kameel Hassan, ‘The transfer of technology and Petroleum Development in the Developing Countries: with special reference to Trinidad and Tobago’ (1986) 4:1 JERRL 11.

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absorption of ideas should be developed to the point where, with time, the total size of the imported package is reduced. An effective transfer, then, requires that the country reduces its dependence on imported technology with industrialisation”⁶⁹.

From this definition, some salient points can be drawn which includes the development of human resource, and industrialisation as a means of reducing or eliminating dependence on the imported technology. The governments have tried to address this issue through appropriate policies and legislations by creating obligations in the PSAs for the FOC like the recruitment and training of Nigerians, the training of corporation’s personnel, and local content utilisation. The question is how have FOCs fared in carrying out these contractual obligations.

5.5 The Recruitment and Training of Nigerians

The Petroleum Act of 1969⁷⁰ and the 1993 PSA⁷¹ and a similar provision in the 2000 PSA provide that the contractor is obliged to employ qualified Nigerians for all non-specialised positions such as those in exploration, drilling, engineering, production, and finance. The contractor is allowed to employ expatriates only when there are no Nigerian and shall train Nigerians for such specialised positions such that the number of non-Nigerian staff shall be kept to a minimum. The FOC is also required to train other Nigerians who are not its employees under scholarship and industrial training schemes, among others. The PSA⁷² also requires that contractor to accept the staff corporation on industrial or work experience programme on non-discriminatory terms. To ensure compliance, the Petroleum (Drilling and Production) Regulations⁷³ requires the contractor to submit for the Minister’s approval, a detailed annual programme for such training and progress thereof.

In spite of these provisions, the contractors do not fully carry out their obligations. The President, speaking at the inauguration of the local content committee in April 2004, was reported to have lamented that 50 years since the discovery of oil in the Niger-Delta, upper management in the Nigerian oil industry are still essentially expatriates.⁷⁴ This situation can be attributed to the contractor’s violations such as AGIPs’ unwillingness to accept NPDC’s personnel seconded to work with its officials on OPL 244⁷⁵, contrary to its obligation under clause 12.4, continued employment of expatriates of the disadvantage of Nigerians and refusal to make any succession plans or circumvention of such plan through re-arrangement of duties or qualifications. An example is the distribution of personnel to SHELL Nigeria, where the records obtained from NAPIM’s planning department, show that

⁶⁹ *Ibid*

⁷⁰ Paragraph 37 of the schedule thereto

⁷¹ Clause 12.3 and 7.1 (j)

⁷² Clause 12.4 (1993)

⁷³ Regulation 26 – 29

⁷⁴ 10:3271 THISDAY Newspaper Nigeria 2004, Tuesday April 2004.

⁷⁵ M B Umar, note 43, p.73

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out of a total staff strength of 384 expatriates disproportionately hold 136 positions (35.4%) to Nigerians 284 (about 65%), and of this number, 17 expatriates still occupy middle level management and senior staff positions, which should have otherwise been occupied by Nigerians by direct posting or succession arrangement⁷⁶.

These recurrent violations can be attributed to the existence of loopholes in the agreements making it easier for contractors to circumvent these obligations and the absence of specific sanctions for non-compliance, except perhaps, the unlikely refusal to grant work permit, thereby, leaving the decision on the actual employment and the training thereof, entirely with and at the discretion or convenience, thereby, making a mockery of the entire government objective. This may be the reason that Adams lamented that "There is little technology transfer happening in Nigeria petroleum industry and that it is just not part of the mission of oil companies to transfer technology"⁷⁷.

5.6 Local Content

The requirement for the utilisation of Nigerian human and material resources by the contractors is embodied in many provisions of the PSA⁷⁸. The focus of local content, therefore, is:

- 1) the development of local fabrication yards
- 2) ring fencing of special EPC contracts for wholly indigenous companies
- 3) domesticating major studies in Nigeria
- 4) domesticating the conduct of front-end engineering design (FEED) in Nigeria⁷⁹.

The question again is, "have the contractors fully complied with the provisions of the contract in line with the objectives of the local content policy"? An answer to this question should be reasonably measured against the "indicators of achievement" set by the corporation⁸⁰.

- i. Service companies having considerable share of expenditure and moving from low-tech to high-tech jobs in the industry.
- ii. Indigenous oil exploration companies having technical competence and capacity for high production levels.
- iii. Core competences and jobs categorisation that builds large resource pools in:
 - Exploration and associated services
 - Drilling/drilling services
 - Petroleum engineering

⁷⁶ *Ibid* p. 74

⁷⁷ G. Aret Adam (Late) was a Managing Director of NNPC and a doyen of the Nigerian Petroleum Industry. Quoted in Afolabi Oladele, *Rethinking Petroleum Policy in Nigerian Petroleum Business, A Handbook* (1997) V.E. Eronmosle (Ed), p. 93

⁷⁸ Particularly Clause 7.1(i) Section 1.3(f)(g) and 2.3 of Annex E (project implementation procedure).

⁷⁹ NAPIMS, local content in the Oil and Gas Industry Presentation to the Presidency (2003).

⁸⁰ *Ibid*

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- Engineering designs
- Quality, Health, Safety and Environment (QHSE), fire security etc.

Measure against the above “indicators of competence”, the performance of the contractors as regards compliance with local content utilisation is far from desirable. In the words of the former Managing Director of the corporation “the principal concern today is that all the efforts put in over the years to promote effective Nigerian participation in the industry have all failed to achieve the desired goal”⁸¹.

This is corroborated by the records obtained from NAPIM’s planning department indicating that out of the 349 contracts valued at \$4.8 billion awarded to the contractors in 2003, only 141 or 40% of the contracts valued at \$67.7 million (14%) were awarded to local contractors, while the remaining 208 contracts (60%) valued at \$4.1 billion (86%) were awarded to foreign contractors.⁸² Despite these setbacks, the government has, in the past couple year, unveiled an apparent comprehensive local content policy aimed at achieving 40% local content by 2005, and 60% by 2010, “through well-articulated strategic alliances/partnering and increased participation”⁸³.

5.7 Financial Accountability

The maximisation of return on petroleum investment through efficient and transparent mechanism is one of the corporation’s key goals in the management of the PSAs. The legal framework for this is contained in various provisions of the contract on such issues as:

- a) the review and prior approval of work programmes and budgets,
- b) the implementation by the contractor of the provisions of the accounting procedure (Annex B), the lifting procedure (Annex D), and the procurement and project implementation procedure (Annex E) and all amendments thereto agreed by the parties, and
- c) periodic audit of the work programme to ascertain that:
 - i. the expenditures were validly and properly authorised in accordance with the relevant legal and contractual provisions,
 - ii. that they have been carried out efficiently and transparently, and
 - iii. that they were within industry standards.

Information gathered by M. B. Umar⁸⁴ from the review of several account and audit reports, minutes of some management and technical committee meetings and the deliberation of the meetings of such committees personally witnessed all indicate regular violations of some of the above contractual safeguards. Some of the violations include execution of work programme outside approved budget, poor reporting of drilling expenditures, poor accounting for bank transactions, over estimation of

⁸¹ G. Aret Adam, note 79

⁸² NAPIMS, local content in Oil and Gas Industry, note 81

⁸³ *Ibid*

⁸⁴ M B Umar, note 43, p. 91

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capital expenses and the treatment of certain pre-production expenditures as part of capital expenditure for the purpose of computing head office overhead charges etc. For example, the records obtained from PSA accounts unit of NAPIMS showed that from the cost verification exercise carried out on three companies in 2000 and 2001, the companies were found to have overstated their operating expenses by thirty-six million, seven hundred and fifty-nine USD (\$36,759,000)⁸⁵, which gives a possible indication of what to expect from other companies.

These violations can be attributed to a lot of factors, one of which is the fact that PSAs do not give the corporation enough powers to sanction the contractors for many of their violations and even where the corporation is empowered to sanction the contractors, the provision is usually full of deliberate ambiguities and exceptions, which renders the sanctions unenforceable or ineffective, thus, making it possible for contractors to avoid appropriate sanctions⁸⁶. Under the provision of both the 1993 and 2000 PSA, the corporation is entitled to two remedies against an erring contractor, namely termination and indemnity⁸⁷.

It is pertinent to say that despite the amendments of the PSAs and relevant legislations, the government is not satisfied with the results of PSAs. Further on the 7th of June 2009, the Special Adviser to the President on Petroleum Matters, Professor Emmanuel Egbogah, told Irish investors that the Federal Government had embarked on the unbundling of the NNPC to transform it into an integrated, international commercial oil and gas corporation “driven by revenue”⁸⁸. The FOCs are opposed to the policy shift contending that to begin renegotiation on existing contracts signed many years ago would not only constitute a breach but can affect future investments in oil and gas projects⁸⁹.

Although the Minister of Petroleum Resources, Dr. Rilwanu Lukman, had recommended the review and renegotiation of existing PSAs signed with the FOCs, stating that the oil contracts in place provide for periodic review and renegotiation, ‘THISDAY’ learnt from industry sources that the real reason for the review was because the PSAs, as they are, do not favour Nigeria as the multinationals “cart” away greater part of the oil revenue, leaving the country with just a token⁹⁰.

The Bill to unbundle NNPC, known as “the Petroleum Industry Bill”, was introduced in 2007 and has passed its first and second reading at the National Assembly⁹¹. To review the PSAs, Dr. Lukman on the 4th of August 2009 said, “the PSAs in place were negotiated 10 to 20 years ago and that

⁸⁵ *Ibid*

⁸⁶ *Ibid* p. 92

⁸⁷ Clause 3.2(a) 1993 PSA and Clause 19.1, 2000 PSA

⁸⁸ Chika Amanza-Nwachukwu, ‘Nigeria: Lukman – No Going Back on review of Oil Contracts’ THISDAY Newspaper Nigeria, <<http://allafrica.com/stories/200908040172.html>> accessed 8 August 2019.

⁸⁹ *Ibid*

⁹⁰ *Ibid*

⁹¹ THISDAY Newspaper Nigeria, note 90.

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things have changed since then, and the prices of oil went from less than \$10 to \$180 per barrel and you expect that we should keep the same law? Naturally, we have to review the provisions and put them in line with current situations not just for our own interest but in the interest of our partners and those who want to come in”⁹².

The benefit of the reform, according to Dr. Lukman, is to put the industry on a better level and ensure that our industry can compete favorably and competently with other similar industries in the world and our regulatory bodies are in shape and at the end of the day. The people will benefit maximally from the resource(s) exploitation in the years to come⁹³. Although the government’s action is intended for the protection of its nationals and public policy, consideration should be given to the stabilization clause, which is one of the major elements that attracting the FOCs to invest in PSA regimes. For today, the decisions may be favourable but, in the future, FOCs may not be willing to invest because of fear of dealing with a nation that does not honour its contracts. It is one thing to opt for a regime and it is another to go by the dictates (policies) of such a regime, whether favourable or not.

5.8 Production Sharing Agreement in Russia

In December 1993, President Boris Yeltsin’s presidential decree established the basic regulatory framework for PSAs.⁹⁴ The Sakhalin 11 PSA was signed in June 1994 and in 1995, the Duma State passed legislation granting PSAs the status of legally binding contract and establishing the basic provisions of the international standards.⁹⁵ The Kharyaga and Sakhalin 1 PSAs were signed later that year⁹⁶, and in 1999, the Duma passed legislation harmonising the 1995 PSAs with the existing Russian laws in an attempt to attract additional international investment in flagging Russian oil and gas (O&G) industries.⁹⁷ Duma has approved 29 O&G projects for development under PSAs, only three grand-fathered PSAs (Sakhalin 1 & 2 and Kharyaga) are in operation.⁹⁸ Although there has been some achievement from the 1995 PSAs, which have been amended twice, the practical is still wanting.

⁹² Chika Amanza-Nwachukwu, ‘Nigeria: Lukman – No Going Back on review of Oil Contracts’ THISDAY Newspaper Nigeria, <<http://allafrica.com/stories/200908040172.html>> accessed 8 August 2019.

⁹³ *Ibid*

⁹⁴ Timothy Fenton Krysiak, ‘Agreements from Another Era; Production sharing Agreements in Putin’s Russia, 2000-2007’ (2007) 34 Oxford Institute for Energy Studies1.

⁹⁵ *Ibid*

⁹⁶ *Supra*

⁹⁷ Paul Chaisty, ‘Legislative Politics and Economic Power in Russia’ (2006) Basingstoke, England: Palgrave Macmillian in Association with St. Antony’s College, p. 174-77

⁹⁸ O. O Rewane, ‘Creating a Comprehensive and Investor Friendly PSAs REGIME: Where Does Russia Keep Going Wrong?’ (2005) 3 OGEL 3.

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5.9 Sakhalin II

The Sakhalin II Project is an example of how the PSA mechanism in Russia is supporting the country's largest single investment project. Signed in June 1994, the Sakhalin II Project is the only project in Russia that is able to deliver gas to the target Asian markets in the near to medium future. The Sakhalin II Project will help increase Russia's credibility as an energy exporter in Asia, plus it paves the way for other future gas projects. Without a doubt, the Sakhalin II Project represents the first success model for the other PSAs in Russia and demonstrates, in practice, how a comprehensive and investor-friendly PSA regime can be used as a means of drawing large-scale investments into the energy sector⁹⁹.

The Sakhalin II Project represents many firsts in Russia. It is Russia's first offshore PSA, it is the first project to establish offshore development and production in Russia, and it's first non-recourse project financing in Russia¹⁰⁰. Sakhalin-II contains approximately 1.1 billion barrel of oil and 684 bcm of gas and, according to Shell, Sakhalin-II is the largest integrated oil and gas project in the world¹⁰¹, and it includes two major fields: the Piltun-Astokhsoye (PA) oil field (with associated gas) and the Lunskeye gas field (with associated condensate)¹⁰².

The Sakhalin Energy Investment Company (SEIC)¹⁰³ constructed Sakhalin-II in two main phases. In phase one, they developed part of the PA field to secure an early flow of oil and to generate capital for phase two of the project and produced its first oil in 1999¹⁰⁴. The initial cost of phase one was estimated at \$600 and \$780 million; however, the final cost of developing PA was \$1.6 and \$2 billion¹⁰⁵. Phase two of Sakhalin-II includes new offshore drilling platform at PA and Lunkskoye and under water pipelines sinking them into the mainland and ensuring year-round production¹⁰⁶. This phase has been far more complicated and expensive than phase one. SEIC's initially estimated cost was \$8 to \$8.5 billion but Shell, in July 2005, announced that the total cost for phase two was \$10 to \$22 billion.

5.10 Impact of Sakhalin-II on Russia

The Sakhalin-II PSA has met some of the expectations of the Russian party. However, there are some key features that are unacceptable to the Russian party. The duration of the contract is indefinite. The initial term of the Sakhalin-II PSA is 25 years, but the agreement contains an unusual clause that allows the SEIC to extend the PSA indefinitely and to continue

⁹⁹ Supra n.4 at p.5

¹⁰⁰ Andrew B. Seck, 'Production Sharing Agreements as a means of drawing large-scale investments into the energy mining and other sectors (an oil and gas industry perspective from Russia)' (2004) 12 CEMPLP Internet Journal 4

¹⁰¹ Timothy Fenton Krysiek, (note 96), p. 19

¹⁰² *Ibid*

¹⁰³ Herein after referred to as SEIC

¹⁰⁴ Supra

¹⁰⁵ *Ibid*

¹⁰⁶ Ian Rutledge, 'The Sakhalin II PSA – A Production 'Non-Sharing' Agreement' (2004) Sheffield Energy and Resources Information Service, p. 11.

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extracting oil and gas from PA and Lunkskoye as long as the consortium deems the field to be 'economically practicable'.¹⁰⁷ The Russian party could appeal against the consortium's decision to extend the PSA but such an appeal will go to an international arbitration¹⁰⁸. It is, however, difficult to see the Russian party win when the fields are still profitable.

From the Russian standpoint, the most objectionable aspect of the Sakhalin-II PSA is the agreement's production sharing formula¹⁰⁹. Under the terms of a standard PSA, the investors receive the majority of early revenue in order to recoup the costs of exploration and development once the PSA has reached the cost recovery stage according to a pre-negotiated formula. The Sakhalin-II PSA uses a novel approach, which it calls the first level of Accumulated Net Cash Proceed (FANCP) and second level of Accumulated Net Cash Proceed (SANCP)¹¹⁰. The two indices are a device, which ensures that SEIC receives not just its investment costs, but also a comfortable rate of profit¹¹¹. With these terms, the Russian party would only receive its share of profit oil once the SEIC partners recovered the cost of the Project and earned a 17.5% internal rate of return (IRR) on their investment¹¹². When Shell announced that the cost of the Sakhalin-II had increased to \$22 billion, it meant that the SEIC¹¹³ would receive nearly all the revenue from Sakhalin-II until they recovered \$22 billion worth of capital investment and an additional \$3.85 billion in profit¹¹⁴. In effect, it seems the Sakhalin-II PSA was designed so that the Russian party would suffer disproportionately in the event of any major cost overruns and considering Shell's 2005 cost estimate, it would take a decade of production of Sakhalin-II before the members of the SEIC recovered their costs and designated Internal Rate of Return.

Considering the inflationary pressures affecting the cost of upstream oil and gas projects around the world, it is not amazing that the Sakhalin-II budget exceeded its initial projection although the increase is quite alarming. However, from the Russian perspective, the terms of the Sakhalin-II PSA have exacerbated the impact of external economic forces by allowing the consortium to claim excessive recoverable costs¹¹⁵. A standard PSA includes 'cost caps' to ensure that if a project runs over budget, the State will receive some revenue from the fields' early production, rather than being forced to wait until the cost recovery stage for its share of profit oil¹¹⁶. Cost caps ensure that the risk associated with cost overruns is shared between investors and a

¹⁰⁷ Sakhalin PSA, 1994, Sec. 3 C(i), p. 17-18.

¹⁰⁸ CEE Bankwatch Network and others, 'The Sakhalin II PSA-Production 'Non-Sharing' Agreement Analysis of revenue Distribution' (2005) OGEL I 15.

¹⁰⁹ *Ibid*

¹¹⁰ Rawi Abdel, 'Journey to Sakhalin: Shell in Russia', Harvard Business School 2004

¹¹¹ CEE Bankwatch Network and others, 'The Sakhalin II PSA-Production 'Non-Sharing' Agreement Analysis of revenue Distribution' (2005) OGEL I 15.

¹¹² *Ibid*, see also Gazprom, 'Sakhalin Energy Working to Repair Eco- Damage on Sakhalin II', RIA Novosti, 21 Feb 2020.

¹¹⁴ Ilya Klebanov, 'A Region of strategic importance' (2007) 1 Oil of Russia; The Russian Barent Sea Region Towards 2015 (Delft, The Netherlands: Elburon, 2004) 44-47.

¹¹⁵ Bjorn Brunstad, 'Big oil playground, Russia Bear Preserve or European Periphery'

¹¹⁶ 'Sakhalin: that sinking feeling', Startfor, 21 Feb 2006.

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State¹¹⁷. The Sakhalin-II PSA contains no annual cost caps, and it also grants the SEIC considerable discretion to determine which expenditure are recoverable costs¹¹⁸. According to the terms of the Sakhalin-II PSA, the members of the consortium must pay a royalty tax of 6% on gross revenue and a profit tax of 32% on all oil and gas produced at Sakhalin-II¹¹⁹.

In a standard PSA, the average royalty is 10-20% and the profit tax of 32% is 3% lower than the Russian tax rate at the time the PSA was signed.¹²⁰ Shortly before the Gazprom acquired a control of Sakhalin, Minister of Natural Resources, Sergei Fyodorou, claimed that, with a market price of \$60 per barrel, a typical profit tax of 50-55%, the Russian government would receive \$300-\$400 million per year from¹²¹ the project rather than just \$20 million¹²².

The major contention between the Russian government and SEIC over the Sakhalin-II was the project's escalating cost and its environmental violation¹²³. For the Putin administration, the steadily rising cost of the Sakhalin-II project and Russian party's ever-lengthening wait for profit oil made the terms of the PSA not only unfair but unacceptable and that gave the government a reason and a pretext to intervene against the SEIC and alter its management and ownership¹²⁴. A few years ago, the National Audit Office of the Russian Federation calculated that the State would lose some \$50 billion for the total period of the PSAs for Sakhalin-I and Sakhalin-II as compared to a tax and royalty regime for the same project¹²⁵. It seems the Russian government is not getting what it bargained for with intended revenue and control from the PSA. Outside the fact that the FOCs can manipulate the contract to suit their 'whims and caprices', the Russian government is not off the 'hook' with regards to its framework.

Although the PSA is aimed at producing economic certainty and numerous tax concessions designed to attract the FOCs, the legal structure of the PSA heavily favoured the consortium, facilitating cost overruns and substantially delayed the Russian party's share of the profit oil¹²⁶. The existing tax laws and other laws were not to accommodate the PSA and, as a result, there was serious concern that the investor receiving PSA contracts might be subject to existing "ordinary" tax and other laws¹²⁷. It is, however, noteworthy that an exemption from regional and local taxes may only be

¹¹⁷ Juri Tjuljubaev, 'Russian Oil Transit-Way to the North' Barents Observer, 14 April 2004.

¹¹⁸ *Ibid*

¹¹⁹ Jonathan Stern, as quoted by Jeremy Bransten, 'Russia Energy Analyst Looks at Sakhalin-2 Takeover' Radio Free Europe/radio Library, 22 December 2006.

¹²⁰ *Ibid*

¹²² *Supra*

¹²³ Ian Rutledge, 'The Sakhalin II PSA – A Production 'Non-Sharing Agreement' 3.

¹²⁴ Russian Oil & Gas Report, *Federal Energy Agency to Revive Production Sharing Agreements* (2004).

¹²⁵ J. Hines & A. Bardin, *Tail Whacks Dog: Few PSAs Can Go Forward in Russia* (2004).

¹²⁶ A.S. Kim & A.G. Svistel'nikov, *On the New PSA Tax Regime: Oil, Gas and PSAs* (2004).

¹²⁷ Hober, K., 'Russian PSA-Quo Vadis?' (2005) 2 OGEL 1.

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granted to an investor, provided the regional and local tax legislation agrees to such exemptions for PSA participant¹²⁸.

On the whole Russia has been grossly cheated because the PA and Lunskeye fields were already discovered by the Russian companies and as such the initial element of risk was removed from the outset.¹²⁹ SEIC took advantage of the weakness and ignorance of the State. However, PSAs seem to have reached the end of the road in Russia because, in recent times, the Russian government has systematically destroyed Yukos, built-up State-owned O&G champions Rosneft and Gazprom and restricted foreign investment in Russian hydrocarbon projects.¹³⁰ In 2003, President Putin also signed legislation that greatly reduced the number of O&G fields eligible for development under PSAs and adjusted the federal tax code to make future PSAs less attractive to foreign investors.¹³¹

6. REASONS STATES DO NOT ACHIEVE THEIR DESIRED RESULTS/RECOMMENDATIONS

Despite the advantages that PSAs portray to the States, most States still have difficulties achieving their desired results. Some of the defects that are inherent in PSAs are discussed below:

6.1a Stabilization Clause

This is a fundamental clause in the PSA, which is used by the States as an incentive to attract investments from the FOCs by providing investment stability and predictability for them because PSA is a sole risk contract for the FOCs.¹³² The clause also acts as a form of guarantee between the investor and the project leaders who need an assurance of investment stability and predictability.¹³³ Ironically, this very useful clause has a negative effect on the State because the FOCs capitalise on it to allocate certain risks such as tax or legislative change to the State oil company.¹³⁴ In other words, if tax is increased, the State oil company pays, not the FOCs. The clause also gives precedence to the PSA over existing and future law (except the Constitution)¹³⁵ such that once the conflicts arise, PSA prevails. An example is the case of Baku-Tbilisi-Ceyhan pipeline in Georgia, where the State was requested to violate its own environmental law by British Petroleum.¹³⁶

¹²⁸ Coudert Brothers, *New Development in Russian PSAs & Subsoil Legislation* (2004).

¹²⁹ CEE Bankwatch Network and others, note 14 p. 15

¹³⁰ Timothy Fenton, note 96 p.3

¹³¹ *Ibid*

¹³² Margarita T B Coale, 'Stabilisation Clauses in International Petroleum Transactions' (2020) 30:2 *Denver J International Law and Policy* 217-221.

¹³³ B. O. N. Nwete, 'To What Extent can stabilisation clause mitigate the investors risk in Production Sharing Contracts?' (2005) 1 *OGE* 15.

¹³⁴ Greg Muttitt note 16, p. 12.

¹³⁵ *Ibid*

¹³⁶ Nino Chkhobadze, Georgia Environment Minister, November 2002. The Minister refused to approve the pipeline routing through an important National Park, as this would violate Georgia's environmental laws. But the minister was forced to concede because Georgia had signed an agreement for the project which got it a higher status than other Georgian laws.

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The constraints on the State are quite numerous because investment in Petroleum Exploration and Production (E & P) is based on reasonable speculation and assumptions¹³⁷ and this could take a long period. For example, the Equatorial Guinea PSA has an E & P period of 42 years.¹³⁸ This makes the PSA vulnerable to events which may alter the initial projections and assumption upon which negotiations were based¹³⁹. For instance, the acreage may turn out more profitably than envisaged and the State, which 'has the duty to preserve contract benefits to itself and to others¹⁴⁰ cannot, by reason of the stabilisation clause, contract itself out of its obligations even in the event of a windfall.

It is apparent that the undue influence that the State is trying to avoid is what often occurs when PSAs are applied and all these calls to question the regulatory powers of the State as a sovereign to effect changes in the PSAs and it contradicts the saying 'what the parliament giveth, the parliament may taketh away'.¹⁴¹

6.1b Recommendation

A solution to the issues from stabilisation clause is the inclusion of a renegotiation clause in the PSA. This gives the parties an opportunity to salvage a contract, which would otherwise fail if there was no opportunity to renegotiate the original terms of the contract and adopt it to a change in law, regulation or other circumstances.¹⁴² This clause should, however, be drafted with caution because it has its own limitations, which depends on the nature of the renegotiation clause i.e., if the renegotiation clause is specific, only those specific events will trigger off renegotiation, and if it is a general renegotiation clause, it will encourage the parties to ask for renegotiation on flimsy grounds, thereby, jeopardizing the stability of the contract.¹⁴³ The best approach is to draft the general renegotiation clause, which makes renegotiation subject to a distortion in the financial or economic equilibrium of the contract caused either by time element or by a change in fiscal or legal regime¹⁴⁴ this way, renegotiation on flimsy ground is highly reduced. To give renegotiation clause some measure of predictability and stability, a time limit within which the renegotiation must produce results should be stated, failing on which a dispute must be declared.¹⁴⁵

¹³⁷ B.O.N Nwete note 2 p. 16

¹³⁸ Art 2.1, 2.2 and 5.11 of Equatorial Guinea Model PSC

¹³⁹ Walde T. Kolo A, 'Renegotiation and Contract adaption in international investment projects: Applicable Legal Principles and Industry practices' (2003) 2(1) OGEL 3.

¹⁴⁰ B.O.N Nwete note 2 p. 16.

¹⁴¹ Johnston D., 'International Petroleum Fiscal System and Production Sharing Contracts' (1994) Tulsa, Oklahoma USA: Pennwell Publishing Company, p.171

¹⁴² B.O.N Nwete, 'To what extent can renegotiation clause achieve stability and flexibility in petroleum development contracts?' (2006) IELTR 56-63.

¹⁴³ *Ibid.*

¹⁴⁴ *Supra.*

¹⁴⁵ *Ibid.*

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6.2a The Use of International Arbitration

PSA specify that any dispute between the government and FOCs should be referred to International Arbitral Tribunals such as ICC in Paris, ICSID in Washington DC¹⁴⁶, etc. The rationale is that there is lack of judicial independence in most countries, which will be disadvantageous to the FOCs. In other words, the protection of the FOC is guaranteed and the State who owns the hydrocarbon resources is exposed to arbitral tribunals that are not dependable because the disputes are heard by corporate lawyers and trade negotiators who are more inclined towards commercial issues than issues of national interests.¹⁴⁷ Susan Leubuscher captures the situation when she commented that 'the system assigns the State the role of just another commercial partner, ensures that non-commercial issues will not be aired, and excludes representation and redress for populations affected by a wide-ranging power granted (multinationals) under international contracts.'¹⁴⁸

6.2b Recommendations

Disputes should be heard within the State and under their law. Moreover, the PSAs are subject to domestic law with minimal compliance with international treaties.¹⁴⁹ However, for fair hearing and protection of the FOCs, some international arbitrators who are abreast with the domestic law should be a part of those hearing the dispute.

6.3a Complexity of PSAs

PSAs are the most complex form of oil contract, and they consist of several pages of technical legal and financial language.¹⁵⁰ This complexity favours FOCs as the "devil" is usually in the midst of the details. Royalty is the simplest form of oil policy where the company pays the State for its oil¹⁵¹ but the FOCs prefer PSAs because it is based on an assessment of profit.¹⁵² The reason is that they want 'upside' (that is, opportunities for greater profit) and ways they can reduce their payments.¹⁵³ Hence, they depend on complex rules for which cost can be deducted by using sophisticated accounting technique with access to the world's largest and most experienced accounting companies.¹⁵⁴ In addition, the FOCs know their business in more details than the State they are working with. For example in the Sakhalin II PSA Project in Russia, SEIC took advantage of the complex terms of PSA by using a novel approach it calls the FANCP¹⁵⁵ and SANCP¹⁵⁶ index, which

¹⁴⁶ Greg Muttitt note 38 p. 24

¹⁴⁷ *Ibid* p. 25

¹⁴⁸ Susan Leubuscher, 'The Privatisation of Justice: International Commercial Arbitration and the redefinition of State: MRES Thesis' Birkbeck College 2 June 2003.

¹⁴⁹ Bernard Tavern, note 19 p. 54

¹⁵⁰ Greg Muttitt note 38 p. 25

¹⁵¹ *Ibid*.

¹⁵² Bernard Tavern, note 19 p. 44

¹⁵³ Greg Muttitt note 38 p. 25

¹⁵⁴ *Ibid*

¹⁵⁵ First level of Accumulated Net Cash Proceeds

¹⁵⁶ Second level of Accumulated Net Cash Proceeds

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resulted in all cost over-run being effectively deducted from the State revenue instead of the Shell-led consortium's profits.¹⁵⁷ In February 2005, the audit chamber of Russian Federation published a review of the economics of the terms of the PSA had already cost Russia \$2.5 billion.¹⁵⁸ Another result of such complexity is that the State might think that it is getting a good deal when in reality it could be receiving less profit than they bargained. For example, when Chad signed a 'convention agreement' with neighbouring Cameroun and Exxon-led consortium in 1988 covering both the production sharing terms on Chad's Doba oil field and a pipeline through Cameroun to the coast¹⁵⁹, most commentators stated that the governments share was low till the government found itself receiving less than is expected.¹⁶⁰

6.3b Recommendation

States should be very critical when drafting PSAs especially the financial aspect and they should not underestimate the intelligence of the FOC or even get carried away with the false hope of control that the PSAs theoretically provide the State. The States should consult professionals from developed countries which do not have an interest in the States' PSA, to scrutinise such draft to minimise or remove ambiguities and loopholes, which can be exploited by the FOCs.

6.4a Reliance on FOCs for the Training of State Personnel/ Inexperience of NOCs

PSAs stipulates that the FOCs should train and transfer technology to the State personnel and nationals.¹⁶¹ They may be advantageous in the sense that that FOCs who are experts will help in establishing the developing countries. Sadly, the FOCs have not been complying with this aspect of the PSA.¹⁶² On the other hand, it is not a wise idea for the FOCs to train the State personnel, because they are the ones exploiting the hydrocarbon resources of the State and since they have an interest, they will not do justice in training the nationals.

The FOCs will teach the States what they want the States to know and not what they ought to know. Although the State has authority, the FOCs are the ones in control because the State works with whatever statistics they declare and to further compound issues; the NOCs whose task is to supervise the FOCs are inexperienced not having the right calibre of staff and resources to carry out independent research. The reason for this attitude of the FOCs is lack of transparency and corruption in their dealing with the State.

¹⁵⁷ CEE Bank Watch Network et al, note 113 p 15

¹⁵⁸ Greg Muttitt note 38, p. 26

¹⁵⁹ Greg Muttitt note 16 p. 9

¹⁶⁰ World Bank Inspection Panel [Cameroun Investigation Report (No. 25734, Dated 2-05-03) Para. 39, PXVII]

¹⁶¹ Bernard Taverne, note 19

¹⁶² Nigeria and Russia

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6.4b Recommendation

States should send out some of their personnel to acquire training and expertise from developed nation that do not have an interest in the States hydrocarbon resources. These trained personnel will in turn institutionalise their knowledge by training other personnel and nationals. Although this approach is expensive, in the long run the State will benefit as NOCs will effectively carry out its task of supervising the FOCs and have the right calibre of staff thus reducing to a large extent, the exploitation of the States by the FOCs.

6.5a Incomprehensive Legal Framework

Some States, in a haste to maximise profit from their hydrocarbon resources, do not align their existing law with their new oil policy (PSA). They either use the framework of a previous oil policy or leave loopholes and ambiguities in the legal and contractual framework.¹⁶³ It is sad to see that States worsen the issues in PSAs which are already bad enough. The FOCs took advantage of such flaws to exploit the State.

6.5b Recommendation

A comprehensive review and modification of the State laws and PSAs cannot be overemphasized as this is fundamental to the States achieving its result. As Hober¹⁶⁴ rightly opined, 'Russia cannot achieve results from PSA without amending its legislation and as such, Russian tax legislation had to be amended to incorporate and implement the tax regime foreseen in the PSA law'. States should adopt PSAs in ways which suit their specific economic and political interest by adopting the framework and content. Cyprus is an example of a State that adopted such framework not content.

6.6a Issues of Taxation

Sometimes States that implement PSAs are not in a very good position when the issue of taxation arises, because emerging market do not always have an effective taxation scheme, even though such revenue accounts for most of the State's budget, in comparison with their more developed counterparts. However, States can reduce profits made by the FOCs by introducing 'sliding scale'¹⁶⁵ and increase in profit.

6.6b Conflicting Interest

One reason the State may not be achieving its result in PSA is the difference in philosophy and unequal power.¹⁶⁶ The State is concentrating on public oriented goals and FOCs on financial reward when there should be a common goal.

¹⁶³ Niger, Umar

¹⁶⁴ Hober note 100 p. 2

¹⁶⁵ Daniel Behn, 'Sharing Iraq's Oil: Analyzing production sharing contracts under the final draft petroleum law' (2007) 4 OGEL.

¹⁶⁶ M B Umar 43 p. 98

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7. CONCLUSION

The economic and strategic importance of hydrocarbon resources have led states to establish their domestic petroleum production and, as such, many States are compelled to turn to the FOCs means needed for the exploration and exploitation of their petroleum resources. Open to the States are various options of oil policies; however, some States opt for PSAs as the vehicle for the development of their oil and gas resources. This is because PSAs provide for State sovereignty and control over its natural resources with an opportunity of transfer of technology and training of the State personnel by the FOCs while the FOCs bear the development and financial risk. However, the State has ownership of its natural resources, but control of the resource is with the FOC.

The State is dependent on the FOCs for training and transfer of technology; invariably they do not know what is going on. They depend on whatever statistics is given by the FOCs with regards to the hydrocarbon. For the most times, the FOCs do not comply with the transfer of technology and training because there is lack of transparency in their deal and, as such, they do not want to put the State on the-know. There are clauses in the PSAs, which expose the States and protect the FOCs. For instance, while the stabilisation clause is freezing the legal and fiscal policies of the States, it gives the FOCs investment predictability and stability because it is a sole risk contract for the FOCs. Also, when there is a dispute between the FOCs and the State, it is transferred to International Arbitral Tribunal where only commercial matters are held by ignoring issues of national interest. Again, the reason for International Arbitration is the lack of independence of the judiciary in a State, which may be disadvantages to the State.

PSAs are complex and, for the most times, the 'devil' is in the detail. The FOCs are favoured by complexity and, being the "masters of the game", they manipulate the terms to sooth their 'whims and caprices'; while the State is working with the terms of the PSAs, the FOCs are working with the intricacies, ambiguities and loopholes. This is evident in Russia, where the FOCs used the FANCP and SANP index to recover all its costs and profits before the Russian party. This was even more exploitative because SEIC did not have the initial risk element for the Russian companies, who had discovered the PA and Lunkskoye field before SEIC. This is not, however, to suggest that other forms of oil policies do not have their downsides, the bone of contention is the false appearance of control and sovereignty in the States over their petroleum resources when, in fact, the State is not really in control. Professor Walde, an expert in oil law and policy at the University of Dundee brings to light the naked truth of PSAs, described:

"A convenient marriage between the politically useful symbolism of production sharing contract (appearance of a service contract to the state company acting as master) and the material equivalent of the model with concession/licence regimes in all significant aspects..... government can be seen running the show and the

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company can run it behind the camouflage of legal title symbolising the assertion of legal national sovereignty".¹⁶⁷

Based on the afore mentioned, it is submitted that States who want to exert maximum control over their hydrocarbon resources opt for Production Sharing Agreements, but they do not always achieve their desired result.

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BIODIVERSITY AND CONSERVATION: CROSS-BORDER LEGAL AND REGULATORY PERSPECTIVES

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ABSTRACT

This article provides an overview of the legal and policy frameworks for the protection of threatened and vulnerable wildlife on private lands in Canada and the United States, the approaches adopted in different jurisdictions and the response of key constituencies, and formulates recommendations based on these experiences. Canada and the United States serve as an important source of comparison in terms of biodiversity protection mechanisms for several reasons, ranging from geography and legal systems protections to shared economic concerns and development. Additionally, the shared fundamental dichotomy between governance at the national/federal level and the provincial/state level is a key area of comparison since there are many overlaps in these elements of governance across systems. At the same time, these relationships are governed subject to different forms of legal imperatives given the nature of articulated national and subnational powers and roles in Canadian law and the Constitution of the United States. Since both systems give primacy of place in law and regulation related to biodiversity and associated resources to the national/federal level, any comparisons must start at this level.

Keywords: Biodiversity law; Conservation regulations; Canadian laws, Wildlife

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Biodiversity and Conservation: Cross-Border Legal and Regulatory Perspectives

1. INTRODUCTION

Biodiversity is under threat worldwide and scientists have announced that a sixth mass extinction is currently underway.¹ Indeed, as the Covid-19 pandemic has demonstrated, the loss of biodiversity has many impacts, including to human health and security. One of the main factors in the loss of biodiversity is the destruction of habitat, in particular through "deforestation, the expansion and intensification of agriculture, industrialization and urbanization."² Habitat loss has also been identified as the greatest threat to endangered species in Canada.³ The shrinking habitat means that stewardship of private land is becoming increasingly essential to the protection of species at risk because "the vast majority of species at risk in Canada depends on private land to survive."⁴ Similar concerns exist in the United States, where, despite extensive national and state park and reserve protections, species at risk are still impacted by activities on and conservation of private lands.

Given these factors and the inability of protected areas alone to curb the loss of global biodiversity, the importance of conservation measures on private land is increasingly recognized.⁵ Indeed, conservation on private lands is essential to building ecosystem resilience at the national and subnational levels, and landowners, conservation authorities, and local and Indigenous governments all play a crucial role in the development and implementation of healthy ecological practices. In addition, understanding of the regulatory and geographic scope of legislative efforts, the range of incentives available and the administrative burden of conservation activities varies considerably among the identified stakeholders.

This article provides an overview of the legal and policy frameworks for the protection of threatened and vulnerable wildlife on private lands in Canada and the United States, the approaches adopted in different jurisdictions and the response of key constituencies, and formulates recommendations based on these experiences.

¹ Gerardo Ceballos, Paul R Ehrlich & Rodolfo Dirzo, "Biological Annihilation via the Ongoing Sixth Mass Extinction Signaled by Vertebrate Population Losses and Declines," (2017) 114:30 PNAS E6089.

² Francisco Sánchez-Bayo and Kris AG Wyckhuys, « Worldwide Decline of the Entomofauna: A Review of its Drivers, » (2019) 232 Biological Conservation 8 to 8.

³ Oscar Venter et al, « Threats to Endangered Species in Canada, » (2006) 56:11 Bioscience 1 to 2; Dan Kraus, "Stopping Habitat Loss is the Key to Saving Canada's Endangered Species," Nature Conservancy Canada (18 May 2018), online: <<http://www.natureconservancy.ca/en/blog/stopping-habitat-loss-is-the.html>>.

⁴ Andrea Olive, « It Is Just Not Fair: The Endangered Species Act in the United States and Ontario, » (2016) 21:3 Ecology and Society 13 to 13.

⁵ Sristi Kamal, Malgorzata Grodzinska-Jurczak & Agata Pietrzyk Kaszynska, « Challenges and Opportunities in Biodiversity Conservation on Private Land: An Institutional Perspective from Central Europe and North America, » (2015) 24 Biodivers Conserv 1271 to 1272.

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2. FEDERAL LEGAL AND POLICY FRAMEWORKS FOR THE PROTECTION OF SPECIES AT RISK AND WILDLIFE HABITATS IN CANADA AND THE UNITED STATES

Canada and the United States serve as an important source of comparison in terms of biodiversity protection mechanisms for several reasons, ranging from geography and legal systems giving protections to shared economic concerns and development. Additionally, the shared fundamental dichotomy between governance at the national/federal level and the provincial/state level is a key area of comparison since there are many overlaps in these elements of governance across systems. At the same time, these relationships are governed subject to different forms of legal imperatives given the nature of articulated national and subnational powers and roles in Canadian law and the Constitution of the United States. Since both systems give primacy of place in law and regulation related to biodiversity and associated resources to the national/federal level, any comparisons must start at this level.

2.1. Canada

In Canada, jurisdiction over species at risk is shared between the federal government, provinces, territories and local governments. In general, the protection of species at risk and their critical habitats is regulated at the federal level by the *Species at Risk Act* (SARA), which applies to federal lands,⁶ as well as to private lands with respect to aquatic species and some migratory birds.⁷ In contrast, provincial and territorial governments have jurisdiction over species at risk present on non-federal lands and are required to protect these species according to at least the same standards as those set out in SARA. If this protection does not meet the same standard, the "safety net" provisions of SARA allow the federal government to extend its jurisdiction to protect these species.⁸ Finally, local governments are normally required to meet provincial standards for the protection of species at risk. In most cases, local governments regulate much of the private property where species at risk are found.

Critical habitat is to be identified in a recovery strategy or action plan⁹ and listed on the SARA Public Registry.¹⁰ In the case of non-aquatic species, provincial laws provide protection for critical habitat in most situations. In the case of aquatic species, the destruction of critical habitat on private land is prohibited, and this habitat must be protected within 180 days of the inclusion of the recovery strategy or action plan in the public registry.¹¹ In

⁶ Species at Risk Act, SC 2002, C 29 [SARA].

⁷ SARA, SS 34-35; Government of CANADA, Species at Risk Act: information note for landowners, (3 October 2014), online: <<https://www.canada.ca/en/environment-climate-change/services/species-risk-education-centre/your-responsibility/landowners.html>>.

⁸ SARA, S 78.

⁹ Ibid, S 2(1).

¹⁰ Ibid, SS 42 and 50.

¹¹ Ibid, C 29, S 58.

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addition, if the Minister concludes that provincial laws do not effectively protect a species at risk or its habitat, he or she may recommend that the Governor in Council make an order to protect the species.¹² However, to date, no such orders have been made.

The SARA also provides that "[t]he competent minister may enter into an agreement with a government in Canada, an organization or a person for the acquisition of land or of rights in land for the purpose of protection of the critical habitat of a species at risk."¹³ In addition, the Minister may grant fair and reasonable compensation to any person for losses resulting from the extraordinary repercussions of the application of the Act, or of an emergency decree protecting the necessary habitat for the survival or recovery of a wildlife species.¹⁴

With respect to other aspects of conservation, such as habitat protection, jurisdiction is also shared among the federal, provincial, territorial and local governments. For example, wetlands on federal lands and wetland conservation are also linked to a range of federal responsibilities, including maintaining migratory bird populations, inland and marine fisheries and international and cross-border resources.¹⁵ Wetlands that are not under federal jurisdiction, including most wetlands located on private land, are the responsibility of the provincial governments or the delegated responsibility of local governments.

The following subsections present a selection of Canadian federal mechanisms addressing the protection of species at risk or wildlife habitats, or that may affect conservation efforts in general.

2.1.1 *Canadian Environmental Assessment Act, 2012*

The *Canadian Environmental Assessment Act, 2012* (CEAA) governs federal environmental assessment and regulatory processes. Pursuant to the CEAA, "environmental effects at issue with respect to a measure, physical activity, designated project or project" include fish and fish habitat, aquatic species and migratory birds.¹⁶ Designated projects are subject to environmental assessments under the CEAA.¹⁷ The CEAA is currently in the process of being replaced by the new Impact Assessment Act.¹⁸

¹² Ibid, ss 34 and 61.

¹³ SARA, s 62.

¹⁴ Ibid, s 64.

¹⁵ Pauline Lynch-Stewart, Ingrid Kessel-Taylor & Clayton Rubec, *Wetlands and Government: Policy and Legislation for Wetland Conservation in Canada – Sustaining Wetlands Issues Paper No. 1999-1* (Ottawa: Ducks Unlimited Canada, Environment Canada & North American Wetlands Conservation Council, 1999) at 11-14.

¹⁶ *Canadian Environmental Assessment Act*, SC 2012, c. 19 [CEAA], s 5(1).

¹⁷ CEAA, s 13

¹⁸ An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts, S.C. 2019, c. 28, Bill C-69 (2018), at art. 79(1).

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2.1.2 *Canada Wildlife Act*

The *Canada Wildlife Act* (RSC, 1985, c. W-9) provides for the establishment, management and protection of wildlife sanctuaries for the purposes of research and conservation, particularly of species at risk. Section 9 of the *Act* addresses the acquisition of land, allowing the federal government to "lease or acquire land, including by purchase, land or rights or interests therein for research activities, conservation or information concerning: a) migratory birds; b) with the agreement of the government of the province concerned, other wild species."¹⁹ Further, section 12 allows the federal government to make regulations relating to the implementation of the *Act*, working in tandem with the terms of the *Wildlife Area Regulations* that were created pursuant to the *Act*.²⁰

2.1.3 *Federal Policy on Wetland Conservation*

The 1991, the *Federal Policy on Wetland Conservation* was created in part to fulfill Canada's obligations under the *Ramsar Convention on Wetlands*.²¹ The *Policy* recognizes the importance of wetlands, including their vital ecological function as "habitat for a wide range of waterbirds, plants, fur animals, reptiles and fish" and their role in "[c]onserving [the] biodiversity and [the] vitality of species."²² The objective of the *Policy* is "to promote the conservation of Canada's wetlands for the maintenance of their ecological and socio-economic functions, now and in the future."²³ To achieve this objective, the *Policy* aims to ensure that there is no net loss of wetland functions on federal lands and waters.²⁴ It also recognizes that conserving wetlands requires "collaboration and [...] coordination among governments at all levels and the people of Canada, including landowners, non-governmental organizations and the private sector."²⁵

2.1.4 *Fisheries Act*

Under the *Constitution Act, 1982*, the federal government has jurisdiction over Canada's inland and coastal fisheries. The main law governing these entities is the *Fisheries Act*.²⁶ The *Act* provides a range of protective measures for fish and their habitat. Accordingly, no one is allowed to pollute water frequented by fish when such a body of water falls under the jurisdiction and scope of the *Act*.²⁷ Under the terms of the *Act*, the Governor in Council is also authorized to make regulations related to covered fisheries, particularly with respect to the conservation and

¹⁹ *Canada Wildlife Act*, RSC, 1985, c. W-9 at 9.

²⁰ *Wildlife Area Regulations*, CRC c. 1609, s. 3.

²¹ *Federal Policy on Wetland Conservation* (Ottawa: Environment Canada, 1991) [*Federal Wetland Policy*], at 2.

²² *Federal Wetland Policy*, at 2.

²³ *Ibid* at 5.

²⁴ *Ibid* at 5.

²⁵ *Ibid* at 6.

²⁶ *Fisheries Act*, RSC, 1985, c F-14 [*Fisheries Act*].

²⁷ *Ibid.*, at article 36.

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protection of fish and the conservation and protection of spawning grounds.²⁸

2.1.5 *Canada National Parks Act*

The *Canada National Parks Act, 2000* establishes park reserves to benefit current and future generations of Canadians and to provide for conservation and knowledge generation.²⁹ The Governor in Council may also declare a wilderness area in any area of a park that exists in its natural state or is likely to return to its natural state.³⁰ Under the *Act*, the Governor in Council can make regulations on a variety of subjects, including "the protection of flora, soil, water, fossils, topography, air quality and cultural, historical and archaeological resources" and "the protection of fauna and the destruction or removal of dangerous or surplus wild animals, as well as the capture of wild animals for scientific or reproductive purposes."³¹

2.1.6 *Oceans Act*

The *Oceans Act, 1996* seeks to balance our need for and access to Canada's oceans with concerns such as environmental protection, conservation and the essential principles of sustainable development, including the precautionary approach. The *Act* provides for the creation of marine protected areas for:

- (a) the conservation and protection of fishery, commercial or other resources, including marine mammals, and their habitats;
- (b) the conservation and protection of endangered and threatened species and their habitat;
- (c) the conservation and protection of unique habitats;
- (d) the conservation and protection of marine areas rich in biodiversity or biological productivity;
- (e) the conservation and protection of other marine resources or habitats, for the fulfillment of the Minister's mandate.³²

On the recommendation of the Minister, the Governor in Council is empowered to make regulations respecting the zoning of marine protected areas and the prohibition of classes of activities in marine protected areas³³ and may also make orders in an emergency should there be a threat to marine resources.

2.1.7 *Migratory Birds Convention Act*

The *Migratory Birds Convention Act, 1994* aims to conserve migratory bird populations by regulating potentially harmful human activities.³⁴ The

²⁸ Ibid., at articles 43(1)(b) and (i).

²⁹ *Canada National Parks Act*, LC 2000, c 32 [*Canada National Parks Act*], at article 4(1).

³⁰ *Canada National Parks Act*, at article 14(1).

³¹ Ibid., at article 16(1)(b) and (c).

³² *Oceans Act*, LC 1996, c 36 [*Oceans Act*], at article 35(1).

³³ Ibid., at article 35(3).

³⁴ *Migratory Birds Convention Act, 1994*, SC 1994, c 22 [*Migratory Birds Act*].

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Act was first adopted in 1917 under the *Migratory Birds Convention* between Canada and the United States and was updated in 1994. The *Act* provides legal protection for migratory birds, their nests and their eggs wherever they are found in Canada, including on private land.³⁵ Under the law, it is prohibited for individuals to possess and/or sell a migratory bird or its nest.³⁶ In addition, the *Act* prohibits any person or vessel from polluting or releasing substances that could be harmful to migratory species or their habitats in Canada.³⁷

2.1.8 Conservation Easements

Conservation easements are written instruments by which a landowner grants rights over his land to another party in order to allow a portion of his property to be maintained as a conservation territory into the future.³⁸ Under the provincial and territorial laws in force in Canada, a conservation easement must be registered in favor of a conservation organization or government agency designated by law.³⁹ Conservation easements can be granted, paid for or be a “split receipt,” which means that part of the easement is paid for and another part is donated. Conservation easements that are conveyed in the latter fashion rather than sold can be classified into two categories: certified ecological gifts and non-certified ecological gifts. Ecological gifts certified under the federal government's Ecological Gifts Program provide tax benefits to Canadians who donate land or a partial interest in land to an eligible recipient, who will in turn ensure that the biodiversity and environmental heritage of lands are kept in perpetuity.⁴⁰ Conservation easements that are not certified under the Ecological Gifts Program are still considered charitable donations for income tax purposes.

To be eligible for the Ecological Gifts Program, land must be certified as ecologically sensitive by the Minister of the Environment and Climate Change. Eligible beneficiaries are the federal, provincial and territorial governments, Canadian municipalities and municipal or public bodies that exercise a government function; charities may also be eligible as beneficiaries. The program is administered by Environment and Climate Change Canada in collaboration with federal departments, provincial and municipal governments and non-governmental organizations.

³⁵ *Migratory Birds Act*, s 4.

³⁶ *Ibid.*, s 5.

³⁷ *Ibid.*, s 5.1.

³⁸ Good, K. & Michalsky, S., ‘Summary of Canadian experience with conservation easements and their potential application to agri-environmental policy’ (2008) Ottawa: Agriculture and Agri-food Canada, [Online]: <http://publications.gc.ca/collections/collection_2011/agr/A125-17-2011-eng.pdf> accessed 22 November 2021.

³⁹ The provincial and territorial laws permitting conservation easements are discussed in section 1.3 (below).

⁴⁰ Government of Canada, *Ecological Gifts Program*, online: <<https://www.canada.ca/en/environment-climate-change/services/environmental-funding/ecological-gifts-program.html>>.

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The Natural Areas Conservation Program is one of the main conservation easement management programs in Canada. It is a public-private partnership that aims to "accelerate the conservation of private land and protect important natural habitats in communities in southern Canada".⁴¹ It is administered by the Nature Conservancy of Canada, in partnership with Ducks Unlimited Canada and other land trusts, and receives funding from Environment and Climate Change Canada. Under this program, ecologically sensitive properties are protected by gift, purchase or stewardship agreements with private landowners and are managed for the long term.

2.1.9 Habitat Stewardship Program for Species at Risk

The Habitat Stewardship Program (HSP), created in 2000, funds projects that directly contribute to the recovery of species at risk identified in the SARA and that prevent other species to become a conservation concern.⁴² HSP land stewardship projects are administered by Environment and Climate Change Canada, while Fisheries and Oceans Canada is responsible for aquatic stewardship projects. Non-governmental organizations, community groups, Aboriginal organizations and communities, individuals, private corporations and businesses, educational institutions, provincial Crown corporations, and provincial, territorial and municipal governments in Canada are all eligible to receive HSP funds. Projects can take place on private land, provincial Crown land or Aboriginal land anywhere in Canada.

2.2. United States

Given the significant protection of private property rights in the United States, as established under the Constitution,⁴³ the country's approach to the management of species at risk and critical habitats provides an important comparison with Canadian practices. These rights are fundamentally important in the American legal system, although they can be revoked by the federal, state or local government in certain circumstances, provided that there is a legitimate purpose and that the owner of the property is compensated for this seizure.⁴⁴ In addition, there are regulatory foreclosures, whereby a government entity adopts laws or regulations that effectively prohibit the use and enjoyment of private property and/or render the function of the property almost impossible to achieve.⁴⁵ Finally, there are further restrictions on the right of private property ownership in particular for the promotion and conservation of nature.

⁴¹ Nature Conservancy Canada, *Natural Areas Conservation Program*, online: <<http://www.natureconservancy.ca/en/what-we-do/conservation-program/>>.

⁴² Government of Canada, *Habitat Stewardship Program for Species at Risk*, online: <<https://www.canada.ca/en/environment-climate-change/services/environmental-funding/programs/habitat-stewardship-species-at-risk.html>>.

⁴³ US const amend V (2018).

⁴⁴ Ibid.

⁴⁵ *Kelo v City of New London*, 545 US 469 (2005).

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Perhaps surprisingly, the United States Endangered Species Act imposes more stringent regulations and gives less leeway than SARA.⁴⁶ While the US federal government retains primary responsibility for the protection of species at risk throughout the country, including on private land, individual states may be allowed to manage the species within their territory if they meet certain federal standards. Further, while there is also endangered species legislation at the state level, this legislation tends to be much weaker than federal law and often mirrors the terms of federal law with additions that reflect the particular needs and concerns of an individual state.

2.2.1 *Endangered Species Act*

One of the fundamental elements of conservation law in the US is the federal *Endangered Species Act* (ESA), enacted in 1973.⁴⁷ The objectives of the ESA “are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species.”⁴⁸ The ESA highlights the fact that a number of key species in the US – including animals, plants and fish – are extinct or threatened with extinction “as a consequence of economic growth and development untampered by adequate concern and conservation.”⁴⁹ At the same time, the ESA establishes the role and capacity of the federal and state governments in coordinating efforts to conserve endangered species and protect species from the potential for endangerment and/or extinction in the future.⁵⁰

The determination that a species is endangered or threatened is made by the US government using the following criteria:

(A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.⁵¹

The federal government has the option to designate an area as critical habitat for endangered or threatened species, meaning its use be restricted to prioritize conservation needs.⁵² When this occurs, the federal government is empowered to purchase critical habitat land and incorporate it into national assets, with concomitant oversight.⁵³

⁴⁶ Ontario Soil and Crop Improvement Association, *A Safe Harbour Policy for Canada? Examining the Potential for Safe Harbour Agreements within the Confines of the Federal Species at Risk Act* (Guelph, ON: Ontario Soil and Crop Improvement Association, 2012) at 15.

⁴⁷ *Endangered Species Act*, P.L. 93-205, 87 Stat. 884. 16 U.S.C. §§1531-1544) [ESA]§ 1531(b).

⁴⁸ ESA, at § 1531(a).

⁴⁹ *Ibid.*, at § 1531(a) (1).

⁵⁰ *Ibid.*, at § 1531(a) (5).

⁵¹ *Ibid.*, at § 1533(1).

⁵² *Ibid.*, at § 1533.

⁵³ *Ibid.*, at § 1534.

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The ESA requires the federal government to maintain lists of species that are classified as endangered or threatened.⁵⁴ To make this decision, government actors must take into account a number of scientific facts as well as legal and regulatory requirements.⁵⁵ In addition, if the factual and scientific aspects that affect an area designated as critical habitat change over time the designation may be reconsidered and changed.⁵⁶ In this context, the ESA requires that the federal government creates recovery plans and monitoring systems and that the implementation of these plans be overseen at the national level.⁵⁷

2.2.2 *National Wetlands Conservation Act*

Another key instrument for federal conservation is the *National Wetlands Conservation Act, 1989*.⁵⁸ The *Act* has three objectives: “to protect, enhance, restore and manage an appropriate distribution and diversity of wetlands ecosystems and habitats associated with wetland ecosystems and other fish and wildlife in North America; to maintain current and improved distribution of wetlands associated migratory birds populations; and to sustain an abundance of waterfowl and other wetland associated migratory birds.”⁵⁹ The *Act* highlights the importance of wetlands, fish and wildlife for conservation and national heritage, as well as economic development.⁶⁰

The power of government and other designated stakeholders to engage in wetland conservation projects is essential to the *Act*, which defines wetlands conservation as:

“the obtaining of a real property interest in lands or waters, including water rights, of a wetland ecosystem and associated habitat if the obtaining of such interest is subject to terms and conditions that will ensure that the real property will be administered for the long-term conservation of such lands and waters and the migratory birds and other fish and wildlife dependent thereon; the restoration, management, or enhancement of wetland ecosystems and associated habitat for migratory birds and other fish and wildlife species if such restoration, management, or enhancement is conducted on lands and waters that are administered for the long-term conservation of such lands and waters and the migratory birds and other fish and wildlife dependent thereon.”⁶¹

When assessing the potential of a wetland conservation project, the government is required to consider

⁵⁴ Ibid., at § 1533(c).

⁵⁵ Ibid., at § 1533.

⁵⁶ Ibid.

⁵⁷ Ibid., at § 1533(f), (g).

⁵⁸ *North American Wetlands Conservation*, 16 USC § 4401 (1989).

⁵⁹ Ibid.

⁶⁰ Ibid., § 4402.

⁶¹ Ibid., § 4402(9).

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(1) the extent to which the wetlands conservation project fulfills the purposes of this chapter, the Plan, or the Agreement; (2) the availability of sufficient non-Federal moneys to carry out any wetlands conservation project and to match Federal contributions in accordance with the requirements of section 4407 (b) of this title; (3) the extent to which any wetlands conservation project represents a partnership among public agencies and private entities; (4) the consistency of any wetlands conservation project in the United States with the National Wetlands Priority Conservation Plan; (5) the extent to which any wetlands conservation project would aid the conservation of migratory nongame birds, other fish and wildlife and species that are listed, or are candidates to be listed, as threatened and endangered under the Endangered Species Act; (6) the substantiality of the character and design of the wetlands conservation project; and (7) the recommendations of any partnerships among public agencies and private entities in Canada, Mexico, or the United States which are participating actively in carrying out one or more wetlands conservation projects under this chapter, the Plan, or the Agreement.

The key to implementing the *Act* is the use of specialized government entities to promote conservation activities, including the National Wetlands Conservation Council⁶² and the Migratory Birds Commission.⁶³

2.2.3 *Fish and Wildlife Act*

In addition, the United States has enacted several key laws on specific species and subjects directly related to conservation practices. One of the oldest of these laws is the *Fish and Wildlife Act* of 1956, which created the US Fish and Wildlife Service.⁶⁴ The *Fish and Wildlife Act* recognized the importance of all fish, their ecosystems and habitats to the national ecosystem and economy based on the value of fishing and related industries.⁶⁵

2.2.4 *Marine Turtle Conservation Act*

The US has adopted the *Marine Turtle Conservation Act* of 2003 to “assist in the conservation of marine turtles and the nesting habitats of marine turtles in foreign countries by supporting and providing financial resources for projects to conserve the nesting habitats, conserve marine turtles in those habitats, and address other threats to the survival of marine turtles.”⁶⁶ The *Act* requires the federal government to receive suggestions and information from other government entities, international entities and private

⁶² Ibid., § 4403(a) (1).

⁶³ Ibid. § 4403(b).

⁶⁴ *Fish and Wildlife Service*, 16 USC § 742a (1956).

⁶⁵ Ibid.

⁶⁶ *Marine Turtle Conservation*, 16 USC § 6601(a) (2) (2004).

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individuals or groups in the creation of national policies and practices regarding the conservation and protection of turtle populations.⁶⁷

2.2.5 *Marine Mammal Protection Act*

Special conservation regimes are also established under the *Marine Mammal Protection Act* of 1972, a broader law informed by the fact that many marine mammals and their ecosystems are under serious threat throughout the US.⁶⁸ In this context, the *Act* defines conservation as “the collection and application of biological information for the purposes of increasing and maintaining the number of animals within species and populations of marine mammals at their optimum sustainable population.”⁶⁹ The *Act* allows the federal government to establish permissible seizures, if any, for the target marine mammal populations, as well as to provide for the imposition of fines and imprisonment in certain cases of violation.⁷⁰

2.2.6 *Soil Conservation Programs*

With regard to soil and agriculture, the US has put in place a system of economic and technical assistance to farmers for the construction and conservation of crop soils which are considered important to the national economy.⁷¹ In addition, for certain crops there are assistance and economic support programs for farmers, provided that they use a specific area of their land for the designated crop or that they reserve an area determined for conservation purposes.⁷² Federal loans are offered to farmers and ranchers for a variety of purposes, including “paying for activities to promote soil and water conservation and protection. . . on a farm or ranch.”⁷³ This is part of the “conservation loan and loan guarantee program,” which aims to support qualified conservation projects.⁷⁴ Additional financial assistance is available to private agricultural producers through the Conservation Stewardship Program, which aims to promote and encourage the conservation of natural resources in the US.⁷⁵

2.2.7 *Federal Conservation Easement*

Critically, US law provides for the creation and recognition of conservation easements, through which the US Secretary of Agriculture has the power to enter into contractual relationships relating to land for the

⁶⁷ Ibid., at § 6603 (2004). At the present moment, a bill pending before the Congress would allow a larger range of species to be covered by the law, and would include species trafficking among the violations of the law. However, it must be noted that this law has not yet been adopted by both chambers. John D. Dingell, Jr. Conservation, Management and Recreation Act, PL 116-9 (2019).

⁶⁸ *Marine Mammal Protection*, 16 USC §1361 (1972).

⁶⁹ *Marine Mammal Protection*, 16 USC § 1362 (1972).

⁷⁰ *Marine Mammal Protection*, 16 USC § 1373 (1972).

⁷¹ 7 USC § 1282 (2018).

⁷² 7 USC § 1442 (2018); 7 USC § 1444(4) (2018).

⁷³ 7 USC § 1923(a)(1)(D) (2018).

⁷⁴ 7 USC § 1924(b)(2) (2018).

⁷⁵ 7 CFR § 1470.1 (2018); 7 CFR § 1470.24 (2018).

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purposes of “conservation, recreation, or wildlife.”⁷⁶ In a sense, conservation easements extend the conditions and protections that exist in national parks to the private lands surrounding the parks.⁷⁷ In addition, the federal government is required to enter into mandatory conservation easements for areas designated as “federally-designated important resources;” that is, land in a 100-year flood plain, land containing species listed or proposed as being endangered or threatened, essential habitats of species at risk or threatened, designated or proposed wilderness areas, designated or proposed wild rivers, scenic rivers, barrier zones and certain aquifers.⁷⁸

2.2.8 Cooperative Forestry Assistance Program

Forests play a key role in American conservation plans, although a significant number of forests are privately owned. To this end, the US program on Cooperative Forestry Assistance aims to promote “the establishment of a coordinated and cooperative Federal, State and local forest stewardship program for management of the non-Federal forest lands; the encouragement of the production of timber; the prevention and control of insects and diseases affecting trees and forests; . . . the improvement and maintenance of fish and wildlife habitat; the broadening of existing forest management, fire prevention, and insect and disease protection programs on non-Federal forest lands to meet multiple use objectives of landowners in an environmentally sensitive manner.”⁷⁹ The priority areas in the programs authorized for the implementation of this measure are “conserving and managing working forest landscapes for multiple values and uses; protecting forests from threats. . . and restoring appropriate forest types in response to such threats; enhancing public benefits from private forests, including air and water quality, soil conservation, biological diversity, carbon storage, forest products, forestry-related jobs, production of renewable energy, wildlife, wildlife corridors and wildlife habitat, and recreation.”⁸⁰ To this end, the federal, state and municipal governments are authorized to seek and obtain conservation easements on private forests and related lands.⁸¹

2.2.9 Agricultural Improvement Act of 2018

Under the *Agricultural Improvement Act of 2018*, the amount of federal funding for conservation easements and wetland mitigation reserves has been increased until at least 2023.⁸² Indeed, the *Act* requires that the federal government register and maintain at least 2,000,000 acres for conservation between 2018 and 2023.⁸³ This means that not only can the federal

⁷⁶ 7 USC § 1997(a), (b) (2018).

⁷⁷ 16 USC § 410iii (4) (2018); 16 USC § 425l(d) (2018); 16 USC § 460nnn (4) (2018).

⁷⁸ 7 CFR § 767.201(b) (2018).

⁷⁹ 16 USC § 2101(b) (2018).

⁸⁰ 16 USC § 2101(c) (2018).

⁸¹ 16 USC § 2101c(c) (2018).

⁸² *Agricultural Improvement Act of 2018*, s 2103 (2018).

⁸³ *Agricultural Improvement Act of 2018*, s 2201 (2018).

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government provide additional approvals and funds directly, it can also provide new or increased funds to states, which can then use them according to their plans.⁸⁴ The new criteria for assessing potential conservation easements include, in the context of agriculture and related uses, whether the land is “cropland, marginal pasture land, and grasslands that will have a positive impact on water quality and will be devoted to – a grass sod waterway; a contour grass sod strip; a strip meadow; a filter strip; a riparian buffer; a wetland or a wetland buffer; a saturated buffer; a bioreactor; or another similar water quality practice.”⁸⁵ Additional allowances for particularly saline wetlands and associated lands eligible for the national or state conservation easements program are provided for in the *Wells Act*.⁸⁶ Throughout these determinations, the *Act* requires that decisions regarding the granting of conservation easements and the reservation of wetland mitigation measures be made pursuant to the *National Endangered Species Act* of 1973 and the laws therein attached to and in support of it.⁸⁷

The *Act* contains provisions for the drafting and designation of drought and water conservation agreements which should operate in the same way as conservation easements in areas where there is a high probability of problems such as drought and access to water.⁸⁸ In addition, the *Act* creates the CLEAR (clean lakes, estuaries, and rivers) program as a pilot program to be tested by the national government to create 30-year conservation contracts with private landowners.⁸⁹ The objective of these agreements is to create a sense of consistency and expectation in conservation planning and development practices while providing legal bases for the pursuit of activities deemed appropriate on these lands, such as hunting, fishing and forms of agriculture.⁹⁰

3. PROVINCIAL, TERRITORIAL AND STATE LEGAL AND POLICY FRAMEWORKS FOR THE PROTECTION OF THREATENED OR VULNERABLE WILDLIFE SPECIES AND THEIR HABITATS IN CANADA AND THE UNITED STATES

In both Canada and the United States, federal laws and regulatory mechanisms for the protection of biodiversity exist at the national level and are supplemented by similar legal and regulatory mechanisms at the provincial, territorial and state levels. While national level laws and regulatory systems often function to completely fill an area of law (as when they are subject to specific constitutional vesting under the jurisdiction of the US Congress), they also set the standard below which a province, territory

⁸⁴ *Agricultural Improvement Act of 2018*, s 2103 (2018).

⁸⁵ *Agricultural Improvement Act of 2018*, s 2201 (2018).

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*, at s 2202 (2018).

⁸⁹ *Ibid.*, at s 2204 (2018).

⁹⁰ *Ibid.*

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or state cannot go in terms of its legislative protections or conservation measures.

As set out below, there are several areas of significant law and policy confluence between the Canadian provinces and territories and the US states in relation to biodiversity protection and conservation. Within each of these areas, there is a palpable sense of general overlap in legislative purpose and objectives in undertaking biodiversity protection and conservation measures, although the methods used can differ to reflect the particular needs and attributes of communities and constituencies within the provinces, territories and states.

3.1 Species at Risk/Endangered Species/Conservation of Species in Canada and the US

Perhaps the most obvious form of legal and regulatory protection that can be used at the national level in the context of protecting biodiversity is a dedicated law on species at risk or endangered species within a province, territory or state. In instances where these laws have been enacted it is easy to make connections and comparisons. However, in the context of both Canada and the United States, it is frequently the case that such explicit laws have not been enacted directly, although there are other legal regimes that have the same impact.

3.1.1 Provinces & States with Specific Species at Risk/Endangered Species Laws

The *Endangered Species and Ecosystems Act* is the primary law governing species at risk in Manitoba.⁹¹ The *Act* applies to species found in the province, including those on private land.⁹² The *Act* establishes an advisory committee, the Endangered Species, Ecosystems and Ecological Reserves Advisory Committee, to provide advice and recommendations to the Minister regarding species that are "(a) endangered, threatened, uprooted or of concern; [and] b) ecosystems that are endangered or threatened."⁹³ The *Act* also gives the Lieutenant Governor the power to declare a species endangered, threatened, extinct or of special concern.⁹⁴ Once a species has been classified, the government must prepare a recovery strategy or a management plan.⁹⁵ The Lieutenant Governor can also make regulations on a range of issues, including regulations "respecting the conservation of the habitat of endangered, threatened, special concern or uprooted species that have been reintroduced" as well as the limitation of access to areas of the province where an endangered species, an endangered species or a species at risk is or is likely to be found.⁹⁶

Ontario has enacted several conservation laws relating to private lands, with the *Endangered Species Act* being of particular importance in this

⁹¹ *Endangered Species and Ecosystems Act*, CCSM c E11.

⁹² *Ibid.*, at article 3(1).

⁹³ *Ibid.*, at article 6.1(1).

⁹⁴ *Ibid.*, at article 8.

⁹⁵ *Ibid.*, at article 8.1(1-3).

⁹⁶ *Ibid.*, at article 9(1).

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regard.⁹⁷ The *Act* establishes the Committee on the Status of Endangered Wildlife in Ontario, the functions of which include maintaining and prioritizing a list of species for assessment and classification.⁹⁸ The Committee must classify the species as extinct, endangered, threatened or of special concern.⁹⁹ After this classification, the Minister must include all listed species, except those that are extinct, on the Ontario List of Wildlife Species at Risk.¹⁰⁰ In addition, if the Minister is of the opinion that a species is in imminent danger, s/he may require the Committee to assess and classify the species. As in the national *Species at Risk Act*, the Ontario *Endangered Species Act* provides that a recovery strategy must be prepared for each species listed as endangered or threatened or a management plan for species of special concern.¹⁰¹ Among other things, the recovery strategy must determine the habitat needs of the species.¹⁰²

The *Species at Risk Act* is the primary provincial legislation for species at risk in New Brunswick.¹⁰³ The law works in a similar way to that of the national *Species at Risk Act*. It establishes the Committee on the Status of Endangered Wildlife, responsible for assessing the status of species in the province and classifying them as extirpated, endangered, threatened or of special concern.¹⁰⁴ The Committee provides an assessment of the biological status of wild species to the Minister, who then draws up a List of Species at Risk.¹⁰⁵ The Minister is also authorized to proceed with the emergency designation of a wildlife species if s/he considers that there is an imminent threat to its survival.¹⁰⁶ Under the Act, if a wildlife species is classified as a species of special concern, the Minister must prepare a management plan.¹⁰⁷ If a species is classified as extinct, endangered or threatened, the Minister must ensure that an assessment is carried out to determine whether the recovery of a wild species is feasible.¹⁰⁸ If the Minister determines that recovery is feasible, s/he must prepare a recovery strategy for the species.¹⁰⁹

Nova Scotia has enacted several conservation laws relating private and provincial lands; the *Endangered Species Act* is an important tool in this regard.¹¹⁰ The purpose of the *Act* is “to provide for the protection, designation, recovery and other relevant aspects of conservation of species at risk in the Province, including habitat protection.”¹¹¹ The Act establishes the Species-at-risk Working Group, which is responsible for providing the

⁹⁷ *Endangered Species Act, 2007*, SO 2007, c 6.

⁹⁸ *Ibid.*, s 4(1).

⁹⁹ *Ibid.*, c 6, s 7.

¹⁰⁰ *Ibid.*, c 6, s 8.

¹⁰¹ *Ibid.*, c 6, s 12.

¹⁰² *Ibid.*, c 6, s 11(2).

¹⁰³ *Species at Risk Act*, RSNB 2012, c 6.

¹⁰⁴ *Ibid.*, c 6, s 15(1)(a).

¹⁰⁵ *Ibid.* c 6, ss 17(1), 18(1).

¹⁰⁶ *Ibid.*, c 6, s 19(1).

¹⁰⁷ *Ibid.*, c 6, s 20.

¹⁰⁸ *Ibid.*, c 6, s 21(1).

¹⁰⁹ *Ibid.*, c 6, s 21(4).

¹¹⁰ *Endangered Species Act*, SNS 1998, c 11.

¹¹¹ *Ibid.*, s 2(1).

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Minister with a categorized list of species at risk in the province, including those species that are included on the national list of species at risk and making recommendations concerning the content and implementation of recovery plans.¹¹²

Under the Newfoundland and Labrador provincial *Endangered Species Act*, the Species Status Advisory Committee (SSAC) is established to advise the Minister and review the species designations.¹¹³ Following a recommendation from the SSAC or an assessment by the Committee on the Status of Endangered Wildlife in Canada, the Minister may, with the permission of the Lieutenant-Governor in Council, designate a species as vulnerable, endangered, critically endangered, and extinct in the wild.¹¹⁴ The *Act* also allows the Minister to file an emergency designation to prevent further damage to an endangered or imminently extinct species or associated habitat.¹¹⁵ When a species is classified as vulnerable, the Minister can protect its habitat by decree and file a management plan.¹¹⁶ When a species is classified as threatened or at risk, the Minister must file a recovery plan unless the recovery of the species is deemed impracticable.¹¹⁷ In addition, the law generally prohibits killing, harassing, capturing or destroying the residence of a threatened, endangered or extirpated species.¹¹⁸ With respect to habitat, the *Act* provides that critical habitat or recovery habitat can be identified in the recovery plan for the species.¹¹⁹

From the outset, the Alaska Constitution clearly establishes that there must be a balance between the protection and use of the natural resources found on its territory.¹²⁰ Seeking to provide a set of guidelines in the creation and implementation of laws and rules regarding the use of natural resources, the Alaska Constitution establishes that “fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses.”¹²¹ The terms of the Constitution apply to everyone, including individuals, private companies and all those who deal with natural resources.¹²² Alaska creates a vast body of laws and regulations on endangered species.¹²³ In order to determine the applicability of endangered species status to a particular species, the State requires that

“a species or subspecies of fish or wildlife is considered endangered when the commissioner of fish and game determines that its numbers have decreased to such an extent as to indicate that its continued

¹¹² Ibid., ss 9-10.

¹¹³ *Endangered Species Act, 2001*, SNL 2001, c E-10.1, at article 6

¹¹⁴ Ibid., at article 7.

¹¹⁵ Ibid., at article 9.

¹¹⁶ Ibid., at article 13.

¹¹⁷ Ibid., at article 14.

¹¹⁸ Ibid., at article 16.

¹¹⁹ Ibid., at article 16.

¹²⁰ Alaska const at article 8 § 2.

¹²¹ Alaska const at article 8 § 4.

¹²² Alaska const at article 8 § 15.

¹²³ AS § 16.20.180 (1971).

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existence is threatened. In making this determination the commissioner of fish and game shall consider (1) the destruction, drastic modification, or severe curtailment of its habitat; (2) its overutilization for commercial or sporting purposes; (3) the effect on it of disease or predation; (4) other natural or man-made factors affecting its continued existence.”¹²⁴

If a species is identified as endangered under these standards, it must be the subject of a public awareness campaign and re-certified every two years.¹²⁵ When projects proposed in the territory of Alaska are likely to cause damage to an endangered species or to other categories of species, project promoters are required to provide information on the measures taken to mitigate it.¹²⁶

The California Constitution gives the State the power to pass laws to create and protect open spaces, including through conservation agreements.¹²⁷ Further, California law provides for the protection of fish and wildlife.¹²⁸ Endangered species enjoy special legal protection in California, whether on private or public land.¹²⁹ To be considered an endangered species under California law, the species must meet the following definition: “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.”¹³⁰ At the same time, the State is requested to draw up a list of endangered species as well as those classified as threatened.¹³¹

Connecticut has enacted an *Endangered Species Act* that applies to all land in the state, regardless of ownership of land.¹³² To achieve the goals and objectives of the *Act*, Connecticut law establishes that the state has the ability to investigate and decide on potential claims for endangered species status.¹³³ The designation of a species as endangered, threatened or otherwise compromised must be reviewed at regular intervals to ensure that the protections and legal rights granted by this status are always appropriate.¹³⁴

Under the Florida *Endangered and Threatened Species Act*, the definition of an endangered species in the state is “any species of fish and wildlife naturally occurring in Florida, whose prospects of survival are in jeopardy

¹²⁴ AS §.16.20.190 (a) (1971).

¹²⁵ AS §.16.20.190 (b) (1971). In Alaskan law, a specific provision establishes the legal definition of the term “species” as including fish and wildlife. AS §.16.20.210 (1971).

¹²⁶ AS §.16.20.530 (1971).

¹²⁷ California const at article 13 § 8 (1976).

¹²⁸ West's Ann Cal.Fish & G Code § 2781 (1990).

¹²⁹ West's Ann Cal Fish & G Code § 2053 (2019).

¹³⁰ West's Ann Cal Fish & G Code § 2062 (2019).

¹³¹ West's Ann Cal Fish & G Code § 2070 (2019).

¹³² CGSA § 26-303 (1971).

¹³³ CGSA § 26-305 (1971); CGSA § 26-306 (1971); CGSA § 26-308 (1971).

¹³⁴ CGSA § 26-307 (1971).

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due to modification or loss of habitat; overutilization for commercial, sporting, scientific, or educational purposes; disease; predation; inadequacy of regulatory mechanisms; or other natural or manmade factors affecting its continued existence,"¹³⁵ while a threatened species is defined as "any species of fish and wildlife naturally occurring in Florida which may not be in immediate danger of extinction, but which exists in such small populations as to become endangered if it is subjected to increased stress as a result of further modification of its environment."¹³⁶ These definitions apply to the whole of the state, whether on public or private land.¹³⁷

Idaho law adopts the definition of an endangered species used in the federal *Endangered Species Act*, while also recognizing the existence of threatened species and "rare and declining species," defined as "those species in need of additional management consideration due to natural rarity, downward trends in populations and habitats, or other factors, natural or human, that, without additional management, might be listed as threatened or endangered species under the [federal] ESA in the future."¹³⁸

When a species is listed on the federal endangered or threatened species lists, it is automatically listed on the same lists under the laws of Illinois.¹³⁹ The Endangered Species Protection Board may also add additional species to either list, provided the species is found in the state and there is scientific evidence to show that it meets the definition of endangered or threatened. In addition, the Board may also "delist any non-federally-listed species for which it finds satisfactory scientific evidence that its wild or natural populations are no longer endangered or threatened."¹⁴⁰

For the purpose of designation of endangered species, Kansas law also incorporates the federal terms of the *Endangered Species Act* as well as the more general terms "any species of wildlife whose continued existence as a viable component of the state's wild fauna is determined to be in jeopardy."¹⁴¹ Under Massachusetts law, an endangered species is defined as a designated species under the federal *Endangered Species Act* as well as "any species of plant or animal in danger of extinction throughout all or a significant portion of its range . . . and species of plants or animals in danger of extirpation, as documented by biological research and inventory."¹⁴²

New Hampshire uses a broad definition of endangered species: "any species of native wildlife whose continued existence as a viable component of the state's wild fauna is determined to be in jeopardy;" and threatened species: "any species of wildlife which appears likely, within the foreseeable future, to become endangered."¹⁴³ The same is true in New Jersey, where the

¹³⁵ West's FSA § 379.2291(3)(b) (2011).

¹³⁶ West's FSA § 379.2291(3)(c) (2011).

¹³⁷ West's FSA § 379.2431 (2016).

¹³⁸ IC § 36-2401 (1974).

¹³⁹ 520 ILCS 10/7 (1996).

¹⁴⁰ 520 ILCS 10/7 (1996).

¹⁴¹ KSA 32-958 (1975).

¹⁴² MGLA 131A § 1 (2019).

¹⁴³ NH Rev Stat § 212-A:2 (1979).

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definition includes “any species or subspecies of wildlife whose prospects of survival or recruitment are in jeopardy or are likely within the foreseeable future to become so due to any of the following factors: (1) the destruction, drastic modification, or severe curtailment of its habitat, or (2) its over-utilization for scientific, commercial or sporting purposes, or (3) the effect on it of disease, pollution, or predation, or (4) other natural or manmade factors affecting its prospects of survival or recruitment within the State, or (5) any combination of the foregoing factors.”¹⁴⁴ The State has the capacity to directly regulate endangered species and their habitats, as well as the capacity to delegate these functions to approved private actors.¹⁴⁵

In North Dakota, the legal definition of an endangered species includes the species identified by the federal *Endangered Species Act*, as well as

“any species whose prospects of survival or recruitment within the state are in jeopardy due to any of the following factors: a. The destruction, drastic modification, or severe curtailment of its habitat; b. Its overutilization for scientific, commercial, or sporting purposes; c. The effect on it of disease, pollution, or predation; d. Other natural or manmade factors affecting its prospects of survival or recruitment within the state; e. Any combination of the foregoing factors.”¹⁴⁶

In South Carolina, an exhaustive definition of endangered species is used in addition to the terms used in the federal *Endangered Species Act*. More specifically, South Carolina law provides that an endangered species is

“any species or subspecies of wildlife whose prospects of survival or recruitment within the State are in jeopardy or are likely within the foreseeable future to become so due to any of the following factors: (a) the destruction, drastic modification, or severe curtailment of its habitat, or (b) its over-utilization for scientific, commercial, or sporting purposes, or (c) the effect on it of disease , pollution, or predation, or (d) other natural or manmade factors affecting its prospects of survival or recruitment within the state.”¹⁴⁷

South Dakota uses a broad definition of endangered species:

“any species of wildlife or plants which is in danger of extinction throughout all or a significant part of its range other than a species of insects determined by the Game, Fish and Parks Commission or the secretary of the United States Department of Interior to constitute a pest whose protection. . . would present an overwhelming and overriding risk to man.”¹⁴⁸

¹⁴⁴ NJS 23:2A-3 (2016).

¹⁴⁵ NJS 23:2A-7 (2016).

¹⁴⁶ NDCC 20.1-01-02(16) (2019).

¹⁴⁷ Code 1976 § 50-15-10 (1976).

¹⁴⁸ SDCL § 34A-8-1(1) (2019).

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In accordance with current practice, South Dakota is required to review and recertify the status of an endangered or threatened species at regular intervals to ensure that the protections granted are appropriate.¹⁴⁹ Under South Dakota's endangered and threatened species laws, the state is empowered to enter into agreements with private landowners for the protection, preservation and conservation of these designated species.¹⁵⁰

3.1.2 Provinces & States with Laws that regulate Species, including Species at Risk/Endangered Species

British Columbia does not have dedicated species at risk legislation, although the *Wildlife Act* does address endangered species. The *Act* states that the Crown owns all of the province's wildlife¹⁵¹ and that, while some provisions of the *Act* apply only to designated areas, others also apply to private lands. Under the *Act*, the Minister has the authority to designate wildlife management areas, and critical wildlife areas or wildlife sanctuaries within those management areas.¹⁵² The *Act* also prohibits the hunting, taking, trapping, injuring or killing of wildlife that is an endangered or threatened species, or that is found in a wildlife sanctuary.

The province of Saskatchewan has no specific species at risk legislation, although it has several laws that apply to the issue of conservation on private lands. The *Wildlife Act of 1998*¹⁵³ is of particular importance in this regard. Under the *Act*, the Minister is responsible for classifying wildlife species as extirpated, endangered, threatened or vulnerable.¹⁵⁴ The Minister's role in species classification distinguishes this *Act* from the national *Species at Risk Act*, in which the Committee on the Status of Endangered Wildlife in Canada, as an independent advisory committee, is responsible for determining the status of wild species. However, the Minister is empowered to appoint committees to act in an advisory capacity.¹⁵⁵ Once the Minister has made a classification decision, the Lieutenant Governor in Council may, by regulation, designate and register the species as extinct, endangered, threatened or vulnerable.¹⁵⁶ Following this registration, the Minister, subject to the regulations, prepares and implements a recovery plan to protect the species.¹⁵⁷

Prince Edward Island has no specific species-at-risk legislation. However, the *Wildlife Conservation Act*, which mainly regulates hunting, contains provisions relating to species-at-risk and their habitats.¹⁵⁸ Under the *Act*, the Lieutenant-Governor in Council may, on the recommendation of the Minister, designate a species as endangered when threatened with imminent

¹⁴⁹ SDCL § 34A-8-4 (2019).

¹⁵⁰ SDCL § 34A-8-7 (2019).

¹⁵¹ *Wildlife Act*, RSBC 1996 c 488, s 2(1).

¹⁵² *Wildlife Act*, RSBC 1996 c 488, s 4-5.

¹⁵³ *Wildlife Act, 1998*, SS 1998, c W-13.12.

¹⁵⁴ *Wildlife Act, 1998*, SS 1998, c W-13.12, at article 48.

¹⁵⁵ *Wildlife Act, 1998*, SS 1998, c W-13.12, at article 8.

¹⁵⁶ *Wildlife Act, 1998*, SS 1998, c W-13.12, at article 49.

¹⁵⁷ *Wildlife Act, 1998*, SS 1998, c W-13.12, at article 50.

¹⁵⁸ *Wildlife Conservation Act*, RSPEI 1988, c W-4.1.

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extinction, or threatened if it is likely to become so.¹⁵⁹ If the Minister considers that a species of wild animal has “characteristics that make it particularly sensitive to human activities or natural events”, it can be designated as a species of special concern.¹⁶⁰ Further, the *Environmental Protection Act* aims “to manage, protect and enhance the environment,” and covers a range of issues related to environmental protection, including environmental impact assessment, waste treatment and water supply systems, contaminant releases and contaminated sites.¹⁶¹ Under the *Act*, the Lieutenant-Governor in Council is also empowered to make regulations deemed necessary or desirable for the improvement and protection of the environment, including regulations respecting watercourses and wetlands.¹⁶²

Yukon does not have a species-at-risk law, although several laws deal with aspects of conservation on private lands. The *Yukon Wildlife Act* primarily regulates hunting and trapping.¹⁶³ The *Act* defines “specially protected wildlife species” by regulation, although the definition of wildlife in the *Act* is limited to vertebrate animals and does not include fish, invertebrates or plants.¹⁶⁴ The *Act* prohibits the hunting, trapping or possession of these specially protected species, except for Inuvialuit or persons holding a license, and stipulates that no one may hunt in a wildlife reserve, except by regulation.¹⁶⁵ With regard to habitat, the Commissioner in Executive Council may designate the region as a habitat protection region if he considers it necessary, taking into account the importance of a region as habitat for a species, its susceptibility to disturbance and the likelihood of disturbance.¹⁶⁶

The Northwest Territories has several conservation laws relating to private lands. The territorial *Species at Risk Act* is of particular importance in this regard.¹⁶⁷ The object of the *Act* is to “prevent the disappearance or extinction of species by developing an integrated and cooperative system for the recovery and conservation of species at risk that incorporates the principles of co-management provided for in land claim agreements, and that recognizes the roles and responsibilities of the authorities Management.”¹⁶⁸ The *Act* establishes the Conference of Managing Authorities on Species at Risk, which is made up of co-management boards, the Tâîchô Government, the Government of the Northwest Territories and the Government of Canada,¹⁶⁹ as well as a Committee on Species at Risk to

¹⁵⁹ *Wildlife Conservation Act*, RSPEI 1988, c W-4.1, ss 7(1) and (2).

¹⁶⁰ *Wildlife Conservation Act*, RSPEI 1988, c W-4.1, s 7(3).

¹⁶¹ *Environmental Protection Act*, RSPEI 1988, c E-9.

¹⁶² *Environmental Protection Act*, RSPEI 1988, c E-9, s 25.

¹⁶³ *Wildlife Act*, RSY 2002, c 229.

¹⁶⁴ *Wildlife Act*, RSY 2002, c 229, s 1.

¹⁶⁵ *Wildlife Act*, RSY 2002, c 229, ss 8, 37.

¹⁶⁶ *Wildlife Act*, RSY 2002, c 229, s 92.

¹⁶⁷ *Species at Risk Act*, SNWT 2009, c 16.

¹⁶⁸ *Species at Risk Act*, SNWT 2009, c 16, s 9.

¹⁶⁹ *Species at Risk Act*, SNWT 2009, c 16, s 11.

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assess the status of species that may be at risk in the Northwest Territories.¹⁷⁰ Finally, under the *Act*, the Minister is authorized to enter into an agreement with a private landowner to conserve the habitat of a species or the area in which its habitat is located.¹⁷¹ The Minister must make reasonable efforts to reach an agreement with a landowner before designating a habitat on private land.¹⁷²

The Nunavut *Wildlife Act* is the primary legislation for species at risk in Nunavut. The *Act* reflects Inuit Qaujimajatuqangit or traditional Inuit values, knowledge, behaviours, perceptions and expectations.¹⁷³ With respect to species at risk, the law prohibits anyone from harvesting, injuring, harassing, disturbing or interfering with a member of a species designated as endangered or threatened, or possessing or trafficking in the same or a product purporting to contain the same, from the day on which the species is designated until the entry into force of a decree made pursuant to the *Act*.¹⁷⁴ The *Act* also provides habitat protection measures, prohibiting the modification or destruction of habitat, as well as a number of other prohibitions with respect to critical habitats.¹⁷⁵ Once a species has been designated as endangered or threatened, a recovery policy must be prepared and submitted within two years of the date of its designation.¹⁷⁶ When a species is designated as threatened or endangered under the *Act*, the territory is authorized to issue a series of interim or emergency measures, in particular with regard to harvesting and critical habitat.¹⁷⁷ Private land can only be identified as critical habitat if no other land is considered suitable.¹⁷⁸

Under Colorado law, it is explicitly stated that, regardless of the public or private nature of the land on which it is located, “all wildlife within this state not lawfully acquired and held by private ownership is declared to be the property of this state.”¹⁷⁹ In addition, Colorado allows for the recognition and protection of areas that are designated as natural resource areas even if they belong to private interests, provided that the owner agrees with the prospect.¹⁸⁰

Threatened and endangered species in Louisiana are defined as species designated under the federal *Endangered Species Act* and/or “resident species of wildlife or native plants.”¹⁸¹ The Louisiana Department of Wildlife and Fisheries is responsible for monitoring and enforcing measures to protect endangered and threatened species.¹⁸² Factors to consider in determining

¹⁷⁰ *Species at Risk Act*, SNWT 2009, c 16, s 17.

¹⁷¹ *Species at Risk Act*, SNWT 2009, c 16, s 79(1).

¹⁷² *Species at Risk Act*, SNWT 2009, c 16, s 81(1).

¹⁷³ *Wildlife Act*, SNU 2003, c 26, ss 1(2)(f), 2, 8, 9.

¹⁷⁴ *Wildlife Act*, SNU 2003, c 26, s 63(1).

¹⁷⁵ *Wildlife Act*, SNU 2003, c 26, s 65-66.

¹⁷⁶ *Wildlife Act*, SNU 2003, c 26, s 134(1).

¹⁷⁷ *Wildlife Act*, SNU 2003, c 26, s 132(1).

¹⁷⁸ *Wildlife Act*, SNU 2003, c 26, s 139(2).

¹⁷⁹ CRSA § 33-1-101(2) (2012).

¹⁸⁰ CRSA § 33-33-108 (2012).

¹⁸¹ LSA-RS 56:1903 (2019).

¹⁸² LSA-RS 56:1903 (2019).

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whether a species should be classified as endangered or threatened under Louisiana law are:

“The present or threatened destruction, modification or curtailment of its habitat or range; Overutilization for commercial, sporting, scientific, educational or other purposes; Disease or predation; The inadequacy of existing regulatory mechanisms; and Other natural or man-made factors affecting its continued existence within this state.”¹⁸³

In Maryland, the term “endangered species” is very broadly defined as “any species whose continued existence as a viable component of the State's wildlife or plants is determined to be in jeopardy,”¹⁸⁴ including species listed under of the federal *Endangered Species Act*.¹⁸⁵ In addition, Maryland extends a number of protections to non-game species, which are not covered by the definition of endangered or threatened species by the state or the federal government.¹⁸⁶

3.1.3 Forests, Forest Management, Rangelands, etc.

The *Alberta Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act* establishes protected areas which must be managed in order to preserve their natural state and protect them from degradation and industrial development.¹⁸⁷ To do this, the *Act* establishes several types of designated territories: wilderness areas, ecological reserves, natural areas and heritage routes. With regard to wilderness areas, ecological reserves, natural areas and heritage routes, the Minister may, in particular, implement programs or measures to enhance or protect the flora, fauna and environment, as well as activities aimed at preservation or protection.¹⁸⁸

Two important laws deal with aspects of forest land conservation in British Columbia: the *Private Managed Forest Land Act* and the *Forest and Range Practices Act*. The *Private Managed Forest Land Act* applies to private timber lands other than land located in an area covered by a forest farm permit, an area covered by a woodlot permit, or an area covered by a community forestry agreement.¹⁸⁹

The Saskatchewan *Forest Resources Management Act* regulates natural resources, aiming “to promote the sustainable use of forest land for the benefit of current and future generations by balancing the need for economic, social and cultural opportunities with the need to maintain and enhance the health of forest land.”¹⁹⁰ The *Act* gives the Minister a number of powers,

¹⁸³ LSA-RS 56:1904 (2019).

¹⁸⁴ MD Code, Natural Resources § 10-2A-01(d)(1) (2005).

¹⁸⁵ MD Code, Natural Resources § 10-2A-01(d)(2) (2005).

¹⁸⁶ MD Code, Natural Resources § 10-2A-01(g) (2005).

¹⁸⁷ *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, RSA 2000, c W-9, preamble.

¹⁸⁸ *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, RSA 2000, c W-9, s 5.

¹⁸⁹ *Private Managed Forest Land Act*, SBC 2003, c 80, s 3.

¹⁹⁰ *Forest Resources Management Act*, SS 1996, c F-19.1, at article 3.

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including the power to enter into agreements relating to “the management of any land, including community forests, woodlots, land owned by the Government of Canada, privately owned land or land owned by a municipality, for the purposes of conserving, developing, enhancing, maintaining, managing, protecting and utilizing forest resources in a sustainable manner.”¹⁹¹

Under the Nova Scotia *Forests Act*, the Minister is responsible for the development and implementation of a range of forest management programs, including programs involving private landowners.¹⁹² The principle of sustainable forest management is the basis of all forest management programs.¹⁹³ The Minister may also “undertake a forest management planning process involving the prediction of the effects of various forest management alternatives on wood supply requiring,” inter alia, “full consideration of wildlife conservation requirements, potential ecological impacts and outdoor recreation opportunities and needs.”¹⁹⁴ In addition, the Minister must “ensure that wildlife, wildlife habitats and the long-term diversity and stability of the forest ecosystems, water supply watersheds and other significant resources are managed.”¹⁹⁵ With regard to private land, the Minister can create the Private Land Directorate to help private landowners to establish better forest management techniques.¹⁹⁶

The PEI¹⁹⁷ *Forest Management Act* concerns the governance of forest land in the province. Under the *Act*, the Minister must prepare a Forest Policy, and “shall encourage the management of private forest lands for the sustained production of forest products in a manner consistent with the Forest Policy and the Provincial Conservation Strategy.”¹⁹⁸ The Minister is also responsible for the conservation, use, protection and integrated management of Crown forest lands, including the conservation and development of wildlife resources on the forest lands of the Crown.¹⁹⁹ In addition, the Minister may acquire Crown land for a variety of purposes, including the creation of parks or the acquisition of land for the conservation of wildlife.²⁰⁰ Finally, the Lieutenant-Governor in Council may make regulations on various matters, including the establishment of programs for the management of private woodlots and the establishment, format, content and duration of plans for forest management of private lands.²⁰¹

The Newfoundland and Labrador *Wilderness and Ecological Reserves Act* allows the Lieutenant-Governor in Council to establish wilderness areas in certain regions of the province

¹⁹¹ *Forest Resources Management Act*, SS 1996, c F-19.1, at article 7(1)(k).

¹⁹² *Forests Act*, RSNS 1989, c 179, s 5.

¹⁹³ *Forests Act*, RSNS 1989, c 179, s 7.

¹⁹⁴ *Forests Act*, RSNS 1989, c 179, s 8(1)(b).

¹⁹⁵ *Forests Act*, RSNS 1989, c 179, s 10.

¹⁹⁶ *Forests Act*, RSNS 1989, c 179, s 14.

¹⁹⁷ Prince Edward Island

¹⁹⁸ *Forest Management Act*, RSPEI 1988, c F-14, ss 4(1), 8(1).

¹⁹⁹ *Forest Management Act*, RSPEI 1988, c F-14, s 9(1)(e).

²⁰⁰ *Forest Management Act*, RSPEI 1988, c F-14, s 10(1)(j).

²⁰¹ *Forest Management Act*, RSPEI 1988, c F-14, ss 25(i), (j).

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“that are subject to no or little human activity, (a) to provide for the continued existence of those areas as large wilderness areas to which people may come and in which they may hunt, fish, travel and otherwise experience and appreciate a natural environment; (b) to allow within those areas undisturbed interactions of living things and their environment; (c) to preserve those large areas that may be necessary for the continued survival of a particular species; or (d) to protect areas with primitive or extraordinary characteristics.”²⁰²

Under the *Act*, the Lieutenant-Governor in Council is also authorized to establish ecological reserves. In addition, the *Act* establishes the Wilderness and Ecological Reserves Advisory Council to make recommendations regarding the establishment, development or closure of reserves.²⁰³ The Minister can create an emergency reserve if the region is considered endangered, and also has the right to expropriate property on a reserve. On reserves, a series of prohibitions apply.²⁰⁴ For example, it is prohibited to carry out agricultural, forestry, mining, staking or prospecting activities.²⁰⁵ It is also prohibited to divert a watercourse or modify the flow of water affecting the reserve.²⁰⁶ However, section 25 gives the Lieutenant Governor in Council the power to create exemptions by regulation.²⁰⁷ In addition, the Wilderness Reserve Regulations contain more specific prohibitions. Finally, the Botanical, Fossil, and Seabird Ecological Reserves Regulations specifies the conditions or prohibitions applicable in these ecological reserves.²⁰⁸

With regard to forest conservation and protection activities, the Arkansas Forestry Commission is entrusted with

“cooperat[ing] with federal and state agencies, forest landowners, residents, and organizations in the prevention, detection, and suppression of wildland fires, in the control of forest insects and diseases, in the growth and distribution of forest tree seedlings, and in providing technical assistance and information relating to the most scientific methods of timber harvesting, reforestation, and forest resource protection and development, to the end that the forests throughout the state may be perpetuated.”²⁰⁹

These include the requirement for private forest owners and the state to work together to determine the allowable timber harvest and harvest from private property.²¹⁰

²⁰² *Wilderness and Ecological Reserves Act, 1990*, RSNL 1990, c W-9, at article 4.

²⁰³ *Wilderness and Ecological Reserves Act, 1990*, RSNL 1990, c W-9, at article 6.

²⁰⁴ *Wilderness and Ecological Reserves Act, 1990*, RSNL 1990, c W-9, at article 24.

²⁰⁵ *Wilderness and Ecological Reserves Act, 1990*, RSNL 1990, c W-9, at article 24 (1)(a)(ii).

²⁰⁶ *Wilderness and Ecological Reserves Act, 1990*, RSNL 1990, c W-9, at article 24 (1) (b).

²⁰⁷ *Wilderness Reserve Regulations*, NLR 65/97.

²⁰⁸ *Botanical Ecological Reserve Regulations, 2013*, NLR 31/13; *Seabird Ecological Reserve Regulations, 2015*, NLR 32/15; *Fossil Ecological Reserve Regulations, 2009*, NLR 13/09.

²⁰⁹ ACA § 15-31-101(3) (2007).

²¹⁰ ACA § 15-31-202 (2007).

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California has adopted the *Oak Woodlands Conservation Act*, which “[s]upport[s] and encourage[s] voluntary, long-term private stewardship and conservation of California's oak woodlands by offering landowners financial incentives to protect and promote biologically functional oak woodlands over time.”²¹¹ Similarly, the *California Forest Legacy Program Act* addresses the issue of the need to conserve State forest resources, including those found on private land.²¹²

Regarding agricultural activities and forestry concerns, Florida “recognizes the great value of farming and forestry to this state and that continued agricultural activity is compatible with wetlands protection.”²¹³ Under this legal regime, the definition of agricultural activities includes forestry.²¹⁴ In addition, Florida has established a program to support tree planting programs on public and private lands and to promote farming practices and forest conservation on private lands.²¹⁵

The Idaho Constitution states that “forest lands, rangelands and agricultural lands maintained in a healthy condition are a legitimate land use contributing to the economic, social and environmental well-being of the state and its citizens,” and that

“It is essential to the general welfare of all citizens of this state that multiple use conservation improvements be implemented on a broader scale on both public and private lands; due to numerous economic and practical issues relating to the improvements of individual tracts of land, both public and private resource conservation improvements, projects and programs of the nature contemplated by this chapter would enhance the economic productivity and environmental quality of the state.”²¹⁶

The same constitutional provisions set out the methods by which these conditions can be fulfilled and by which it is possible to carry out the maximum of conservation activities on public and private lands.²¹⁷ In the event that a private owner of forests or related forest land seeks to change or modify the way in which such land is used or exploited, including the transfer of its use to another industry, appropriate deposits must be made with the State and additional permits are usually required.²¹⁸

The State of Illinois recognizes the importance of topsoil for the vitality of agricultural activities and conservation as a whole, and established the Save Illinois Topsoil program. The Save Illinois Topsoil program allows landowners to place land on or adjacent to land used for agricultural purposes in easements with the government, as well as other land deemed

²¹¹ West's Ann Cal Fish & G Code § 1362 (2001).

²¹² West's Ann Cal Pub Res Code § 12210 (2008)

²¹³ West's FSA § 403.927(1) (2011).

²¹⁴ West's FSA § 403.927(4)(a) (2011).

²¹⁵ West's FSA § 589.277 (2012).

²¹⁶ IC § 22-2716(1) (2003).

²¹⁷ IC § 22-2716 (2003).

²¹⁸ IC § 38-1312 (1974).

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important by the Program Administrator.²¹⁹ Easements can be of a minimum duration of five years (renewable) and maximum of 50 years.²²⁰ An integral part of easements under this program is that the grantor agrees not to use the areas that support the lands subject to the easement in a manner that compromises their security.²²¹

The State of Kentucky has an extensive forest conservation system and legislation that is based on key principles such as

“healthy, sustainable forests that are ecologically sound, provide economic opportunities and benefit the overall quality of life for all Kentuckians; high quality forests provide clean air and water and biodiversity; a diverse forest economy must include forest product industries, recreation, and tourism; timber harvesting operations must be conducted in an ecologically sound manner; Kentucky must promote the stewardship of its public and private forest lands while recognizing the rights and responsibilities of private landowners.”²²²

At the same time, a key aspect of the *Forest Conservation Law* is the obligation for Kentucky to act as a coordinating entity for the education of private forest owners about the environmental needs associated with their territories and the exposure to potentially beneficial means to meet these needs in a sustainable and conservation-oriented manner.²²³

Massachusetts law protects forests and associated lands, public or private, “for the purpose of conserving water, preventing floods and soil erosion, improving the conditions for wildlife and recreation, protecting and improving air and water quality, and providing a continuing and increasing supply of forest products for public consumption, farm use, and for the wood using industries of the commonwealth.”²²⁴ This creates a set of public obligations and burdens and also creates a relationship with private landowners under which there “shall further be [...] cooperation with the landowners and other agencies interested in forestry practices for the proper and profitable management of all forest lands in the interest of the owner, the public and the users of forest products.”²²⁵ Michigan law openly recognizes the importance and place of forestry and related activities within the state, and the desirability and necessity of ensuring that new forms of growth and development do not undermine the forestry and the environmental protections necessary to enable it to prosper in the future.²²⁶ This directly involves private forestry activities and forests, as well as those owned by the State.²²⁷

²¹⁹ 505 ILCS 35/2-1 (1996).

²²⁰ 505 ILCS 35/2-1 (1996).

²²¹ 505 ILCS 35/2-1 (1996).

²²² KRS § 149.332 (1998).

²²³ KRS § 149.332 (8) (1998).

²²⁴ MGLA 132 § 40 (2019).

²²⁵ MGLA 132 § 40 (2019).

²²⁶ MCLA 320.2032 (2003).

²²⁷ MCLA 320.2032 (2003).

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Minnesota has adopted the concept of sustainable forestry and forest resources as a matter of law, and, in order to implement these policies, created a Council of a variety of government officials, private companies and landowners who have interests in the area of sustainable forestry. The purpose of the Council is to provide guidance that balances the rights and interests of public and private property, as well as the needs of economic development and environmental conservation in the short and long term.²²⁸ In addition, Minnesota has enacted the *Forests for the Future Law* to create a program that “identifies and protects private, working forest lands for their timber, scenic, recreational, fish and wildlife habitat, threatened and endangered species, and other cultural and environmental values.”²²⁹ Through this program, landowners can turn over part or all of their forest land or land adjacent to forests to the state, usually for a long period, if not in perpetuity.²³⁰

Missouri provides state-wide regulation of forests and related forest land. In addition, the state provides private owners of forest land with the opportunity to formally establish and have private forest management plans approved and certified.²³¹ If these plans are approved and certified, the private owner benefits from tax advantages in recognition of the cost incurred by the use of a higher standard.²³² Likewise, through initiatives to promote sustainable forestry, private owners of forest land can participate in a State-administered incentive program in which landowners are compensated or receive tax benefits for maintaining non-commercial uses of their forests.²³³

In New York, it is possible for individuals to cede forests or other land to the State provided they are maintained for conservation and related purposes.²³⁴ However, the State must meet strict requirements to properly assess the ecological and environmental value of the land offered to it by individuals.²³⁵ This is particularly important in areas like the Adirondack Park, one of the largest nature reserves in the country, which is home to a number of diverse habitats which are considered paramount in the decision-making process regarding the possibility of accepting new land as state property.²³⁶

3.1.4 Water Resources and Wetlands

The *Water Act* governs the way the Province of Alberta manages water. The purpose of the *Act* is to promote water conservation and management while recognizing the need for economic growth and prosperity, as well as

²²⁸ MSA § 89A.03 (2014).

²²⁹ MSA § 84.66 (2009).

²³⁰ MSA § 84.66 (2009).

²³¹ VAMS 254.100 (2018).

²³² VAMS 254.100 (2018).

²³³ VAMS 254.225 (2002).

²³⁴ McKinney's ECL § 9-0107 (1972).

²³⁵ McKinney's ECL § 9-0109 (1972).

²³⁶ McKinney's ECL § 9-0109 (1972).

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flexible management.²³⁷ The *Act* governs the diversion, allocation and use of water, regulates and applies measures that affect water management and use, the aquatic environment, protection practices fish habitat and stormwater management.²³⁸ Under the *Act*, the Minister “must establish a strategy for the protection of the aquatic environment as part of the framework for water management planning for the Province”, which may include, among other things, guidelines for the establishment of water conservation objectives and issues related to the protection of biological diversity.²³⁹

The Saskatchewan *Water Security Agency Act* vests ownership and the right to use all the province's ground and surface water in the Crown. The *Act* also creates the Water Security Agency, which has a mandate to regulate and control the flow of water in any lake, river, reservoir or other body of water, issue water rights permits and approvals, and make agreements for the management, administration, planning, conservation, protection and control of the waters, watersheds and resources in the province.²⁴⁰

Alabama has the constitutional authority to pass laws regulating and monitoring water resources and wetlands for the purpose of conservation.²⁴¹ This includes the possibility of using eminent domain power to purchase eligible areas provided that the constitutional elements are respected and that the land is not used for commercial activities.²⁴² To strengthen these aspects of water protection and related requirements, Alabama provides for the capacity of state agencies to control pollution and water quality for the purpose of conservation and also for promotion and protection of business and industry.²⁴³ In general, Alabama public policy for wetland conservation is that “the drainage of surface water and the reclamation of wetlands, swamplands, overflowed lands and tidal marshes and flood prevention and the conservation, development, utilization and disposal of water shall be considered a public benefit and conducive to the public health, safety, convenience, utility and welfare.”²⁴⁴ Regarding the protection of wetlands in Alabama, there is a broad legal system governing the ability of private entities to dredge in or near wetlands.²⁴⁵

With respect to wetland conservation efforts, California recognizes the rights of private landowners with wetlands on their lands as distinct from the rights and obligations of the state in terms of wetlands located on its territories.²⁴⁶ California permits the use of public-private partnerships for the maintenance and conservation of wetlands, although it also seeks to promote

²³⁷ *Water Act*, RSA 2000, W-3, s 2.

²³⁸ *Water Act*, RSA 2000, W-3, 2.

²³⁹ *Water Act*, RSA 2000, W-3, s 8(2).

²⁴⁰ *The Water Security Agency Act*, SS 2005, c W-8.1, at article 6.

²⁴¹ Alabama const at article 93.16(1) (2018).

²⁴² Alabama const at article 93.16(1) (2018).

²⁴³ Alabama Code 1975 § 22-22-2 (1997).

²⁴⁴ Alabama Code 1975 § 9-9-5 (1997).

²⁴⁵ Alabama Admin Code r 335-8-2-.02 (1997); Alabama Admin Code r 335-8-2-.03 (1997).

²⁴⁶ West's Ann Cal Pub Res Code § 5811 (2001)

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state purchase of private wetlands where appropriate in order to guarantee their conservation.²⁴⁷

In Connecticut, it is legally recognized that there is a great economic, social and environmental need for the conservation of wetlands wherever these environments are present.²⁴⁸ As part of habitat conservation and protection, Delaware requires that laws concerning water bodies and watercourses be applied uniformly throughout the state, regardless of the use of the watercourse, or public or private land ownership status.²⁴⁹ As part of the Delaware Wetland Regime, the state requires that private or public landowners apply for and obtain permits for any activity that may have an impact on wetlands.²⁵⁰

Wetlands play an important role in Florida's ecosystems and, as such, are highly protected by laws and regulations governing their use and potential uses that could affect them.²⁵¹ In the context of wetlands, Florida plans and encourages the creation and implementation of public-private partnerships and working arrangements "to accomplish water storage, groundwater recharge, and water quality improvements on private agricultural lands."²⁵² Indiana offers owners of certain types of wetlands the opportunity to request the state to have land recognized and protected by law.²⁵³ In this case, the owner of the wetland agrees to be legally responsible in many cases and undertakes not to carry out certain activities likely to damage the wetland and the infrastructure that supports it.²⁵⁴

Louisiana has enacted a series of wetland laws, including requirements that those seeking to undertake projects requiring permits must provide mitigation for damage to wetlands.²⁵⁵ Within this system, the focus is on the uses of compensatory mitigation measures, defined as "replacement, substitution, enhancement, or protection of ecological values to offset anticipated losses of those values caused by a permitted activity. Compensatory mitigation may also include construction or implementation of an integrated coastal protection project consistent with the state's master plan for coastal protection and restoration within the same watershed as the permitted activity."²⁵⁶

In general, Michigan recognizes the importance of public and private wetlands as natural resources and the need to provide them with legal and regulatory protection.²⁵⁷ Where applicable, an attempt is made to strike a balance between the rights of landowners and the interests of the wider community in the protection of wetlands and, in the event of a permit or

²⁴⁷ West's Ann Cal Pub Res Code § 5814 (2001).

²⁴⁸ CGSA § 22a-28 (1971).

²⁴⁹ 7 Del C § 6001 (1996).

²⁵⁰ 7 Del C. § 6604 (1996).

²⁵¹ West's FSA § 373.414 (2018).

²⁵² West's FSA § 373.4591(1) (2016).

²⁵³ IC 13-18-22-9 (2004).

²⁵⁴ IC 13-18-22-9 (2004).

²⁵⁵ LSA-RS 49:214.41 (2019).

²⁵⁶ LSA-RS 49:214.41(1) (2019).

²⁵⁷ MCLA 324.30302 (1995).

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authorization being refused for the development or use an area containing wetland, the private owner “may request a revaluation of the affected property for assessment purposes to determine its fair market value under the use restriction.”²⁵⁸

Minnesota's identified wetlands, whether on public or private land, are subject to legal and regulatory protections that require permits and other authorizations before taking any action that could impact them.²⁵⁹ Owners of private land on which wetlands are located can also request that it be recognized and classified as such as a matter of law, which can lead to restrictions on the potential use of the land, but can also bring benefits, especially in the form of tax benefits.²⁶⁰ In addition, by restoring former wetlands on their property, private landowners have the opportunity to obtain financial incentives from the state.²⁶¹ New York's wetlands are subject to comprehensive regulation, particularly on private lands, and property owners with wetlands on their property benefit from tax relief and other compensatory measures as a result.²⁶² At the same time, New York law recognizes the need to regulate wetlands, particularly those in coastal areas, in a way that also allows for economic and social development.²⁶³

3.1.5 Land Titles, Land Banking Systems and Conservation Easements

The *Land Titles Act* in British Columbia provides for the registration of undertakings in favour of the Crown, a Crown corporation or agency, a municipality, a Regional district, the South Coast British Columbia Transportation Authority or a local fiduciary committee under the Islands Trust Act.²⁶⁴ An agreement may provide “that land or a specified amenity in relation to it be protected, preserved, conserved, maintained, enhanced, restored or kept in its natural or existing state in accordance with the covenant and to the extent provided in the covenant,”²⁶⁵ with the term “amenity” including “any natural, historical, heritage, cultural, scientific, architectural, environmental, wildlife or plant life value relating to the land that is subject to the covenant.”²⁶⁶

The Alberta *Land Stewardship Act* aims to “provide for the co-ordination of decisions by decision-makers concerning land, species, human settlement, natural resources and the environment” and “create legislation and policy that enable sustainable development by taking account of and responding to the cumulative effect of human endeavour and other events.”²⁶⁷ The *Act* further provides for the creation of conservation

²⁵⁸ MCLA 324.30318 (1995).

²⁵⁹ MSA § 103G.222 (2017).

²⁶⁰ MSA § 103F.612 (2015).

²⁶¹ MSA § 103G.235 (2007).

²⁶² McKinney's ECL § 24-0905 (1977).

²⁶³ McKinney's ECL § 25-0102 (1973); McKinney's ECL § 25-0401 (1973).

²⁶⁴ *Land Titles Act*, RSBC 1996, c 250, s 219(1).

²⁶⁵ *Land Titles Act*, (RSBC 1996, c 250, s 219(4)(b)).

²⁶⁶ *Land Titles Act*, RSBC 1996, c 250, s 219(5).

²⁶⁷ *Alberta Land Stewardship Act*, SA 2009, c-A-26.8, s 1(2).

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easements.²⁶⁸ In addition, regional plans adopted pursuant to the *Act* may also “permanently protect, conserve, manage and enhance environmental, natural scenic, esthetic or agricultural values by means of a conservation directive expressly declared in the regional plan,” although a conservation directive does not constitute an area or interest in land.²⁶⁹ The Alberta Conservation Association (ACA) was incorporated under the *Societies Act* in 1997 to succeed the Alberta Fish and Wildlife Trust. The ACA has the special status of a delegated administrative organization under the *Wildlife Act* and its responsibilities are defined in a Memorandum of Understanding (MOU) with the Ministry of Environment and Parks of Alberta.²⁷⁰ Another important program in the context of conservation efforts in the province is the Alberta Land Trust Grant Program. Grants from the Alberta Land Trust Grant Program are offered to eligible land trust organizations and help “establish and administer new conservation easements on private land and/or administer new conservation projects on land trusts titled land.”²⁷¹ Any registered land trust organization can apply for funding provided that one of its purposes is land conservation.²⁷² The program does not provide grants to allow the purchase of private land, but rather, “provide[s] grants to land trust organizations to help establish and administer new conservation easements on private land and/or administer new conservation projects on land trusts titled land.”²⁷³ Finally, the Conservation Easements Act provides for the creation of a conservation easement as a matter of law and regulatory oversight.²⁷⁴

The Manitoba *Conservation Agreements Act* allows private landowners to contribute to the protection and improvement of ecosystems, habitats and wildlife preservation within the province. The *Act* provides for the conclusion of conservation agreements that remain in effect for a specified duration and apply to the land.²⁷⁵ Ontario has established the Protected Land Tax Incentive Program (PEFTP), a voluntary program that provides landowners with a 100% property tax exemption on eligible portions of their properties in exchange for their long-term commitment to stewardship of protected lands.²⁷⁶ Those who oppose a municipality's zoning decisions automatically have the right to appeal to the Ontario Municipal Board (OMB) under subsection 34(11) of the *Planning Act*. The OMB is required to

²⁶⁸ *Alberta Land Stewardship Act*, SA 2009, c-A-26.8, s 29.

²⁶⁹ *Alberta Land Stewardship Act*, SA 2009, c-A-26.8, ss 37(1), 37(3).

²⁷⁰ Alberta Conservation Association, *Roles and Responsibilities*, online: <<https://www.ab-conservation.com/about/member-groups/>>.

²⁷¹ Province of Alberta, *Alberta Land Trust Grant Program*, online: <<https://www.alberta.ca/alberta-land-trust-grant-program.aspx>>.

²⁷² Province of Alberta, *Alberta Land Trust Grant Program*, online: <<https://www.alberta.ca/alberta-land-trust-grant-program.aspx>>.

²⁷³ Province of Alberta, *Alberta Land Trust Grant Program*, online: <<https://www.alberta.ca/alberta-land-trust-grant-program.aspx>>.

²⁷⁴ *Conservation Easements Act*, SS 1996, c C-27.01, at article 3(1).

²⁷⁵ *Loi sur les accords de conservation*, CCSM c C173, at article 2(3), 3(2).

²⁷⁶ Province of Ontario, *Conservation Land Tax Incentive Program policy*, online: <<https://www.ontario.ca/page/conservation-land-tax-incentive-program-policy>>.

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make decisions in accordance with the provincial policy statement.²⁷⁷ Under the terms of the statement, the development and modification of sites is prohibited in a number of areas, including wetlands, woodlands, valleys, wildlife habitats and coastal wetlands deemed “significant”.²⁷⁸

New Brunswick’s natural areas are protected under the *Protected Natural Areas Act*.²⁷⁹ On the recommendation of the Minister, the Lieutenant-Governor in Council may establish a protected natural area on Crown land or, subject to certain conditions, a protected natural area on private land. The *Act* also sets out prohibited activities in protected areas and provides exemptions from these prohibitions, as well as a process for issuing permits for certain activities.²⁸⁰ Under section 33 of the *Act*, the Minister may enter into an agreement for the protection, conservation and management of a protected natural area or part of a protected natural area. Finally, the *Ecological Easements Act* allows private landowners to protect the conservation value of their land.²⁸¹ A conservation easement can be created for a fixed term or in perpetuity and extends with the land to which it relates during the period provided for in the conservation easement.²⁸²

The Nova Scotia *Special Places Protection Act* provides another tool for protecting habitat on private land.²⁸³ The purpose of the law is, among other things, to

“provide for the preservation, protection, regulation, acquisition and study of ecological sites which are considered important parts of the natural heritage of the Province and, notwithstanding the generality of the foregoing, preserve, regulate, acquire and study those ecological sites that (i) are suitable for scientific research and educational purposes, (ii) are representative examples of natural ecosystems within the Province, (iii) serve as examples of ecosystems that have been modified by man and offer an opportunity to study the natural recovery of ecosystems from such modification, (iv) contain rare or endangered native plants or animals in their natural habitats, (v) provide educational or research field areas for the long-term study of natural changes and balancing forces in undisturbed ecosystems [...]”.²⁸⁴

With respect to ecological sites, the Minister may, on Crown land or on private land with the consent of the owner, designate certain regions of the

²⁷⁷ Province of Ontario, 2014 Provincial Policy Statement, online:
<<http://www.mah.gov.on.ca/AssetFactory.aspx?did=10463>> at 2.1.4 et 2.1.5.

²⁷⁸ Province of Ontario, 2014 Provincial Policy Statement, online:
<<http://www.mah.gov.on.ca/AssetFactory.aspx?did=10463>> at 2.1.6 et 2.1.7

²⁷⁹ *Protected Natural Areas Act*, SNB 2003, c P-19.01.

²⁸⁰ *Protected Natural Areas Act*, SNB 2003, c P-19.01, ss 11-13, 15.

²⁸¹ *Ecological Easements Act*, RSNB 2011, c 130.

²⁸² *Ecological Easements Act*, RSNB 2011, c 130, ss 2(2), 2(4).

²⁸³ *Special Places Protection Act*, RSNS 1989, c 438.

²⁸⁴ *Special Places Protection Act*, RSNS 1989, c 438, s 2.

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province as ecological sites and formulate a management plan for these sites.²⁸⁵

The purpose of the Nova Scotia *Wilderness Areas Protection Act* is to establish, manage, protect and use wilderness areas, in perpetuity, for present and future generations, to maintain and restore the integrity of natural processes and biodiversity, protect representative examples of natural landscapes and ecosystems, and protect, among other things, remarkable, unique, rare and vulnerable natural features and phenomena.²⁸⁶ Finally, the *Conservation Easements Act* offers private landowners a way to protect their land. Conservation easements are legally binding agreements between a landowner and a conservation or government organization that attaches title to the land and restricts its future use.²⁸⁷ A conservation easement is established to protect, restore or improve land devoted primarily to the protection of biodiversity and natural processes.²⁸⁸

Under the Prince Edward Island *Wildlife Conservation Act*, the Minister can create an advisory committee, acquire property and enter into contracts for the protection of wildlife.²⁸⁹ The Minister has the power to prohibit habitat modification, in the absence of an exception or regulatory authorization, designate areas as habitat for an endangered or threatened species, and designate and regulate wetlands, marshes and rivers of historic or biological value.²⁹⁰ In addition, the Minister may enter into an agreement with a private landowner, who may impose a conservation agreement or easement with respect to the lands belonging to the private landowner.²⁹¹ Such an agreement or easement may be granted for the protection, improvement or restoration of natural ecosystems, wildlife habitats or habitats of rare, threatened or vulnerable species, conservation of soil, water or soil, and for conservation of botanical, zoological or geological characteristics of a territory.²⁹²

The Yukon *Parks and Land Certainty Act* allows for the designation of territory as park land. The *Act* covers private land by allowing the acquisition of such land by the province by purchase, gift, subsidy, bequest or exchange in order to create a park.²⁹³ The *Environmental Protection Act* aims to manage, protect and enhance the natural environment of the Northwest Territories. Although the *Act* does not deal directly with conservation, it does include provisions that may affect wildlife habitat on private lands.²⁹⁴

In the United States context, a model *Uniform Conservation Easement Act* has been enacted to provide for issues such as the definition and implementation of conservation easements, as well as the governmental and

²⁸⁵ *Special Places Protection Act*, RSNS 1989, c 438, ss 14(1-2).

²⁸⁶ *Wilderness Areas Protection Act*, SNS 1998, c 27, s 2.

²⁸⁷ *Conservation Easements Act*, SNS 2001, c 28.

²⁸⁸ *Conservation Easements Act*, SNS 2001, c 28, s 4.

²⁸⁹ *Wildlife Conservation Act*, RSPEI 1988, c W-4.1, s 8.

²⁹⁰ *Wildlife Conservation Act*, RSPEI 1988, c W-4.1, s 16(3).

²⁹¹ *Wildlife Conservation Act*, RSPEI 1988, c W-4.1, ss 18(1) and (2).

²⁹² *Wildlife Conservation Act*, RSPEI 1988, c W-4.1, s 18(3).

²⁹³ *Parks and Land Certainty Act*, RSY 2002, c. 165.

²⁹⁴ *Environmental Protection Act*, RSNWT 1988, c E-7.

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charitable entities that can administer them. The Act has been adopted as the basis for conservation easements in Alaska, Georgia, Idaho, Kansas, Kentucky, Minnesota, Mississippi, Nevada, Oklahoma, South Carolina, Texas, West Virginia and Wisconsin.²⁹⁵

The Alabama *Forever Wild Land Trust* is a state constitutional construction to assist current and future generations by providing the state with resources to purchase plots of land and maintain them as forever wilderness sites.²⁹⁶ Strict rules govern the use of the Land Trust, particularly regarding non-use for the creation or improvement of land.²⁹⁷ In addition, funds can be used to support the creation and maintenance of a state-wide natural heritage resource database.²⁹⁸ In Alabama, a governmental entity, whether at the state level or a governmental subunit, is authorized to enter into conservation easements with individual or collective landowners. Under this law, it is also possible to grant conservation easements to charities that are responsible for conservation-related activities.²⁹⁹

The Alaska *Environmental Conservation Act* explicitly provides that “it is the policy of the state to improve and coordinate the environmental plans, functions, powers, and programs of the state, in cooperation with the federal government, regions, local governments, other public and private organizations, and concerned individuals, and to develop and manage the basic resources of water, land, and air to the end that the state may fulfill its responsibility as trustee of the environment for the present and future generations,”³⁰⁰ thereby recognizing both private property rights and reaffirming the State's commitment to the principles of environmental conservation.

In Arizona, legislators have provided for the funding of the Arizona Wildlife Conservation Fund as an entity “to conserve, enhance, and restore Arizona's diverse wildlife resources and habitats for present and future generations, and which may include the acquisition of real property.”³⁰¹ Arizona defines a conservation easement as “a nonpossessory interest of a holder in real property imposing limitations or affirmative obligations for conservation purposes or to preserve the historical, architectural, archaeological or cultural aspects of real property.”³⁰² Conservation easement grantors can be anyone with the legal title to grant, while conservation easement holders can be government entities or charities that are active in conservation-related fields.³⁰³

²⁹⁵ Ga Code Ann § 44-10-2 (1) (1992); IC § 55-2101 (1988); KSA 58-3810 (1992); KRS § 382.820 (1988); Miss Code Ann § 89-19-3 (1986); NRS 111.410 (1983); 60 Okl St Ann § 49.2 (1999); Code 1976 § 27-8-20 (1991); VTCA Natural Resources Code § 183.001 (1983); W Va Code, § 20-12-3 (1995); WSA 700.40 (1985).

²⁹⁶ Alabama const at article 219.07(3) (2018).

²⁹⁷ Alabama const at article 219.07(3) (b) (2018).

²⁹⁸ Alabama const at article 219.07(11) (2018).

²⁹⁹ Alabama Code 1975 § 35-18-1(2) (1997).

³⁰⁰ AS § 46.03.010 (1971).

³⁰¹ ARS § 17-299(A) (2002).

³⁰² ARS § 33-271(1) (2018).

³⁰³ ARS § 33-271(3) (2018).

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Arkansas has created a wetland mitigation bank system.³⁰⁴ Essentially, these banks operate in the same way as a carbon market system in that they are accepted as compensation for activities whose conservation value may be questionable.³⁰⁵ Conservation easements in Arkansas are by default considered to be perpetual, although the law provides for the possibility of using a shorter period as long as it is explicitly stated in the deed of transfer.³⁰⁶

Similarly, California has established a unique system of mitigation banks and conservation banks that can be used in the same way that carbon credits and carbon markets operate in other jurisdictions.³⁰⁷ Under this system,

“the department authorizes the establishment of private and public conservation and mitigation banks that can provide viable consolidated mitigation for adverse impacts caused by projects. Banks sell habitat or species credits to project proponents having mitigation responsibilities that require compensation for impacts to wetlands, threatened or endangered species, and other sensitive resources.”³⁰⁸

Conservation easements in California are quite important and establish a perpetual concession.³⁰⁹ Under California law, conservation easements can only be owned by a governmental entity, charity related to protection, preservation and general conservation activities, or Native American tribes.³¹⁰ California law defines a conservation easement as “any limitation in a deed, will, or other instrument in the form of an easement, restriction, covenant, or condition, which is or has been executed by or on behalf of the owner of the land subject to such easement and is binding upon successive owners of such land, and the purpose of which is to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition.”³¹¹

The State of Colorado has adopted the use of conservation easements, which are defined as

“a right in the owner of the easement to prohibit or require a limitation upon or an obligation to perform acts on or with respect to a land or water area, airspace above the land or water, or water rights beneficially used upon that land or water area, owned by the grantor appropriate to the retaining or maintaining of such land, water, airspace, or water rights, including improvements, predominantly in a natural, scenic, or open condition, or for wildlife habitat, or for

³⁰⁴ ACA § 15-22-1002 (2007).

³⁰⁵ ACA § 15-22-1004 (2007).

³⁰⁶ ACA § 15-20-406 (1983).

³⁰⁷ West's Ann Cal Fish & G Code § 1797 (2019).

³⁰⁸ West's Ann Cal Fish & G Code § 1797 (2019).

³⁰⁹ West's Ann Cal Civ Code § 815.2 (2014).

³¹⁰ West's Ann Cal Civ Code § 815.3 (2014).

³¹¹ West's Ann Cal Civ Code § 815.1 (2014); West's Ann Cal Pub Res Code § 5011.7 (2009).

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agricultural, horticultural, wetlands, recreational, forest, or other use or condition consistent with the protection of open land, environmental quality or life-sustaining ecological diversity, or appropriate to the conservation and preservation of buildings, sites, or structures having historical, architectural, or cultural interest or value.”³¹²

There is another restriction in the form of conservation easements that relate to sites of historical or cultural significance, as they should only be used for sites that have been listed in the national or state register of historic places.³¹³

In Connecticut, there are two general forms of restrictions that relate to conservation: conservation restrictions and preservation restrictions.³¹⁴ In particular, conservation restrictions are broadly defined to include

“a limitation, whether or not stated in the form of a restriction, easement, covenant or condition, in any deed, will or other instrument executed by or on behalf of the owner of the land described therein, including, but not limited to, the state or any political subdivision of the state, or in any order of taking such land whose purpose is to retain land or water areas predominantly in their natural, scenic or open condition or in agricultural, farming, forest or open space use.”³¹⁵

Conservation restrictions can be held either by a governmental unit or sub-unit or charity that works in a conservation-related area.³¹⁶

Although not a large land mass, the District of Columbia maintains conservation easement laws.³¹⁷ The State of Delaware allows the creation of conservation easements as a form of “nonpossessory interest of a holder in real property imposing limitations or affirmative obligations, the purposes of which include retaining or protecting natural, scenic or open-space values of real property, assuring its availability for agricultural, forest, recreational or open-space use, protecting natural resources, fish and wildlife habitat, rare species and natural communities maintaining or enhancing air or water quality or preserving the historical, architectural, archaeological or cultural aspects of real property.”³¹⁸ As in other jurisdictions, Delaware allows government entities and charities that are associated with conservation activities to hold conservation easements on private property.³¹⁹

Florida conservation easements are intended to be perpetual and may be granted to a governmental unit or subunit, conservation organization or

³¹² CRSA § 38-30.5-102 (1976).

³¹³ CRSA § 38-30.5-104 (1985).

³¹⁴ CGSA § 47-42a (1971).

³¹⁵ CGSA § 47-42a(a) (1971).

³¹⁶ CGSA § 47-42c (1971).

³¹⁷ DC ST § 42-201 (1986).

³¹⁸ 7 Del C § 6901 (1996).

³¹⁹ 7 Del C § 6901 (1996).

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similar charitable organization.³²⁰ It is important to note that agriculture, forestry and related activities may be permitted on land subject to conservation easements.³²¹ In the same vein, Florida allows the creation of resource conservation easements.³²² In addition to easements, Florida provides annual resource conservation and farm protection agreements, under which private landowners are paid for conservation and/or cultivation practices.³²³ As in California, Florida has established a bank mitigation system through which conservation easements can be used to generate credits.³²⁴

Conservation easements in Hawai'i are perpetual when granted and may be granted to any government entity,³²⁵ sub-entity or charitable entity that focuses on conservation-related matters.³²⁶ In Illinois, it is possible for a single private landowner or group of landowners to establish a wildlife habitat management area for conservation and related purposes, provided that, taken together, the lands owned cover at least "600 acres of contiguous farm lands, or a combination of tillable lands and farm woodlots suitable for the protection and propagation of species of small game ordinarily found upon, or in the immediate proximity of such lands."³²⁷ Illinois also provides for the existence of environmental agreements, commitments that "aris[e] under an environmental response project that imposes activity and use limitations" in relation to contaminated land that is subject to federal or state sanitation laws.³²⁸

In Indiana, conservation easements are used under the definition of "a nonpossessory interest of a holder in real property that imposes limitations or affirmative obligations with the purpose of: (1) retaining or protecting natural, scenic, or open space values of real property; (2) assuring availability of the real property for agricultural, forest, recreational, or open space use; (3) protecting natural resources; (4) maintaining or enhancing air or water quality; or (5) preserving the historical, architectural, archeological, or cultural aspects of real property."³²⁹ As in other jurisdictions, conservation easements can be owned by government units or subunits as well as by charities that focus on conservation-related subjects.³³⁰

In Iowa, a conservation easement is defined to "preserve scenic beauty, wildlife habitat, riparian lands, wetlands, or forests; promote outdoor recreation, agriculture, soil or water conservation, or open space; or otherwise conserve for the benefit of the public the natural beauty, natural

³²⁰ West's FSA § 704.06 (2016).

³²¹ West's FSA § 704.06 (2016).

³²² West's FSA § 570.71(1) (2015).

³²³ West's FSA § 570.71(4 – 5) (2015).

³²⁴ Fla Admin Code r 62-342.650 (1994).

³²⁵ HRS § 198-2 (1985).

³²⁶ HRS § 198-3 (1985).

³²⁷ 520 ILCS 20/4 (1961).

³²⁸ 765 ILCS 122/2 (2015).

³²⁹ IC 32-23-5-2 (2002).

³³⁰ IC 32-23-5-3 (2002).

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and cultural resources, and public recreation facilities of the state.”³³¹ Conservation easements are intended to be perpetual.³³²

Under Louisiana law, it is possible for the state to designate areas of less than 2,000 acres as having “special significance,” which means that “a permittee, in order to receive a permit to conduct an activity having a direct and significant adverse impact on unique or special resources of such area, must demonstrate that the public interest benefits of the proposed activity clearly outweigh the public interest benefits of preserving the unique or special ecological values of the area and must, at a minimum, provide full compensatory mitigation for ecological value losses associated with the permitted activity.”³³³

In Maryland, conservation easements are created by restrictions “prohibiting or limiting the use of water or land areas, or any improvement or appurtenance there to,”³³⁴ and there exists a separate form of heritage conservation funding which is relevant in this context.³³⁵ Wherever possible, Michigan seeks to create a co-equality relationship in recognizing the importance of reserves and wildlife resources to public and private landowners, as well as the preference of establishing an employment relationship that recognizes these rights and interests, rather than seeking to give primacy to one or the other.³³⁶ Michigan also explicitly defines and recognizes the importance of biodiversity for the territory of the State as a whole.³³⁷ In particular, the state must have the capacity to create new policies that recognize and seek to protect multiple forms of biodiversity, whether on private or state land.³³⁸ Additionally, Michigan uses wetland mitigation banks as part of its overall wetland conservation plans.³³⁹

Missouri allows the use of conservation easements and several other forms of use restrictions to keep spaces open throughout the state.³⁴⁰ Open spaces are defined by the State of Missouri as

“any space or area the preservation or restriction of the use of which would: (1) Maintain or enhance the conservation of natural or scenic resources, (2) Protect natural streams or water supply, (3) Promote conservation of soils, wetlands, beaches or marshes, (4) Enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries, or other open areas and open spaces, (5) Preserve archaeologic and historic sites, (6) Implement the plan of development adopted by the planning agency

³³¹ ICA § 457A.1 (2019).

³³² ICA § 457A.2 (2029)

³³³ LSA-RS 49:214.41(F)(3) (2019).

³³⁴ MD Code, Real Property § 2-118 (2017).

³³⁵ MD Code, Natural Resources § 5-1502 (1986).

³³⁶ MCLA 324.35104 (1995).

³³⁷ MCLA 324.35501 (1995); MCLA 324.35502 (1995).

³³⁸ MCLA 324.35506 (1995).

³³⁹ MCLA 324.5204f (2013).

³⁴⁰ VAMS 67.880 (1971).

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of the state or county or municipality, or (7) Promote orderly urban or suburban development.”³⁴¹

Under Montana law, conservation easements can be made to limit or prohibit the following activities: erection or arrangement of structures; operation of landfills; removal or destruction of vegetation; excavation, dredging and related activities; harmful land uses; “acts detrimental to conservation;” the creation of subdivisions; or “other acts or uses detrimental to such retention of land or water areas in their existing conditions.”³⁴² Conservation easements can be established in perpetuity or for a renewable period of 15 years.³⁴³ Overall, although Montana has a large stock of public land used for hunting, fishing and conservation practices, the vast majority of this land in the state is still private.³⁴⁴ At the same time, the majority of Montana's conservation easements and trust lands are administered not by the State, but by an intermediary organization, such as the Nature Conservancy, according to a model that is replicated in many states.³⁴⁵

In Nebraska, there are several options for private landowners who wish to engage in the conservation of their land, including outright conservation of the land and certain species or water resources located thereon.³⁴⁶ Nevada has taken note of the serious environmental damage it has already suffered as a result of rapid growth and development and has promulgated laws and rules that aim to address this in the future. As a result, numbers of activities have been put in place to promote the sustainable use of natural resources within the state, including wetland mitigation bank programs.

The State of New Hampshire is concerned with legal regulation and protection of wetlands and has classified wetlands as generally having twelve different functions: “ecological integrity, wetland-dependent wildlife habitat, fish and aquatic life habitat, scenic quality, educational potential, wetland-based recreation, flood storage, groundwater recharge, sediment trapping, nutrient trapping/retention/transformation, shoreline anchoring, and noteworthiness.”³⁴⁷ In addition, to promote wetland conservation and the creation of environmentally friendly practices, New Hampshire allows the use of wetland mitigation banks.³⁴⁸

A key component of New Jersey's efforts to promote environmental conservation is to encourage the maintenance and management of arable

³⁴¹ VAMS 67.900 (1971).

³⁴² MCA 76-6-203 (1969).

³⁴³ MCA 76-6-202 (1969).

³⁴⁴ Montana Wildlife Federation, *We Can Protect Private Property Rights and Public Land Access*, online: <<https://montanawildlife.org/we-can-protect-private-property-rights-and-public-land-access/>>.

³⁴⁵ Gallatin Valley Land Trust, *Fact or Fiction: Land Trusts and Conservation Easements*, online: <<https://gvlt.org/fact-fiction-land-trusts-conservation-easements/>>.

³⁴⁶ Nebraska Game & Parks, *Landowner Habitat Programs*, online: <<http://outdoornebraska.gov/landownerhabitatprograms/>>.

³⁴⁷ NH Rev Stat § 482-A:2 (XI) (2018).

³⁴⁸ NH Rev Stat § 482-A:34 (2018).

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land. In this system, private landowners are essential actors, and it provides that

“administering a program to aid private landowners, informing the public of recreational opportunities and evaluating the operation of the program would best be implemented by establishing an Open Lands Management Program, and by empowering the Department of Environmental Protection to provide financial assistance and in kind services to assist private landowners in maintaining and increasing public recreational opportunities, all as hereinafter provided.”³⁴⁹

To encourage the development and implementation of sustainable forest and related land management programs by private landowners, New Jersey allows these landowners to voluntarily undertake conservation-related activities and receive tax and other incentives from the State.³⁵⁰ New Jersey also allows the use of wetland mitigation banks as a method of promoting wetland conservation and overall environmental protection.³⁵¹

The legal system of New Mexico provides for “land use easements,” which incorporate the conditions of conservation easements as well as restrictions on open spaces and the protection of natural resources located on private land.³⁵² New York State defines a conservation easement as “an easement, covenant, restriction or other interest in real property, created under and subject to the provisions of this title which limits or restricts development, management or use of such real purpose of preserving or maintaining the scenic, open, historic, archaeological, architectural, or natural condition, character, significance or amenities of [...] real property.”³⁵³ Although it is possible for government entities and subunits to hold conservation easements, there is a strong preference in law for the acquisition of conservation easements by charities.³⁵⁴

North Carolina has created the Conservation Grant Fund to help the state finance conservation easements.³⁵⁵ These funds can be used to establish easements on properties meeting the following required elements: “Possess or have a high potential to possess ecological value; Be reasonably restorable; Be useful for one or more of the following purposes: a. Public beach access or use; b. Public access to public waters or trails; c. Fish and wildlife conservation; d. Forestland or farmland conservation; e. Watershed protection; f. Conservation of natural areas; g. Conservation of predominantly natural parkland; and Be donated in perpetuity to and accepted by the State, a local government, or a body that is both organized to receive and administer lands for conservation purposes and qualified to

³⁴⁹ NJSA 13:1B-15.135 (1984).

³⁵⁰ NJSA 13:1B-15.139 (1984).

³⁵¹ NJSA 13:9B-14 (1988).

³⁵² NMSA 1978, § 47-12-2 (2019).

³⁵³ McKinney's ECL § 49-0303 (2013).

³⁵⁴ McKinney's ECL § 49-0307 (2011).

³⁵⁵ NCGSA § 113A-232 (2018).

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receive charitable contributions.”³⁵⁶ In addition, North Carolina has authorized and is currently using a system of wetland mitigation banks that generates credits associated with wetland maintenance and support. Much of the work of easements and conservation trusts in the state of North Carolina is coordinated and overseen by private trust organizations, which act as lobbyists and activists for those concerned and the communities they serve as well as intermediary bodies between state regulators and private landowners.³⁵⁷

The banking and exchange of credits for wetlands is permitted in North Dakota for use in agricultural activities.³⁵⁸ In addition, it is possible for the state to create conservation agreements that directly concern wetlands that belong to private landowners.³⁵⁹ In Oregon, there are provisions for the implementation of habitat stewardship agreements, under which private landowners voluntarily agree to “terms under which the landowner will self-regulate to meet and exceed applicable regulatory requirements and achieve conservation, restoration and improvement of fish and wildlife habitat or water quality” in relation to the bodies of water (including wetlands) on its property.³⁶⁰ Landowners derive several benefits from this agreement, including tax incentives and consistent application of state and local government rules.³⁶¹ In addition, Oregon allows the issuance of conservation easements to the state on private lands in a manner similar to the creation and implementation of standard easements under state law.³⁶²

In Rhode Island, conservation restrictions – including conservation easements – are used to ensure the voluntary protection of the territory by private owners.³⁶³ Unlike some systems of state conservation easements, in South Dakota there is no expected or required duration for the terms of the conservation easement.³⁶⁴ Rather, these conditions must be negotiated by the state and the parties involved.³⁶⁵

In Tennessee, it is important to note that over 90% of agricultural and wildlife land and forests are privately owned.³⁶⁶ At the same time, natural resources that belong to the state or are on public land are also regulated for conservation purposes.³⁶⁷ As a result, formal entities such as the Tennessee Wildlife Agency and private landowners have established relationships to

³⁵⁶ NCGSA § 113A-232 (2018).

³⁵⁷ Conservation Trust for North Carolina, *Advocacy and Policy*, online:
<<https://www.ctnc.org/assist/advocacy/>>

³⁵⁸ NDCC 4.1-01-15 (2019).

³⁵⁹ NDCC 61-31-03 (2019).

³⁶⁰ ORS § 541.973 (2018).

³⁶¹ ORS § 541.973(6) (2018).

³⁶² ORS § 271.725 (2005).

³⁶³ Gen Laws 1956, § 34-39-3 (1956).

³⁶⁴ SDCL § 1-19B-57 (1984).

³⁶⁵ SDCL § 1-19B-57 (1984).

³⁶⁶ Tennessee Wildlife Resource Agency, *Wildlife Habitat in Tennessee*, online:
<<https://www.tn.gov/twra/wildlife/habitat.html>>.

³⁶⁷ Tennessee Department of Environment & Conservation, *Natural Areas Program*, online:
<<https://www.tn.gov/environment/program-areas/na-natural-areas/natural-areas-redirect/natural-areas-program.html>>.

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work together to achieve their common goals. Government entities and subunits can hold conservation easements, as can charities working in conservation-related fields.³⁶⁸ Texas has adopted the concept of a wetland mitigation bank as a statewide conservation mechanism and has provided legal means to achieve this in the short and long term.³⁶⁹

In Utah, the definition of a conservation easement is

“an easement, covenant, restriction, or condition in a deed, will, or other instrument signed by or on behalf of the record owner of the underlying real property for the purpose of preserving and maintaining land or water areas predominantly in a natural, scenic, or open condition, or for recreational, agricultural, cultural, wildlife habitat or other use or condition consistent with the protection of open land.”³⁷⁰

Relevant government entities and charities are designated potential holders of conservation easements.³⁷¹

Virginia defines a conservation easement as

“a nonpossessory interest of a holder in real property, whether easement appurtenant or in gross, acquired through gift, purchase, devise, or bequest imposing limitations or affirmative obligations, the purposes of which include retaining or protecting natural or open-space values of real property, assuring its availability for agricultural, forestall, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural or archaeological aspects of real property.”³⁷²

In general, conservation easements in Virginia are designed to encourage relevant charities to serve as easement holders.³⁷³ Conservation easements must be established in perpetuity.³⁷⁴

Washington State uses conservation districts as administrative units and gives them the power to approve or deny permits for activities conducted on private land, including outdoor burning activities.³⁷⁵ Washington provides for the creation of conservation easements in perpetuity.³⁷⁶ A landowner has the option of making the concession of easement for a payment from the state directly or can make the concession as a gift.³⁷⁷ In addition to granting a conservation easement on land, the State of Washington allows the granting of a conservation easement on waters,

³⁶⁸ TCA § 66-9-303 (1988).

³⁶⁹ VTCA Natural Resources Code § 221.021 (1997).

³⁷⁰ UCA 1953 § 57-18-2 (1955).

³⁷¹ UCA 1953 § 57-18-3 (1955).

³⁷² VA Code Ann § 10.1-1009 (1988).

³⁷³ VA Code Ann § 10.1-1009 (1988).

³⁷⁴ VA Code Ann § 10.1-1010 (1988).

³⁷⁵ West's RCWA 70.94.6516 (2009).

³⁷⁶ WAC 222-23-030 (1) (2018).

³⁷⁷ WAC 222-23-020 (4) (2018).

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trees, resources or essential habitats located on a particular parcel of land.³⁷⁸ Conservation easements may also be established at the county level, particularly for lake and beach management areas where there is concern for conservation and the prevention of overdevelopment.³⁷⁹ In addition, the State of Washington has created a forest riparian easement program to address concerns about the current and potential future impacts of development and commercialization on the promotion and conservation of forests and related areas.³⁸⁰

Wyoming has provisions for conservation easements and has used them to create a number of these instruments. The objectives of these easements are very varied, ranging from agriculture to wildlife in general and/or to target populations specific to migratory protection.³⁸¹

4. CONCLUSION

As noted above, while there are some differences in the ways that biodiversity protection and conservation laws and regulatory mechanisms are used in Canada and the United States at the national and sub-national levels, a striking result can be found from their comparison: significant similarities. In both systems, there is a national base upon which to build for biodiversity promotion efforts, and in both countries, there is a marked tendency of sub-national entities to go well beyond these national standards in order to craft significantly stricter and more contextually appropriate regimes. More than this, sub-national entities are often able to function as areas of evolution for the protection of biodiversity and the conservation of habitats upon which biodiversity depends. For this reason, it is perhaps not surprising that cross-border similarities in biodiversity protection and conservation laws and rules exist, as it is likely that certain provinces, territories and states will have more in common with each other than with other sub-national units within their own countries.

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³⁷⁸ WAC 222-23-020 (2018).

³⁷⁹ West's RCWA 36.61.300 (2014).

³⁸⁰ West's RCWA 76.13.120 (2017).

³⁸¹ WS 1977 § 9-15-808 (2013) (Rolling Thunder conservation easement); WS 1977 § 9-15-901 (2014) (Rim Ranch Conservation Easement); W.S.1977 § 9-15-703 (2012) (North Cottonwood Conservation Easement).

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Contributed to data analysis & interpretation	Yes	Yes
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