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REGULAR RESEARCH ARTICLE

Global biodiversity-related conventions on facilitating biodiversity conservation in Vietnam

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ABSTRACT

Global biodiversity-related conventions have positively influenced nature conservation in Vietnam. Adherence to international policies and strategies is one of the critical motivations for reducing biodiversity loss. As highlighted in Aichi Target 11, protected areas are central for this effort and Vietnam is not an exception. In this study we reflect on and suggest how this Target can be most effectively pursued in Vietnam. Of which, besides remaining the status of special-use forests, uplifting protection forests, especially focusing on forest areas which are in rich biodiversity condition, to special-use forests category should be a priority.

KEYWORDS

Aichi Target; Biodiversity convention; Protected areas; Special-use forests; Viet Nam

1. INTRODUCTION

The global decline in biological diversity is triggering an increase in protected areas (Büscher et al., 2017; Locke, 2013; Wilson, 2016) as a critical tool to reduce biodiversity loss (Hoekstra et al., 2005). Vietnam also is trying to increase protected areas as it is ranked as the 16th richest country in natural resources (MONRE, 2011; World Conservation Monitoring Centre, 1992) given its very high diversity and extent of endemic species and ecosystems. Although not a particularly large country with a land mass of 331,000 km^{2,} Vietnam has about 20,000 plant species, over 10,500 terrestrial animal species, and over 11,000 marine species (MONRE, 2019). The high degree of bio diversity in Vietnam is due in large part to its range of topography and that it lies in the biogeographical transition between Asia and Australia (Sterling et al., 2006). To the east, the plants and animals include geo-biological characteristics of the Himalayas, while to the south the ecosystems more closely resemble the mainland and island archipelago ecosystems of Southeast Asia. The Truong Son mountains in central Vietnam are of particular importance as a transitional region between these subtropical and tropical communities, and it harbors many endemic species (Sterling & Hurley, 2008).

The 2004 Forest Protection and Development Law in Vietnam classifies forests special-use forests, protection forests, or production forests (Figure 2). Each of these three forest types is managed differently. Special-use forests are mainly used to conserve national forest ecosystems, genetic resources, and these are generally strictly protected. Protection forests are mainly used to protect environmental services (e.g., protect water supply, prevent erosion/landslides/floods, combat desertification, limit disasters, regulate climate, etc.). Production forests are primarily used for supplying timber and other forest products, including substantial amounts of exported materials and trade. Hence the associated levels of timber harvest for these three forest types are respectively none (not even dead trees), some, and nearly everything.

Over the past decades Vietnam has put forth many efforts to preserve biodiversity and special-use forests are largely designed for this purpose. Vietnam's efforts to protect biodiversity is stimulated in part by international conventions, particularly the Convention on Biological Diversity (CBD). There is considerable literature on how these conventions have affected the conservation of biodiversity in Vietnam, particularly at the national level, but most of this is in the grey literature and/or in Vietnamese and therefore not widely accessible. Thus, the primary objectives of this paper are to: 1) review how Vietnam has adopted and followed the main global conventions that highlight terrestrial natural conservation; and 2) how these conventions have affected the implementation of biodiversity conservation in Vietnam. We particularly focus on Aichi Target 11 in the CBD, which calls for countries to conserve at least 17% of terrestrial and inland water areas by 2020. In the following sections we first summarize the status of biodiversity conservation in Vietnam and its relationship with national signed conventions, and then assess national progress towards achieving Aichi Target 11. Finally, we discuss the possibilities of Vietnam for pursuing the target.

2. METHODS

To achieve our objectives, we used three approaches (Figure 1). First, we identified the biodiversity-related conventions in which Vietnam has participated (Table 1) and explore their relation to the history of in-situ terrestrial conservation in Vietnam.

Second, we reviewed Vietnam national reports and local documents, the scientific literature, and online data sources to evaluate: (1) How were the conventions incorporated into national legislation and subsequent action plans? and (2) What were the main achievements? These reviews included both quantitative and qualitative elements. The quantitative elements included a review of the data in the most recent national reports to the conventions on in-situ conservation, including: the amount of terrestrial and marine protected areas; percent area? of Key Biodiversity Areas (KBAs) in Vietnam and other countries; and effective and equitable management. The qualitative elements included an analysis of national biodiversity targets, goals, and actions in the Vietnam National Biodiversity Strategy (NBS) to 2020, vision 2030. The data mainly was primarily derived from the World Database on Protected Areas (WDPA) as of December 2020, which is considered the most comprehensive data source on protected areas, endorsed by the international conservation community (IUCN, 2003) and is an official, mandated source of data used to calculate global CBD targets (Butchart et al., 2010; CBD, 2004).

Third, we present data from Vietnam related to Aichi target 11 for Vietnam anc compare Vietnam with data from other countries. We chose Aichi target 11 since this addresses multiple crucial aspects of protected areas, including area, connectivity, management, governance and equity.

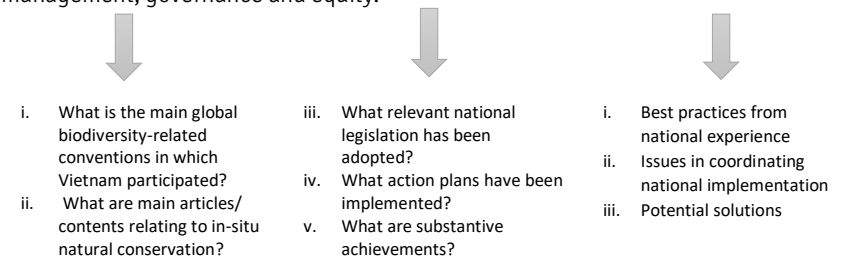

Figure 1. Workflow to evaluate and analyse in-situ natural conservation in Vietnam

3. OVERVIEW OF BIODIVERSITY CONSERVATION IN VIETNAM

Biodiversity conservation in Vietnam is constrained by many factors. There is an extensive history of deforestation and forest degradation despite the efforts of the government. From 2000-2010 about 1.77 million ha of forests were lost and another 0.65 million ha were degraded (Khuc et al., 2018).

Special-use forests are subcategorized into five types (Table 1), and these follow from the various objectives of protecting forest ecosystems and genetic resources, carry out scientific research, providing forest environmental services, and preserve historical – cultural relics, beliefs, and places of scenic beauty. Ecotourism is allowed except in strictly protected sub-zones of reserve forests (Law On Forestry 2017).

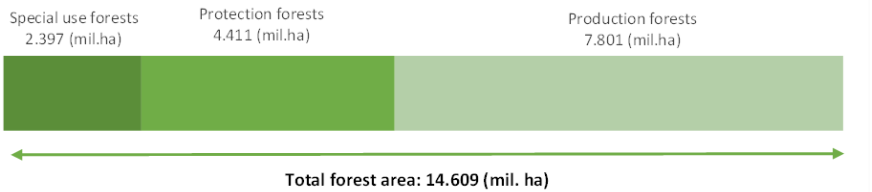

Figure 2. Forest classification and area in Vietnam in 2020

At present there are 168 protected areas in Vietnam with n total area of nearly 2.4 million ha. This represents just over 14% of the total forested area, and they include 34 national parks, 57 nature reserves, 14 species and habitat conservation areas, 54 landscape conservation areas, and 9 forest areas for scientific research (Table 1).

Table 1. Number and area of the five types of special-use forests in Vietnamas of December 2020.

No	Category	Number	Area (ha)	Percentage (%)
1	National parks	34	1,228,962	51.3
2	Nature reserves	57	1,021,717	42.6
3	Species - habitat reserves	14	68,422	2.9
4	Landscape protection areas	54	88,890	3.7
5	Forests for scientific research and experiment	9	10,838	0.5
	Totals	**168**	**2,396,697**	**100**

To protect the remaining biodiversity and halt species loss, the Government of Vietnam has enacted various laws for for biodiversity conservation, including the Law on Biodiversity in 2008, Law on Environment Protection in 2005 (revised in 2014), and the Forest Protection and Development Law in 2004 that was revised in 2017 and renamed the Law on Forestry.

The 2008 Law on Biodiversity is the most important law for biodiversity conservation in Vietnam. To implement the Law on Biodiversity and establish a system of protected areas with a focus on biodiversity conservation, the National Biodiversity Strategy and Action Plans (NBSAP) were developed as key tools for implementing the CBD (MONRE, 2010). The first NBSAP was for 2014-2020 with a vision until 2030. The goal of the NBSAP was to complete the systematic plan of protected areas and upgrade the basis for biodiversity conservation and build biodiversity corridors. The area of special-use forests was to increase from 2.2 million ha in 2014 to 2.4 million ha in 2020.

The NBSAP included a national strategy for managing special-use forests, marine protected areas, and wetland conservation areas, and providing holistic solutions for improving institutional arrangements of national parks and nature reserves in Vietnam.

This strategy also has specific goals for terrestrial and marine ecosystems. One limitation is that the spatial scale of protected areas is still limited to less than 50,000 ha, which may not be sufficient to ensure suitable habitats for large animals such as elephants and tigers. Besides, the impacts of climate change also threaten the biodiversity conservation of Vietnam.

The overall goal of the national strategy on biodiversity up to 2020 is that "Important natural ecosystems, endangered, precious and rare species and genetic resources are conserved and used sustainably to contribute to the development of the country towards a green economy, actively adapting to climate change". The vision to 2030 is that "25% area of globally and nationally important natural ecosystem that is degraded will be recovered, biodiversity is preserved and used sustainably to contribute to local people's income and socio-economic development of the country", and that this will comply to Aichi targets (CBD, 2010).

In recent years, investment policies on forest protection and development have received increasing attention from the government through the establishment and amendment of various laws. Of these, the Law on Forestry (2017) and Decree 156/2018/ND-CP have become important milestones for investing into protected areas for Vietnam. The Law on Forestry came into force on January 1, 2019, and this is is considered somewhat revolutionary because it covers all aspects of the forestry sector, including forest management, protection, development of forest product processing, marketing, and the structure of the forestry sector.

4. BIODIVERSITY-RELATED CONVENTIONS AND ITS RELATION IN IN-SITU CONSERVATION IN VIETNAM

Vietnam has ratified most of the important international biodiversity-related conventions as indicated in Table 2. This indicates the date that the different conventions were established, and when they were ratified by Vietnam.

Table 2. Biodiversity-related international conventions/agreements, their main objectives, and the years of establishment and ratification by Vietnam

Agreement	Main objectives	Year of establishment	Year of Vietnam's ratification
World Heritage Convention Concerning the Protection of the World Cultural and Natural Heritage (the WHC)	Ensuring the protection of endangered cultural and natural resources.	1972	1987
Convention on Wetlands of International Importance (Ramsar Convention)	Ensuring conservation and wise use of wetlands.	1971	1989
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Regulate or ban international trade of wild fauna and flora.	1975	1994
United Nations Framework Convention on Climate Change (UNFCC)	The UNFCCC seeks for the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic human-	1992	1994

Agreement	Main objectives	Year of establishment	Year of Vietnam's ratification
	induced interference with the earth's climate system		
Convention on Biological Diversity (CBD)	Conservation of biological diversity, sustainable use of its components and sharing of benefits.	1993	1994
Cartagena Protocol on Biosafety to the Convention on Biological Diversity	To ensure the safe handling, transport, and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.	2000	2004
Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity	To promote the fair and equitable sharing of the benefits arising from the utilization of genetic resources.	2010	2014
Nagoya- Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety	To contribute to the conservation and sustainable use of biological diversity, considering risks to human health, by providing international rules and procedures in the field of liability and redress relating to living modified organisms.	2010	2014

(Source: Adopted from Vietnam NBS to 2020, vision to 2030)

The blooming development of protected areas is closely related to the national ratified biodiversity-related conventions, especially after 1994, it is also the time the nation endorsed the CBD (Figure 1).

Figure 3 shows the cumulative area devoted to national parks (NP) and nature reserves (NR) from 1962-2020. We only present the area for these two types of protected areas (Table 1) because these account for 94% of the protected areas and most of the biodiversity in Vietnam. The first national park in Vietnam was established in 1962, which marked a significant forest and biodiversity conservation milestone in Vietnam (MARD 2004, and VNG 2003). A few additional protected areas were established from 1983-1991, and then there was a rapid increase from 1992 through 2006, with a slow continuing increase in protected areas from 2006 to the present (Figure 1).

The establishment and management of protected areas was a key action identified in the 1995 Biodiversity Action Plan, which was one year after Vietnam ratified the CBD (1994). As a result, there has been substantial progress in implementing the recommended measures as seen as in the rapid development stage in Figure 1. Key activities included the establishment of a comprehensive national protected area

strategy, broadening the system of protected area categories, clarifying the responsibilities for marine and coastal protected areas, and preparing management plans for new protected areas. Under the 2001–2005 Socio-Economic Development Plan for the national government some key priorities were to establish protected areas, the regreening of barren lands, maintaining biodiversity, and preserving genetic resources. The 2001-2005 National Environmental Action Plan highlighted the need for an effectively managed network of terrestrial, wetland, coastal and marine protected areas. In 2003 the national government issued a Management strategy for a protected area system in Vietnam in which high priority went for: strengthening state management; establish, invest in, develop, and consolidate existing and new protected areas; develop biodiversity measurements; enhance awareness on the role of protected areas for nature conservation and human health benefits (Vietnamese Goverment, 2003). Together, these actions provided the critical foundation for developing protected areas.

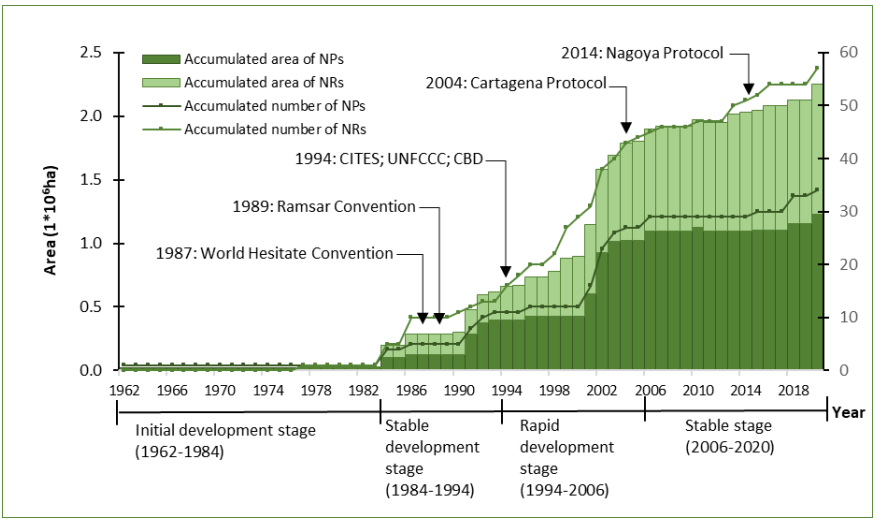

Figure 1. Cumulative areas dedicated to National Parks (NPs) and Nature Reserves (NRs) in Vietnam from 1962 to 2020.

5. IMPACTS OF THE RATIFIED CBD ON IN-SITU NATURAL CONSERVATION

The Convention on Biological Diversity Strategic Plan for Biodiversity 2011-2020 was adopted at the 10th Conference of the Parties in Nagoya, Japan, along with 20 Aichi Targets to achieve global biodiversity conservation. This acknowledged protected areas as a central global approach for biodiversity conservation. Through all 20 Aichi Targets have implications for the establishment and management of protected areas, only Target 11 addresses them directly and holistically (Woodley et al., 2012). In this section, we first present Aichi target 11 and the result of national efforts to achieve Aichi target 11. We then compare Vietnam's achievements with neighboring and comparable countries in terms of having similar forest classification schemes. Lastly, we discuss the future of the Aichi target 11 for Vietnam.

5.1 Nature of Aichi Target 11 and Vietnam's commitment

In 2010, the Strategic Plan for Biodiversity 2011–2020 was adopted by the Conference of Parties (COP) to the Convention on Biological Diversity (CBD). This included 20 headline targets (Aichi Biodiversity Targets), with Aichi Target 11 stating that "By 2020, at least 17 percent of terrestrial and inland water areas, and 10 percent

of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative, and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes" (CBD, 2010). This target resulted in goals for: spatial planning (specifically representativeness, ecological connectivity, and areas of importance for biodiversity); protected areas management (management effectiveness and social equity); and criteria about what counts toward being a protected area under the target (Woodley et al., 2012). Parties to the Convention were to identify national causes of biodiversity loss and integrate biodiversity issues into government action programs and social organizations (COP 10, 2010; Whitehorn et al., 2019).

Aichi Target 17 identified the development of a National Biodiversity Strategy and Action Plans (NBSAP) as a key tool for implementing the CBD. The plans have since been updated to implement 20 Aichi goals on biodiversity. It aims to improve policy and assist in integrating biodiversity dimensions into government activities that have the greatest impact on biodiversity (COP 10, 2010; Kok et al., 2010). NBSAPs have become an important tools for realizing the goals of the CBD and to support the integration of biodiversity into the policies of key economic sectors such as agriculture, forestry, and fisheries (Whitehorn et al., 2019).

The targets in Vietnam NBS to 2010, vision to 2020 were approved in May 2007, and its targets were considered consistent with contemporaneous socio-economic development goals. In July 2013 the Vietnam NBS to 2020, vision to 2030 was approved and became the new guidance for conserving and managing biodiversity, with the broader goals of supporting the green economy and helping cope with climate change. This led to Vietnam's NBSAP, and this has played an important role for identifying biodiversity goals and tasks, and achieving Vietnam's commitments to the CBD and. The specific commitment for the national Aichi target 11 was: "To 2020, ensuring that the area of terrestrial protected areas accounts for 9% of the total territorial area, marine protected areas account for 0.24% of the sea area, forest coverage reaches 45%, the primary forest remains at 0.57 million hectares, coupled with effective protection plans; that mangrove forests, seagrass beds, and coral reefs are maintained at the current levels; that 15% of degraded critical ecosystems are restored, and the number of internationally recognized protected areas are increased to, 10 biospheres reserves" (p. 93, Vietnam National Biodiversity to 2020, vision to 2030).

5.1.1 Results of Aichi Biodiversity Target 11 in Vietnam

Protected forest coverage: Vietnam's special-use forest cover is 7%, which is less than half of the national average in the Asia-Pacific region and the global target. This is below the target of 9% as specified in the national strategy on biodiversity to 2020, vision 2030 (Figure 4).

Key Biodiversity Areas (KBA). The global standard for the identification of Key Biodiversity Areas is defined in IUCN (2016b) and is used to identify and help protect those areas of particular importance for biodiversity. The Vietnamese KBA are protected in 45.3% of the land (UNBiodiversity Lab, 2018) which is slightly lower than the global mean of 46.6%.

Effective management: Seventy-two percent of the special-use forests in Vietnam have completed a protected area management effectiveness assessment (PAME) that reported in the Global Database on Protected Area Management Effectiveness. In 2018, the Management Effectiveness Tracking Tool (METT), which uses the 41 indicators, is the first and most common applied in Vietnam was used to evaluate the management effectiveness of six ASEAN Heritage Parks, the results ranged from 65% to 80%. According to the CBD COP 10 Decision X/31 calls for Parties to 'expand and

institutionalize management effectiveness assessments to work towards assessing 60 percent of the total area of protected areas by 2015 using various national and regional tools and report the results into the global database on management effectiveness', Vietnam is effective management for these evaluated parks. However, since 2015 none of the protected areas have submitted PAME reports to the GD-PAME (WDPA, 2018).

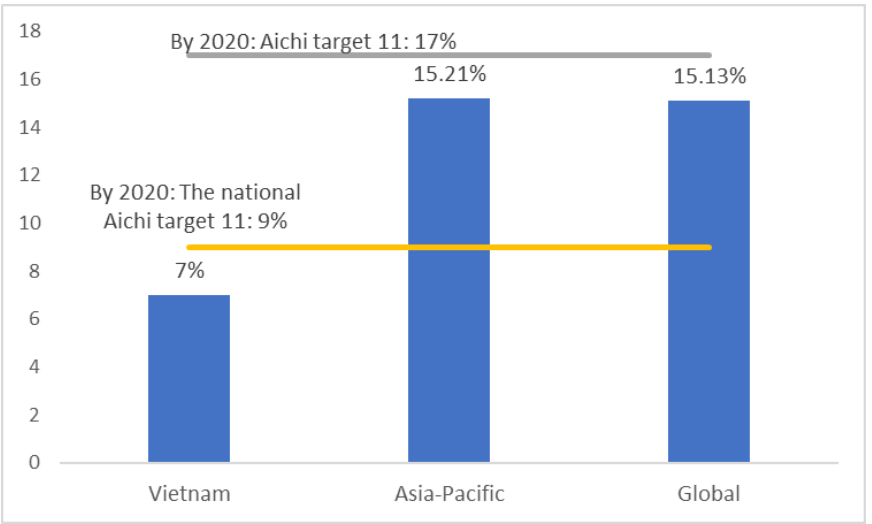

Figure 4. Percentage of special-use forests in Vietnam, the Asia-Pacific region, and worldwide as compared to the Aichi target of 17% (WDPA; accessed on 12 Dec 2020).

Equitable management: Equity in protected areas can be evaluated as a combination of three interdependent conditions: (i) recognition equity is the acknowledgment and respect for stakeholders, their social and cultural diversity, and their values, rights, and beliefs; (ii) procedural equity is how decisions about protected area are made and the extent to which stakeholders are able to participate; and (iii) distributive equity is the relative distribution of benefits and costs.

Though the equitable management of protected areas is a key aspect of Aichi Target 11, only a limited number of protected areas have evaluated equitable management, and Vietnam is not an exception (UNEP-WCMC, IUCN, & NGS, 2018). There are significant challenges for evaluating equitable management in protected areas, including the lack of a standardized approach to assess and monitor social equity, and the difficulty of reducing social equity to a series of metrics (Zafra-Calvo et al., 2017).

However, protected areas under all IUCN types can be reported to the WDPA, because the diversity of governance types of protected areas works as an indication of reorganization of diverse actors involved in these conservation efforts. If so, 100% and 82% are counted for Vietnam and the globe respectively since all protected areas in Vietnam satisfied this indicator. Though, it should be noted that this indicator does not itself inform an understanding of whether this is good governance or equitable management (UNEP-WCMC et al., 2018). As a response to this, recently, the IUCN Green List of Protected and Conserved Areas, the first global standard of best practice for area-based conservation, is launched. In which equity and good governance are two of the most important criteria. Accordingly, only protected areas satisfying these elements are recorded in the IUCN Green list. To date in Vietnam only Van Long Nature Reserve has received a Green List certificate (2020), while Con Dao, Cat Tien, Pu Mat, and Cuc Phuong National Parks have each registered to join the list.

5.2 Results for Aichi Target 11: comparisons to nearby and all signatory countries

Among the geographically near to Vietnam countries, Thailand, Laos, and Cambodia all meet Aichi target 11 while in five countries the percent of have terrestrial protected area is lower than Aichi target 11. At 7.6% Vietnam has the lowest percentage (Figure 5).

Figure 5. Percent of the country in terrestrial protected areas in 2020 for eight countries near or adjacent to Vietnam as compared to the Aichi target 11 valueData source: WDPA (2020).

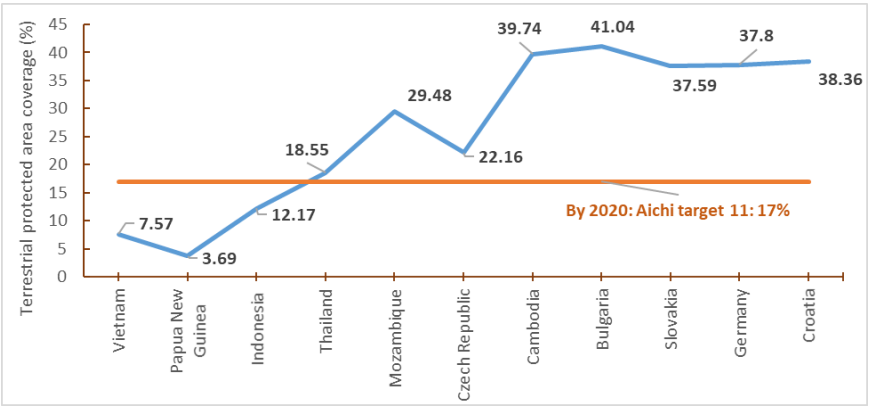

Figure 6. Terrestrial protected area coverage in 2020 comparing to the Aichi target 11 of Vietnam and the alike Vietnam's forest classification countries [Source: WDPA (2020]

For the 192 signatory countries, 53% have less than 17% special-use forests, 32% have special-use forest areas of 17-30%, and 15% have more than 30% of their area in special-use forests (*WDPA (2020)*. When ranked, Vietnam is not too far from the target. Nevertheless, omparing with eleven countries having the alike forest classification by purpose of special-use forests, protection forests and production forests as Vietnam

(Phạm TT., Hoàng TL., Đào TLC., & Nguyễn ĐT., 2020), we found that the protected forest coverages of ten countries were higher than Vietnam from 5% to nearly 32% (excluding Papua New Guinea) (Figure 6).

6. REFLECTION FROM INTERNATIONAL AND THE NATIONAL CONTEXT AND FUTURE AHEAD OF AICHI TARGET 11

6.1 Reflection from international and the national context

We started by the most common worldwide definitions of protected areas:

"A geographically defined area which is designated or regulated and managed to achieve specific conservation objectives". (CBD, 1992, Article 2)

"A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values". (IUCN, 2008)

The IUCN definition is consistent with the CBD definition for a protected area. Thus, the guidelines for applying protected area management categories of IUCN (Dudley et al., 2013) are certainly applied for protected areas reporting to CBD. Of which, the ecosystem/environmental services mention in a vivid position (Dudley et al., 2013).

In Vietnam protection forests shall be used primarily to: protect water and soil resources; prevent erosion/landslides/floods; combat desertification; limit disasters; regulate climate; help protect the environment and national security associated with ecotourism, hospitality and entertainment; and provide forest environmental services" (Vietnam Law on Forestry Section 3, Article 5). Currently 85% of protection forests are natural forests (MARD, 2020), which tend to be high in biodiversity (GIZ, 2020). Currently, Dong Chau – Khe Nuoc Trong, Quang Binh province where was fell into the protection forest category but uplifted to the nature reserve (one type of special-use forest) in 2020 since it meets all criteria of the protected areas. Hence, this foremost uplifting calls for Vietnam to measure the biodiversity of protection forests to determine if they can be converted to special-use forests.

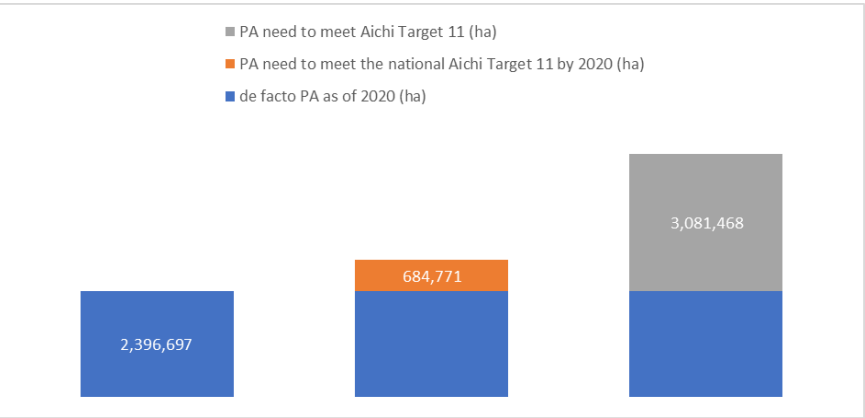

Figure 2. Comparison of special-use forest area of Vietnam in 2020, target according to the strategy, and the target Aichi 11

Should Vietnam continue pursuing Aichi target goal? To answer this question, we refer to article 9, item 2 of Decree 156/2018 on standards that can be planned for

special-use forests, the current state of forests in Vietnam, and what percentage of the forest area do meet this requirement. Aichi 11 is particularly concerned with the location of biodiversity conservation and important ecosystem services. Through a set of criteria for guidance towards special-use forest planning, the areas that are established and to be established must all meet this criterion, as stated in article 6, part 1, and the entire part 2, chapter II of the Forestry Law 2017, or in other words important biodiversity and ecosystem services have been and are being given deep attention.

To achieve the target area of protected forests for 2020 another 684 thousand ha are needed. To reach the Aichi target 11 of at least 17%, an additional about 3,081 thousandha of special-use forests are needed (Figure 2). These values show that Vietnam is still far from achieving the 17% goal.

A proposal from GIZ (2020) suggests that special-use and protection forests could be combined, and this would achieve the Aichi 11 target as protection forests are just over 3 million ha (MARD, 2020). These two types of forests are not that dissimilar management as protection forests also conserve forest plants. The primary difference is with respect to timber harvest, as harvest is totally forbidden in special-use forests, while in protection forests up to 20% of the standing trees can be qualifiedly harvested e.g., using individual tree selection, and the forest must still have the crown canopy higher than 0.6.

For decades far more resources have been devoted to conserving special-use forests in Vietnam than protection forest. In 2020 special-use forests received more than twice as much in terms of human capacity building, 23 times as much funding for scientific projects, and 40% more funding for forest protection (Vietnam Forestry Administration, 2020). Although more funding has been provided to special-use forests, they also provide many more opportunities and much more income from ecotourism. Meanwhile the protection forests are still limited. Moreover, in the context of the global ecology restoration, the uplifting could advance the international supports since most of their supports has been invested in special-use forests (GIZ, 2020).

6.2 Future

The framework for building biodiversity worldwide is embodied in post-2020 (also known as 30 by 30). This framework includes 20 action-oriented targets for 2030, including the goal of having at least 30% of the national natural land area in protected forests (CBD, 2020). At the international level environmental and human rights experts have expressed considerable concerns to secretariat of the CBD about increasing the goal for protected areas from 17% to 30% without any assurances for the livelihood and equity of indigenous peoples (NGOs, 2020). The four major concerns are: 1) How setting a 30% goal that is not based on the previous target will affect indigenous people, particularly if this goal is achieved by methods such as forced relocation. Different effective conservation measures are mentioned in the old and the new goals, but experience shows that strictly state-owned protected areas are often the default choice in most cases in the southern hemisphere; 2) Independent assessment studies indicate that , up to 300 million people could be negatively or even severely affected, and the goal of goal to have up to 50% of the area in protected forests could affect 1 billion people (Schleicher et al., 2019); 3) There are no guaranteed protections for land tenure and livelihoods for indigenous peoples; and 4) the current protected areas are ineffective and inequitable, with little emphasis on land protection for indigenous peoples (NGOs and experts, 2020).

If Vietnam aims to have 30% of the forest being protected or the equivalent of more than 10 million ha of special-use forests, this special use forests portion will account for more than 70% instead of 16% as the present of the total forestry area. In Vietnam the need to ensure people's livelihood is particularly important as nearly a

quarter of the population is dependent on forest ecosystems. The difficult equation in Vietnam, as elsewhere, is to have sustainable forest management, in which the preservation of natural values and ecosystem services is guaranteed, while management plans still allow for the production and sale of goods and services.

CONCLUSION

The study presents the Aichi target which drew a critical discussion on it for Vietnam. Though Vietnam is still far from meeting the Aichi target (7,57% vs. 17%), our analysis of the status of the special-use and protection forest proposed a potential solution. Of which, besides remaining the special-use forests, upgrading the protection forests will be a paramount solution. Thus, this analysis can be used as a practical recommendation for the national policymakers on proposing strategies to pursue the target in the future.

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