

## ANALYSIS OF POLICIES ON NATURAL FOREST RESTORATION AND RECOMMENDATIONS FOR THE REVISION

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### SUMMARY

Vietnam owns nearly 10.2 million ha of natural forest, accounting for 69% of the forest land area nationwide. Natural forest plays a significant and strategic role in economic, social, and environmental development. However, for many reasons, this type of forest has been seriously degraded in both quantity and quality. The government has promulgated a system of policies on natural forest restoration, which has created a legal corridor for natural forest restoration in Vietnam. Nevertheless, the result of natural forest restoration during the past years has been very low because of Vietnam's "logging ban" policy, in which all activities impacted on natural forest are prohibited. The policies and techniques for forest restoration are inappropriate to the situation and do not attract the participation of the different stakeholders. Therefore, boosting the natural forest restoration in Vietnam requires a new perspective with the approach of multi-direction and sustainability. It is necessary to revise a range of related policies, such as management, benefit-sharing mechanism, investment, P-FES, and the specific regulations on silvicultural techniques, as well as identify priority areas for restoration, focusing on poor and extremely poor forests.

**Keywords:** Natural forest, forest restoration, policies.

### PHÂN TÍCH CÁC CHÍNH SÁCH PHỤC HỒI RỪNG TỰ NHIÊN VÀ NHỮNG ĐỊNH HƯỚNG ĐỀ XUẤT SỬA ĐỔI

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### TÓM TẮT

Việt Nam có 10.171.757 ha rừng tự nhiên, chiếm 69,0% diện tích đất có rừng cả nước. Rừng tự nhiên có vai trò chiến lược rất quan trọng trong phát triển kinh tế, xã hội và môi trường, tuy nhiên do nhiều nguyên nhân đối tượng rừng này đã bị suy thoái nghiêm trọng cả về số lượng và chất lượng. Chính phủ đã ban hành hệ thống các chính sách về phục hồi rừng tự nhiên, cơ bản đã tạo được hành lang pháp lý cho phục hồi rừng tự nhiên ở Việt Nam. Mặc dù vậy, kết quả phục hồi rừng tự nhiên trong thời gian qua đạt được rất thấp do Việt Nam đang áp dụng các biện pháp "đóng cửa" rừng tự nhiên, cấm mọi tác động vào rừng tự nhiên, các chính sách và kỹ thuật phục hồi chưa phù hợp và chưa thu hút được sự tham gia của các đối tượng khác nhau. Để thúc đẩy phục hồi rừng tự nhiên ở Việt Nam, cần phải có quan điểm và cách tiếp cận mới theo hướng đa tác dụng và bền vững. Cần sửa đổi các chính sách về quản lý, hưởng lợi, đầu tư, chi trả dịch vụ môi trường rừng, các quy định cụ thể về các biện pháp lâm sinh; xác định các khu vực ưu tiên cho phục hồi với đối tượng phục hồi chính là rừng nghèo, nghèo kiệt.

**Từ khóa:** Rừng tự nhiên, phục hồi rừng, chính sách

## I. INTRODUCTIONS

According to the statistics of MARD, the total area of forested land nationwide is 14,475,201 ha, in which, the natural forest area and plantation area are 10,171,757 ha and 4,573,444 ha, accounting for 69% and 31% of the forested land area, respectively (Decision No. 2860/QĐ-BNN-KHCN dated on 27/7/2022 on announcing the national forest status in 2021). Our country's natural forest is not only large in area but also great in value in term of environmental protection, biodiversity conservation, carbon storage and accumulation, and adaptation to climate change, etc. Nevertheless, due to many reasons, this type of forest has been over-exploited for a long time, reducing both forest area and quality. Consequently, Vietnam's poor natural forest area has reached 65 - 70%. The government has applied many strong measures but has not been successful as expected. Therefore, the Prime Minister issued Decision No. 2242/QĐ-TTg dated 11/12/2014 on approval of the Scheme to strengthen the management of logging in natural forest from 2014 to 2020. Accordingly, logging and salvage cutting in natural forest (production forest) which is allocated to households, individuals, and communities are stopped. Although natural forests have been closed for about ten years, the restoration activity has not achieved positive results and the quality has not improved much. Among the pointed reasons, there is a reason for the inadequacy of the current policies. Although a legal framework was created, many specific regulations are inappropriate and unchanged to adapt to the

current situation and context. This article will analyze the current policies on natural forest restoration in Vietnam during the past time as well as propose orientations for revision of these policies. This research was carried out with the support of the Asia-Pacific network for Sustainable Forest Management and Rehabilitation (APFNet).

## II. RESEARCH METHODS

- Collecting the existing policies relating to natural forest restoration in Vietnam, such as Laws, Decrees, Decisions of the Prime minister, MARD's Decisions, and Circulars. About 12 legal documents were gathered.
- Analyzing these legal documents according to the following contents:
  - + Natural forest management
  - + Natural forest protection and restoration
  - + Investment policies on natural forest
  - + Research results on natural forest
  - + Techniques of natural forest restoration
- Analyzing and evaluating the achievements and shortcomings/gaps of the policies on natural forest restoration based on the existing data and research results, thereby proposing orientations to amend these policies.

## III. RESEARCH RESULTS AND DISCUSSIONS

### 3.1. Analyzing the existing policies on natural forest restoration in Vietnam

The results of analyzing the current policies on natural forest restoration are shown in Table 1 below.

**Table 1.** The current policies on natural forest restoration (NFR) in Vietnam

No.	Legal documents	The key contents relating to NFR
1	Forest Law (Law 16/2017/QH14 dated 15/11/2017 of the National Assembly of Vietnam).	<ul style="list-style-type: none"> <li>- Clause 4, Article 4: The State organizes and supports the management, protection, and development of production forest;...; forest restoration;... research and application of advanced technologies,... sustainable forest management;...</li> <li>- Clause 1, Article 45: The silvicultural measures are as follows:               <ul style="list-style-type: none"> <li>a) Protection and promotion of natural generation with additional planting;</li> <li>b) Forest nurturing and enrichment;</li> <li>c) Improvement of the natural forest;</li> </ul> </li> </ul>
2	Decree 156/NĐ-CP dated 16/11/2018 of the Government details the implementation of some articles of Forest Law	<ul style="list-style-type: none"> <li>- Point a Clause 2, Article 27: The forest owners develop production forest based on the sustainable forest management scheme.</li> <li>- Clause 3 Article 27: The silvicultural measures applied to forest development must comply with the regulations of the MARD.</li> <li>- Part 5: Details regulations on “close, open” natural forests and grant certificate of sustainable forest management.</li> <li>- Point a Clause 3 Article 70: Forest owners who are households, individuals, and communities are entitled to use the entire amount of PFES money for forest management, protection, and development.;</li> <li>- Point c, Clause 3 Article 70: For forest owners who are organizations: the entire amount received from PFES corresponding to the self-protected forest area is used for forest management and protection.</li> </ul>
3	Decision 2242/QĐ-TTg dated 11/12/2014 of the Prime Minister on approval of the Scheme for strengthening the management of logging in natural forests from 2014 - 2020	<ul style="list-style-type: none"> <li>- Objectives: Enhancing natural forest quality, it is expected that after 2020, these natural forest area has become good-quality production forests that are eligible for sustainable exploitation.</li> <li>- Contents: Stop the main logging in the natural forest nationwide and stop exploitation and taking advantage of wood in the production forest that is allocated to households, individuals, and communities.</li> <li>- Solutions: 1) Strengthening the management of authorities at all levels in forest protection; 2) Closely inspecting wood processing and trading to prevent consumption and utilization of illegal wood; 3) Closely monitoring the exploitation and utilization of wood from the allocated natural forest of the households and individuals.</li> </ul>
4	Decision 419/QĐ-TTg dated 05/4/2017 of the Prime Minister on approval of the National Program on reduction of GHG emission through limiting forest loss and degradation; conservation and enhancement of Carbon stock; and sustainable management of forest resources to 2030	<ul style="list-style-type: none"> <li>- Objective: Enhancing natural forest quality to increase carbon accumulation and FES; Expanding the effective afforestation models; Sustainable management, protection and conservation of natural forest.</li> <li>- Content: Conducting pilot, evaluation, and expanding sustainable natural forest management model; and forest protection, conservation, and restoration.</li> </ul>
5	Decision 1055/QĐ-TTg dated 20/7/2020 of the Prime Minister on the promulgation of the National plan to adapt to climate change for the period 2021 - 2030, vision to 2050.	<ul style="list-style-type: none"> <li>- Managing and protecting forests and enhancing natural forest quality through forest regeneration, restoration, and enrichment;</li> <li>- Strengthening the resilience of the natural ecosystem, and protecting and conserving biodiversity against the impact of climate change and sea level rising.</li> </ul>

No.	Legal documents	The key contents relating to NFR
6	Decision 38/2016/QĐ-TTg dated 14/9/2016 of the Prime Minister on the promulgating a number of policies on forest protection, development, investing in infrastructures, and assigning public utility tasks to the agricultural and forest enterprises	<ul style="list-style-type: none"> <li>- Article 3. Forest development objective: Protection and promotion of natural forest regeneration for 360.000 ha.</li> <li>- Clause 3, Article 6: Contracting for forest management and protection with a rate of 300.000 VND/ha/year on average.</li> <li>- Clause 4, Article 6:               <ul style="list-style-type: none"> <li>+ Support for the protection and promotion of natural forest regeneration without additional planting with a rate of 3 million VND/ha/6 years;</li> <li>+ Support for protection and promotion of natural forest regeneration with additional planting: The maximum support rate is 1.6 million VND/ha/year for the first three years and 600,000 VND/ha/year for the next three years.</li> </ul> </li> <li>- Clause 3, Article 9: Forest owners are obliged to protect natural forests according to the current law.</li> </ul>
7	Decision 523/QĐ-TTg dated 01/4/2021 of the Prime Minister on approval of the Vietnam Forestry Development Strategy for the period 2021 - 2030, vision to 2050.	<ul style="list-style-type: none"> <li>- Objective: Enhancing natural forest quality; From 2021 - 2025 and 2026 - 2030, there is 10% and 20% of natural forest area, respectively, will be upgraded in quality;</li> <li>- Oriented development:               <ul style="list-style-type: none"> <li>+ Continue implementing the “close forest” policy by 2030, logging in natural forests has been still banned;</li> <li>+ Restore natural forests by applying the following measures: Protection and promotion of natural regeneration with or without additional planting, forest nurturing and enrichment; agro-forestry and NTFP development in the direction of commodity production.</li> <li>+ Minimize conversion of forest use to non-forest use purposes; Finalize land and forest land allocation and forest land leasing in association with the land use right certificates.</li> </ul> </li> </ul>
8	Decision 150/QĐ-TTg dated 28/01/2022 on approval of Sustainable Agricultural and rural development Strategy in the period of 2021 - 2030, vision to 2050.	<ul style="list-style-type: none"> <li>- Objective to 2030: The forest cover remains stable at 42%, and the forest area with sustainable forest management certification reaches 1 million ha.</li> <li>- Tasks: Strictly management, protection and sustainable utilization of the existing natural forest; Promotion of natural regeneration, enhancing the quality of the special-used forest and protection forest, especially in the environmentally sensitive area; Development of eco-tourism and economy under the forest canopy, contributing to prevention and control of disaster and climate change.</li> </ul>
9	Decision 896/QĐ-TTg dated 26/7/2022 of the Prime Minister on approval of National Strategy on Climate Change to 2050	<ul style="list-style-type: none"> <li>- For forest and ecosystem:               <ul style="list-style-type: none"> <li>+ Strictly management and protection of the existing natural forest; Enhancing the protection capacity of the watershed forests and coastal forests;....; Sustainable management of forest resources in association with biodiversity protection and ecosystem services promotion.</li> <li>+ Strengthening community’s participation in forest protection, management and development in order to improve livelihoods, increase incomes, and provide job opportunities concerning forest.</li> <li>+ Managing ecosystems and biodiversity; Improving the restoration capacity of natural forest ecosystems and protection and preservation of bio-diversity against the impact of climate change and sea level rising; Strengthening the restoration and improving quality and protection capacity of the watershed forest and coastal forest;</li> </ul> </li> </ul>

No.	Legal documents	The key contents relating to NFR
10	Decision 809/QĐ-TTg dated 12/7/2022 of the Prime Minister on approval of the Program for Sustainable Forestry Development from 2021 - 2025	<ul style="list-style-type: none"> <li>- Objective: Protecting and developing the entire existing forest area sustainably, enhancing the forest quality to meet the requirements of environmental protection and biodiversity conservation, minimising the negative impacts of disasters, and promoting the adaption ability to climate change.</li> <li>- Tasks:               <ul style="list-style-type: none"> <li>+ Well-managing the existing forest area, especially for the natural forest;</li> <li>+ Protection and promotion of natural regeneration with and without additional planting with 100.000 ha/year on average, mainly focusing on transitional protection and promotion. Effectively applying silvicultural techniques to nurture and enrich forests.</li> </ul> </li> </ul>
11	Decision 296/QĐ-BNN-KHCN dated 16/01/2023 of the Ministry of Agricultural and Rural Development on approval of the Strategy for Science and Technology Development and Innovation of Agriculture and Rural to 2030, vision to 2050	Research on silvicultural measures for restoration and enhancement of natural forest quality, and management of watershed and coastal forests to improve forest protection capacity, strengthen ecosystem services, preserve biodiversity, increase carbon storage, protect landscape and provide forest products.
12	Circular 29/2018/TT-BNNPTNT dated 16/11/2019 of the Ministry of Agricultural and Rural Development promulgates Regulations on silvicultural measures	<ul style="list-style-type: none"> <li>- Stipulate the objects, silvicultural techniques, and time for applying methods for protection and promotion of natural regeneration with and without additional planting.</li> <li>- Stipulate the objects, silvicultural techniques, and time for applying methods for nurturing natural forests.</li> <li>- Stipulate the objects, silvicultural techniques, and time for applying methods for forest enrichment.</li> <li>- Stipulate the objects, silvicultural techniques, and time for applying methods for natural forest improvement.</li> </ul>

Table 1 shows that natural forests play a significant role, which receive the government's support and investment in management and research activities as well as stipulation of silvicultural measures, such as Protection and promotion of natural regeneration with or without additional planting; Forest nurturing and enrichment; Natural forest improvement, etc. as shown in Forestry Law (2017). The crucial role of forest restoration and forest quality enhancement in Vietnam are clearly affirmed in many legal documents such as the Vietnam Forest Development Strategy 2021 - 2030, vision to 2050 (Decision 523/QĐ-TTg dated 01/4/2021

of the Prime Minister); National Program on reduction of GHG emission through the limitation of forest loss and forest degradation, preservation and enhancement of carbon stock, and sustainable management of forest resources to 2030 (Decision 419/QĐ-TTg dated 05/4/2017 of the Prime Minister); National Action Plan on Climate Change Adaption - 2021 - 2030, vision to 2050 (Decision 1055/QĐ-TTg dated 20/7/2020 of the Prime Minister).

Based on the general provisions of the Forestry Law, the by-law documents clearly defined the specific regulations relating to natural forest restoration as below:

- *Regarding the natural forest development orientation:* There have been fundamental changes in the natural forest development orientation, from focusing on the increment of forest area to the quality of natural forest (Decision 150/QĐ-TTg dated 28/01/2022 of the Prime Minister; Decision 523/QĐ-TTg dated 01/4/2021 of the Prime Minister). The goal of natural forest restoration has also had a landmark change. Besides concentrating on the purpose of timber harvesting, other crucial purposes have been paid attention to. They are: preserving biodiversity and enhancing ecology system services (Decision 896/QĐ-TTg dated 26/7/2022 of the Prime Minister); increasing forest carbon stock and landscape (Decision 296/QĐ-BNN-KHCN dated 16/01/2023 of MARD); strengthening communities participation in forest development, management and protection to improve livelihood and increase incomes and job opportunities in the forest sector (Decision 896/QĐ-TTg dated 26/7/2022 of the Prime Minister); and enhancing carbon accumulation and forest environment services (Decision 419/QĐ-TTg dated 05/4/2017 of the Prime Minister). Thus, the natural forest strategy has not only focused on the purpose of timber harvesting as before but also paid attention to the combined values of the forest ecological services from the perspective of sustainable economic, social, and environmental development.

- *Regarding the tasks of natural forest restoration:* The forestry development strategy from 2021 to 2030, vision to 2050 sets the specific targets and tasks for the separate periods as follow: (1) From 2021 to 2025, upgrading quality of 10% of the natural forest area; (2) From 2026 to 2030, upgrading quality

of 20% of these areas; (3) Continuing applying the “closing natural forest” policy to 2030, no timber harvesting from the natural forest is allowed (Decision 523/QĐ-TTg dated 01/4/2021 of the Prime Minister). In addition to the target of natural forest restoration, the government has also focused on forest certification. The government established the goal that by 2030, the certified forest area (including natural forest) for sustainable forest management will reach over 1 million ha (Decision 150/QĐ-TTg dated 28/01/2022 of MARD). Thus, we can see that the plan and tasks for natural forest restoration have been developed with specific targets, of which the terms of sustainable forest management and certification have been highly concentrated.

- *Regarding investment policies for natural forest restoration:* The government stipulated specific norms for contracted forest management and protection activities at a rate of 300,000 VND/ha/year; Support for protection and promotion of regeneration without additional planting at a rate of 3 million VND/ha/6 years; Support for protection and promotion of regeneration with additional planting at a rate of 1.6 million VND/ha/ year for the first 3 years of planting and 600,000 VND/ha/year for the next 3 years (Decision 38/2016/QĐ-TTg dated 14/9/2016 of the Prime Minister). Funding for natural forest restoration is included in the Program of sustainable forest development 2021 - 2025 (Decision 809/QĐ-TTg dated 12/7/2022 of the Prime Minister) or in P-FES fund resources (Decree 156/NĐ-CP of the Prime Minister), etc. During 12 years of implementation of the P-FES policy, the collected fund used for re-investing in forest management, protection, and restoration is very large, at about 3,700 billion

VND in 2022. However, payment norms for all kinds of forests (regardless of whether they are natural or planted forests, regardless of forest quality) are the same with K coefficient = 1. Consequently, this policy could not encourage forest owners to re-invest in their forests by applying measures for forest restoration and enhancing quality for both natural and planted forests.

- *Regarding the technical measures for natural forest restoration:* Two groups of technical measure applied are (1) Closely protecting the existing natural forest area; and (2) Applying silvicultural techniques for forest restoration, including protection and promotion of natural regeneration with or without additional planting, forest nuturing, forest enrichment; and forest improvement (Circular 29/2018/TT-BNNPTNT dated 16/11/2019 of MARD). In some urgent cases, the policy of closing natural forest will be applied (Decree 156/NĐ-CP of the Prime Minister). Although the promulgated

silvicultural measures are quite specific such as object identification, methods, and time for impacting etc., these measures only focus on the restoration of the timber layers and do not concentrate on the orientation and contents for forest restoration as the new perspective mentioned and analyzed above. Therefore, it is crucial to revise the policy on silvicultural techniques.

- *Regarding the result of natural forest restoration:* Although the policies on natural forest restoration as analyzed above are quite adequate in all aspects, the actual results have not been achieved much. The main reason is that the “closing natural forest” policy is applied with forest protection as the main activity in many places. Therefore, to get good results on natural forest restoration, it is necessary to have appropriate activities on natural forest to take advantage of the natural regeneration ability and promotion of the forest restoration process.

### 3.2. Proposing orientation for revision of policies on natural forest restoration in Vietnam

#### 3.2.1. Analyzing the Strengths, Weakness, Opportunities, and Threats of natural forest restoration

**Table 2.** Analyzing SWOT of natural forest restoration

Strengths	Weakness
1. A legal framework for natural forest restoration has been created, including Forest Law, Decrees, Decisions, and Circulars.	1. Forest restoration activities have not yet achieved high efficiency due to the main applied technical measure being forest protection.
2. There has been a new perspective on natural forest restoration from the point of view of the total values of forests and sustainable forest management.	2. Lack of demonstration models on natural forest restoration towards multi-effects and sustainability.
3. Specific plans and orientations for natural forest restoration have been made	3. Investment resources for natural forest restoration are limited.
4. There are specific guidelines on technical measures for natural forest restoration.	4. Current policies do not attract investment from companies due to the unclear benefit-sharing mechanisms.
5. MARD is developing a project titled “ <i>Enhancing forest quality to conserve forest ecology system and prevent disasters</i> ”, of which natural forest is a significant part.	5. Regulations on forest restoration solutions are still approached with the perspective of timber harvesting as the main activity, not on the overall values of the forest and sustainable forest management.

Opportunities	Threats
1. Vietnam's government pays attention to natural forest restoration and has a clear strategy for this, REDD+,etc.	1. The natural forest restoration process requires a long time and large financial resources.
2. International organizations are very interested in natural forest restoration and protection.	2. There is currently quite a large area of natural forest area (which is managed by the Commune People's Committee) with no owner, therefore the management of these areas is extremely difficult.
3. Vietnam is preparing to implement a C-PFES policy with carbon sequestration and storage services, carbon trading and emissions transfer, therefore the natural forest role will be more significant	3. The demand for cultivated land has been very high, which have caused high pressure on the natural forest in term of both management and restoration.
4. Vietnam has developed and operated a National Forest Certificate System accepted by PEFC, which has created opportunities for granting certificates on sustainable natural forest management.	4. The impacts on the natural forest are limited due to the government policy of "closing natural forests", which leads to difficulty in natural forest management.

**3.2.2. Perspectives and Orientations for revising natural forest restoration policies**

*a) Perspectives*

- + It is necessary to have new perspectives and approaches to natural forest restoration towards multi-effects and sustainable management.
- + Natural forest restoration should aim at the highest overall values of the forest eco-system, meeting the functions of each type of forest (Production, Protection and Special-used forests), creating more incomes for forest owners from wood products, implementing payment for forest environment services policy (including C-PFES), developing NTFPs, conserving biodiversity, organizing eco-tourism activities,etc.
- + Natural forest restoration needs to have the participation of all economic-social sectors, including forest owners, communities, organizations, enterprises, households, and the private sector,...
- Orientations for revising related policies and proposing solutions for natural forest restoration
- + Policies on natural forest management: Focusing on promoting and thoroughly implementing the allocation of land in

- association with the allocation of natural forest in the areas currently assigned to the Commune People's Committee for management, ensuring that the forest is owned before can be well managed and restored.
- + Policies on PFES: Promoting the implementation of the pilot policy of payment for carbon sequestration and storage services to increase financial resources for re-investing in forest protection and restoration, including natural forest. It is recommended to implement the pilot policy for payment according to forest quality in order to attract investment in forest restoration. Re-developing K-coefficient for natural forests in a way that is easy and simple for practical application.
- + Speeding up the amendment of the Government's Decree 156/2018/NĐ-CP detailing the implementation of a number of the Forestry Law's articles, in which the regulation of renting forest environment to develop ecotourism, entertainment, and resorts need to be more specific, particularly, those on the related projects, contribute to creating more incomes and use of forest towards multi-purposes.
- + Amending MARD's Circular 29/2018/TT-BNNPTNT dated 16/11/2019 stipulating



silvicultural measures in the direction of not only the restoration of the timber layers but also the valued non-timber plants under the natural forest canopy; forest restoration for developing ecotourism, entertainment, and resorts; enhancing the ability of carbon storage, and reducing greenhouse gas emissions, etc.

*b) Regarding the technical issues, the following points need to be focused on in the amendment of silvicultural measures on forest restoration*

i) Regarding the technical methods for additional planting and natural forest enrichment by timber trees:

- Method for additional planting and forest enrichment: Do not apply the method for additional planting and forest enrichment in lanes because this will cause strong effect on the forest and take a lot of effort to handle vegetation and forest tending. In this case, the method for additional planting and enrichment in groups should be used.

- Method for handling vegetation before planting: When handling vegetation, leave the target regenerated trees. No burning after handling vegetation to prevent forest fires which cause GHG emissions. It'd be better to cut, gather, and arrange them in the contour lines to leave them naturally decompose and return organic matters to the soil.

- Regarding the seedlings' standards used for additional planting and natural forest enrichment: The seedlings must be at least 12 months old, preferably more than 18 months old. The lesson learned from the implementation of the 317 program (1992 - 1997) and the 5 - million-hectare program (1998 - 2010) is that using seedlings under 12 months old for planting is not effective due to the strong invasion of unvalued plants, causing reduction in the growth ability of trees.

ii) Technical method for protection and promotion of natural regeneration: For poor and extremely poor forests, which contain unvalued plants, vines and shrubs, the priority solution is to cut these plants to leave space and nutrient for the development of the target trees; it is allowed to cut unvalued/trash plants in the area where the density of the regenerated trees is high.

iii) Development of NTFP plants: There are currently no regulations on the silvicultural method for NTFP plants so it is necessary to develop specific rules for this object. First of all, it is necessary to introduce provisions for effective management and protection of the existing NTFP plants and multi-purposed plants that need to be restored. For the newly planted NTFPs, there should be specific regulations for techniques that have the impact to the natural forests.

iv) For the potential locations for the development of ecotourism, entertainment, and resort: Focusing on methods for forest restoration and protection. It is allowed to plant flowers or ornamental plants in the "check-in" area or along the way to the visiting places. It is also allowed to prune broken branches and trees that affect the landscape.

*c) Regarding science and technology*

It is necessary to develop in-depth studies on the characteristics of the poor forest as well as summarize lessons learned, and the successful models on natural forest restoration for expansion proposal. In addition, it is needed to build the pilot models on natural forest restoration towards multi-purpose utilization in different eco-regions in order to draw experiences for expanding following the roadmap.

*d) Regarding the roadmap for implementation of natural forest restoration*

+ First of all, it is necessary to prioritize the restoration of the poor natural forests (forests with wood volume lower than 100m<sup>3</sup>/ha according to the classification of poor forests in Vietnam) because this object is currently the largest forest area in Vietnam, which accounts for 65 - 70% of the total natural forest area, and significantly low in quality.

+ Mapping the distribution of poor forests in the whole country. On that basis, identifying the priority forest areas to address the target of upgrading the quality of 10% of natural forest areas in the period of 2023 - 2025 and the target of upgrading the quality of 20% of natural forest areas in the period of 2026 - 2030 according to the Vietnam Forestry Development Strategy 2021 - 2030, vision to 2050 (Decision 523/QĐ-TTg dated 01/4/2021).

#### IV. CONCLUSIONS

- Vietnam has around 10,171,757 ha of natural forest area, accounting for 69,0% of the total area nationwide. Natural forest plays a significant and strategic role in the development of the economy, society, and environment. However, due to many factors,

this type of forest has seriously degraded in both quantity and quality.

- The government has issued many policies related to natural forest restoration such as Forestry Law, Decrees and Decisions, MARD's Decisions, Circulars etc. Basically, these policies have created a legal framework for natural forest restoration in Vietnam.

- Although a legal framework for natural forest restoration in Vietnam has been established, the achievements from the implementation of natural forest restoration are very low. This is due to the application of the "closing natural forest" policy, in which all activities that have impact to the natural forest are banned. In addition, the existing policies and techniques are not appropriate and attractive to the different stakeholder's participation.

- To promote natural forest restoration in Vietnam, it is necessary to have a new perspective and approach to restore natural forests towards multi-purpose utilization and sustainable management. The policies on management, benefit-sharing mechanism, investment, PFES and the regulations on silvicultural methods need to be revised. The priority forest area for restoration with the poor and extremely poor forest also need to be identified.

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8. Prime Minister, 2017. Decision 419/QĐ-TTg dated 05/4/2017 on approval of the National Program on reduction of GHG emission through limiting forest loss and degradation; conservation and enhancement of Carbon stock; and sustainable management of forest resources to 2030.
9. Prime Minister, 2020. Decision 1055/QĐ-TTg dated 20/7/2020 on the promulgation of the National plan to adapt to climate change for the period 2021 - 2030, vision to 2050.
10. Prime Minister, 2021. Decision 523/QĐ-TTg dated 01/4/2021 on approval of the Vietnam Forestry Development Strategy for the period 2021 - 2030, vision to 2050.
11. Prime Minister, 2022. Decision 809/QĐ-TTg dated 12/7/2022 on approval of the Program for Sustainable Forestry Development from 2021 - 2025.
12. Prime Minister, 2022. Decision 896/QĐ-TTg dated 26/7/2022 on approval of National Strategy on Climate Change to 2050.
13. Prime Minister, 2022. Decision 150/QĐ-TTg dated 28/01/2022 on approval of Sustainable Agricultural and rural development Strategy in the period of 2021 - 2030, vision to 2050.

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**Ngày nhận bài:** 15/06/2023

**Ngày phản biện đánh giá và sửa chữa:** 21/06/2023

**Ngày duyệt đăng:** 22/06/2023