SUSTAINABLE FOREST MANAGEMENT PROJECT
Issue Brief | February 2024

PAYMENTS FOR CARBON SEQUESTRATION & CARBON STORAGE OF FORESTS IN VIETNAM (CPFES)

INTRODUCTION

In Vietnam and worldwide, widespread forest degradation from illicit timber harvesting, forest land conversion and poor forest management practices, is leading to increased carbon emissions, which threatens the environment, communities, and livelihoods. Despite national increases in overall tree coverage, Vietnam's natural forests are reducing in area and worsening in quality.

From 2020-2025, the USAID Sustainable Forest Management Project (the Project) is linking communities, local authorities, the national government, and the private sector to jointly address the drivers of forest conversion and degradation in targeted areas. The Project aims to avoid carbon emissions from natural forest conversion and degradation; increase carbon sequestration through better management of plantation forests; and improve the quality, diversity, and productivity of natural production forests– all to protect Vietnam's threatened forest resources.

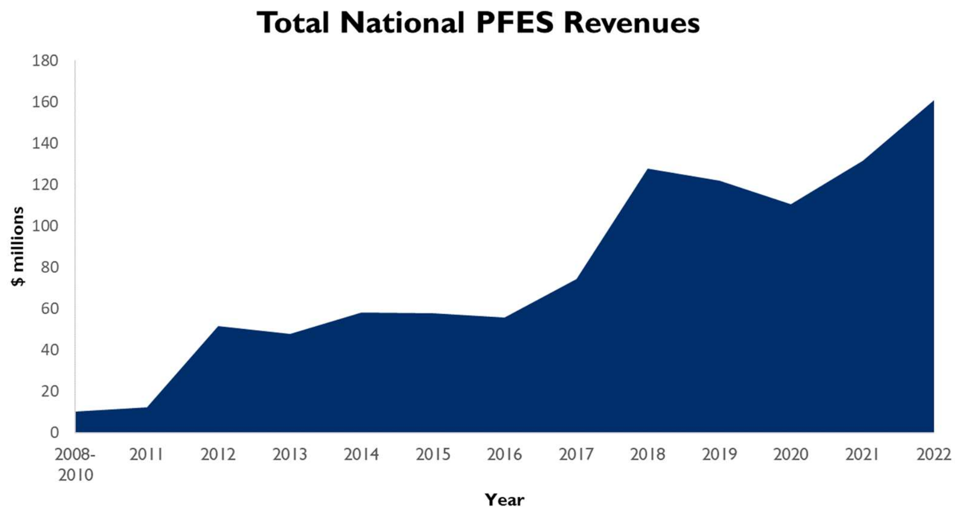
HISTORY OF PFES DEVELOPMENT IN VIETNAM

Payment for environmental services (PES) is a financial model where service users or beneficiaries of environmental resource-dependent services, such as hydroelectric companies, will pay service providers (i.e. forest owners) to maintain and ensure the integrity of the natural resources. Revenues generated from PES may serve as a fund for upkeep and maintenance of the natural resources, which will thereby ensure the long-term sustainability of the services derived from these resources. This mechanism was developed during the 1990s, mainly on a voluntary basis, at a small scale between a few users and service providers, and with flexible prices. Although the original idea for PES was for it to be a sustainable financing scheme to protect environmental resources, since participation in the scheme was voluntary, there was no long-term commitment from services users to pay for these services because companies do not realize the future long-term value of maintaining the resources when they are presently concerned about paying fees.

Since 2003, many small-scale voluntary PES mechanisms were inaugurated throughout Vietnam, with no remarkable impact. Another hindrance to scaling the PES mechanism is low public awareness about the importance of environmental services, and about how people living in and using forest areas can best contribute and understand their responsibilities to preserve vital resources. In Vietnam, companies respond better to government-instituted regulations, rather than appeals for voluntary contributions. Thus, the only approach to fully realize and scale PES schemes nationwide is for the government to make participation mandatory for companies.

In 2005, PES was first officially introduced—without success—by the Ministry of Natural Resources and the Environment (MONRE) through their proposal for an environmental law. However, in 2008, through support from USAID, Ministry of Agriculture and Rural Development (MARD) successfully piloted the PES mechanism, and officially called it "payment for forest environmental services," or PFES, in Lam Dong province. The pilot lasted for two years with the participation of a few hydropower plants and two water companies (service users or beneficiaries). Fueled by the success of the pilot initiative, in 2010, the central government made PFES a national policy through Decree 99/2010/ND-CP. In the decree, PFES schemes were legalized for establishment throughout Vietnam. However, PFES in Decree 99 was not in the highest legal document (in Vietnam, Decree is under laws) until 2017, when five types of environmental services[1] were defined and PFES regulations were adopted into the Forestry Law (No 16/2017/QH14). Through the Forestry Law, the government has taken steps to increase enforcement for PFES implementation in Vietnam.

NOTABLE ACHIEVEMENTS FROM PFES



Since legalization in 2010, the total revenue collected from PFES schemes nationwide totaled to $1.02 billion through the end of 2022. PFES revenues have gradually increased over time, generated mostly from hydropower plants and water companies that are paying for hydrological services derived from forests. However, so far, only four of the five forest environmental services regulated by the Forestry Law and Decree 156 have an established payment mechanism. The last service—carbon sequestration and carbon storage—currently has no payment mechanism because these services require unique regulations and requirements to properly function.

WHAT IS CARBON PFES

CPFES is used to denote the payment mechanism for carbon sequestration and carbon storage of forests, as regulated by the 2017 Forestry Law and Decree 156/2018/ND-CP. Under the CPFES mechanism, carbon sequestration and carbon storage value of forests will be traded or transferred between buyers and sellers. Emission companies buying forest carbon credits can use the credits to meet their annual emission reduction target set by the government, either in Vietnam or their home countries if they are international companies. Other companies buying forest carbon credits can sell credits to other emission companies and earn profit through price differences (for example, by buying at a lower price directly from forest owners and selling at a higher price to emission companies). Those companies can be considered as brokers within the forest carbon market. Some other organizations, such as the World Bank or non-government organizations (NGOs), are not emitting greenhouse gases (GHGs), but are willing to pay forestry sector actors to avoid emissions from activities that lead to deforestation or degradation. In exchange, these organizations will receive recognition for their contribution to global emissions reduction.

HOW DOES CARBON PFES WORK?

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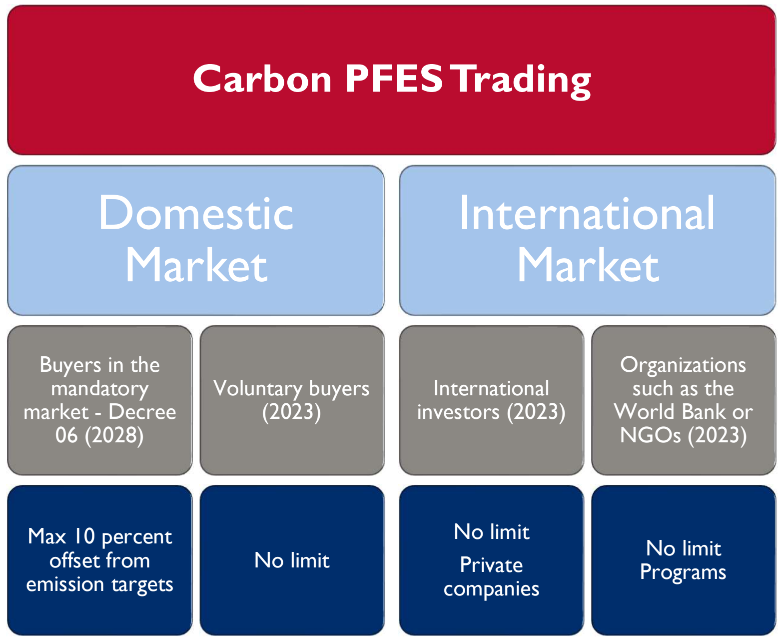
[1] Five forest services in PFES mechanism include: a) Soil protection, reduction of erosion and sedimentation; b) Regulation and maintenance of water sources for production and living activities of the society; c) Forest carbon sequestration and retention, reduction of emissions of greenhouse gases; d) Protection of natural landscape and conservation of biodiversity for tourism services; and e) Provision of spawning grounds, sources of feeds, and natural seeds for aquaculture.

The mandatory and voluntary markets have two identical yet different systems for trading carbon products, as shown below. In both voluntary and mandatory markets, forest owners sell various carbon products, including carbon credits and emission reduction results.

One **carbon credit** is equal to one ton of CO2 sequestered. All forest owners who sell carbon credits are required to get their forest carbon credits certified by a third-party independent auditor based on an agreed carbon standard, verified by a Measurement, Reporting, and Verification system (MRV).

The forest owners can sell carbon credits in the mandatory market via offset mechanism or in the voluntary market where they can negotiate directly with buyers. If an emission company purchases **offset credits**, these credits will go towards meeting an emissions reduction target set annually by the government. They may also use other options to reduce emissions, such as improving company technology. Offset credits can be valid for more than one year. On the other hand, an **emission reduction result** is an agreement between the forest owner (seller) and the buyers, whereby forest owners agree not to burn or cut down trees and emit CO2.



Voluntary Market. In a voluntary market, the forest owners are the sellers of carbon credits and/or emission reduction results, while the buyers are companies, individuals, or organizations (both domestic and international) who are interested in reducing CO2 emissions. The sale of carbon products depends on the willingness of forest owners to sell these products and on the interest of buyers to purchase. The price is therefore based on a negotiated rate between the buyer and seller.

Mandatory market. In a mandatory market, while forest owners remain the sellers of carbon products, the buyers this time are only domestic emission companies who will be required by the government to reduce their carbon emissions. MONRE will begin mandating companies to reduce emissions through annual emission targets or cap, which they can enforce through fines or penalties. Thus, to meet their emissions targets, emission companies can purchase carbon credits from forest owners via offset mechanism. These credits are recognized by MONRE and count towards individual company targets and contribute to Nationally Determined Contribution (NDC) targets. Buyers can also trade carbon credits among each other and may be able to sell these credits to other market actors, including international companies and organizations. The table below provides a detailed breakdown of the carbon trading system by the type of market.

Category	Mandatory market	Voluntary market
Trading mechanism	Trading via offset mechanism and regulated by Decree 06/2022/ND-CP	Trading via transferring emission reduction results or via investment projects

Line management ministry	Ministry of Natural Resources and Environment (MONRE)	Ministry of Agriculture and Rural Development (MARD)
Product being traded	Carbon credits	Forest carbon credits, recognized by MARD
Verification	MONRE confirms that credits can be traded in the market and provides written verification	MARD recognizes emission reduction, then verified by independent third parties
Amount of trading	10% of allowances (i.e., annual emission permission unit given by government to GHGs emission companies). Allowances will be identified by MONRE annually starting in 2026.	No limitation
Tool for trading	Online platform, which will be developed by MONRE and Ministry of Finance (MOF)	Direct transactions between sellers and buyers.
Buyers	Domestic emission companies must carry out GHG inventory according to Decision 01/2022/QD-TTg	Domestic emission companies, international emission companies/investors, and international organizations.
Price	Identify based on transaction on platform (i.e. auction or over the counter (OTC) trading) with floor price identified by price of allowances decided by the Government.	Identify based on negotiation or agreement between seller and buyer.

HOW IS IT DIFFERENT FROM PFES?

There are many significant differences between CPFES and other PFES mechanisms that are applied for hydropower plants and water companies. Given that CPFES is a new mechanism, it has taken time for MARD/VNFOREST to understand that the PFES mechanism cannot be applied to CPFES as a top-down mechanism with fixed prices because CPFES is result-based payment with proven willingness to buy from forest producers sequestering carbon to trade. On the other hand, PFES payments are derived from ongoing services based on a specific area that have tangible benefits to users. The table below outlines some other differences between PFES and CPFES:

Category	PFES	CPFES
Buyers	Without paying for environmental services, companies that are buyers cannot operate their businesses.	Without paying for carbon services, buyers will have to use other options to reduce their emissions, such as improving technology. Buyers sometimes are not the ones benefitting directly from the carbon services, but they invest to trade carbon credits to emission companies in the future or they pay to avoid emissions in the atmosphere (as is the case of the World Bank under the Emissions Reduction Purchase Agreement (ERPA), which will pay about USD 50

Category	PFES	CPFES
		million to avoid deforestation, which will reduce about 1million tons of GHGs.
Sellers	Forest owners can use their management rights over their forest areas to sell environmental services.	To date, there is no legal reorganization of ownership for carbon sequestration/storage generated by forests that are managed by forest owners. Therefore, there is currently no formal owner of forest carbon credits.
Price	Fixed price regulated in Decree 156 in which hydropower plants pay 36 VND/kwh, clean water companies pay 52 VND/m^3 clean water, industrial companies pay 50 VND/m^3 used for production, tourism companies, and aquaculture companies pay maximum 1% of their turnover.	No fixed price. The price will be decided based on market reaction, negotiation in voluntary market or floor price for allowances identified by the government in mandatory market.
Foundation to make payment	Base on forest area available by March 31 annually identify via annual forest review by provincial fund	Based on actual CO_2 sequestered by forest and identify via verification and validation process by 3rd independent parties.
Mechanism	Payment can be direct or indirect (via provincial funds or VNFF).	Can be direct via online trading platform or negotiation. Provincial funds /VNFF will act as seller not intermediary like in PFES in case forest owners cannot develop forest carbon project to sell credits and they will authorize to provincial funds or VNFF.
Line management Ministry	MARD only	MARD (voluntary), MONRE (Mandatory)
Regulation policies	Forestry law, Decree 156	Forestry law, Environmental law, Decree 156, Decree 06.
Tax	Payment for PFES is included in production costs of companies so it's exempted from tax	CPFES is considered as profit of forest owners so they must pay tax even trading on platform or via direct negotiation.
Nationally Determined Contribution (NDC)	No contribution to NDC	All types of trading/transfer must contribute to NDC of Vietnam.
Area receiving payment	Identified by watershed boundaries of hydropower plants or water companies. Therefore, payment distribution area depending on location of the dams.	No limitation of location receiving payment for carbon as long as there is forest, and that forest area has proven of sequestering carbon. That mean one company in the north province can buy forest carbon credits or emission reduction results of forest in the south provinces or in other countries.

HOW DOES THE SALE OF CARBON PRODUCTS SUSTAINABLY PROTECT FORESTS?

CPFES funds offer forests many benefits, such as: i) providing a sustainable financial source for forest protection and development; ii) engaging forest owners in forest protection activities; iii) ensuring that forested areas—by forest type—are monitored and updated annually; and iv) providing clearer information on who is managing forests. PFES also benefits people, for example by: i) providing additional income to forest owners; ii) fostering villagers' awareness to protect forests; iii) increasing the private sector's awareness on the importance of forest protection; and iv) increasing collaboration between government departments for forest management and international assistance programs.

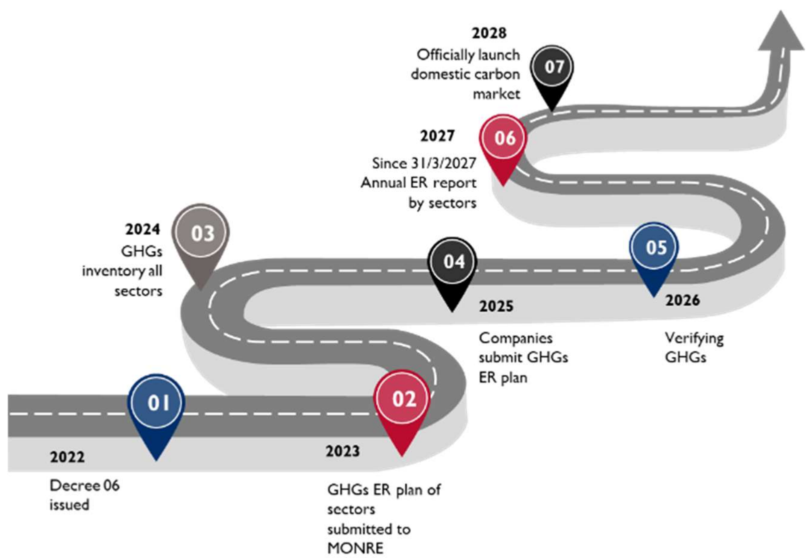
IMPLEMENTING CARBON PFES IN VIETNAM

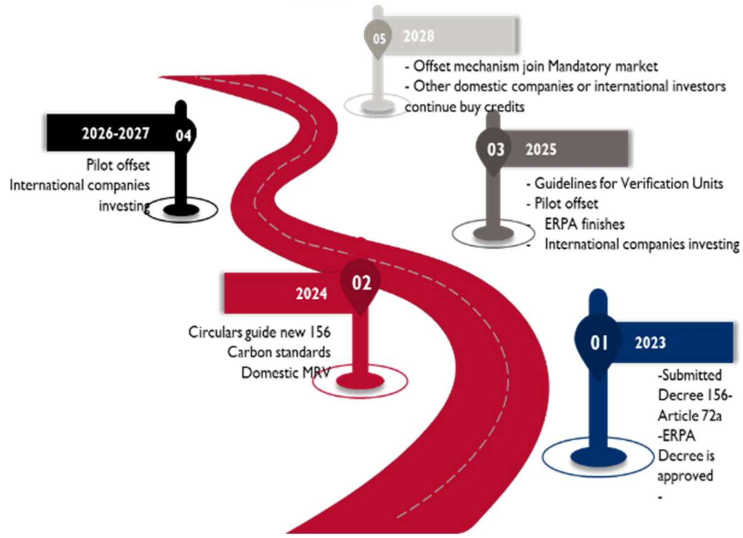
DEVELOPING A NATIONAL FOREST CARBON MARKET

Since forest carbon markets are regulated by two separate Decrees (Decree 06 and the proposed Decree 156), there are two roadmaps for the two different types of markets—a mandatory one and a voluntary one, as outlined below.

Mandatory market - Decree 06

The mandatory market requires greenhouse gas (GHG) inventory by sector, so MONRE can identify GHG emissions caps and allocate allowances to sectors and companies according to their emissions. By 2024, all Ministries must complete their GHG inventories and by 2025, all companies must submit their emission reduction plans. During this time until 2027, the offset mechanism can be piloted until 2027, led by MONRE as mentioned in Decree 06. While MARD wants to pilot offset mechanisms, they must wait for MONRE to first develop piloting guidelines before doing so. MONRE and the Ministry of Finances (MoF) will complete development of an online trading platform by 2027 so the domestic market can be officially launched in 2028.





Voluntary market

The voluntary forest carbon market depends on approval of the new Decree 156. Following the new Decree 156, MARD will coordinate with MONRE and MoF to develop Circulars related to the financial responsibilities of traders. MARD will lead the establishment of methodologies and requirements of a domestic Measurement, Reporting, and Verification system (MRV), which applies only for emission companies in Vietnam. To save costs for verification for domestic market, this MRV will set fewer requirements compared to international MRV for international buyers. MARD will also lead the establishment of carbon standards for the verification and validation process. This means that MARD must work with MONRE to ensure MONRE accepts these standards and counts emission reduction results from the voluntary market towards the country's Nationally Determined Contributions.

It is expected that after 2024, when all standards and guidelines are ready, MARD will, together with MONRE, pilot the offset mechanism and other voluntary trading for carbon credits via investments of other international and domestic companies in Vietnam. The outcome from piloting the offset mechanism will be used as input for the development of the mandatory market by 2028, along with increased trade between domestic companies and international investors.

USAID SUPPORT FOR IMPLEMENTATION

With support from USAID, MARD is revising Decree 156 to improve regulations for the voluntary forest carbon market by adding Article 72a—which will not overlap with regulations for the mandatory market as regulated under Decree 06/2022/ND-CP. The revised version of Decree 156 was submitted to the central government office and MARD has finished the first round of responses to comments issued by the central Government who is expecting to approve the revised 156 Decree by mid-2024. The following section lists key highlights of the revised Decree 156.

Carbon rights

One key critical issue addressed by Decree 156 is the ownership to carbon credits generated by forests. Many potential investors are willing to buy carbon credits from forests, but so far, the Provincial People's Committees (PPCs) or MARD are not willing to sell these credits because there is no legal regulation that defines the owner of these products among forest owners, PPCs, and MARD. Through this Project, USAID has worked with MARD to include one new article to Decree 06 that was developed by MONRE. The new article will allow forest owners to participate in and trade carbon credits in the mandatory market. Another new article to the revised Decree 156 will specify to grant carbon credit ownership to forest owners.

In Decree 06, the government recognized forest carbon credits as a product that can be sold in the market under the offset mechanism, and recognized forest owners' rights to sell forest carbon credits. Additionally, under the revised Decree 156, MARD proposed other rights for forest owners, including rights to transfer, mortgage, donate, inherit, contribute as investment capital, or sell these credits in a voluntary market. Therefore, once Decree 156 is approved, forest owners, PPCs, and MARD can be more active in forest carbon projects.

Requirements of the forest carbon market

The revised Decree 156 institutionalizes requirements that the forest carbon market must meet. These requirements are listed below.

- Carbon credits can be traded or transferred only if they create additional value in carbon sequestration or in emissions reduction. Thus, within the same forest area, only additional carbon credits (compared to the previous year) with carbon investment can be traded.
- There must be an established monitoring, reporting and validation system.
- There must be clear and consistent methodologies to measure carbon sequestration and data used for measurement must be valid.

- All forest carbon projects that include the sale of credits must consider social safeguards.
- The verification and validation process must be done by independent third-party auditors.
- MARD will develop guidelines/regulations, methodologies for verification, and validation standards that will guide independent parties.
- Verification units must follow requirements stipulated under Decree 06.
- All carbon credits trading/ emission reduction result transfers must contribute to NDC of Vietnam.
- All carbon credits trading/ emission reduction result must follow financial law.

Encouraging private sector involvement

In order to support the further development of the carbon market, MARD is looking to pilot the offset mechanism prior to the launch of the mandatory market. However, since the government will not issue emissions targets for companies until 2028 (because Decree 156 primarily regulates voluntary payments) and because Decree 06 permits a voluntary pilot offset mechanism only until 2027, it is difficult to encourage companies to participate in a pilot offset initiative if there are no incentives. Companies are not required to participate in these initiatives until the government requires them to do so in 2028. Therefore, to encourage their participation, USAID supported the inclusion in Decree 156 of one sub-article whereby MONRE will recognize carbon credits purchased voluntarily, ahead of 2028, towards the emission reduction targets that MONRE will issue for each company in the future. Since this market is new and there are few competitors, credit prices may be lower today than they will be tomorrow, which may encourage companies who are looking to plan their future spending activities.

SO WHAT?

USAID is providing support to develop a CPFES mechanism using experience from existing PFES. This will enable MARD to pilot the mechanism, develop a domestic MRV system, develop new Circulars and guidelines to inform participants (buyers and sellers), and to start engaging private sector companies and forest producers to learn how to trade and participate in the domestic carbon market and eventually, in the international market. In this way, MARD will lead the forest sector in the Carbon Market, which will be established by MONRE from 2028 onward and open to all sectors. An active carbon market will provide thousands of small farmers managing forests the opportunity to receive payments for sustainably managing their forest by trading carbon credits. This in turn will significantly contribute to increasing carbon sequestration, which will result in reducing carbon emissions while contributing to Vietnam's nationally determined commitments.

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