

The version 4th of “Establishment and Development of the Carbon Market in Vietnam”

Findings and Comments on the project’s inadequacies regarding the Report 232/TTr-BTC dated 11 September 2024 of the Ministry of Finance of Vietnam

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The term “**Carbon market**” is not correctly used

To: Prime Minister Pham Minh Chinh and Deputy Prime Minister Tran Hong Ha

Cc: Advisory officials: Directors of Legal Department of Ministry of Finance, Ministry of Agriculture and Rural Development, Ministry of Natural Resources and Environment, Ministry of Planning and Investment, and Ministry of Industry and Trade.

Having learnt that the Government is rushing to complete the collection of opinion contributed to the above-mentioned project, and after thoroughly reading the documents, including: 1) the Report No. 232/TTr-BTC of the Ministry of Finance, 2) the Tables subject to suggestions for amendments attached to the report; 3) the 11-page Approval Decision form; 4) the 54-page Project; 5) the 10-page Appendices; 6) the Commenting Letter 6350/BNNPTNT dated 27 August 2024 of the Ministry of Agriculture and Rural Development signed by Minister Le Minh Hoan, and the commenting Letter 5857/BTNMT-BDKH of the Ministry of Natural Resources and Environment signed by Deputy Minister Le Cong Thanh Ly, I would like to contribute some comments as follows:

Firstly, the title of the project “Establishment and development of the carbon market in Vietnam” is not correct. In our opinion, the correct title of the project should be “ **Orientations of the carbon credit market in Vietnam in the 2025-2028 pilot phase**” towards a green circular economy!

Secondly, the project content presented in the Report 232/TTr-BTC/11/9/2024 has not demonstrated the logical nature of state governance regarding the resource and asset/commodity attributes of carbon in the context of Vietnam’s political and economic regime in the pilot phase of entering the carbon credit market. Why?

The reasons are below:

- 1) Carbon cannot be considered a commodity traded on the market because of its natural function in the formation of life for all living beings. The three-volume *Capital* of Karl Marx (1867) clearly shows that the resource attribute of land determines the nature of capitalist economy through the concept of "differential rent" - the key to determining the right to possess the commodity/property of land under the term “real estate market”! The resource attribute of carbon in the 20s-50s of the 21st century determines the fate of the earth and humanity, as carbon bears 45% of the responsibility for forming life on earth. As for Vietnam, a country with a special history of building, preserving, and nurturing the Spirit-Energy-Soul of the nation on the path of building a socialist country, naturally, all orientations of market-oriented socio-economic development must pay special attention to the resource attribute of carbon which is currently present in all natural sinks and human life.

- 2) Therefore, the most sacred duty and right of every Vietnamese citizen is to understand the value of carbon resources in our daily lives, especially now when carbon dioxide (CO₂) in the atmosphere has reached nearly 424 PPM (500 PPM is the level that endangers human–life), alarming the whole world that it is high time to re-evaluate each human behavior towards nature, particularly the resource attribute of carbon. This is the core reason why financial institutions¹, which play the role of skilled brokers in the business world, are rushing to engage with Southern countries (with rich carbon stocks), continuing their colonization² through finance and technology invested in forests, fields, and midlands, and future generations under the guise of “development cooperation”. More than ever, the name, sentences, words, and meanings of any legal document, when signed with financial institutions, must be informed to all classes of people in Vietnam including scientific researchers and economic groups so that they are aware of their responsibilities to get involved to further discuss, agree upon, and make commitments. 'Haste makes waste'!
- 3) As a result of (2), when the value of the carbon resource is converted into the commodity attribute form of carbon credits³ by powerful nations to serve the “hunger for carbon” of the G7, financial institutions initiate a “carbon credit game”.
- 4) It is the high time to look deeply at the carbon stocks and potentials in the natural carbon sinks⁴ of Vietnam to clearly define, through political institutions and economic governance, the carbon’s commodity attribute/carbon credits of 14 million hectares of natural forest with modest carbon stocks (detailed statistics from the empirical research in Table 1 for interpolation in Table 2 as below).

Table 1: Result of average C_AGB (t/ha) from application of four formulas of carbon stock calculation over 310.7 ha of tropical rainforest in the Ngan Pho River upper watershed (July 2024) (www.CO2justice.org)

<i>Formula</i>	<i>Brown (1997)</i>	<i>Chave et al (2005)</i>	<i>NRW</i>	<i>Bao Huy (2012)</i>
Average C_AGB (t/ha)	97.36	151.00	133.54	110.25
Standard deviation (t/ha)	40.87	71.51	54.01	48.26
Min (t/ha)	43.76	64.25	58.14	49.37
Max (t/ha)	249.19	420.97	332.11	297.11

¹ World Bank, ADB Bank, JDB....

² Reforestation Development Cooperation - related documents

³ 1000 kg of CO₂ equivalent to one carbon credit; one ton of carbon absorbs 3.67 tons of CO₂.

⁴ C_AGB of 14-million-hectare forests form a carbon sink. There are other carbon sinks in nature and socio-economic life.

Table 2 : Estimated average C_AGB (t/ha) in 14 million ha of natural forests in Vietnam

No	Carbon sink	Total area of forests/Million ha	Absorbed CO ₂ /ha (average)	Total absorbed CO ₂ /ton of CO ₂	Average selling price of USD 5 /ton of CO ₂	Total budget earned from CO ₂ /carbon sink from 14 million ha
1	Natural forests	14 million ha	250 tons of CO ₂ /ha	3,500,000,000 tons of CO ₂ /14 million ha of forest	3.5 billion tons of CO ₂ x 5 USD per ton CO ₂	17, 500,000,000 USD
2	Humus in 14 million ha of forests	20 - 30 cm humus layer	5 times C_AGB (theory)	5 times (CO ₂ e)	5 times (CO ₂ e)	5 times (CO ₂ e)
3,	Other non-calculated carbon sinks

Thirdly, based on the estimates in the Table 2, the 14-million-hectare tropical rainforest sink with a modest carbon sequestration capacity of 250 tons CO₂/ha/year, at a trading price of USD 5/ton CO₂, could potentially generate USD 17,5 billion in revenue for the government. This calculation reveals that in the absence of a transparent and professional legal framework, even during the 2025 – 2028 pilot phase, the carbon sink of the 14 million ha of natural forests (C_AGB) alone could absorb an equivalent of 3.5 billion tons of CO₂[1] for neighboring countries free of charge. This figure represents a rough economic indicator based on the fundamental research framework (C_AGB) in Table 1 for the natural forests that have been recovered after 22 years of over-exploitation in the Ngan Pho River watershed: (<https://CO2justice.org/upload/files/b%C3%A1o%20c%C3%A1o%20%E1%BB%A9ng%20d%E1%BB%A5ng%20v%C3%A0%20so%20s%C3%A1nh%20ph%C6%B0%C6%A1ng%20ph%C3%A1p%20t%C3%ADnh%20tr%E1%BB%AF%20%C6%B0%E1%BB%A3ng%20carbon-2.pdf>). This is called the "carbon finance" derived from the term "green circular economy" referring to the commodity attribute/carbon resource-based credit value that have been silently contributed by natural forests as explained above. This means that Vietnam's natural forests, especially the 14-million-hectare sink, have negative net carbon emissions. Even after deducting the total greenhouse gas emissions of all domestic economic groups that are required to certify emission offsets for their exports, Vietnam remains a net negative emitter of greenhouse gases.

Fourthly, do the carbon credit tycoons know and see?

Despite the existence of over 600 scientific formulas for calculating carbon stocks in carbon sinks in nature and the life of living beings worldwide (across temperate, polar, subtropical, and tropical regions), and despite the fact that carbon stocks in above-ground biomass and average total carbon stock after being calculated by applying various formulas, and compensating for the carbon emissions of the forest biomass itself at night to balance the diurnal oxygen-releasing biogeochemical process for all living beings, the result clearly shows that the net emissions of Vietnam's tropical rainforests are still negative.

The noteworthy implications can be found in the Articles and Points beginning the Decree 107/2022⁵ as below:

Chapter I. Article 1. Clause 2. Regulated entities: *“This Decree applies to regulatory agencies, forest owners, organizations, households, individuals, and residential community whose activities involve emissions reduction and absorption of greenhouse gas (GHG) emissions from natural forests in six provinces of the North Central Region, including Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri and Thua Thien Hue.”*

Article 2. Interpretation of terms. Clause 3. *“Emission reduction (ER) transfer means an act that the Ministry of Agriculture and Rural Development transfers the ownership of reductions of GHG emissions from natural forests to Forest Carbon Partnership Facility (FCPF) through IBRD under ERPA (including Contract ERs (10,3 million tons of CO₂) and Additional ERs (no more than 5 million tons of CO₂, if any).*

Chapter II. Article 4. ER TRANSFER

Article 4. Clause 1. *“On behalf of the Government of Vietnam and forest owners who are owner representatives, the Ministry of Agriculture and Rural Development shall manage and use ERs from natural forests in six provinces of the North Central Region during the duration for implementation of ERPA.”*

Article 4. Clause 3. *“In addition to ERs under ERPA, if IBRD wishes to purchase additional ERs, the Ministry of Agriculture and Rural Development shall take charge and cooperate with the Ministry of Natural Resources and Environment, the Ministry of Finance, People's Committees of 06 provinces in the North Central Region and relevant agencies in formulating transfer plans and reporting to competent authorities for consideration and decision.”*

Article 4. Clause 4. *Reductions of GHG emissions from forest management and protection from 2018 to 2024 will be transferred until 31 December 2025.*

What do we see from the above Articles and Clauses of the Decree 107/2022?

It is a rather subjective and interesting “game” played by financial tycoons with the ERPA of the International Bank for Reconstruction and Development (IBRD), the implementing agency of the World Bank^[1], as the intermediary.

Accordingly, Chapter I. Article 1. Clause 2 **keeps** all natural forest owners in the six provinces of the North Central Vietnam under a tight control. Chapter II. Article 4. Clause 1 **suspends** ownership rights of all natural forest owners in the six provinces of the North Central Vietnam. Article 4. Clause 4 **strictly restricts** all natural forest owners in the six provinces of the North Central Vietnam from any transactions or dealings with anyone for 8 years (**including forest owners being People’s Committee at all levels**).

With 3 Chapters, 17 Articles, 4 Annexes, and 18 Templates providing detailed guidance for managing receipt and disbursement from emission reduction results under the ERPA as stipulated in the Decree 107/2022, it is surprising that there is an absence of formulas for calculating carbon stocks and CO₂e in the natural forest area of the six provinces in the North Central Vietnam. Why? Meanwhile, the Forest

⁵ Decree 107/2022/NĐ-CP “Experimental transfer of emissions reductions and financial management under emissions reduction payment agreement in the North Central Region” of the Government of Vietnam.

Law 16/QH14/2017, specifically Chapter I. Article 3. Clause 4, Chapter II. Articles 10. Clause d and Article 12. Clause b, Chapter III. Article 14. Clause 7, and Article 21 clearly stipulate the rights of forest owners to engage in forest activities in a public, transparent, and equitable manner. However, in the transfer between the ERPA and MARD, many forest owners had not been notified in writing from 2018 - 2022.

Notably, from the professional perspective, the Decree lacks specific formulas for calculating carbon stocks and converting them into CO₂e credits of natural forests in the six provinces of the North Central Vietnam. Consequently, the acceptance of the ERPA including Contract ERs (10.3 million tons of CO₂) and additional ERs (no more than 5 million tons of CO₂, if any) appears arbitrary. Moreover, Article 4. Clause 4, which stipulates “Reductions of GHG emissions from forest management and protection from 2018 to 2024 will be transferred until 31 December 2025, seems to restrict: 1) the right of forest owners in the six provinces to trade carbon credits beyond the 10.3 million ton limit, and 2) the right to negotiate the price of carbon credits based on market supply- demand law during the pilot phase. The IBRD's dual role of WB in transaction under the ERPA raises questions about fairness and transparency.

As shown in the Table 01 above (www.co2justice.org), the forest owner has applied 4 from over 600 available formulas to calculate carbon stocks, and has finally selected Bao Huy's formula (2012) as the most suitable for the evergreen broad-leaved forests in the Central Highlands and North Central region. This three-variables formula including diameter at breast height, clear bole height, and wood density demonstrates its superiority when applied to data collection, input, calculation, analysis, and verification through an AI algorithm. The results of the carbon stock calculation in a 310.7-hectare forest that has naturally regenerated over 22 years indicate the highest accuracy and reliability compared to other formulas that only consider one or two variables when applied to the representative and systematic standard plots of that forest.

Total C-stock of the 310.7-hectare protection watershed forest in Huong Son district, Ha Tinh province: <https://co2justice.org/xuat-ban>

$$C_{total} = C_{tb_total} \times A,$$

Where:

- C_{total} is the total carbon stock over the entire area (t)
- A is the total project area (ha)
- C_{total} = 136.71 x 310.7 = 42,475.8 (t)

Total CO₂-equivalent (CO₂eq) over the entire area is calculated by:

CO₂eq = C_{total} x 44/12 = 42,475.8 x 3.67 = 155,886.19 (t). (44/12 is the conversion rate from C to CO₂).

- CO₂eq_{total} is the total CO₂-equivalent captured by the 310.7-hectare of natural forest regenerated over 22 years after over-exploitation in the Ngan Pho River watershed, Huong Son district, Ha tinh province.

Given the inadequacies of the Government's Decree 107 as mentioned above, and based on our review of the carbon credits-related documents, we hereby would like to submit our comments to Prime Minister

Pham Minh Chinh, Deputy Prime Minister Tran Hong Ha, and the advisory divisions of the relevant ministries as follows:

1. The title of the version 4th should be corrected to “**Orientations of the carbon credit market in Vietnam in the pilot phase**”⁶ 2025-2028 towards a green circular economy.
2. The project serves as the fundamental professional foundation for the pilot phase from 2025 – 2028 to further formulate Politburo Resolutions, Laws, Decrees, Circulars, and Appendices which include: calculation formulas, functions, and scientific variables applicable to the practical context of Vietnam's tropical rainforests with 14 million hectares of natural forests in relation to the carbon credit market. This vast forest area would become an invaluable carbon sink if converted into tradable carbon credits after 2028. Vietnamese scientists should demonstrate their right to self-determine their calculation formula, not passively follow the formulas designated by the powers through UN-related organizations. Vietnam shall independently determine all carbon credit calculations for its natural carbon sinks within the territory. Vietnam shall fairly cooperate with those partners who agree with this principle.
3. The project needs to fully consider and respect the opinions and analytical insights of scientists who specialize in researching and developing formulas for calculating carbon stocks in various sinks available in nature and life.
4. The project needs to clarify to what extent individual and community forest owners are involved in:
1) Calculating carbon stocks to convert into carbon credits; 2) Verifying and evaluating the results; 3) Defining their level of participation in the carbon credit market. Similarly, the project needs to clarify the level of involvement of forest owners, who are state-owned and private enterprises, public and independent scientific and technological organizations, cooperatives, and temporary forest leaseholders, in the project “**Orientations of the carbon credit market in Vietnam in the 2025 - 2028 pilot phase**” towards a green circular economy.
5. Accordingly, the **Orientations of the carbon credit market in Vietnam in the 2025-2028 pilot phase** requires an independent economic arbitrator⁷ with transparent, public, and professional governance. The arbitrator should maintain an up-to-date database on changes in forest area, timber volume, and emission reductions between forest owners and emitters via WEB/GIS. Local authorities and media should play a role in raising public awareness about the carbon credit market among forest owners via WEB/GIS provided by the independent economic arbitrator.
6. Accordingly, five actors (forest owner, emitter, economic arbitrator, government, and media) with five scenarios would play five roles in the carbon credit market as below:
 - a. The forest owner takes care of and monitors changes in his own forest, ensuring that the quality and quantity of the forest are not damaged by more than 5% annually; patrols, assesses, and identifies shortcomings, logs and sends them to the independent arbitrator via software created by the independent arbitrator;
 - b. The emitter monitors, audits, and evaluates marked forest trees to pay carbon credits annually through the independent arbitrator's WEB/GIS;

⁶ The pilot phase offers a unique chance to shape the future of carbon credit trading, paving the way for a mandatory market-based system.

⁷ A transparent and secure WEB/GIS platform enabling annual transactions between forest owners and emitters. Independent arbitrator consists of scientists, economists, and financial experts in the fields of natural sciences, land economics, and bioeconomics.

- c. The government connects with the independent arbitrator via WEB/GIS and has its own state management plan at local levels, and represents the emission tax authority to open an account to receive taxes.
 - d. The media updates the WEB/GIS with the independent arbitrator to disseminate, educate, and raise awareness to all entities in society.
7. Accordingly, farmers will directly identify and assess the true value of each natural tree and the number of natural trees per hectare. Farmers will realize that each natural tree is like an ATM, providing them with annual income based on the carbon credit market price published via media, WEB/GIS, and government updates. This empowers farmers to confidently and independently enter the mandatory carbon credit market where forest owners are at the center.
 8. Accordingly, the carbon resource attribute, as a national asset, is entrusted to forest owners. They are trusted by the Government to proactively manage, use, monitor and evaluate the emission reduction process, to develop forests and contribute tax through goods/carbon credits for each tree, each hectare of forest, and for the entire area of natural forest for which the forest owner is responsible on behalf of the State.
 9. Both state-owned and non-state-owned corporations⁸ can thrive in an environment that fosters freedom, creativity, and innovation.
 10. People, enterprises, independent economic arbitrator, State, and media are united in their efforts to take ownership and responsibility, working together to build a green circular economy in Vietnam. This is also known as carbon credit co-governance through natural forest co-management among those actors under the socialist-oriented market economy guideline.

Fifthly, carbon and CO₂ are essential for life. Carbon is abundant in natural carbon sinks today. Therefore, the "*Orientations of the carbon credit market in the 2025-2028 pilot phase*" is an opportunity to carefully learn lessons in terms of issuing legal documents, especially for the carbon sink covering 14 million hectares of natural forests, to avoid risks and leakage that may arise due to a lack of forest owner participation as seen in the Decree 107/2022 when transferring natural forest areas in 6 provinces from 2018 - 2025 under the ERPA.

Above all, the *Orientations of the carbon credit market in the 2025-2028 pilot phase* are orientations towards a responsible, ethical market and values of national resources in the game with financial tycoons, where Vietnam is the one who sets the rules./.

⁸ Non-state owned corporations prefer flexible and transparent policies to a loss compensation budget or risk assistance.