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## SUMMARY REPORT

# SCOPING STUDY TO DEVELOP EXTENDED FOREST ENVIRONMENTAL SERVICES (FES) IN HOA BINH PROVINCE

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## 1. Introduction

The PFES policy is one of the new policies in the forestry sector. The Forestry Law 2017 has created a legal basis for the expansion of PFES types and beneficiaries. This is an opportunity to research and propose to expand the types and beneficiaries of PFES nationwide.

Hoa Binh is a mountainous province adjacent to Hanoi capital, with a natural area of about 4,600km<sup>2</sup>; administrative units include 9 districts and 1 city; 151 communes, wards and towns. The population is over 800,000 people, with 6 main ethnic groups (Muong, Kinh, Thai, Tay, Dao, H'Mong) in which the Muong ethnic group accounts for the majority with over 63%. Hoa Binh is one of the provinces that has implemented the PFES policy since 2011 and has achieved certain results. Period 2016-2020: the total amount of PFES of the whole province from 2016 to 2020: 110. 417 billion VND, 1 year average: 22. 08 billion VND/year; in terms of structure, PFES money from hydroelectricity producers accounted for 96.7% while that from clean water production and supply establishments only accounted for 3.3%; There are 05 groups of beneficiaries receiving PFES, including: (i) Forest Management Boards; (ii) Forest companies; (iii) Forest owners are households and individuals; (iv) Commune People's Committee; (v) Other organization. In 2020: the amount of PFES payment is 18 billion VND, of which the amount received by the special-use forest management boards and the protection forest management boards is 3.099 billion VND, accounting for 16.38% of the total PFES payments; The total paid area is 18,373.52ha (accounting for 14.4% of the province's forest area). BV&PTR Fund makes payment by bank account, Viettel Pay electronic transactions account for 99.75% of the total amount paid. Payment for PFES has 11 different levels: 945,063.00 VND/ha/year; 642,493.00 VND/ha/year; 407,608.00 VND/ha/year; 399,138.00 VND/ha/year; 38,220.00 VND/ha/year; 359,018.00 VND/ha/year; 142,518.00 VND/ha/year; 73, 512.00 VND/ha/year; 20, 061.00 VND/ha/year; 11, 87.00 VND/ha/year; 10. 827.00 VND/ha/year, depending on the area in the province. There is no direct form of payment between PFES users and suppliers. The forest area that is paid for PFES accounts for nearly 54% of the province's forest area. However, there are still some shortcomings and limitations, such as: so far, only 2 out of 5 types of services have been implemented: (i) Soil protection, limit erosion and sedimentation of lake, river and river beds. springs and (ii) Regulating and maintaining water sources for production and social life; there are 02/06 subjects signing PFES contract, that is hydroelectricity production facilities; clean water production and supply facilities.

Stemming from the above issues, the objective of this study is to propose additional types of PFES and payers for PFES, including a mechanism for allocating revenues from these additional services.

The applied research method includes the collection and reference of documents, 5-year summary report (2016-2020) implementation of PFES policy in Hoa Binh province; collect and consult relevant legal documents; survey and consult PFES suppliers and

users, relevant provincial state management agencies; organize provincial seminars to collect opinions and comments on the draft research report.

## **2. Proposing target orientation for development of forest environmental services**

Research results show that Hoa Binh province still has potential for PFES development and aims to be a stable and sustainable source of socialized finance with additional revenue expected from 2021 to 2025: 11.365 billion VND; in 2025, the amount of additional PFES compared to 2020 will reach about VND 4.823 billion/year; annually support forest protection and other necessary activities related to forestry; making an important contribution to poverty reduction and improvement of livelihoods of people in mountainous areas, where mainly ethnic minorities live.

## **3. Develop scenario and roadmap for implementation of payment for forest carbon sequestration and storage services (service iii)**

Currently, there is no legal document specifically guiding the implementation of forest carbon sequestration and storage services. However, for this type of service, it can be done in the following 3 directions: (i) Collecting fees for forest carbon sequestration and storage services from domestic organizations and individuals that cause greenhouse gas emissions. large; (ii) Participation in the regulated (formal) carbon credit trading market; (iii) Participation in the voluntary carbon market. Applying the method of determining the carbon sequestration and storage capacity of forests mentioned in the "Report on pilot study of payments for forest environmental services for carbon sequestration and storage services" of the Ministry of Agriculture and Rural Development. Agriculture and Rural Development" (in 2019), the total amount of CO<sub>2</sub> absorbed by natural forests of timber and plantations in the whole province: 2,547,259.52 tCO<sub>2</sub>/year. However, to participate in the carbon market, Hoa Binh province has to prepare a number of tasks, such as: building a baseline emission curve; measuring, reporting and verifying (MRV) system; a safety plan; a deflation inverse risk management mechanism. emissions, benefit sharing scheme from selling carbon.

Assuming the entire natural forest area is well protected, there are no deforestation, forest fires, forest land encroachment (insignificant emissions), the total amount of carbon absorbed by timber forests is The annual natural forest is the amount of carbon increase that can be sold abroad (preliminary calculation can be based on the annual growth of the forest to calculate the amount of carbon added every year). year). Hoa Binh province can sell up to 70% of the annual increase in carbon (30% as a backup source) for 5 USD/ton CO<sub>2</sub> (equal to the price MARD sells to the World Bank in the North Central region). annual revenue from selling carbon credits will be: VND 83.26 billion/year. In principle, the allocation of this revenue will comply with the provisions of Decree 156 of the Government and at the request of the carbon credit buyer. Carbon is an intangible product, is a gas, it is difficult to determine the direct payer for this service, so the form of trust payment is applied through the Fund for Protection and Development. This revenue, after deducting 10% of management costs, 5% of contingency funds, payments to the state budget (carbon transfer fees, taxes, etc.) will be paid to forest

owners who sell credits. carbon and organizations and individuals related to carbon sequestration services.

Regarding the proposed service implementation roadmap iii: this is a potential type of PFES that has not yet been specifically regulated by legal documents. Therefore, in the period of 2021-2025, it is possible to prepare a number of tasks, such as: reviewing and assessing the current status of forests by area and volume, making forest management records, and assessing the absorption and storage capacity of forests. forest carbon retention, carbon emission capacity, assessment of carbon emission due to deforestation, forest degradation...;; develop scenarios for selling carbon credits to domestic and international carbon markets; develop support solutions when participating in the carbon market and at the request of carbon credit buyers; projected revenue potential when participating in the carbon market and distribution of revenue from the sale of carbon credits; develop a scheme to participate in the domestic and international carbon market.

#### **4. Develop an expansion scenario for payment for services i, ii, iv, and**

a) Hydropower production facilities (for services i and ii): after reviewing, there are 02 projects to build hydroelectric plants in the near future. After 2020, there are 02 projects to build hydroelectric power plants, of which 01 hydropower plant is expected to generate electricity in 2023 with installed capacity: 1.6 MW; 01 Hydropower plant is expected to generate electricity in 2024 with installed capacity: 480MW (Interprovincial hydroelectric plant). By 2025, additional revenue from newly built hydropower plants: 3.842 billion VND/year.

b) Clean water production and supply establishments: after reviewing, there is 01 project to build a factory to produce and supply clean water in the near future. By 2025: Additional revenue compared to 2020 revenue from water production facilities/year is: 316.27 million VND/year

c) Industrial production establishments using water from forests (for services ii): after reviewing, there are 21 more industrial production establishments using water sources from forests to add to the list of subjects that must be included in the list. PFES payment. By 2025, the additional revenue compared to the revenue in 2020 from industrial production establishments/year will be: 73.544 million VND/year

d) Aquaculture establishments (for v services): after reviewing, there are 06 aquaculture enterprises that are subject to PFES payments. By 2025, additional revenue compared to 2020 revenue from aquaculture enterprises is: 591.6 million VND/year.

dd) Ecotourism, resort and entertainment business establishments (for services iv): Through the actual survey, Hoa Binh province has not yet had any organizations or individuals engaged in tourism business activities. ecological calendar within the forest area of the forest management board or forestry company. However, there are ecotourism, resort and entertainment business activities outside the forest, adjacent to the forest but using services generated by the forest. Hoa Binh province has great

potential for ecotourism, convalescence and entertainment business. First, it can develop tourism to learn about nature, scenery, camping, picnicking, and building a conservatory. botanical garden, wildlife area, scientific research on native flora and fauna, adventure tourism, community tourism. Forest owners can lease the forest environment or cooperate and associate with organizations and individuals to do business in eco-tourism, convalescence and entertainment.

#### **5. Develop a mechanism to pay for additional services for services i, ii, iv and v.**

- Develop a mechanism to implement payment for services i and ii (hydroelectricity generating facilities): in principle, the allocation of this revenue will comply with the provisions of Decree 156 of the Government, applying the form payment of trusts through the Fund for Protection and Development. The entire amount of additional revenue, after deducting 10% of management costs and 5% of contingency funds; the remaining amount will be mixed into revenue from hydropower to pay PFES suppliers in the basin, including special-use forest management boards and protection forest management boards.

- Develop a mechanism to implement payment for services ii (clean water production and supply establishments, industrial production facilities): the allocation of revenue from these establishments is prescribed in Decree 156/2018 /ND-CP. The total amount of additional revenue is merged into the revenue of the BV&PTR Fund. After deducting up to 10% of the total service money to spend on the Fund's activities and 5% of the total service amount to make a contingency fund, the remaining amount will be paid by the PFES to the PFES provider. For the collected amount, which cannot be determined or the recipients of PFES money cannot be identified, the Fund for PFES shall submit to the Provincial People's Committee for decision to regulate this amount for areas with an average PFES payment level of 01 ha from low most or more; to support forest protection for protection and special-use forests.

- Develop a mechanism to implement payment for services (aquaculture establishments): after reviewing, there are 06 aquaculture enterprises that are subject to PFES payments. Enterprises make entrustment payments through the Fund for Protection and Development. The Fund for PFES shall submit to the Provincial People's Committee for decision to regulate this PFES amount for the area with the lowest average PFES payment of 01 ha or more; support the protection of special-use forests and protection forests; policy propaganda and dissemination.

#### **6. Summary of potential and feasible revenue sources from 2021 to 2025**

It is expected that the feasible potential revenue from 2021 to 2025 will reach VND 11.365 billion, of which: hydroelectricity: VND 7.756 billion; clean water production and supply establishments: VND 948.81 million; industrial production establishments: 294,176.00 million VND; aquaculture establishments: 2.366 billion VND. By 2025, the total additional annual PFES revenue compared to 2020: 4.823 billion VND/year.

**7. It is recommended that the Forest Protection and Development Fund:** carry out a number of tasks, such as: (i) Continue to work directly with each payer to agree on the time to start calculating PFES payments. ; (ii) Complete additional documents to the list of PFES payers, including the expected allocation of PFES revenues and submit them to the Provincial People's Committee for consideration and approval; (vi) Entrusted collection of PFES for the PFES aquaculture enterprises.

**8. Recommendations to the Department of Agriculture and Rural Development:** organize the implementation of a number of activities to prepare to participate in the domestic and international carbon market, such as: reviewing and assessing the status of forests; assessment of carbon sequestration and storage capacity; develop scenarios for selling carbon credits in domestic and foreign markets and forecast corresponding revenue streams; develop safety measures, reverse risk management mechanism to reduce emissions...); develop a scheme to sell carbon credits in domestic and international market.