



Vietnam Business for Environment – VB4E

Project title: Bamboo Afforestation project in North Vietnam

Project duration: TBC

Geographic area of the proposed project: The project will be implemented in the North Vietnam region

Project idea:

Vietnam is a country with a high rate of deforestation, leading to a reduction in biodiversity, soil degradation, and climate change. To address this issue, this project proposes a bamboo afforestation project in North Vietnam, which aims to mitigate the effects of deforestation by planting bamboo.

Bamboo is an excellent means of carbon sequestration, which is the process of capturing and storing carbon dioxide from the atmosphere. There are several benefits for Vietnam in using bamboo as a means of carbon sequestration, including the following:

1. **Mitigating Climate Change:** Bamboo can sequester significant amounts of carbon dioxide from the atmosphere through its photosynthesis process. By planting more bamboo, the effects of climate change can be mitigated by reducing the amount of greenhouse gases in the atmosphere.
2. **Restoring Ecosystems:** Bamboo afforestation can help restore degraded ecosystems, particularly in areas that have been affected by deforestation, soil erosion, and land degradation. Bamboo plantations can help improve soil fertility and water retention, leading to the restoration of local ecosystems.
3. **Sustainable Development:** Bamboo afforestation can promote sustainable development by providing local communities with an additional source of income through the sale of bamboo products. Bamboo is a fast-growing and versatile resource and can be used for a wide range of products, including furniture, paper, textiles, and construction materials.
4. **Biodiversity Conservation:** Bamboo afforestation can also promote biodiversity conservation by restoring habitats for wildlife, particularly for species that depend on bamboo forests for food and shelter. Bamboo forests can support a diverse range of plant and animal species, including endangered and endemic species.
5. **Soil Conservation:** Bamboo has deep roots that can help stabilize soil, reduce erosion, and improve soil quality. By planting more bamboo, soil degradation can be prevented, which is a major problem in many parts of the country.

There is an additional options for further carbon sequestration such as:

- **Burying bamboo:** A CO₂ compensation project by applying burying biomass underground was done in Binh Duong Province, Vietnam and Thanh Hoa Province, Vietnam. 30 tons of low-quality bamboo were buried to sequester 45 tons of CO₂e.

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Figure: Gathering low-quality bamboo



Figure: Burying bamboo

Project objectives, main activities, main results, and outputs / deliverables?

Project objective:

- To sequester carbon dioxide from the atmosphere and contribute to global efforts to mitigate climate change.
- To reduce the impact of deforestation on the environment and climate change.
- To promote the use of bamboo in the local economy as a sustainable source of timber, and to provide local communities with an additional source of income.
- To enhance biodiversity by restoring habitats for wildlife in the region.
- To create awareness among local communities about the importance of environmental conservation.

Project Implementation:

1. *Site Selection:* Besides the land ownership and land rights, the selection of the site for the project will be based on the following criteria: proximity to water sources, soil fertility, slope stability, and accessibility.
2. *Bamboo species selection:* The species of bamboo selected for the project should be suitable for the soil and climate change conditions of the area. Local species will be prioritized over exotic species.



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3. *Planting and Maintenance:* The planting and maintenance of bamboo trees will be carried out by trained local workers, with a focus on ensuring a high survival rate of the trees. The project will use sustainable farming practices and avoid the use of harmful chemicals.
4. *Monitoring and Evaluation:* Regular monitoring and evaluation of the project will be conducted to ensure its success and identify any areas for improvement.
5. *Community Engagement:* The involvement of local communities in the project will be crucial for its success. The project will promote the use of bamboo as a source of income for local communities and provide training on sustainable farming practices.

Main results:

1. Increased forest cover and biodiversity in the region.
2. Improved soil quality and reduced soil erosion.
3. Increased income for local communities through the sale of bamboo products.
4. Reduced carbon emissions and mitigated effects of climate change.
5. Increased awareness and involvement of local communities in environmental conservation.

Relevance to VB4E thematic areas

“Forest Landscape restoration” and “Climate change”

Total Budget: from 300,000,000 VND to 1,000,000,000 VND depending on the total project area

Co-financing:

Please contact coordinator at VB4EAlliance@gmail.com for further information if you are interested in the project idea.