



# Annual Report 2024





## PREFACE

2024 is a year of many fluctuations in both domestic and international affairs. Nevertheless, Vietnam Cleaner Production Centre Co. Ltd. (VNCPC) continues to strive its best every day to promote sustainable development

Globally, geopolitical tensions are escalating, increasing the risk of supply chain disruptions and interruptions in the flow of goods. Many major economies are facing the threat of economic slowdowns, rising public debt, budget deficits, and a growing trend toward trade protectionism. Domestically, natural disasters have significantly impacted business operations and the livelihoods of the people.

In this context, businesses - especially large enterprises - must prioritize optimizing production processes, reducing greenhouse gas emissions, and moving toward sustainable development.

With the motto “Partnerships for Sustainable Development” since its establishment in 1998, VNCPC has spent nearly 30 years providing continuous support to thousands of businesses of various sizes and ownership structures within and outside industrial zones. Our consulting services focus on improving resource efficiency and cleaner production, conducting energy audits, preparing greenhouse gas inventories, and developing sustainable development reports...

In this 2024 Annual Report, VNCPC is honored to present the results of our activities over the past year.

On this occasion, VNCPC would like to express its sincere gratitude to our partners, international organizations (UNIDO, GIZ, IDH, IFC...), sponsors (EU, WB, SECO...), and ministries- including the Ministry of Industry and Trade, the Ministry of Planning and Investment, the Ministry of Natural Resources and Environment, the Ministry of Education and Training, and Hanoi University of Science and Technology - for their continued support and contributions to our success over the years. We hope that this valuable cooperation and trust will be maintained and further strengthened in the future.

*Director of VNCPC*



*Dr. Le Xuan Thinh*



## **ABBREVIATIONS**

<b>CP</b>	Cleaner Production
<b>DOIT</b>	Department of Industry and Trade
<b>GG</b>	Green Growth
<b>GHG</b>	Greenhouse gas
<b>GIZ</b>	German Agency for International Cooperation
<b>EE</b>	Energy Efficiency
<b>EIP</b>	Eco-industrial park
<b>IDH</b>	The Sustainable Trade Initiative organization
<b>IFC</b>	The International Finance Corporation
<b>IP</b>	Industrial park
<b>IS</b>	Industrial symbiosis
<b>MARD</b>	Ministry of Agriculture and Rural Development
<b>MOIT</b>	Ministry of Industry and Trade
<b>MONRE</b>	Ministry of Natural Resources and Environment
<b>RECP</b>	Resource Efficient and Cleaner Production
<b>SCP</b>	Sustainable Consumption and Production
<b>SECO</b>	Swiss State Secretariat Economic Affairs
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>WB</b>	World Bank
<b>WP</b>	Work package



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VNCPC is a regular member of the Global Network for Resource Efficient and Cleaner Production (RECPnet) which has been jointly established by UNIDO and UNEP.



VNCPC is a member of Bach khoa Ha Noi Technology Investment and Development One Member Company Limited (BK-Holdings - Ha Noi University of Science and Technology).



## MISSION

In line with the principle “Partnerships for Sustainable Development” as a not-for-profit organization, VNCPC brings added values to clients through advanced scientific and technological services to contribute to the promotion of sustainable production and consumption.

VNCPC has created a friendly working environment with the best conditions for the team to develop their professional competencies and interpersonal skills..







## VISION

With the desire to build a sustainable future, VNCPC strives to become the leading organization in Viet Nam and the region to provide both scientific and technological services in industry, agriculture and services on Resource Efficient and Cleaner Production, as well as climate change adaptation.

## CORE VALUE


Dedicated - Innovated - Responsible for Sustainable Production and Consumption Respect - Share - Eager to learn - Partnerships for mutual development.


## SERVICES


-  Resource Efficient and Cleaner Production;
-  Energy efficiency and energy audit;
-  Greenhouse gas (GHG) inventory and emission reduction;
-  Transformation into and development of eco-industrial parks;
-  Supporting access to green financial sources; and
-  Sustainable development reporting to partners.



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**T**his assignment is part of the SECO-funded project “Eco-industrial park (EIP) intervention in Viet Nam - Perspective from Global EIP Programme (GEIPP)” which is currently being implemented by UNIDO in the developing and transition countries. In Viet Nam, it is jointly implemented by MPI (as the government coordinating agency) and UNIDO in the 2020 - 2024 period.

The project’s objective is in line with that of GEIPP, to demonstrate the viability and benefits of EIP approaches in scaling up resource productivity and improving economic, environmental, and social performances of businesses and, thereby, contributing to inclusive and sustainable industrial development in Viet Nam. The targeted industrial parks (IP) are Deep C (Hai Phong City) and Amata (Dong Nai Province) together with their resident companies.

## GENERAL INFORMATION

**Donor:** SECO

**Leading partners:** MPI (PMU) and UNIDO

**Implementing partners:** VNCPD and dss+

**Duration:** 09/2021 - 04/2024

**Sector:** Industry

**Region:** Viet Nam

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## PROVISION OF TRAINING AND CONSULTANCY SERVICES TO IDENTIFY RESOURCE EFFICIENCY AND INDUSTRIAL SYMBIOSIS INTERVENTIONS IN DEEP C AND AMATA INDUSTRIAL PARK IN VIET NAM





## Service to be provided

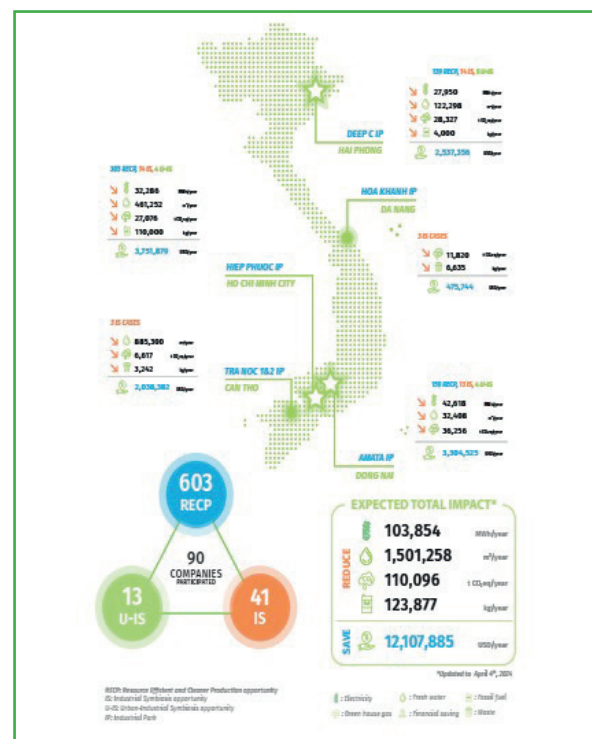
- ▶ Capacity building on Resource Efficiency and Cleaner Production (RECP), Industrial Symbiosis (IS), and the EIP concept at the level of the IP;
- ▶ Quick RECP assessment and guidance on identifying wastes in the production, improvement opportunities to optimize profits, reduce production costs, and save raw materials, energy, water and chemicals;
- ▶ Identify, develop pre-feasibility study reports and support implementation of IS options;
- ▶ Support participating companies in accessing financing sources for RECP/IS interventions;
- ▶ Develop policy briefs on the basis of industrial synergies feasibility studies and field experience; and
- ▶ Develop a waste monitoring system for the target IPs.

## Activities in 2024

- ▶ Continued to support businesses/IP developers implementing proposed RECP/IS solutions together with financial experts;
- ▶ Collaborate with policy experts complete policy brief reports;
- ▶ Developed a waste management system for the two IPs based on collected and evaluated data; and
- ▶ Participated in the project's closing activity.



VNCPC's representative presented at the project summary workshop



Summary of project results at target IP

**T**he program was initiated by the Apparel Impact Institute (Aii) in 2018 under the original name of “Race to the Top Program.” Since 2021, Aii has collaborated with the Sustainable Trade Initiative (IDH) and changed the program name to “Clean by Design”.

The project aims to reduce the global textile industry’s environmental impact by implementing energy-saving and resource-efficiency solutions, enabling businesses to lower costs while significantly reducing their environmental footprints.

#### GENERAL INFORMATION

**Donors:** Aii and IDH

**Implementing partner:** VNCPC

**Duration:** 2021 - 2023

**Sectors:** Textiles and footwear

**Region:** Viet Nam

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## “CLEAN BY DESIGN” PROGRAM





## Service to be provided

- ▶ Conduct on-site assessments on RECP and Energy Efficiency (EE), focusing on the production line systems and related areas at textile and footwear factories;
- ▶ Guide and support factories in selecting proposed RECP and EE solutions, thereby developing and implementing corrective action plans;
- ▶ Organize mid-term meetings combined with remote technical consultations via phone or email to support facilities in implementing the proposed solutions;
- ▶ Propose additional solutions identified during subsequent on-site assessments;
- ▶ Prepare reports that provide detailed analyses of opportunities found to improve productivity, promoting RECP and EE implementation for businesses, to be shared with Aii, factories, and brands; and
- ▶ Issue participation certificates for the “Clean by Design” Program to facilities that have completed the program.

## Activities in 2024

In 2024, VNCPC continued to conduct RECP and EE assessments and consultancy for the remaining factories under the “Clean by Design” Program. With 5 factories completing the program and receiving participation certificates, key outcomes achieved include:

- ▶ Estimated total cost savings of approximately USD 3.7 million/year through the implementation of RECP, EE solutions and the installation of rooftop solar power systems;
- ▶ Estimated total electricity savings of 37,402,108 kWh/year, including if facilities implement the solar renewable energy solution;
- ▶ Estimated savings of 1,063,402 m<sup>3</sup> of water/year and a reduction of 246,757 m<sup>3</sup> of wastewater/year;
- ▶ Estimated reduction in greenhouse gas emissions of approximately 31,351 tons of CO<sub>2</sub> equivalent/year;
- ▶ Estimated consumption reductions of approximately 8,940 tons of steam/year, 31 tons of LPG/year, 1,277 tons of coal/year, and 229 tons of heavy oil/year.



*Enterprise implemented the proposed solution from VNCPC*

**T**he “Mekong Climate-Smart Manufacturing Advisory Program” of the International Finance Corporation (IFC), a member of the World Bank Group, aims to develop and invest in the footwear and apparel circularity value chain in Viet Nam, with stages ranging from early-stage project development and advisory support to those needing immediate investment.

The assignment targets to develop a market study to facilitate circular economy practices of the footwear and apparel sectors in Viet Nam with the ultimate objective being to identify a business case to leverage the circularity of the post-manufacturing waste generated from these sectors and to facilitate the establishment of recycling hub(s) or any other feasible engineered solutions to move the sectors towards a circularity pathway.

#### GENERAL INFORMATION

**Donor:** IFC

**Implementing partners:** adelphi and VNCPC

**Duration:** 09/2023 - 03/2024

**Sectors:** Textile-garment, leather-footwear, and wastes management

**Region:** Viet Nam

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## ASSIGNMENT: VIET NAM FOOTWEAR AND APPAREL CIRCULARITY STUDY



## Service to be provided

- ▶ Analytical work on footwear and apparel value chain mapping and circularity market to cover (i) Post-industrial waste material flow analysis; (ii) Value chain mapping including the supply and demand for the recyclable and recycled post-manufacturing waste; (iii) Targeted national/provincial regulatory and operational gap analysis in Viet Nam related to waste management; and (iv) Assessment of investment size required for the recycling of post-manufacturing waste of the two sectors;
- ▶ Engage with stakeholders across the value chain to validate results and data; and
- ▶ Support IFC in identifying the investment opportunity for recycling of post-industrial material waste from these sectors and help develop a business case and value proposition for the recycling hub(s).

## Activities in 2024

- ▶ Assessment of legislation and enforcement related to waste management and recycling to propose some recommendations for promoting waste circularity;
- ▶ Collection of sectorial data related to post-production waste generation and current management, recycling and treatment methods;
- ▶ Stakeholder interviews and surveys, including brands, manufacturing businesses, associations, and appropriate recycling technology suppliers;
- ▶ Material flow analysis and geographical factors related to recycling hubs; and
- ▶ Submission of 03 component reports, which received approval from IFC.



*Footwear waste*



*Textile waste*

This assignment is part of the SECO-funded project “EIP intervention in Viet Nam - Perspective from Global EIP Programme (GEIPP)” which is currently being implemented by UNIDO in the developing and transition countries. In Viet Nam, it is jointly implemented by MPI (as the government coordinating agency) and UNIDO in the 2020 - 2024 period.

The project’s objective is in line with that of GEIPP, to demonstrate the viability and benefits of EIP approaches in scaling up resource productivity and improving economic, environmental, and social performances of businesses contributing to inclusive and sustainable industrial development in Viet Nam. Hiep Phuoc IP (Ho Chi Minh City) and their resident companies are selected to join this part of the assignment.

## GENERAL INFORMATION

**Donor:** SECO

**Leading partners:** MPI (PMU) and UNIDO

**Implementing partners:** VNCPC, dss+, Natural Resources and Environment Consulting Center (NREC)

**Duration:** 09/2021 - 04/2024

**Sector:** Industry

**Region:** Viet Nam

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## PROVISION OF TRAINING AND CONSULTANCY SERVICES TO IDENTIFY RESOURCE EFFICIENCY AND INDUSTRIAL SYMBIOSIS INTERVENTIONS IN HIEP PHUOC INDUSTRIAL PARK IN VIET NAM





## Service to be provided

- ▶ Capacity building on RECP, IS, and the EIP concept at the level of the IP;
- ▶ In-depth RECP assessment and guidance on identifying wastes in the production process, opportunities to optimize profits, reduce production costs, and save raw materials, energy, and water;
- ▶ Identify, develop pre-feasibility study reports and support implementation of RECP/IS options;
- ▶ Support participating companies in accessing financing sources for RECP/IS interventions;
- ▶ Develop policy briefs on the basis of industrial synergies feasibility studies and field experience; and
- ▶ Develop a waste monitoring system for target IP.

## Activities in 2024

- ▶ Continued to support businesses/IP developers implementing proposed RECP/IS solutions together with financial experts;
- ▶ Collaborate with policy experts to complete policy brief reports;
- ▶ Developed a waste management system for Hiep Phuoc IP based on collected and evaluated data;
- ▶ Identified, studied feasibility and supported the implementation of RECP/IS solutions; and
- ▶ Participated in the project closing event.



*Reviewing the feasibility of Urban-IS opportunities seminar*



## RENEWABLE ENERGY FOR THE VIET NAM'S TEA SECTOR

**T**he project aims to design, assess feasibility, and develop a roadmap for implementing a pilot integrated agrivoltaics, pyrolysis and biochar system in the tea-producing area of Anh Son District, Nghe An Province. Its goal is to establish a sustainable tea cultivation and production model aligned with Viet Nam's circular economy strategy.

The specific objectives of the project include:

- ▶ Enhancing the system's energy efficiency to ensure optimal resource utilization;
- ▶ Improving the nutrient and water retention capacity of tea-growing soil through biochar application from pyrolysis technology, thereby reducing farmers' reliance on fossil fuels, chemical fertilizers, and water resources;
- ▶ Maximizing carbon sequestration in tea cultivation while lowering production costs and enhancing product quality; and
- ▶ Developing a sustainable business model for tea farmers that incorporates resource management with a clear implementation roadmap and partnership into investment and profitability.

### GENERAL INFORMATION

**Donor:** REPIC Platform

**Implementing partners:**

- Center for International Industrial Solutions under Zurich University of Applied Sciences (ZHAW) - Switzerland (Project lead);
- Kaskad-E GmbH (Switzerland);
- ZHAW Institute of Natural Resource Sciences (Switzerland);
- REM Tec s.r.l (Italy);
- Institute for Circular Economy Development (ICED) under Viet Nam National University Ho Chi Minh City;
- Nghe An Tea Development JSC. under Song Lam Cooperation;
- VNCPC;
- Vina Viet Hien One Member Co., Ltd;
- Soils and Fertilizers Research Institute (SFRI) under Viet Nam Academy of Agricultural Sciences (VAAS) - MARD; and
- Bach Khoa Solar Energy Development and Investment JSC. (SolarBK)

**Duration:** 01/2023 - 03/2025

**Sectors:** Renewable energy and green tea

**Region:** Viet Nam

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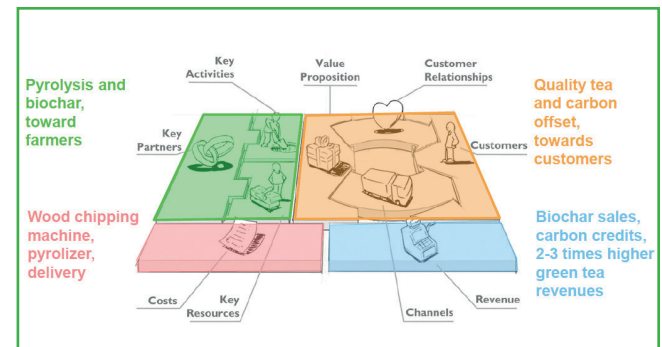
## Service to be provided

The project had 03 technical working packages (WPs) and 01 integrated WP to ensure effective collaboration between Swiss/ European and Vietnamese partners and local private sector involvement. The specific components are as follows:

- ▶ WP 1: Application of pyrolysis technology for heat and biochar production from acacia wood chips.
- ▶ WP 2: Assessment of (a) biochar properties and quality, (b) soil health before and after biochar amendment (focus on carbon storage, water retention capacity and nutrient content), and (c) impact on tea quality and yield;
- ▶ WP 3: Application of agrivoltaics to provincial tea growing settings (slope, solar radiation, soil, etc.) and assessment of impacts on tea quality and yield; and
- ▶ WP 4: Integration of business model design and implementation roadmap development based on inputs from WPs 1 to 3.

## Activities in 2024

- ▶ Supporting Vina Viet Hien Company in deploying the pyrolysis component (WP1) and reporting the results to the project team
- ▶ Developing a report explaining the proposal to apply pyrolysis technology in tea production and processing for Song Lam Export Tea Factory, under Nghe An Tea Development JSC, based on the technical proposal of the pyrolysis system and business model; and
- ▶ Coordinating with the project implementation team to brainstorm ideas and develop a project proposal for the pilot phase for scaling up the pyrolysis model in tea cultivation across Viet Nam.



### Business model Canvas

## Next steps

- ▶ Finalizing deliverables for activities completed under the pyrolysis component; and
- ▶ Disseminating project results and establishing connections with national and international stakeholders.

After successfully establishing a legal framework for Green Growth (GG) at the national level and recognizing the need to promote Green Growth Strategies at the local level, the Macroeconomic Reform/GG Programme (GIZ Macro) partnered with the Department of Science, Education, Natural Resources, and Environment (Ministry of Planning and Investment - MPI) in mid-2023 selected Hai Phong as a target city for its technical assistance. In 2024, GIZ Macro supported the city's GG implementation through the following activities:

- ▶ Developing the city's GG Action Plan for the period of 2021-2030; and
- ▶ Identifying and prioritizing a list of key GG projects in Hai Phong.

#### GENERAL INFORMATION

**Donor:** GIZ's Macroeconomic Reform/GG Programme (GIZ Macro)

**Host Agency:** The Department of Science, Education, Natural Resources and Environment (DSENRE) - MPI

**Duration:** 06/2024 - 12/2024

**Region:** Hai Phong City

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## SUPPORT THE DEVELOPMENT OF HAI PHONG CITY'S GREEN GROWTH ACTION PLAN FOR THE INDUSTRIAL SECTOR IN THE PERIOD OF 2021 - 2030



## Service to be provided

- ▶ Conducting a preliminary assessment to define the scope and develop a methodology for formulating Hai Phong City's GG Action Plan;
- ▶ Evaluating the existing institutional framework and policies that promote GG, including identifying relevant policy documents and ongoing initiatives contributing to GG implementation, along with assessing the alignment of the city's planning with GG and Net-Zero Emission objectives;
- ▶ Analyzing the current status and potential for economic, social, and environmental development, with a particular focus on Hai Phong's two key development pillars, logistics and industry, within the GG context;
- ▶ Proposing the GG Action Plan for the period 2022 - 2030, with a vision toward 2050, including a detailed roadmap for the green transformation of the logistics and industrial sectors; and;
- ▶ Supporting stakeholder consultation activities to ensure inclusive and effective implementation of the City's GG Action Plan.

## Activities in 2024

Participated in the Service as an expert provider, VNCPG fulfilled the following activities:

- ▶ Documentation review, development of technical reports and participation in local exchange and consultation activities;
- ▶ Participation in the initial orientation meeting on the development of Hai Phong's GG Action Plan on June 12, 2024;
- ▶ Determination of necessary information and documents related to the City's industrial sector, development of professional content, and finalization of technical reports with coordination with the GLZ expert team; and
- ▶ Receipt, consultation, and clarification for departments, agencies, sectors, and relevant stakeholders' feedback on the Hai Phong City GG Action Plan for the industrial sector.



Proposed industrial GG framework for Hai Phong City



Overview of the kick-off meeting of developing the Hai Phong City's GG Action Plan

The project is aimed to disseminate and promote the achievements and results of the UNIDO's pyrolysis project in Viet Nam in recent years (2016 - 2023) and contribute to launching the interministerial biochar working group (BWG), especially in the agricultural sector. Sharing information and coordinating all the relevant ongoing initiatives and projects would help to raise awareness and explore and create synergies towards biochar market development in Viet Nam. The project includes 3 main components, which are (i) Developing a policy review and recommendation report on biochar in Viet Nam, (ii) Establishing and regularly updating an online information repository (website) about biochar, and (iii) Organizing a specialized consultation workshop.

## GENERAL INFORMATION

**Donor:** SECO

**Host Agency:** UNIDO

**Implementing partners:** VNCPC and International Support Group (ISG) under the International Cooperation Department (ICD) of MARD

**Duration:** 10/2023 - 04/2024

**Region:** Viet Nam

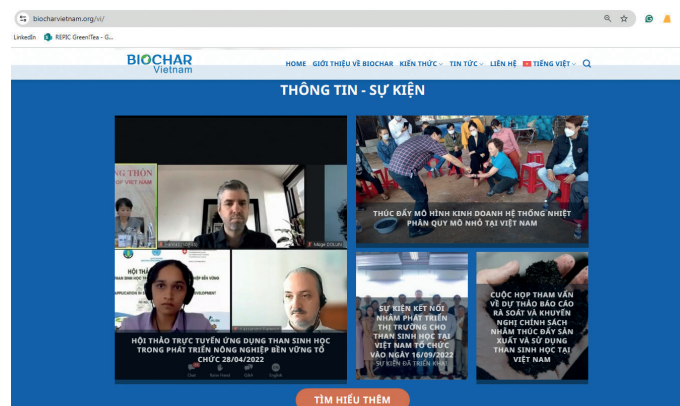
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## POLICY REVIEW, RECOMMENDATION PROPOSAL, AND DEVELOPMENT OF AN ONLINE INFORMATION REPOSITORY ON BIOCHAR IN VIET NAM



## Service to be provided

- ▶ Developing a policy review and recommendation report on biochar in Viet Nam through the following activities: (i) Review and assess national policies and programs related to the production and usage of biochar; (ii) Propose policy recommendations and consultations to formulate appropriate policy frameworks and guiding documents to enable the biochar market in the country; and (iii) Identify and present a network list of the relevant stakeholders, with a focus on policy-makers;
- ▶ Establishing and maintaining an online repository of information on biochar through a web platform, including bilingual (English-Vietnamese) communication materials developed by UNIDO and its partners, and information from relevant projects and initiatives in Viet Nam. The platform provides knowledge and practical experiences in the domestic and international biochar sectors and connects relevant stakeholders in Viet Nam; and
- ▶ Conducting consultation activities to collect feedback and suggestions for finalizing the “Policy Review and Recommendation Report on Biochar in Viet Nam” (Policy Report). It is also an opportunity to introduce the online information repository on biochar built by UNIDO, VNCPC and partners.



*Consultation Meeting on 18/03/2024*



*Representative of the Project Implementation Team presented at the Consultation Meeting*

## Activities in 2024

Over the six-month implementation period, the project completed all proposed activities with the following deliverables:

- ▶ A consultation meeting on the draft report “Policy Review and Recommendation Report on Biochar in Viet Nam” was held in Ha Noi on March 18, 2024. The event, co-chaired by UNIDO, the Department of International Cooperation (MARD), and VNCPC, gathered 27 delegates from ministries, sectors, and organizations in the biochar field, with many valuable contributions;
- ▶ The report on the review and proposal of biochar policy was revised and finalized based on feedback from UNIDO and insights from the consultation meeting; and
- ▶ Website <https://biocharvietnam.org/> was established and widely promoted, attracting significant attention and engagement from domestic and international stakeholders.



*Representative of the Department of Cooperation contributed opinions at the Consultation Meeting*





## DEVELOPING GUIDELINES FOR IMPLEMENTING CIRCULAR ECONOMY MODEL FOR SOLID WASTE IN THE TEXTILE INDUSTRY

**W**ithin the framework of the National Action Program on Sustainable Consumption and Production (SCP) for 2021 - 2030 of the Ministry of Industry and Trade (MOIT), this task aims to support textile and garment enterprises in effectively utilizing the circular economy in production towards SCP.

### GENERAL INFORMATION

**Donor:** MOIT

**Implementing partner:** VNCPC

**Duration:** 10/2024 - 12/2024

**Sectors:** Textile

**Regions:** Viet Nam

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## Service to be provided

Conducting a survey and assessment of the current status of solid waste for the textile industry:

- ▶ Review, compile and collect data on the current status of solid waste in the textile industry;
- ▶ Conduct surveys and interviews to investigate the current situation at selected textile and garment enterprises; and
- ▶ Synthesize, analyze and evaluate the current status of solid waste in the textile industry.

Developing guidelines for implementing a circular economy model for solid waste in the textile industry:

- ▶ Propose a framework of documents guiding the implementation of a circular economy model for textile waste;
- ▶ Develop guidance documents for implementing circular economy models for solid waste in the textile industry; and
- ▶ Consulting and completing the guidance document on applying circular economy to solid waste in the textile industry;

Organizing 01 workshop to introduce guidance documents on implementing the circular economy model for textile waste.

## Activities in 2024

- ▶ All activities in the Assignment were completed within the proposed time. The deliverable on “Guidelines for implementing the circular economy model for solid waste in the textile industry” has been submitted to the management unit.
- ▶ The workshop for introducing this guideline was organized online and offline in Ha Noi on December 12, 2024, with more than 30 participants representing textile manufacturing enterprises, management units, industry experts, and related parties.



*VNCPC's representative presented at the workshop*



*Dr. Nguyen Van Thong - Former Director of the Textile and Garment Research Institute presented on the current status and trends of applying circular economy to the textile and garment industry in Viet Nam*



*Participants posted critical questions to the editorial board.*

**T**he SNV Netherlands Development Organisation (SNV) is a leading innovator in developing and implementing advanced technology models to transform urban and agricultural waste into valuable resources, including clean and sustainable energy, biofertilizers from organic waste, high-quality recycled materials, and biochar. Additionally, SNV facilitates linking to end markets for the products mentioned above, capturing carbon credits, and strengthening the capacity of local and national government institutions.

To minimize or at least narrow the significant information gaps between the existing and potential biochar markets in Viet Nam, this assignment aims to support SNV in assessing biochar's market potential. This assessment is crucial in the pre-feasibility study phase for upcoming SNV projects.

#### GENERAL INFORMATION

**Donor:** SNV Netherlands Development Organisation - Viet Nam Office (SNV Viet Nam)

**Duration:** 07/2024 - 08/2024

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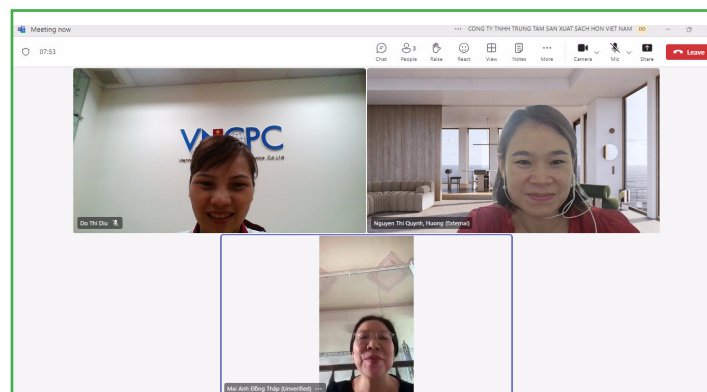
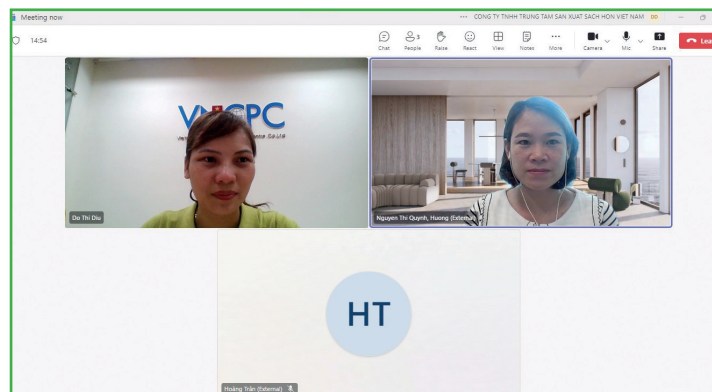
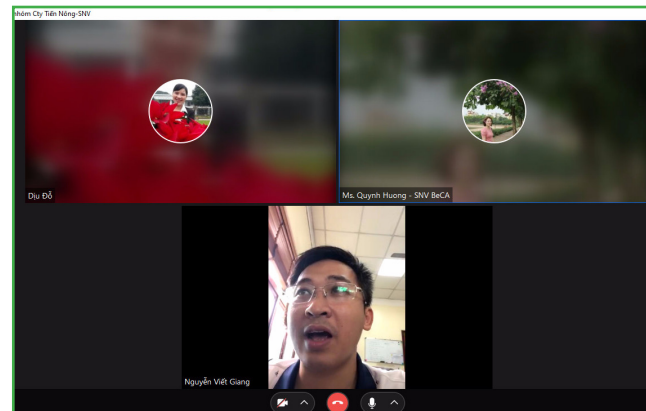


## SUPPORT AND END-MARKET ASSESSMENT ON BIOCHAR IN VIET NAM



## Service delivered

- ▶ Identifying and providing the list of potential companies and experts operating in the biochar sector in Viet Nam. Leverage available resources and conduct additional research to identify and update contact details of key stakeholders;
- ▶ Arranging and participating in online meetings to interview and gather information from targeted stakeholders. These interactions not only provide deeper insights into stakeholders' activities and strategic directions but also help foster long-term partnerships; and
- ▶ Mapping of potential off-takers for biochar through (i) Identifying target customer groups, including sustainable agriculture, renewable energy, waste management and environmental sectors, NGOs, and funding organizations; (ii) Analyzing collaboration potential with each off-taker based on criteria such as biochar demand, financial capacity, and interest in technological innovation; and (iii) Providing detailed insights on each potential off-taker to help partners and investors gain a clearer understanding of the market.



*Interview with representatives of companies participating in the assignment*



## TECHNICAL SUPPORT ON CP ASSESSMENT FOR INDUSTRIAL, COMMERCIAL AND SERVICE BUSINESSES & DEVELOPING AND DISSEMINATING MANAGEMENT SUPPORTIVE TOOLS FOR PRODUCTION AND DISTRIBUTION ENTERPRISES

The assignment under the National Action Program on SCP in Ha Noi in 2024 (Phase 2) aimed to (i) provide technical support for cleaner production assessment for 30 industrial production, commercial and service businesses in the field of Industry and Trade and Rural Industry and (ii) build, apply and disseminate management tools to support the CP implementation of CP in production and distribution enterprises.

### GENERAL INFORMATION

**Donor:** Industrial Promotion and Development Consultancy Center (DOIT Ha Noi)

**Implementing partner:** VNCPC

**Duration:** 11/2024 - 12/2024

**Sectors:** Industry and Commerce

**Region:** Ha Noi

**Contact:** Le Van Tung

**Email:** tung.lv@vncpc.org

**Tel:** (84-24) 3868 4849 - ext 34





## Service to be provided

- ▶ Technical support for CP assessment for 30 industrial production, commercial and service businesses in the field of Industry and Trade and Rural Industry in Gia Lam District and Phu Nghia IP (Ha Noi City);
- ▶ Develop, apply and disseminate management support tools for CP application in manufacturing and distribution enterprises.

## Activities in 2024

- ▶ Complete consulting and technical support activities to assess CP for 30 industrial production, commercial and service companies in the field of Industry and Trade and Rural Industry;
- ▶ Developed, tested and disseminated management support tools for CP implementation in 01 manufacturing and 01 distribution enterprises.



*Technical consulting on RECP assessment at enterprises*



## CONSULTING ON THE DEVELOPMENT OF THE IMPLEMENTATION PLAN FOR THE NATIONAL STRATEGY AND ACTION PLAN ON GREEN GROWTH IN THE HEALTHCARE SECTOR FOR THE 2025 - 2030 PERIOD



The assignment is under the “Developing a Circular Economy Model for Medical Plastic Waste Management” project’s framework, signed between Winrock International and the Center for Health Environment Research and Development (CHERAD). The project aims to concretize tasks and solutions for implementing the National Strategy and Action Plan on GG in the healthcare sector.

The key elements of GG in the healthcare sector include (i) Minimizing environmental impact through safe medical waste management and reducing carbon emissions; (ii) Efficient use of resources such as water, energy and materials while promoting the use of recyclable or eco-friendly medical supplies; (iii) Developing sustainable healthcare infrastructure to support long-term environmental and economic benefits; (iv) Enhancing public health by prioritizing preventive healthcare programs and expanding telemedicine services; and (v) Promoting environmental awareness and education in healthcare-related activities.

### GENERAL INFORMATION

**Implementing partner:** Center for Health Environment Research and Development (CHERAD)

**Duration:** 08/2024 - 12/2024

**Sector:** Healthcare

**Region:** Viet Nam

**Contact:** Le Xuan Thinh

**Email:** [thinh.LX@vncpc.org](mailto:thinh.LX@vncpc.org)

**Tel:** (84-24) 3868 4849 - ext 28



## Service delivered

- ▶ Review international context and best practices in GG within the healthcare sector; summarize and integrate key insights into the draft Plan;
- ▶ Compile and systematize feedback on the draft Action Plan from various departments, ministries, and stakeholders. Provide consultation and support to the Department of Medical Environmental Management (VIHEMA) - Ministry of Health in addressing feedback and guiding revisions to the draft Plan; and
- ▶ Collaborate with and support VIHEMA in finalizing the Plan and preparing the explanatory report for the GG Action Plan in the healthcare sector.



*Medical waste is often of high quality and value for recycling*

**T**he Textile Water Stewardship project was developed by WWF to transform the textile sector in Viet Nam and engage with sectoral and environmental governance to bring social, economic and conservation benefits to the country and the entire Mekong region. The research was part of the project aiming to improve and upgrade the existing wastewater recycling system to meet the process water quality at a higher efficiency, which supports accelerating the green transformation, especially the water circularity, as per the factory's expectation.

#### GENERAL INFORMATION

**Donor:** World Wide Fund For Nature (WWF)

**Implementing partner:** VNCPC

**Duration:** 11/2023 - 04/2024

**Sector:** Denim fabric

**Region:** Nam Dinh

**Contact:** Nguyen Le Hang

**Email:** hang.nl@vncpc.org

**Tel:** (84 -24) 3868 4849 - ext 14



## CONDUCTING TECHNICAL AND FINANCIAL FEASIBILITY STUDY FOR WATER RECYCLE SCENARIOS AT TCE DENIM NAM DINH FACTORY



### Service to be provided

- ▶ Carry out feasibility studies for the wastewater recycling project, including;
  - Collect relevant data;
  - Analyze and modelling;
  - Develop concept design for the recycling wastewater unit;
  - Call for and evaluate quotations from vendors; and
  - Compile the feasibility study report.
- ▶ Provide technical support based on the feasibility studies for implementation of the wastewater recycling system; and
- ▶ Providing distance technical support (via phone/email) to the company's queries about the report developed.

### Activities in 2024

- ▶ All key activities required by the tender package have been completed;
- ▶ The feasibility study report has been presented, finalised, and approved by WWF and the business.



*Existing wastewater recycling tank*

**S**ince 2018, Husk Ventures has collaborated with VNCPC as one of the international partners in implementing the UNIDO Pyrolysis Project.

By 2024, with financial and strategic support from Mekong Capital, Husk Ventures expanded its market presence and established a branch in Viet Nam to strengthen biochar production and distribution activities.

This assignment is aimed to support Husk Ventures in gaining insights into the biochar market in Viet Nam with essential information, based on which the company can develop a sustainable expansion strategy and seize business opportunities in this sector.

#### GENERAL INFORMATION

**Donor:** Husk Venture (Headquartered in Spain)

**Duration:** 09/2024 - 12/2024

**Region:** Viet Nam

**Contact:** Do Thi Diu

**Email:** diu.dt@vncpc.org

**Tel:** (84-24) 3868 4849 - ext 32



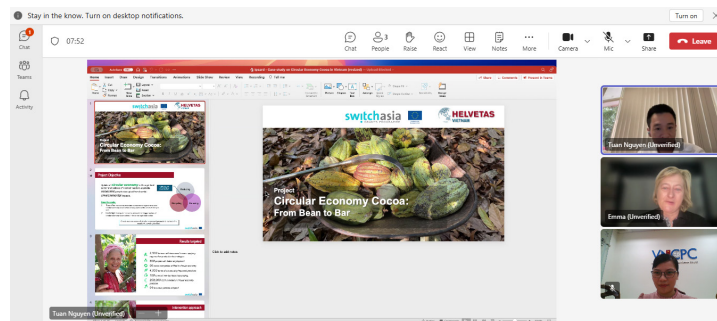
## PROVISION OF SERVICES FOR IDENTIFICATION AND ARRANGEMENT OF MEETINGS WITH KEY BIOCHAR ACTORS IN VIET NAM



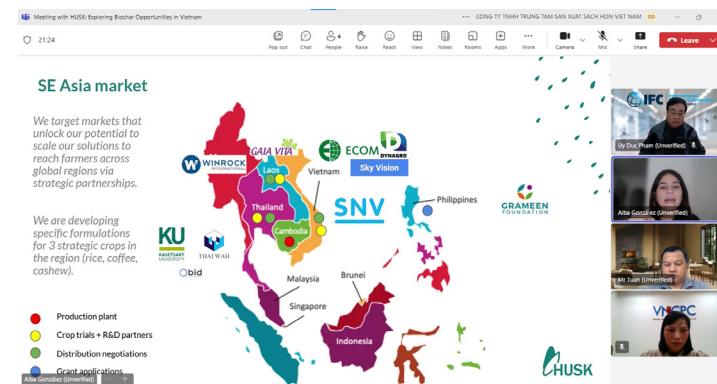


## Service delivered

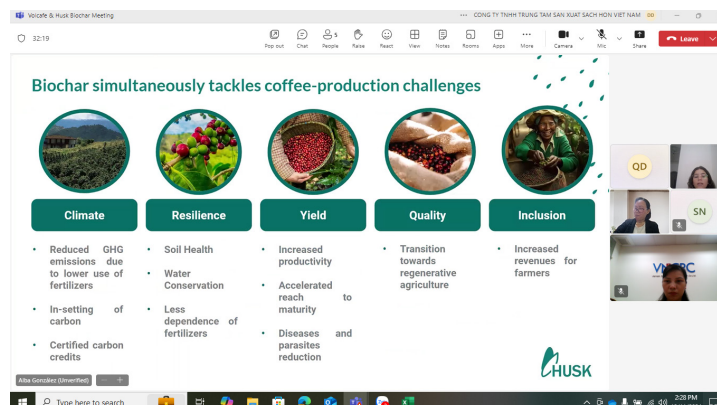
- ▶ *Review and compile a list of key stakeholders in the biochar sector in Viet Nam:* Leveraging VNCP's partner network and resources from the previous pyrolysis and biochar project funded by UNIDO and SECO, 50 stakeholders from various sectors, including research institutes, universities, NGOs, government agencies and private enterprises, were identified. This list serves as a database containing essential information on organizations, contacts, and key activities and projects related to biochar research, production, trade, application, and promotion in Viet Nam;
- ▶ *Collaborate with Husk Ventures to analyze and select key stakeholders for engagement and further data collection.* 10 target stakeholders were identified, primarily organizations and funding bodies that support sustainable development initiatives in Viet Nam, as well as organizations currently applying biochar in sustainable agriculture;
- ▶ *Introduce and connect Husk Ventures with key stakeholders* through introductory emails, sharing organizational materials, and proposing online discussions; and
- ▶ *Arrange and facilitate online meetings to exchange information and explore potential collaboration opportunities.* 6 online meetings were conducted, contributing to potential partnerships for expanding Husk Ventures' biochar market in Viet Nam.



Meeting with the Representative of Helvetas Viet Nam



Meeting with the Representative of the International Finance Corporation (IFC) Viet Nam



Meeting with the Representative of Volcafe Viet Nam



## CƠ QUAN TÀI TRỢ - MẠNG LƯỚI - ĐỐI TÁC DONORS & NETWORKS - PARTNERS



Tính đến nay, UNIDO có 173 quốc gia thành viên. Nhiệm vụ của UNIDO là xúc tiến và thúc đẩy phát triển công nghiệp bền vững ở các nước thành viên.

To date, 173 states are member of UNIDO. The mission of UNIDO is to promote and accelerate inclusive and sustainable industrial development in member states.



RECPnet là mạng lưới toàn cầu về Hiệu quả tài nguyên và Sản xuất sạch hơn nhằm thúc đẩy việc ứng dụng RECP và điều chỉnh thích nghi tại các nước đang phát triển và các nền kinh tế chuyển đổi.

RECPnet is the global network for promoting the widespread adaptation and adoption of Resource Efficient and Cleaner Production in developing and transition economies.



UNEP là cơ quan điều phối các hoạt động môi trường của Liên hiệp quốc, hỗ trợ các nước đang phát triển trong việc thực hiện các chính sách và các cách làm hợp lý về môi trường.

UNEP is the United Nations' coordinating agency for environmental activities, supporting developing countries in implementing environmental policies and practices.



Sứ mệnh của Aii là xác định, tài trợ và nhân rộng các giải pháp chất lượng đã được chứng minh để thúc đẩy các tác động tích cực trong ngành dệt may và da giày.

Aii's mission is to identify, fund and scale proven quality solutions to accelerate positive impact in the footwear and textile industry.



CTCN thúc đẩy chuyển đổi nhân rộng các công nghệ môi trường an toàn hướng tới sự phát triển các bon thấp và ứng phó với biến đổi khí hậu tại các nước đang phát triển.

The CTCN promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries.



GEF được thành lập năm 1992, giúp giải quyết các vấn đề môi trường cấp bách. Hiện GEF đã trở thành đối tác của 183 quốc gia, các tổ chức quốc tế, tổ chức xã hội dân sự và khu vực tư nhân để giải quyết các vấn đề môi trường toàn cầu.

GEF was established in 1992, which helped solve urgent environmental problems. GEF has now become a partner of 183 countries, international organizations, civil society organizations and the private sector to resolve global environmental issues.



Với 189 quốc gia thành viên và văn phòng tại hơn 130 địa điểm, Nhóm Ngân hàng Thế giới là một đối tác toàn cầu độc đáo hoạt động vì các giải pháp bền vững nhằm giảm nghèo và xây dựng sự thịnh vượng chung ở các nước đang phát triển.

With 189 member countries and offices in over 130 locations, the World Bank Group is a unique global partnership working for sustainable solutions that reduce poverty and build shared prosperity in developing countries.