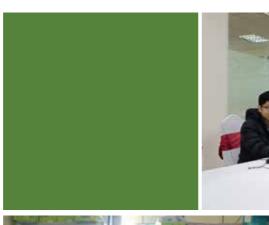


Annual Report 2021









FOREWORD

The year 2021 is a year with a lot of challenges for making changes for any organization to achieve its growth. In the context that the global economy has gone through an unprecedentedly difficult period, all countries must cope with and deal with the severe consequences caused by the Covid-19 pandemic. In Vietnam, in the past year, manufacturing, trading and service enterprises faced many obstacles to maintain their operations due to objective and subjective factors.

With the mission of bringing added value to customers through advanced scientific and technological services, promoting sustainable production and consumption, VNCPC has been fully committed to supporting enterprises in minimizing input costs, thereby optimizing production.

Despite the complicated situation of the epidemic, we at VNCPC still tried our best, through both on-line and on-site sessions, to conduct in-depth training programs and provide technical advice to businesses in different regions, scale, industries and locations across the country. These training programs and services cover various topics such as Resource Efficiency and Cleaner Production, Industrial Symbiosis, Effective Chemical Management, Green Growth... to find solutions to reduce consumption, increase profits, and at the same time meet the requirements of sustainable production for our customers.

We at VNCPC would like to express our sincere thanks to international organizations, donors, ministries, and agencies such as the Ministry of Industry and Trade, the Ministry of Planning and Investment, the Ministry of Natural Resources and Environment, and the Ministry of Education and Training, Hanoi University of Science and Technology, etc. for your valuable support for VNCPC throughout the years. We look forward to continuous cooperation in the future.

Director of VNCPC

Le Xuan Thinh

ABBREVIATIONS

AFD: Agence Française de Développement

BAT: Best Available Techniques

BEP: Best Environmental Practices

BIDV: Joint stock Commercial Bank for Investment

and Development of Viet Nam

CP: Cleaner Production

GG: Green Growth

GHG: Greenhouse Gas

IOMC: Internet-based Toolbox for Decision

Making in Chemicals Management

IS: Industrial symbiosis

IDH: The Sustainable Trade Initiative organization

MARD: Ministry of Agriculture and Rural Development

MOC: Ministry of Construction

MOIT: Ministry of Industry and Trade

MONRE: Ministry of Natural Resources and Environment

PPP: Public-private-partnerships

RECP: Resource Efficient and Cleaner Production

SCP: Sustainable Consumption and Production

SECO: Swiss State Secretariat Economic Affairs

SUNREF: Sustainable Use of Natural Resources and

Energy Finance

UNIDO: United Nations Industrial Development

Organization

UPOPs: Unintentional persistent organic pollutants



CONTENTS

Foreword	1
Vision - Mission - Core values	4
Services	5
Activities in 2021	6
❖ Textiles sector assessment and feasibility study to implement wastewater reuse in industrial parks	7
Project "Promotion of supply and demand for eco-fair agri-food processing products in Vietnam" (Eco-fair)	8
❖ Service for development of the Vietnam Green Growth strategy and national action plan for the period 2021 - 2030 with a vision towards 2050, industrial sector component	11
Provision of services "IOMC toolbox for decision making in chemicals management - phase III: From design to action" through sub-regional training and national training sessions	13
❖ Technical assistance program: Sustainable use of natural resources and energy finance (SUNREF)	15
❖ Strengthening the business case of small-scale pyrolysis in Vietnam	17
The provision of services and equipment (turnkey) for 2 pilot facilities to be located at Phan Boi and Minh Khai (Hung Yen) craft villages	19
❖ Developing a set of criteria for sustainable craft villages and its pilot application	21
❖ Technical assistance on energy efficiency for textile and footwear enterprises - Race to the Top program	23
❖ Guidelines on sustainable consumption and production in seafood processing in Vietnam	25
❖ Provision of training and consultancy services to identify resource efficiency and industrial symbiosis interventions in Deep C and Amata industrial parks in Vietnam	27
Provision of training and consultancy services to identify resource efficiency and industrial symbiosis interventions in Hiep Phuoc industrial park in Vietnam	29
Collecting and recycling wasted refrigerant in industrial parks undergoing the conversion program to eco-industrial parks	31
❖ Vestergaard - Cleaner Production assessment for 6 factories in Vietnam	33
❖ IDH - Development of verified industrial park assessment framework in Vietnam	35
 Supporting business case development and access to finance for industrial symbiosis interventions in Hoa Khanh and Tra Noc industrial parks in Vietnam 	36
❖ Energy and water assessment at 6 garment factories in Vietnam	38
Donors - Networks - Partners	40





VNCPC is a member of Bach khoa Hanoi Technology Investment and **EK** Holdings' Development One Member Company Limited (BK-Holdings - Hanoi University of Science and Technology).



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



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.

VISION

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

CORE VALUES

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

SERVICES

- Production cost reduction
- 2 Energy efficiency and savings
- Energy audit
- 4 RECP+
- 5 Eco-industrial park development
- 6 Capacity building training
- 7 Technology transfer consultancy
- 8 Technology event
- 9 Sustainable consumption promotion





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Email: vncpc@vncpc.org

Tel: (84-24) 3868 4849



TEXTILE SECTOR ASSESSMENT AND FEASIBILITY STUDY TO IMPLEMENT WASTEWATER REUSE IN INDUSTRIAL PARKS

The study on "Textile sector assessment and feasibility study to implement wastewater reuse in industrial parks" aims at assessing the potential for recycling and reuse of wastewater for the textile sector and identifying opportunities to implement public-private-partnerships (PPP) projects as per Law of PPP investment (approved by the National Assembly on 18th June 2020 and valid from 1st January 2021).

GENERAL INFORMATION

Donor: World Bank's 2030 Water Resource Group

Implementing partners: SOFIES (leading) and VNCPC

Duration: 07 - 12/2020, extended by 03/2022

Sectors: Textile-garment production and industrial parks

Region: Vietnam

Contact: Nguyen Le HangEmail: hang.nl@vncpc.org



The Centralized Effluent Treatment Plant Nr. 1 of Pho Noi B Industrial Park (Hung Yen province), capacity 10,000m³/day - (Source: Google map)

Main activities of the assignment

- Rapid assessment of wastewater treatment, recycling and reuse practices in Vietnam textile industry;
- Development of 2 feasibility reports detailing the wastewater to recycling/reuse potential in industrial parks; and
- Summary of PPP models in wastewater recycling/reuse projects and recommendations for Vietnam.

Activities in 2021

- Fulfilled research on the current state of the industry from documents and survey information from enterprises;
- Completed the feasibility study on recycling reuse of water at Pho Noi B Textile and Garment Industrial Park;
- ❖ Accomplished case study report on PPP investment projects in the field of water treatment with 9 projects with models closest to the research object of the bidding package.

- To finalize the feasibility study on recycling reuse of water in Phong Dien Industrial Park; and
- To present research results to the Multilateral Working Group on "Urban and Industrial Water Pollution" in Vietnam.



PROJECT "PROMOTION OF SUPPLY AND DEMAND FOR ECO-FAIR AGRI-FOOD PROCESSING PRODUCTS IN VIETNAM" (Eco-Fair)

The objective of the Eco-Fair project is to support MSMEs in Vietnam's agri-food processing sector to improve production processes and product quality in the period of international integration and, at the same time, increase perception and trust of the community in domestic products. Enterprises and consumers will receive useful practical knowledge about sustainable production and consumption through free online courses and direct consultancies.

GENERAL INFORMATION

Donor: European Union (EU)

Implementing partners: VIRI, CCS, Funzi and VNCPC

Duration: 04/2020 - 04/2023

Sectors: Processing of meat, seafood, rice, cashew nut, fruits, and vegetables

Region: Vietnam

Contact: Dang Nguyen Nhung
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Main activities of the project

- To compile and disseminate online courses on sustainable consumption and production;
- ❖ To implement on-site quick assessment, to identify opportunities to support enterprises in more sustainable production;
- ❖ To raise awareness for consumers through online trainings, as well as build a network of seeders to create change in the community;
- To stimulate sustainable consumption and production through retailers of eco-fair products;
- ❖ To enhance capacity building for 1,000 small and medium enterprises in agricultural product processing sector through online courses;
- ❖ To raise awareness about eco-fair products and circular economy policy in agricultural product processing;
- ❖ To provide on-site trainings for potential enterprises.

Activities in 2021

- After screening 288 potential MSMEs enrolled in course 1 and from partners' networks, VNCPC has selected 163 MSMEs and made plans to implement RECP support through online and onsite consultation;
- 54 MSMEs have received experts' consultancy on: electricity consumption; heat consumption; water consumption, raw material consumption; waste management...

- To continue to support implementation of RECP at potential MSMEs;
- ❖ To organize on-site/online training courses for 100 MSMEs on capacity building to access concessional capital to support sustainable production. In particular, 20 of them will receive guidance to prepare financial proposals to submit to the appropriate funding sources.





SERVICE FOR DEVELOPMENT OF THE VIETNAM GREEN GROWTH STRATEGY AND NATIONAL ACTION PLAN FOR THE PERIOD 2021 - 2030 WITH A VISION TOWARDS 2050, INDUSTRIAL SECTOR COMPONENT

The service contributes to promoting development of Vietnam's industry in line with the renewal of the Green Growth model; economic prosperity, environmental sustainability, and social justice; towards a green, carbon-neutral economy, contributing to limiting the global temperature increase.

GENERAL INFORMATION

Donor: GIZ, under Macroeconomic Reforms/Green Growth (GG) Programme

Implementing partner: VNCPCDuration: 06/2020 - 04/2022

Sector: Industrial sector

Region: Vietnam

Contact: Le Xuan ThinhEmail: thinh.lx@vncpc.org



Consultation with the relevant ministries





Main activities of the service

- To review and assess international experience on strategies, national policies and legal documents related to green growth, particularly in industrial sector;
- ❖ To select and develop baseline data for important industrial sub-sectors;
- To conduct the forecast of GHG emissions from industry based on TIMEs model;
- * To propose GHG emissions reduction measures for industrial sector; and
- To participate in the development the draft National Strategy and Action Plan on GG for the period 2021
 2030.

Activities in 2021

- Consulted with relevant ministries (MOIT, MOC, MONRE, MPI), national agencies and foreign organizations on GG's measures for industrial sector;
- Summarized, analyzed, explained and completed the content of GG's measures for industrial sector;
- Participated in developing and finalizing the Draft Strategy, Technical Report and other related reports and documents for submission to the Government Office for approval;
- Identified specific activities, implementation timeline, assignment of responsibilities and resources mobilized the national GG Action Plan as the basis for implementing the objectives, orientations, tasks and measures for industrial sector as set out in the GG Strategy;
- Coordinated, discussed, and agreed with experts in charge of other sectors with related content in group work sessions and seminars to develop the National GG Action Plan.

- To continue to consult with relevant ministries, sectors, localities, national agencies and foreign organizations on specific tasks and activities related to industrial sector mentioned in the national GG Action Plan;
- To finalize the content of industrial sector as set out in the action plan;
- ❖ To coordinate with the editorial team and other groups of experts in finalizing the Draft Action Plan,
 Technical Report and other related reports and documents to submit to the Government for approval.

PROVISION OF SERVICES "IOMC TOOLBOX FOR DECISION MAKING IN CHEMICALS MANAGEMENT - PHASE III: FROM DESIGN TO ACTION" THROUGH SUB-REGIONAL TRAINING AND NATIONAL TRAINING SESSIONS

The EU-funded project "IOMC Toolbox for decision making in chemicals management - Phase III: From design to action" was jointly implemented by UNIDO and the Serbia Cleaner Production Centre (Serbia CPC) from 2018 - 2021, to support developing countries and countries with economies in transition to strengthen their capacity to manage chemicals effectively and sustainably. In South Asia and Southeast Asia, Vietnam, along with Sri Lanka and Indonesia, are the three countries that implement the sub-regional training and national training sessions. The objective of the training sessions is to raise awareness and build capacity on application of chemical management tools in an effective and sustainable chemical management strategy, especially in the industrial sector.

GENERAL INFORMATION

Donor: UNIDO

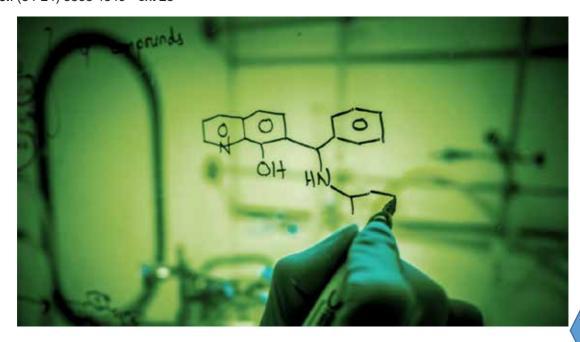
Implementing partner: Serbia CPC

Duration: 07/2021 - 02/2022

• Sector: Chemical management

Region: Vietnam

Contact: Le Xuan ThinhEmail: thinh.lx@vncpc.org



Main activities of the service

- ❖ To nominate and select at least 8 qualified experts to participate in the one virtual sub-regional train the trainer workshop for South and Southeast Asia on the IOMC toolbox and its toolkits on industrial chemicals with focus on green chemistry and chemical leasing;
- ❖ To provide participation of the selected experts on the sub-regional workshop to gain knowledge on the IOMC Toolbox and UNIDO toolkits.
- ❖ To conduct 8-day virtual national training, comprising different modules of two UNIDO toolkits (green chemistry and chemical leasing), as well as an introductory session on the IOMC toolbox training. The objective of the training sessions is to raise awareness and build capacity to implement chemical management tools in effective and sustainable chemical management strategies, especially in the industrial sector of Vietnam.



Zoom's screenshot for the sub-regional training sessions



Zoom's screenshot for the national training sessions of Vietnam

TECHNICAL ASSISTANCE PROGRAM: SUSTAINABLE USE OF NATURAL RESOURCES AND ENERGY FINANCE (SUNREF)

On 26th May 2021, BIDV and the French Development Agency (AFD) signed a credit facility agreement of USD 100 million aiming at promoting green investments, focused on renewable energy and energy efficiency projects in Vietnam.

The TA program aims to contribute to the development of local economies, sober in energy consumption, carbon emission and sustainable use of natural resources, and assist BIDV, one of the major financial institutions in Vietnam, in enhancing its environmental and social (E&S) risks management system toward international standards.

GENERAL INFORMATION

Donor: AFD

Implementing partners: Ginger-Burgeap, VNCPC,
 Espelia and Keran Asia

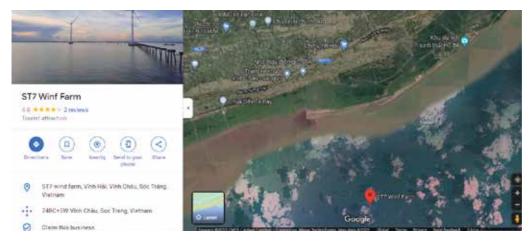
Duration: 06/2021 - 06/2022

Sector: IndustriesRegion: Vietnam

Contact: Nguyen Le HangEmail: hang.nl@vncpc.org



Lac Hoa Wind Power Plant location (Source: https://www.google.com/maps/place/)



Soc Trang 7 Wind Power Plant location (Source: https://www.google. com/maps/place/ST 7+Winf+Farm

Main activities of the project

- ❖ To transfer knowledge and build capacities of BIDV on E&S risk assessment and the Environmental and Social Management System (ESMS), with a focus on renewable energy and energy efficiency;
- ❖ To galvanize green projects by identifying potential green projects in emerging sectors (e.g. wind power, rooftop solar power, energy efficiency in building, etc.) and support the private sector in the development and conception of projects;
- ❖ To promote green investments, in renewable energy, industrial enterprises, buildings and properties development, tertiary sectors (trade, offices) and households; and
- Efficient and fluid management of the project to maximize impacts.

Activities in 2021

- Fulfilled environmental and social assessment based on AFD's eligible, general, and E&S criteria, in which 3 projects (Cuu An, Lac Hoa 1 and Soc Trang 7) were approved by AFD for disbursement. The fourth project (Ben Tre V1-3) needs further investigation into potential impacts on bird and bat fauna;
- Fulfilled training needs interview and training planning includes two main modules: (i) Evaluation and monitoring of E&S aspects of subprojects; and (ii) Sustainable Energy Financing and Project Finance;
- Reviewed BIDV's existing ESMS applicable to proposed loan projects; and
- Periodical monitoring and reporting on the progress of activities and subprojects.



Ben Tre Wind Power Plant V1-3 (Source: WildTour Co., LTD)

- To conduct collaborative research on bird and bat fauna in the project affected area to propose solutions to minimize impacts. The expected time is from April - December 2022;
- ❖ To propose upgrading the ESMS to meet international standards;
- To conduct training according to the agreed contents during the period from 3-5/2022;
- To monitor the impact of funded projects; and
- To support the development of communication products about the SUNREF program.

STRENGTHENING THE BUSINESS CASE OF SMALL-SCALE PYROLYSIS IN VIETNAM

The project, under the framework of the Global Eco-Industrial Programme (GEIPP) with the funding from SECO through UNIDO, is implemented in the period from 07/2020 to 10/2022.

The pyrolysis technology, which had been successfully transferred from Switzerland to Vietnam by UNIDO, has the potential to convert agricultural wastes (rice husks, coffee husks) into thermal energy and biochar. This is identified as an effective solution to improve agricultural product quality and soil fertility, while reducing CO₂ emissions. The objective of the project is to raise awareness about pyrolysis technology, enable green technology labeling, promote the development of biochar market, and commercialize small-scale pyrolysis technology in Vietnam.

GENERAL INFORMATION

Donor: SECO

Host institution: UNIDOProject lead: SOFIES

Implementing partners: VNCPC; Viet Hien Mechanical Co., Ltd; Oekozentrum (Switzerland);

Husk Ventures S.L (Spain) **Duration:** 07/2020 - 10/2022 **Sector:** Technology transfer

Region: VietnamContact: Do Thi DiuEmail: diu.dt@vncpc.org



Main activities of the project

- To recognize "green technology" and raise awareness of pyrolysis technology;
- To develop business cases and feasibility studies;
- To promote the biochar market.

Activities in 2021



- Delivered information on pyrolysis technology to relevant government agencies, national agencies and foreign organizations in defining criteria and processes for identification of pyrolysis technology as "green technology";
- Provided input and reported to the International Support Group (ISG) of the Department of International Cooperation (ICD), Ministry of Agriculture and Rural Development (MARD) on the development of a pyrolysis technology proposal as one of the useful agricultural solutions;
- Planned and connected partners to organize events on awareness raising and technology transfer;
- Analyzed the characteristics and evaluated the quality of biochar produced from small-scale pyrolysis systems, thereby proposing solutions to improve the quality of biochar in order to standardize the biochar products;

Connected and supported the parties in the development of reports, training materials and

communication on pyrolysis technology and biochar.

- To organize workshops on pyrolysis technology transfer, training to improve the capacity of biochar application in soil improvement and other communication events;
- To identify, select and provide technical assistance for adopters to access pyrolysis technology and develop potential biochar market;
- To assess the status and potential of biochar application in different fields in Vietnam. From there, to propose an appropriate strategic direction to promote the development of the biochar market in Vietnam.



THE PROVISION OF SERVICES AND EQUIPMENT (TURNKEY) FOR 2 PILOT FACILITIES TO BE LOCATED AT PHAN BOI AND MINH KHAI (HUNG YEN) CRAFT VILLAGES

The purpose of the service is to survey, conduct feasibility studies, identify, and implement BAT/BEP solutions to improve the production processes, reduce wastes and emissions of unintended persistent organic pollutants (UPOPs) generated from open burning of plastic wastes.

GENERAL INFORMATION

Donor: GEF/UNIDO

 Host institution: "Demonstration of BAT and BEP in open burning activities in response to the Stockholm Convention on POPs" project management board (Ministry of Natural Resources and Environment)

Implementing partners: VNCPC, Vietnam Colour Trading and Manufacturing Co., Ltd (Vinacolour),
 Viet Trung Environmental Technology Co., Ltd.

Duration: 2018 - 2021 (Extended until 05/2022)

Sector: Plastic waste recyclingRegion: The North of Vietnam

Contact: Le Xuan ThinhEmail: thinh.lx@vncpc.org



Main activities of the service

- ❖ To conduct survey and assessment on the current status of plastic recycling activities in 2 craft villages;
- To propose BAT/BEP solutions to increase productivity and reduce environmental impact;
- To install and conduct the trial operation and adjustments of 2 new production lines in Minh Khai craft village and 1 upgraded production line in Phan Boi craft village;
- To install, trial run and operate a plastic-waste recycling line to produce useful products such as tiles, fences, etc.;
- To organize training and technology transfer for households of 2 craft villages.



Activities in 2021

In 2021, due to the impact of the Covid-19 epidemic, the on-site activities in the villages and the process of purchasing and delivery equipment and machinery were delayed compared to the original plan. However, the activities were initially implemented, namely:

- Selected appropriate partners to participate in the project and operate the BAT/BEP lines;
- Identified equipment suppliers, developed TOR for suppliers, prepared and signed a contract to supply and purchase equipment;
- Signed technical cooperation agreements between the project consortium and production households in the craft villages under the witness of UNIDO and local authorities; Preparation of premises, facilities and drawings, layout diagrams for the installation of BAT/BEP lines;
- Coordinated and supervised the installation of the BAT/BEP lines and provided the materials and labor required for the installation.

- ❖ To conduct training courses and organize capacity building training sessions for productions households in 2 craft villages;
- To train workers to operate and support households in operating the production lines after the trial run;
- To assess the effectiveness of the selected BAT/BEP measures in improving product quality, environmental context and reducing UPOP emissions.

DEVELOPING A SET OF CRITERIA FOR SUSTAINABLE CRAFT VILLAGES AND ITS PILOT APPLICATION

The assignment is aimed at promoting sustainable production and consumption in craft villages through the development and application of a set of criteria for sustainable craft villages. This is also one of the assignments of the National Action Program on Sustainable Production and Consumption for the period 2021 - 2030 (under Decision No. 889/2020/QD-TTg) of the MOIT to contribute to promoting sustainable production and consumption in Vietnam in the coming time.

GENERAL INFORMATION

Donor: MOIT

Implementing partners: VNCPC

Duration: 09/2021 - 12/2021

Sector: Craft villages

Region: Vietnam

Contact: Do Thi Diu

Email: diu.dt@vncpc.org









Main activities of the assignment

- To survey and assess the current status of craft villages, analyze its sustainability, identify constraints and remaining issues in craft villages;
- ❖ To review and lessons learn from international and national experiences on developing sustainable craft villages and establishing a set of criteria for sustainable craft villages;
- ❖ To select appropriate villages for pilot application of the set of criteria on sustainable village development, thereby assessing the feasibility and potential for repetition and wide application in craft villages in Vietnam.



Activities in 2021

- Collected secondary information, analyzed the current status of craft villages in provinces and cities across the country;
- Conducted field surveys in 5 typical craft villages in different districts of Hanoi city, Vietnam;
- Assessed the current status of craft villages, analyzed sustainability, and identified existing problems in craft villages in Vietnam.;



- Developed a set of criteria for sustainable craft villages based on lessons learned from other countries in the world; reviewed results of documents, reports, researches, projects and field survey activities in craft villages;
- Selected a craft village and applied the set of criteria for Phung Xa Textile craft village (My Duc distric); Analyzed and evaluated the recorded results; recommendations to apply and implement effectively the criteria in practice and accurately assess the sustainability of Phung Xa Textile craft village in particular and other craft village over the country;
- ❖ Implemented consultation activities with the experts from Vietnam Association of Craft Villages (VICRAFTS), Institute of Environmental Science and Technology (INEST) under Hanoi University of Science and Technology (HUST); Experts in the field of sustainable production and consumption, cleaner production, energy efficiency; Representatives of craft villages, owners of production facilities in craft villages and local authorities where craft villages are operating, ...). Based on the comments and recommendations from the consultation activities, the contractor finalized the structure and content of the set of criteria. This is an important basis to help build a set of criteria for sustainable craft villages that are objective, feasible and suitable for further deployment as well as orientation for craft village development in Vietnam.

TECHNICAL ASSISTANCE ON ENERGY EFFICIENCY FOR TEXTILE AND FOOTWEAR ENTERPRISES - RACE TO THE TOP PROGRAM

Race to the Top program (RttT) is an IDH's initiative that aims to reshape Vietnam's apparel and footwear sector by promoting and embedding sustainable manufacturing practices. Since its initiation in 2016, the program has helped in information sharing and improving the national policy as well as engaging over 200 Vietnam facilities. With the support of the program, participating companies improved their social, environmental, and financial performance. Since 2020, RttT has collaborated with the Apparel Impact Institute (AII) to provide technical assistance on using energy efficiently to other facilities of both tier 1 and tier 2.

GENERAL INFORMATION

Donor: All

Host institution: IDH

Implementing partner: VNCPC

Duration: 01 - 12/2021

Sectors: Apparel and footwear

Region: Vietnam

Contact: Dinh Manh Thang
 Email: thang.dm@vncpc.org
 Tel: (84 -24) 38684849 - ext 25



Activities in 2021

VNCPC advised and supported the implementation of RECP for 8 enterprises are suppliers of brands such as H&M, Puma, Under Armor, JCPenney, Target with the following contents:

- Introduction on RECP concept and methodology to enterprise's RECP team;
- On-site investigation and thematic RECP assessments;
- Generation of RECP opportunities for enterprise;
- Selection and implementation of RECP solution by the enterprise;
- * Result evaluation of RECP implementation.

Activities in 2021

❖ Due to the complicated outbreak of the Covid pandemic, the entire southern and many northern provinces were heavily affected. Therefore, only one round of the field assessment was carried out. It is expected that activities will be resumed in early 2022.

Next steps

Complete the in-plant consultancy for enterprises and submit RECP reports to IDH and corresponding enterprises.





GUIDELINES ON SUSTAINABLE CONSUMPTION AND PRODUCTION IN SEAFOOD PROCESSING IN VIETNAM

Guidelines on sustainable consumption and production in seafood processing aims at providing an assessment of the current state of Vietnam's seafood industry, thereby helping seafood processors, retailers/customers to apply sustainable consumption and production (SCP) practices.

GENERAL INFORMATION

Donor: Switch-Asia funded through IGES (Institute for Global Environmental Strategies)

Implementing partner: VNCPC

Duration: 12/2020 - 03/2022

Sector: Seafood

Contact: Le Xuan Thinh
Email: thinh.lx@vncpc.org
Tel: (84 -24) 38684849 - ext 28



Activities in 2021

- Assessed the current state of the fisheries sector in Vietnam, particularly regarding SCP practices in seafood processing factories, the application of certification schemes, green label and green packaging by manufacturers and retailers/customers, and relationships with potential partners to enhance SCP in the fisheries industry in Vietnam;
- Developed SCP guidelines for retailers/supermarkets with a focus on eco-certification and green labelling programs, seafood supply chains, and SCP policies and procedures in the seafood sector engaging with the participation suppliers, customers, and other stakeholders;
- Compiled a guidelines on Resource Efficient and Cleaner Production implementation in the field of Pangasius processing.

Next steps

Based on stakeholders' comments and suggestions, the SCP guideline in the seafood industry and the RECP guideline in pangasius processing will be edited, finalized then submitted to MOIT for the review and approval.



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

This service is part of the SECO funded project "Eco-industrial Park Intervention in Viet Nam - Perspective from Global Eco-industrial Parks Programme (GEIPP), which is currently implemented by UNIDO in the developing and transition countries. In Viet Nam, it is jointly implemented by the government coordinating agency, MPI, and UNIDO in the period of 2020 - 2023.

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

GENERAL INFORMATION

Donor: SECO

Leading partner: Ministry of Investment (PMU - MPI) and UNIDO

Implementing partners: VNCPC, SOFIES, SEN 26

Duration: 05/2021 - 06/2022

Sector: IndustryRegion: Vietnam

Contact: Bui Khac TuEmail: tu.bk@vncpc.org



Main activities of the project

Enterprises participating in the project will be supported with the following activities:

- Capacity building on RECP, industrial symbiosis (IS), and the eco-industrial park concept at the level of the industrial park;
- Rapid RECP assessment and guidance to identify wastes in the production process, and interventions at expected no-or-low-cost reduction in energy, material, water, and chemicals consumption;
- Development of feasibility studies for selected RECP, and IS interventions;
- Accessing financing sources for IS interventions.

Activities in 2021

Although the Covid situation in Vietnam in 2021 was very complicated resulting in the delay of some project activities, the training courses were successfully organized for Deep C IP on 15/07 and 27-28/07/2021, and Amata IP on 13-14/01/2022 with online format.

- To conduct a rapid assessment of the RECP;
- To conduct feasibility assessment and development of IS interventions;
- ❖ To access financial resources to implement IS interventions.







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

This service is part of the SECO funded project "Eco-industrial Park Intervention in Viet Nam - Perspective from Global Eco-industrial Parks Programme (GEIPP)" which is currently implemented by UNIDO in the developing and transition countries. In Viet Nam, it is jointly implemented by the government coordinating agency, MPI, and UNIDO in the period of 2020 - 2023.

The development objective of the project is in line with that of GEIPP, to demonstrate the viability and benefits of Eco-industrial Park approaches in scaling up resource productivity and improving economic, environmental, and social performances of businesses and, thereby, contributing to an inclusive and sustainable industrial development in Viet Nam. Hiep Phuoc Industrial Park (HCM city) and their resident companies are selected to join in this part of project.

GENERAL INFORMATION

Donor: SECO

Leading partner: MPI (PMU) and UNIDO

Implementing partners: VNCPC, SOFIES, SEN 26

Duration: 09/2021 - 08/2022

Sector: IndustryRegion: Vietnam

Contact: Vu Nang Nam

Email: nam.vn@vncpc.org



Main activities of the project

Enterprises participating in the project will be supported with the following activities:

- * Capacity building on RECP, IS, and the eco-industrial park concept at the level of the industrial park;
- ❖ RECP assessment and guidance to identify wastes in the production process, and interventions at expected no-or-low-cost reduction in energy, material, water, and chemicals consumption;
- ❖ Development of feasibility studies for selected RECP and IS interventions as well as the implementation plan towards the eco-industrial park model.

Activities in 2021

Last year, although the Covid situation in Vietnam was quite complicated causing certain delay of some project activities, the training courses for Hiep Phuoc industrial park were fulfilled on 19 and 24/11/2021 with the form of online training.

- To conduct a rapid assessment of the RECP;
- ❖ To identify, evaluate and develop a plan to implement IS interventions.



COLLECTING AND RECYCLING WASTED REFRIGERANT IN INDUSTRIAL PARKS UNDERGOING THE CONVERSION PROGRAM TO ECO-INDUSTRIAL PARKS

The project was funded and implemented by Eco-eye Co., Ltd, based in Seoul (Korea). Currently, waste refrigerant is discharged directly into the atmosphere, and it greatly affects the ozone layer, making a significant contribution to global warming. F-gas is widely used in refrigeration equipment in cars, air conditioners, refrigerators, and refrigeration equipment in the industry, and buildings. One molecule of F-gas causes a greenhouse effect of 1,300 - 8,500 times higher than carbon dioxide (CO₂). In Vietnam, the project is jointly implemented by Eco-eye, the Investment and Trade Consulting Company Limited (INTRACO), VNCPC and OunR2tech Co., Ltd. in the period 2020 - 2023.

GENERAL INFORMATION

Donor: Eco-eye Co., Ltd

Leading partner: INTRACO

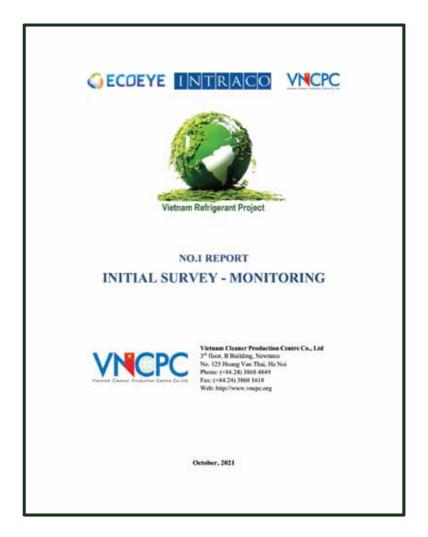
Implementing partners: VNCPC

Duration: 07/2021 - 03/2022

Sector: IndustryRegion: Vietnam

Contact: Vu Nang Nam

Email: nam.vn@vncpc.org



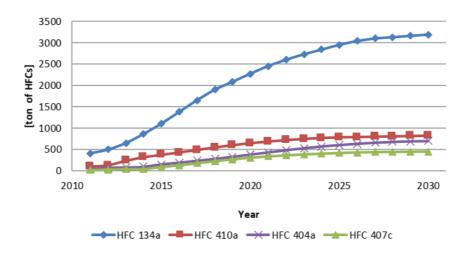
Activities in 2021

- Surveyed Vietnam's policies and regulations regarding refrigerant treatment;
- Collected national statistics (including material flows) related to refrigerants (import, trade, use, and disposal):
- Conducted survey and assessment of the refrigerant market in Vietnam;
- Investigated refrigerant usage in selected industrial parks.

The overall progress of the project is still guaranteed. The results obtained were highly appreciated by the host agency and the sponsor. However, due to the complicated situation of the Covid-19 pandemic in Vietnam, it was difficult to approach enterprises in the industrial park. Therefore, the project implementation has been delayed in some activities.

Next steps

To continue supporting the project's market access and implement the refrigerant collection and recycling project in Vietnam.



Consumption trends of Major HFCs in Viet Nam up to 2030 (HFC Inventory (2018), Socialist Republic of Vietnam)

VESTERGAARD - CLEANER PRODUCTION ASSESSMENT FOR 6 FACTORIES IN VIET NAM

PermaNet[®] long lasting insecticidal nets from Vestergaard play a leading role in the fight against malaria. Vector control is the main way to prevent and reduce malaria transmission. Till date, more than 800 million nets have been produced by Vestergaard. Currently about 60 million nets are produced every year at 12 production sites, exclusively in Vietnam.

With the desire of meeting international standards with best practices to reduce the environmental and social impacts, the project focuses on undertaking Cleaner Production Assessment (CPAs) at 6 factories. The objective is to understand the status of current production process and its impact now and then, thereby mitigate air, water and land pollution through the reduction of wastes generation and energy and resources consumption.

GENERAL INFORMATION

Donor: Vestergaard

Leading partner: SOFIES

Implementing partners: VNCPC

Duration: 05/2021 - 02/2022

Sector: Textile (PermaNet® production)

Region: Vietnam

Contact: Dinh Manh Thang
Email: thang.dm@vncpc.org
Tel: (84-24) 3868 4849 - ext 25



Main activities of the project

The project is implemented in four key phases:

- Phase 1: Preliminary data collation and advance preparations;
- Phase 2: Undertaking the cleaner production assessments on each of the 8 sites;
- Phase 3: Assessment of cleaner production potential in the factory; and
- Phase 4: Recommendations and report

Activities in 2021

Through the assessment, 60 CP solutions have been proposed, of which 27 solutions have been implemented by the factories.

Next step

To continue supporting businesses to implement RECP in practice.



Field survey and assessment

IDH - DEVELOPMENT OF VERIFIED INDUSTRIAL PARK ASSESSMENT FRAMEWORK IN VIET NAM

VNCPC together with IDH and SOFIES review the current policy on eco-industrial parks and other related policies such as policy on water, management of industrial zones, labor, free trade agreements for exploring and scoping out the opportunity for development of verified industrial park assessment framework in Viet Nam

GENERAL INFORMATION

Donor: IDH

Leading partner: IDH

Implementing partners: VNCPC, SOFIES

Duration: 07/2021 - 02/2022

Sector: IndustryRegion: VietnamContact: Bui Khac Tu

Email: tu.bk@vncpc.org

• Tel: (84-24) 3868 4849 - ext 34



Project activities

- ❖ To explore and identify the opportunity of developing a verified industrial park (VIP) assessment framework for the performance measurement and categorization of sustainable industrial parks in Viet Nam. This result would in a framework with fixed categories of industrial park performance, which potentially help IPs move towards ecological industrial park status;
- ❖ To define the potential synergies of the VIP assessment framework for sustainable industrial parks with other programs on ecological industrial park and industrial ecology strategy, as well as other relevant industrial park policies and programs in Vietnam;
- To draft an outline and structure of verified industrial park assessment framework for Viet Nam;
- To explore and formalize agreements to co-create a VIP assessment framework with key stakeholders, e.g., MPI, UNIDO, global buyers, etc.

SUPPORTING BUSINESS CASE DEVELOPMENT AND ACCESS TO FINANCE FOR INDUSTRIAL SYMBIOSIS INTERVENTIONS IN HOA KHANH AND TRA NOC INDUSTRIAL PARKS IN VIETNAM

This assignment belongs to the project " Eco-industrial Parks intervention in Vietnam - Perspective from Global Eco-Industrial Parks Programme". The objective of this assignment is to survey and re-evaluate the status of implementation of industrial symbiosis between enterprises in Hoa Khanh (Da Nang) and Tra Noc 1&2 (Can Tho) industrial zones, which were implemented in Phase 1 of the project, and continue providing technical solutions and financial access support for the IS implementation in the next phase.

GENERAL INFORMATION

Donor: UNIDO

Implementing partners: SOFIES, VNCPC, CL2B

Duration: 11/2020 - 08/2022

Sector: All industries

Regions: Hoa Khanh and Tra Noc 1&2 IPs

Contact: Dang Nguyen NhungEmail: nhung.dn@vncpc.org



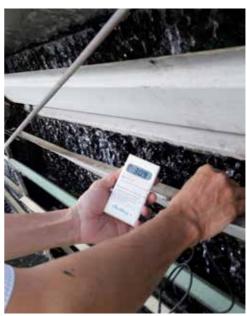
Main activities of the assignment

- To survey and update the implementation of industrial symbiosis solutions, which were indentified in Phase 1 of the project;
- ❖ To support in development of Environmental and Social Management Plan (ESMP) for Hoa Khanh and Tra Noc 1&2 IPs;
- To build a clear plan to further develop investment cases/feasibility studies of industrial symbiosis opportunities;
- To support enterprises involving in identified industrial symbiosis in developing and submitting investment proposals to relevant banks or financial institutions;
- To provide further support to enterprises and the Industrial Park Management Board to implement industrial symbiosis solutions.

Activities in 2021

- Conducted 2 on-site surveys for updating current status of 12 industrial symbiosis implementation;
- Supported in building Environmental and Social Management Plan (ESMP) for Hoa Khanh and Tra Noc 1&2 IPs:
- Submitted a short report on available funding sources including financial mechanisms which are most relevant to industrial symbiosis projects. The report serves as a quick reference guide for enterprises looking for additional funding sources for IS implementation.

- To support enterprises involving in identified industrial symbiosis in developing and submitting investment proposals to relevant banks or financial institutions;
- To organize 2 workshops in 2 IPs to discuss difficulties, problems and desires of enterprises in order to find solutions to further promote the implementation of industrial symbiosis opportunities.



ENERGY AND WATER ASSESSMENT CONTRACT AT 6 GARMENT FACTORIES IN VIETNAM

The contract to assess energy and water usage at 6 factories of Hirdaramani Industries Group in Vietnam was signed between VNCPC and the Sri Lanka National Cleaner Production Center (NCPC). Accordingly, VNCPC conducts energy and water assessment at the proposed locations, in compliance with ASHRAE level 2 audit requirements.

GENERAL INFORMATION

Contracting agency: Sri Lanka NCPC

Implementing partner: VNCPCDuration: 11/2021 - 03/2022

Sector: Textile

Regions: Dong Nai, Quang Nam, Dong Thap

Contact: Nguyen Dai AnEmail: an.nd@vncpc.org



Main activities of the contract

- VNCPC experts conduct energy and water assessment consultancy;
- Ensure energy and water assessments will be carried out within the agreed timeframe;
- Conduct energy assessments for factories, in compliance with ASHRAE level 2 audit standards; and
- Update to Sri Lanka NCPC on project progress.

- By the end of 2021, due to the complicated situation of the Covid pandemic, the travel to companies were difficult. Therefore, the contract activities will be implemented from 02/2022. Specifically, VNCPC will conduct energy assessment consulting for 6 selected factories and in-depth water assessment for 1 factory.
- The draft Energy and Water Assessment reports will be released within two weeks after the factory assessment visits. The reports will be finalized within 2 weeks after receiving feedback from stakeholders.



DONORS - NETWORKS - PARTNERS CO' QUAN TÀI TRO' - MANG LƯỚI - ĐỐI TÁC



Chương trình Môi trường Liên hiệp quốc 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.

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



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. UNIDO và UNEP - các đơn vị bảo trợ - hỗ trợ cho RECPnet thông qua chương trình hợp tác RECP. Hiện mạng lưới có mặt tại 5 khu vực, với hơn 70 tổ chức thành viên.

RECPnet is the global network for promoting the widespread adaptation and adoption of RECP in developing and transition economies. As patron agencies, UNIDO and UNEP, provide support for RECPnet through their joint RECP Program. The network is currently available in five regions, with more than 70 member organizations.



Quỹ Môi trường toàn cầu được thành lập trước khi diễn ra Hội nghị Thượng đỉnh Trái đất Rio 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.

The Global Environment Facility was established before the 1992 Rio Earth Summit, 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.



Cơ quan Phát triển Pháp có vai trò trung tâm trong chính sách phát triển của Pháp. AFD cam kết các dự án cải thiện cụ thể đời sống của người dân tại các nước đang phát triển.

AFD plays an important role in French development policy. AFD is committed to projects that specifically improve the lives of people in developing countries.



dss⁺ giúp khách hàng sống và kiến tạo một tương lai bền vững. Họ luôn nỗ lực xây dựng một cái gì đó mới trên nền tảng đã tồn tại lâu dài trước đó. dss+ helps clients to save lives and create a sustainable future. dss+ aims at building something new on the rock-solid foundation of a decades-long legacy.



Mạng lưới và Trung tâm Công nghệ Khí hậu thúc đẩy chuyển đổi nhân rộng 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. CTCN cung cấp giải pháp công nghệ, xây dựng năng lực và khuyến nghị về chính sách và khung luật pháp phù hợp với nhu cầu của từng quốc gia.

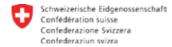
The CTCN promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries. The CTCN provides technology solutions, capacity building and advice on policy, legal and regulatory frameworks tailored to the needs of individual countries.

Viện Nghiên cứu và Phát triển ngành nghề Nông thôn Việt Nam được thành lập năm 1997 - là tổ chức khoa học công nghệ hàng đầu trong lĩnh vực ngành nghề nông thôn ở Việt Nam hiện nay.

The Vietnam Rural Industries Research and Development Institute - a leading non-governmental organization established in 1997 to support the sustainable development of rural industries in Vietnam.



DONORS - NETWORKS - PARTNERS CƠ QUAN TÀI TRỢ - MANG LƯỚI - ĐỐI TÁC



SECO là cơ quan của Chính phủ Liên bang Thụy Sỹ, phụ trách tất cả các vấn đề chính liên quan tới chính sách kinh tế và thị trường lao động. Mục đích của SECO là đóng góp vào tăng trường kinh tế bền vững, tăng tỷ lệ lao động và điều kiện lao động tốt, bằng cách thúc đẩy các khung pháp lý, kinh tế và chính sách ngoại giao cần thiết.

SECO is the federal government's centre of excellence for all core issues relating to economic and labour market policy. The agency aims to contribute sustained economic growth, high employment and fair working conditions, by creating the necessary regulatory, economic and foreign policy framework.



Tính đến tháng 4/2019, UNIDO có 170 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.

As of April 2019, 170 states are member of UNIDO. The mission of UNIDO is to promote and accelerate inclusive and sustainable industrial development in member states.



Liên minh châu Âu hỗ trợ thúc đẩy SXSH và tiêu dùng bền vững tại 18 nước châu Á, trong đó có Việt Nam, thông qua chương trình SWITCH-Asia với đa dạng các lĩnh vực và khu vực/địa phương

The European Union support to promote cleaner production and sustainable consumption in 18 Asian countries, including Vietnam, through SWITCH-Asia program with a variety of fields at both regional and local levels.



Sáng kiến Thương mại Bền vững là tổ chức được chính phủ Hà Lan thành lập vào năm 2009 nhằm giúp cải thiện tính bền vững của chuỗi cung ứng quốc tế.

The Sustainable Trade Initiative is an organization established by the Dutch government in 2009 to help improve the sustainability of international supply chains.



IFC giúp các nước đang phát triển tăng trưởng bền vững thông qua đầu tư tài chính, huy động vốn từ các thị trường tài chính quốc tế, cung cấp các dịch vụ tư vấn cho các DN và chính phủ.

IFC applies its financial resources, technical expertise, global experience, and innovative thinking to help our partners overcome financial, operational, and political challenges.



BURGEAP là một tập đoàn kỹ thuật môi trường của Pháp chuyên tư vấn và quản lý dự án trong việc bảo tồn môi trường, phát triển đô thị và địa phương bền vững, và chuyển đổi năng lượng.

BURGEAP is a French environmental engineering group specialized in consulting and project management in environmental preservation, sustainable local and urban development, and energy transition.



Friedrich-Ebert-Stiftung (FES) mở văn phòng tại Hà Nội vào năm 1990. FES không ngừng hỗ trợ quá trình Đổi mới do Chính phủ Việt Nam khởi xướng vào năm 1986.

Friedrich-Ebert-Stiftung (FES) opened its Vietnam Office in Hanoi in 1990. FES is supporting the renovation process known as Doi moi, which was initiated by the Vietnamese Government in 1986.