#### VIETNAM CLEANER PRODUCTION CENTRE





# **ANNUAL REPORT 2010**



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### **1.INTRODUCTION**

Vietnam Cleaner Production Centre (VNCPC) was established in 1998 in Hanoi University of Science and Technology under the framework of project US/VIE/96/063 funded by Swiss Government through United Nations Industrial Development Organization (UNIDO). Vietnam Cleaner Production Centre is one member in the UNIDO/UNEP (United Nations Environment Program) network of national centers of more than 40 countries.

#### 1.1 Mission

Promoting Resource Efficiency and Cleaner Production in industry and services towards a sustainable consumption and production society in Vietnam and in the region.

#### 1.2 Vision

VNCPC is a leading organization in providing CP services and technology transfer in Vietnam, creating added value for enterprises, research institutes, training and consultancy organizations and governmental agencies.

#### **1.3 Main activities**

The Center has accomplished the mission of disseminating the concept of Cleaner Production (CP) and promoting the pollution protective approach in industrial enterprises in Vietnam. In more than 10 years of establishment and development, the company has succeeded in carrying out CP assessment demonstration in more than 300 enterprises, creating prestige in community of the enterprises that have received direct technical support from the center as well as relevant experts and international environmental organizations. These above achievements indicate that Cleaner Production can be applied successfully in industry in Vietnam, promoting efficiently the enterprise's development towards sustainability.

Vietnam Cleaner Production Centre has developed a network of experts, which is the focal point for improving CP services and promoting the integration of these services into other environmental services. Through researches and information dissemination, the center has developed a wide and tight partnership with international organizations like UNIDO, UNEP, SWITCH-ASIA program, SECO (Switzerland)... and domestic agencies like Ministry of Industry and Trade, Ministry of Natural Resources and Environment, Ministry of Planning and Investment..., which share the same interest in sustainable development in Vietnam. All activities of Vietnam Cleaner Production Centre are complied with ISO 9001 and 14001 which has been approved by SGS of Switzerland since 2002 up to now.

Main services provided by VNCPC include:

© Consultation and training, resource and energy efficiency towards sustainable consumption and production model;

Cleaner technology transfer, assessment and project development consultation;

© Consultation and training services on Corporate Social Responsibilities (CSR), Occupational Health and Safety (OHS), Environmental management system/ISO 14000, sustainable product innovation; and Cleaner Development Mechanism (CDM)

© Consultation on approaching financial supports for projects on cleaner technologies like Green Credit Trust Fund (GCTF) of SECO, Switzerland...

*©* Technology assessment, consultation and technology transfer for waste treatment and other environmental services

#### 1.4 VNCPC staff

There are more than 20 senior and junior experts in VNCPC who provide high quality services of resource efficiency and Cleaner Production options, creating added value for industrial enterprises, research institutes and governmental agencies.



VNCPC staff



## **2. PROJECT DETAILS**

#### 2.1 Cleaner Production in Industry Component

**Donor:** DANIDA – Danish International Development Agency

Leading partner: Ministry of Industry and Trade (MOIT)

**Objective:** MOIT has executed the Vietnam – Denmark Development Corporation in Environment (DCE) in the period of 2006 - 2010. Cleaner Production in Industry Component (CPI) is one of five components in the DCE program that aims at developing national strategy on Cleaner Production in industry as well as developing network of individuals and organizations to support and efficiently execute Cleaner Production strategy.

#### Implementation period: 2006-2010

#### Activities in 2010:

In 2010, VNCPC has completed project's missions including Cleaner Production training and demonstration; and guideline development

Darticipant	Location	Activities		
Participant	Location	Training	Cleaner Production demonstration	
Truong Xuan centralized poultry slaughter area	Tam Ky - Quang Nam	Training on CP and food safety and hygiene; raising awareness of slaughter households to reduce water, fuel consumption, wastewater and waste.	<ul> <li>CP assessment</li> <li>Proposing 22 CP options to reduce electricity and water consumption, improving food safety and hygiene: <ul> <li>Total anticipated investment: 2.161.705.219</li> </ul> </li> <li>VND from the budget of Tam Ky city <ul> <li>Anticipated benefits: reducing 40% water consumption = 14000m<sup>3</sup> water/year (equal to 14000m<sup>3</sup> wastewater/year); reducing environmental pollutants (currently discharged into environment): 242 ton pig's excrement /year, 15000 liters of pig's succus and 11000 liters of buffalo and cow's succus</li> </ul> </li> </ul>	
Binh Thang Dry fish village	Binh Đai - Ben Tre	Training on CP and food safety and hygiene in processing dry fishes for 22 households.	<ul> <li>- CP assessment</li> <li>- Proposing 20 CP options for each household to reduce electricity and water consumption, reduce defective products; to reduce water pollution and ensure food safety</li> <li>+ Total anticipated investment: 240 million VND funded by CPI project</li> <li>+ Anticipated benefits: reducing 2% defective products (equal to reduce 7.2 ton fish/year (= 144 million/year); efficiently treating wastewater and improving food safety</li> </ul>	

#### **F** Cleaner Production training and demonstration



© Under the framework of Cleaner Production in Industry Component, VNCPC has developed two CP guidelines in asbestos-cement and coconut sectors

» These Cleaner Production guidelines include general concepts, current status, experiences and Cleaner Production application. Guidelines provide summarized information on environmental treatment, which can help enterprises in integrating Cleaner Production into environmental standards.

» Compilers have made great efforts to collect relevant information on the production in Vietnam, production and environment issues as well as best available techniques that can be applied in Vietnam.





Covers of Cleaner Production guidelines



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#### 2.2 Promoting Resource Efficiency in Small and Medium-sized Enterprises

Donor: UNEP – United Nations Environment Program

Leading partner: Ministry of Natural Resources and Environment

**Objectives:** To establish the basis for building capacities in developing countries to support SMEs develop and implement resource efficiency and cleaner production programs that enable them to improve their competitiveness and reduce their environmental impacts

Implementation period: 2009 - 2010

#### Activities in 2010:

☞ At the country level, the Country Report on Needs Assessment study included an analysis of the existing situation of SMEs in Vietnam was completed.

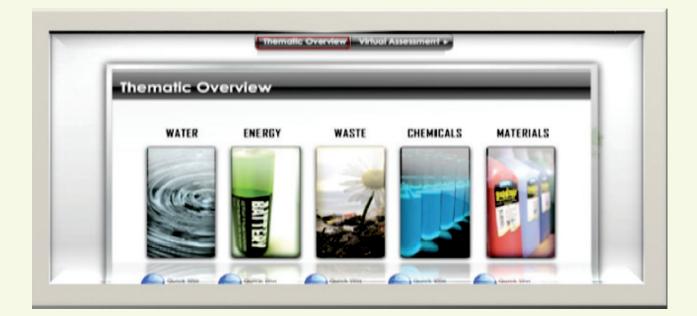
*C* A regional workshop on Promoting Resource Efficiency in Small and Medium Sized Enterprises was organized with participation of RE-CP experts.

@ Another training workshop for managers and staff from 12 selected SMEs was held in Hanoi.

RE-CP assessments were implemented at 12 selected SMEs. The industrial exercise included 3 technical support missions in each of them, which were carried out by RE-CP experts from December 2009 to April 2010.

☞ An experience exchange workshop was organized to allow the companies involved in the pilot industrial exercise enterprises to share and exchange experiences and lessons learnt.

The toolkit is an important project's product, creating remarkable output which is different from other projects that have included the development of toolkits for SMEs. The toolkit is assessed to be a helpful tool for RE-CP experts, managers and SME's staff with available technical content, proper structure and visual aids. PRE-SME toolkit, which facilitates the access and orientation, includes four modules: basic module, thematic module, tools and documents for trainers and "virtual assessment" tool which describes typical production area and operation of an enterprise.

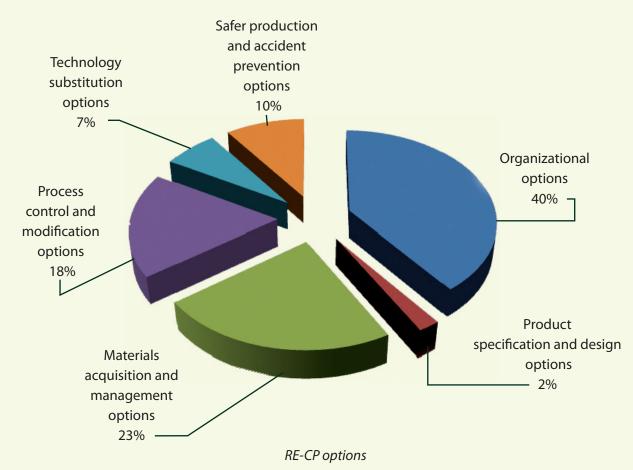


Interface of PRE - SME Toolkit



#### **Project's results**

☞ 12 companies have implemented 279 RE-CP options out of 323 proposed options (approximately 86% of RE-CP options have been implemented).



Total investment of all 12 enterprises as updated in April 2010 was approximately 7,630 million VND (400,000USD) and saved an estimated 5,160 million VND per year (271,000USD/year). In particular, Dong Nam Paper., JSC invested only 30 million VND (1,600USD) to repair the insulation layer of a steam system and isolate edges of rollers, and saved 200 million VND (10,500USD/year) by saving cashew nut shells. Nguyen Tan Trading and Production Private Enterprise invested 7 million VND (370USD) to cover the insulation for heated cores and saved 103 million VND per year (5,400USD/year) by saving on electricity consumption. Other benefits from implementing RE-CP included saving more than 4,000,000 m<sup>3</sup> of water per year, reducing electricity consumption by 43 million kWh per year, saving more than 350 tons of coal per year and more than 5,614 tons of raw materials consumption of all types.

PRE-SME National web portal: http://www.vncpc.org/pre-sme



#### 2.3 Green Credit Trust Fund

**Donor:** Swiss State Secretariat for Economic Affairs (SECO).

**Objectives:** The objective of the Green Credit Trust Fund is to promote long-term investments in clean technology through financial support to Small and Medium-sized Enterprises (SMEs) in Vietnam.

The GCTF facilitates the access to finance for SMEs with insufficient collateral by:

☞ Guaranteeing 50% of the credit granted by selected local commercial Banks to a maximum of 500,000 USD.

**F** Reimbursing the SMEs to a maximum of 200,000 USD if the SMEs has achieved certain environmental improvements. The reimbursement levels are:

» 15% of investment cost if at least 30% environmental improvement is obtained

» 25% of investment cost if at least 50% environmental improvement is obtained

#### Duration: 2007 - 2014

#### 2010 AT THE GLANCE

G Marketing the Fund

Date	Activities	Location
28 April 2010	GCTF introduction presentation in the seminar on "CP in Industry Strategy and GCTF"	Hai Phong
3 June 2010	GCTF introduction presentation in the seminar on "CP in Industry Strategy and GCTF"	Ha Nam province
25 June 2010	GCTF introduction in the seminar on "CP promotion in in industrial enterprises"	Ninh Binh province
10 September 2010	GCTF introduction in the training course on "CP and EE in production and business"	Khanh Hoa province

#### @ Projects

#### >> Viet-Phap Steel Limited Company

This steel manufacturer has submitted a project on replacing 4 medium frequency furnaces and continuous billet molding machines with more efficient ones with more functions to reduce electricity consumption and recycle cooling water.

The project has been technically appraised by VNCPC and Swiss Reference Centre. The loan has been disbursed by Techcombank since December 2010.



Viet - Phap Steel limited Company



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#### » PLATO Vietnam Joint Stock Company

This electroplating company has submitted a project on replacement of the existing manual Ni-Cr electroplating on Plastics line by a semi-automatic line with well- designed recover- overflow bath system.

The project has been technically appraised by VNCPC and Swiss Reference Centre and is in negotiation period with the bank.

#### » Hong Tien Cooperative

This brick maker has submitted a project on replacing the old traditional brick kiln with the new ones with Vertical Shaft Brick Kiln Technology with aim to reduce  $CO_2$  emission.

The project has been technically appraised by VNCPC and Swiss Reference Center and is in negotiation period with the bank.

#### » Dong Nam Paper Joint Stock Company

This paper producer has submitted a project on replacing Kraft paper production line with aim to reduce electricity consumption and defect ratio as well as improve productivity.

The project has been technically appraised by VNCPC and Swiss Reference Center and is in negotiation period with the bank.

#### >> Tan Phu Plastic Joint Stock Company

This plastic producer has submitted a project on innovation of equipment and technology for production of 5-gallons bucket mould and N150 battery shell. This is the second project of the company, which is applied to GCTF for support.

The project has been technically appraised by VNCPC and Swiss Reference Centre. The loan has been disbursed by ACB since December 2010.

#### » Other projects in preparation phase

The flowing projects in the preparation phase:

+ Project on "Replacing the obsolete combustion chamber as the heat source with the solar heat-trap roofing and the obsolete drying kiln with fluidized bed kiln" proposed byVan Hung Tea JSC.

+ Project on "Replacing plastic molding equipment" proposed by Huu Tin Plastic Company Ltd.



Current traditional brick kiln



New brick kiln model



Old spray presser - Tan Phu Plastic Company



New Spray presser - Tan Phu Plastic Company



#### **2.4 INTRODUCTION OF BAT/BEP**

**Project name:** Introduction of BAT and BEP methodology to demonstrate reduction or elimination of unintentionally produced persistent organic pollutants (U-POPs) releases from the industry in Vietnam" **Sponsor:** The project is implemented by the United Nations Industrial Development Organization (UNIDO) as the GEF Executing Agency with Expanded Opportunities.

**Partners:** The Vietnam Environment Administration (VEA) is the national implementing agency in coordination with the Industrial Safety techniques and Environment Agency (ISEA) of Ministry of Industry and Trade (MoIT) of Vietnam. Vietnam Cleaner Production Centre and Dioxin Laboratory are two technical partners in charge of direct implementing the project at enterprise levels as well as cooperating between international and national experts to support for other project activities.

**Objective:** The overall objective of this project is to establish the required human resources and infrastructure to implement the obligations of the Stockholm Convention in Article 5 "Measures to reduce and eliminate releases from unintentional production" and coordinate its activities with the national strategies for environmental protection and the national strategies for industrial and sustainable development and cleaner production and thus contribute to the improvement of human and environmental health. The project has two specific objectives and five expected outcomes as the follows:

Specific objectives:

relation of POPs in key sectors of the industry listed in Part II: Source categories in Annex C of the Stockholm Convention by implementation of BAT/BEP

© Supporting the BAT/BEP projects and addressing other U-POPs related issues by development of monitoring and research capacities

Implementation period: 2010 - 2011

#### **Project activities in 2010:**

Listed as technical partner, Vietnam Cleaner Production Company shall provide BAT/BEP expertise during the project implementation. VNCPC will report to VEA and ISEA and collaborate with the international and national technical advisors to implement project activities.

The 4 enterprises selected as pilot projects are:

*©* Luu Xa factory of Thai Nguyen Iron and Steel joint stock Corporation (TISCO) is selected as a representative company from metallurgical sector.

© URENCO Bac Son of Urban Environment Company (URENCO) is a representative company from waste incineration sector.

© Bai Bang Paper Company is a representative from pulp and paper sector using chlorine bleaching, and

F Holcim Vietnam is selected as a representative company from cement production sector.



# Following is the list of activities that have been done by VNCPC in cooperation with Project Management Unit (PMU), VEA, ISEA and Dioxin Lab.:

Fraining workshop on "Application of BAT/BEP and monitoring of U-POPs from the industry in Vietnam". A training workshop was organized by UNIDO, Pollution Control Department, VEA, BAT/BEP Project Office (Project Management Unit – PMU), Dioxin Lab. and VNCPC for experts of VNCPC, Dioxin Lab. as well as company's technical staff.

National and International experts:

- >> Assoc. Prof. Dr. TuongThi Hoi Expert in waste incineration and cement production sector.
- » M. Tech. Chu Duc Khai Expert in metallurgical sector.
- » Dr. Dang Van Son Expert in pulp and paper making industry.
- » Dr. KåreHelgeKarstensen –International expert in waste incineration sector, and
- » Dr. Pasquale Spezzano International expert in metallurgical sector.

**F** Technical booklets for four selected industrial sectors: Four booklets for applying BAT/BEP in 4 selected industrial sectors have been developed. The booklets have been developed in a practical method and an easy way to understand by technical staff, operation workers.

» CP, BAT/BEP and Energy Efficiency Assessment at pilot projects: In 2010, VNCPC experts, together with national and international experts have conducted CP, BAT/BEP and Energy Efficiency Assessment at 3 pilot projects. For Holcim Vietnam, an expert group visited the plant and developed a case study based on the experiences in applying BAT/BEP in reducing and eliminating U-POPs at this enterprise.



2.5 Establishing a Sustainable Production System for Rattan Products in Cambodia, Laos and Vietnam

**Sponsors:** European Union (80%) and IKEA (20%)

Implementation partners: WWF Greater Mekong (Vietnam, Laos, Cambodia)

Artisans' Association of Cambodia (AAC) Lao National Chamber of Commerce and Industry (LNCCI) Vietnam Cleaner Production Centre (VNCPC)

Duration: 3 years (2009-2011)

#### Objective

**Overall objective:** By the 2015, at least 50% of rattan processing in Cambodia, Laos and Vietnam is sustainable, leading to environmentalimprovements, strengthened competitiveness, poverty alleviation and national economic benefits

*Specific objective:* By end of the action at least 40% of all targeted Smalland Medium sized Enterprises (SMEs) in the supply chain are actively engaged in Cleaner Production of rattan products in Cambodia, Laos and Vietnam and at least 15% of targeted processing SMEs are providing sustainable products to European and other markets, thus delivering a measurable improvement of this sector's environmental performance

#### Main activities implemented in 2010:



Participants were trained on CP in Thua Thien Hue

# *©* Trainings for village rattan workshops on Cleaner Production

In the project activities formulation, "villagers" are referred to as raw material pre-processors. However, it is found that villagers are actually doing two different jobs: raw rattan harvesting or planting; and product manufacturing (weaving, furniture making). The preprocessing is done in practice by material providers companies, leading to the change of the training essence. The idea to integrate the CP training into the guide of sustainable harvesting techniques has gained interest of participants. During the period of 2010, there are 7 training courses conducted in Vietnam, 3 in Cambodia and 1 in Laos.



CP training for villager in Cambodia



CP training for villager in Laos



#### 🕼 Research and case studies

**Activity covered:** VNCPC focuses on the research of cleaner production techniques and technologies. To implement this activity VNCPC collaborated with Polymer Centre to conduct a research on the mechanism of rattan oil boiling and bleaching process in order to:

- » Replace diesel with another more environmental friendly oil, and
- » Optimize of chemical and water used for rattan bleaching.

Beside that, VNCPC carried out a survey in order to figure out the actual situation of rattan processing in Indochina and based on that new CP techniques were proposed.





Inspecting the mould appearance after using new boiling and bleaching methods

#### Results:

>> Research report with identification of new CP techniques:

- + Standardize rattan boiling system
- + Rattan preservation and drying chamber using solar energy
- + Carbonizing equipment
- + Bleaching, washing and natural dying
- + Cutting machine for composting
- + Harvesting tools and splitting/sizing machines

» Developed a boiling procedure of rattan (Daemonorops) in which the mixture includes water, vegetable oil and salt with appropriate proportion. The successful results at the lab scale show a high potential for scaling up to industries.

This report is already available in Vietnamese and being translated into English.

» Chemical used for bleaching was reduced; anyway, it requires more experiments with different rattan species.



Electricity powered rattan leaf cutting machine



Petrol powered rattan leaf cutting machine









Final compost product

#### **F** Rapid and full CP assessments

The results of survey snow that it requires a duration time for developing CP techniques before going further in CP assessment at the company. Within the limitation of human resources, VNCPC decided to postpone this activity until April 2010 when CP techniques are already available.

The VNCPC project team recognized that there are big potential in applying and replicating some new CP techniques that will be applied throughout the project cycles and cover the whole supply chain. This application and replication ignites switching the whole rattan sector into chemical-free and waste minimization. These new CP techniques are:

- » New tools and techniques for cutting, harvesting and debarking the planted rattan
- » Composting technique and composting preparation cutters/equipment
- >> Refining and improving splitting and sizing machines/cutters
- » Optimizing the bleaching process and equipment for rattan
- » Mini-boiler and mini-carbonizing equipment
- » Natural dyeing technique and equipment

» Solar energy chamber (new design) and heat recovery system (redesign) for drying and preserving. So far, 60 SMEs in Vietnam, 6 in Cambodia and 3 in Laos were carried out rapid CPA and in schedule, in 2011, VNCPC will finish the mission of quick CPA for the remain 60 SMEs, full CPA for 20 SMEs in Viet Nam, 6 in Cambodia and 3 in Laos.



#### 2.6 Vietnam Provincial Environmental Governance

**Donor:** Canadian International Develop Agency (CIDA), Government of Canada.

**Implementation period:** 2009-2013 in Hanoi, BacNinh, Hai Duong, Da Nang, Binh Duong, Long An, Quang Ngai and Soc Trang.

**Objective:** Promoting sustainable development through state management on environment and improving management capacity at local level by applying approaches of industrial pollution prevention and implementing regulations on industrial pollution management. The project also aims at supporting Ministry of Natural Resources and Environment on improving the efficiency of policies and laws on industrial pollution management.

VNCPC is selected as an implementation partner in VPEG project to carry out CP assessment in targeted provinces in the project.

#### **CP** demonstration implemented by VNCPC

In 2010, CP program has been implemented in 04 provinces: Da Nang, Quang Ngai, Soc Trang and Long An. CP demonstration program includes CP training and assessment in enterprises.

Province	Number of trainees		CP demonstration		
Province	SME	Local authorities	SME	Sector	
SocTrang	8	12	1	Plastic	
Soc Trang	0		1	Beer	
	0	25	01	Paper	
Long An	Long An 8		01	Food Processing	
Quana Naai	Quang Ngai 6	6	10	01	Paper
Quang Ngai		12	01	Seafood	
	20	20 17		02	Metal finishing
Da Nang			01	Wood processing	
		01	Paper		

Number of trainees and enterprises in CP demonstration

#### 🕼 Training

A three - day training course was organized in each province to provide CP knowledge and techniques which can be applied in enterprises, industrial zone management; and CPA methodologyto raise awareness on CP for enterprises and improve capacity for technical and management staff in provincial Department of Natural Resources and Environment as well as staff in enterprises.

#### 🔄 CP demonstration

CP demonstration aims at raising enterprise's awareness for CP application to reduce production cost, improve working conditions and minimize the negative environmental impacts. CP demonstration also develops CP skills for technical and management staff in targeted provincial departments to strengthen long-term human resources for local projects



Old boiler using coal and new one using husk with investment of 1,6 billion VND reducing 100% CO<sub>2</sub> emission.

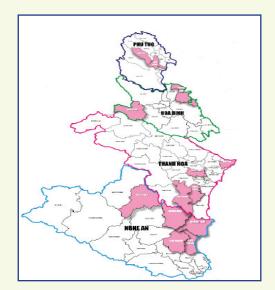


Some options that require no or low investment have been immediately implemented. Even some options that require medium and high investment ranging from 350 to 1,6 billion VND/option have been implemented. Especially, one enterprise is considering the implementation of one option requiring 16 billion VND investment with the support from Green Credit Trust Fund, managed by VNCPC. CP option implementation has brought about economic benefits from the consumption reduction of material (from 2 - 5%), energy (10 - 40%), chemicals (20- 60%), and water (15 - 70%) as well as reduced considerably the pollutant discharge into environment. Especially, some CP options are also OHS options which can improve working condition in some enterprises like eliminating the chemical exposure, reduction of dust and temperature in working area (from 40 - 80°C to lower than 30 - 45°C)...

#### 2.7 Green Production and Trade to increase Income and Employment Opportunities for the Rural Poor

Program duration: 36 months (2010-2012) UN Coordinating Agent: International Trade Centre Leading organization: VIETCRAFT Partners: FAO, UNIDO, UNCTAD, ITC, and ILO Program objectives:

The joint program works to increase income and employment opportunities for raw craft material growers/collectors and grassroots handicrafts and furniture producers, targets about 4,800 poor farming and craft-producing households in four Northern provinces of Viet Nam (Nghe An, Thanh Hoa, Hoa Binh, Phu Tho)



#### VNCPC's activities in the project:

Participating as an implementing partner, VNCPC will be

responsible for delivering outputs related to clean designs to buyers, training of buyers/SMEs in cleaner production techniques, training of industrial designers in clean design principles and implementation of clean designs at the level of relevant target groups, capacity development of grassroots crafts producers using cleaner production and design methods and practices as well as use of clean technologies (tools, equipment and joint production and quality control facilities) through demonstrations and pilot initiatives for the product groups covered by the program.

During the fourth quarter of 2010, VNCPC was conducting a quick assessment on Cleaner Production and Design for Sustainability for four value chains: (i) bamboo/rattan; (ii) sericulture and weaving; (iii) sea grass; (iv) lacquerware; and (v) handmade paper.



	Raw material supply	Processing	Production	Trading	Consumption
Bamboo/ Rattan	Bamboo and rattan collectors and growers	Processors (cutters, splitters etc)	Bamboo and rattan weavers (basketry,hame accessories)	Intermational Importers	
Sericulture	Mulberri tree/silk worm farmers	Silk yarn producers	Silk yarn weavers	National Exporters	Export markets
Sea grass	Sea grass farmers	Sea grass twisters	Producers of final sea grass articles (matrs, ect.)	Provincial Wholesalers	Lokl markets
Lacquer ware	Lacquer tree farmers	Lacquer processors	Lacqer ware producers	Colectors on	
Handmade Paper	Raw material growers/collectors	Handmade paper producers		district level	

Overview of value chain structures

#### Pictures relate to four value chains:



Lacquer sap of red lacquer tree



Seagrass's products



Checking Lacquer's concentration



Weaving frame



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# 2.8 Sustainable Product Innovation in Cambodia, Laos and Vietnam

#### Implementation period: 04/2010-03/2014

Donor: SWITCH ASIA Program – European Union

**Partners:** Technology University of Delft (TUD) - Netherland (leading partner); Vietnam Cleaner Production Centre (VNCPC), United Nations Environment Program (UNEP), Asian Institute of Technology in Vietnam (AITVN), Laos National Chamber of Trade and Industry (LNCCI), Cambodia Cleaner Production Office (CCPO) (implementation partners).

**Overall objectives**: Promoting innovation potentials in industry and improving social and environmental quality of products in Vietnam, Laos and Cambodia. This can be achieved by widely implementing sustainable product innovation in these three countries.

**Detail objective**: Sustainable Product Innovation (SPIN) is executed in at least 500 enterprises in five sectors in Vietnam, Laos and Cambodia (food processing, textile, footwear, handicraft and furniture) to develop and produce more sustainable and modern products to adapt the demands in domestic, regional and European markets. In this way, SPIN can contribute into the social and environmental sustainable development in industries; thus, improve the competitiveness in the market.





Launching ceremony on 04/22/2010 in Hanoi

#### Main activities in 2010:

☞ Launching ceremony in Hanoi with more than 100 participants from enterprises, governmental agencies, universities and experts...

© Establishing SPIN Office (Green Office) located in Hanoi University of Science and Technology to support the sustainable product innovation and information dissemination. Green Office is the working office for project team including staff from VNCPC, AITVN, international experts, volunteers and students on mission to Vietnam.





Human resource consolidation: To 12/2010, a project team has formed in cluding experts in product design, energy, mechanics, automation and environment... who have profession and experiences in training and working in Vietnamese companies. In addition, a group of design volunteers and linguistic supporters has been established.

© Project Preparation Report which plays an important role in assessing current status of product innovation in 3 countries has been established. Basing on that, a plan that sticks to the current status and adapts donor's requirements can be developed.

*C* Assessment researches have been conducted about the potentials for product innovation, the market's demands and acceptability for sustainable products and the identification of marketing channels for these products.

© A toolkit including training materials and assessment documents for experts and enterprises in executing sustainable product innovation was developed. The toolkit covers the strategic development of marketing and branding.

☞ In-company surveys and assessment: project has approached about 300 enterprises and carried out assessment in 40 enterprises. At present, some sustainable products in food processing, handicraft and furniture sector have appeared. At least 25 sustainable products will be shown in the Lifestyle Exhibition in April, 2011.



Communication: a project identification kit including logo, identified products including official information channel is available on website **www.spin-asia.org**. A plan for efficient communication and marketing for SPIN products is being developed.



## **3. SOCIAL INVOLVEMENT**

2010 is an important milestone when VNCPC officially became a service provider with full legal rights and responsibilities of an organization. Many opportunities are opened, but along with them are severe challenges. Sharing the same enthusiasm and determination, experiences of senior experts combined with the youth of newcomers have nourished VNCPC's fruitful development.



VNCPC staff donated blood – March, 2010

#### 3.1 Community development

Under pressure of meeting project's deadlines, completing missions and preparing reports but community development activities are never neglected in VNCPC. VNCPC staff can be proud of their precious blood that can save the life of patients at dramatic moments or financial supports coming in time and directly to people in hard circumstances.

Understanding the meaningfulness of "blood donation" campaign that reflects the "whole leaves wrap torn leaves" Vietnamese tradition, VNCPC staff eagerly participated in the "blood donation" program held by Blood donation Propaganda Volunteering Youth Union.

To partly ease the pain and damage caused by the historical flood in the central region in the last quarter of 2010, VNCPC held an event to call for the donation from all staff. Money, clothes, stationeries were collected and categorized. These meaningful gifts were transferred directly to people in Cam Xuyen district, Ha Tinh province where suffered from serious damages of the flood.





VNCPC gave gifts to people in CamXuyen – HaTinh -November, 2010

#### 3.2 Outings

After hard-working days and missions, VNCPC staff come together for group outings, picnics, etc, which tighten the relationship among members of VNCPC family. These are oppotunities for all staff to get to know each other better.



Families of VNCPC members in outings

With many project's achievements and meaningful social activities, 2010 closed with happiness of all VNCPC members and satisfaction of partners. With important events, 2010 has created motivation and encouragement for all VNCPC staff to make great effort to gain the target of contributing to the sustainable consumption and production in Vietnam.

### More profits,

less waste,

and much more...





#### VIET NAM CLEANER PRODUTION CENTRE

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