



UNEP



Ministry of Education and Training
Hanoi University of Technology
Institute for Environmental Science and Technology

Việt Nam

Cleaner Production Centre
(VNCPC)

Annual Report 2009



Preface



The year 2008 witnessed the growth of Vietnam Cleaner Production Centre in delivering services though the Vietnamese industry was affected adversely by the global financial crisis. During the year, VNCPC prepared itself against many upcoming challenges for the transition to a legal entity as a member of Bach Khoa Holdings, which continues to provide services to enterprises in the field of sustainable development.

In the year, the Centre did not limit its activities to propagate the Cleaner Production approach to Vietnamese industries but also assist them to promote the approach in practices, thus, improve their production efficiency and minimize pollution. The intergration of Cleaner Production with Energy Efficiency and Environmental Management System helped companies to evaluate the status of existing technologies and, at the same time, provided them with oientations for moving towards environmentally friendly ones. We are delighted to say that in this year, together with international experts, our pool of expertise has carried out a considerable number of Cleaner Technology projects under support of the Green Credit Trust Fund (GCTF).

Thanks to the successful implementation of the EU-Asian Invest “Cleaner Production for Better Product” (CP4BP) project, we expect that CP could be applied to a wider sphere, thus, a new direction for our services would be opened in the years to come.

2008 was the year when the Centre was kept busy in cooperation with numerous of partners to develop a wide range of new project ideas. These aim to expand the application of CP in enhancing the value chains of craft villages, preserving natural resources and protecting the environment. We are happy to announce that most of the project ideas have been approved by the EC.

On this occasion, I would like to express my sincere thanks to SECO, UNIDO, UNEP and the Government of Vietnam, as well as our international and national partners for their continuous support to the success of the Centre today.

We are willing to provide proper solutions for improving productivity, production efficiency and environmental performance upon your requests and committed to be your faithful partner on the way to integrate into the regional and global economy

Prof. Dr. Tran Van Nhan
Director of Viet Nam Cleaner Production Centre.

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List of Abbreviations

APRSCP	Asia Pacific Roundtable for Sustainable Consumption and Production
ASEP	Asian Society for Environmental Protection
CCPP	Cambodia Cleaner Production Programme
CDM	Clean Development Mechanism
CP	Cleaner Production
CSR	Corporate Social Responsibility
CP4BP	Cleaner Production for Better Products
CT	Cleaner Technology
DO	Diesel Oil
DONRE	Department of Natural Resources and Environment
DOST	Department of Science and Technology
DTIE	Division of Technology, Industry and Economics
EMA	Environmental Management Accounting
EMS	Environmental Management System
EST	Environmentally Sound Technology
FHNW	Fachhochschule Nordwestschweiz (University of Applied Sciences in North-western Switzerland)
FO	Fuel Oil
GHG	Greenhouse Gas
GCTF	Green Credit Trust Fund
HCMC	Ho Chi Minh City
HUT	Ha Noi University of Technology
ILO	International Labour Organisation
INEST	Institute for Environmental Science and Technology
ISO	International Organization for Standardization
MOET	Ministry of Education and Training
MOF	Ministry of Finance
MOIT	Ministry of Industry and Trading
MONRE	Ministry of Natural Resource and Environment
MOST	Ministry of Science and Technology
MPI	Ministry of Planning and Investment
PDD	Project Design Document
POP	Persistent Organic Pollutant
SCP	Sustainable Consumption and Production
SDC	Swiss Agency for Development and Cooperation
SEMLA	Swedish Environmental Management and Land Administration
SECO	State Secretariat for Economic Affairs
SR	Social Responsibility
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
VCCI	Vietnam Chamber of Commerce and Industry
VEPA	Vietnam Environment Protection Agency
VNCPC	Vietnam Cleaner Production Centre
WTO	World Trade Organization

Our Policy

In connection with the implementation of its Integrated Management System following ISO 9001 and ISO 14001, the Vietnam Cleaner Production Centre has established and maintained the following Policy for Quality and Environment:

Policy for Quality and Environment

The Vietnam Cleaner Production Centre is a knowledge-based organisation delivering a wide range of high quality cleaner production solutions that give added value to industry, consulting companies, research institutions, academia, and governmental organisations.

As a national focal point on Cleaner Production, we are committed to continual improvement and prevention of pollution. We will comply with legislation and are committed to the International Declaration on Cleaner Production.

We will continuously strive to improve the quality of our solutions and services and to improve the effectiveness of our Integrated Management System.

Based on our Policy we have formulated the following principles:

- All staff have an impact on the quality of our services and on our environmental performance, and are therefore responsible for the work they deliver to internal and external customers;
- All staff shall inform the management how they can fulfil customer requirements; and
- All staff shall seek and share experience to continuously improve our services.

Our Vision and Mission

The vision of the Vietnam Cleaner Production Centre is to play a catalytic and coordinating role in promoting sustainable industrial development in Vietnam through the application of Cleaner Production and related techniques.

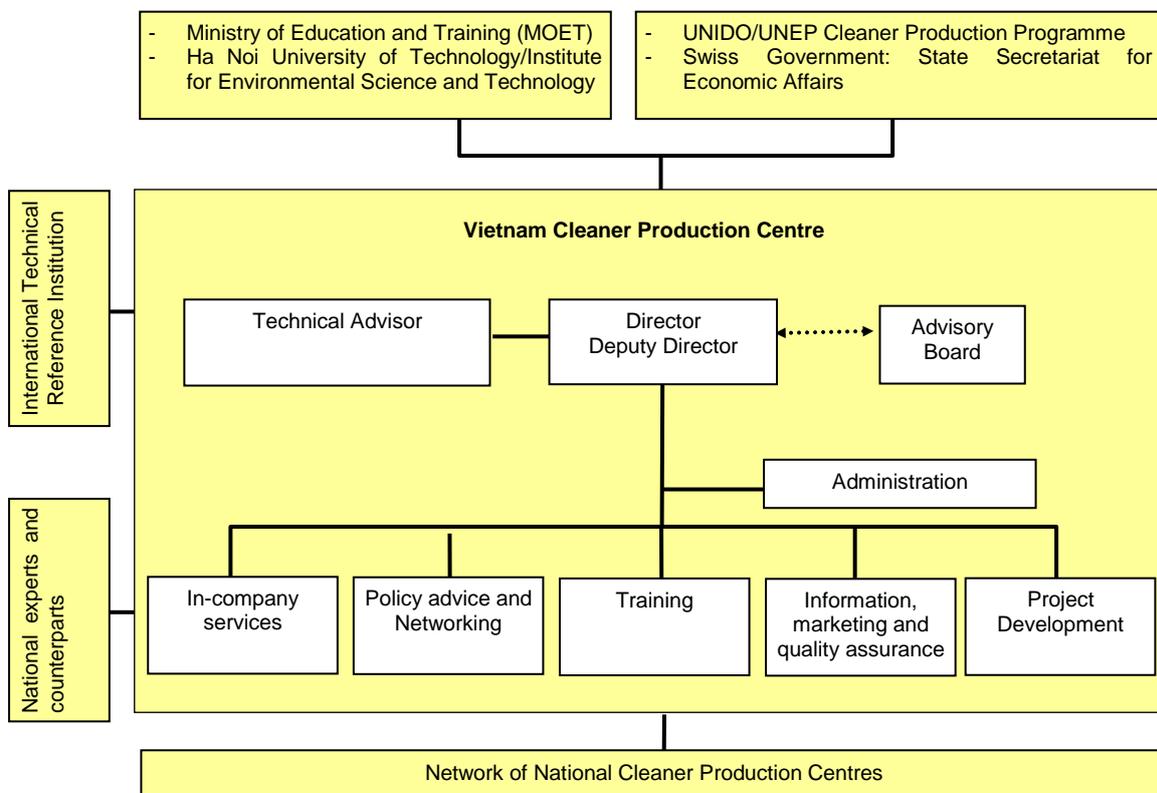
The mission of the Vietnam Cleaner Production Centre is:

- To train the human resource base in enterprises, industry associations, consulting companies, research institutes, academic institutions, and governmental industrial and environmental management agencies in sustainable development approaches;
- To promote the implementation of Cleaner Production in industries and to assist the integration of Cleaner Production into universities' curricula;
- To promote the application of advanced preventive methodology, including cleaner technology transfer and social responsibility;
- To adapt the emerging internationally developed approaches to Vietnamese conditions;
- To assist policy-makers and make recommendations on how to promote the concept of Cleaner Production and environmentally sound technologies in industries and through legislation;
- To promote the concept of various sustainable industrial development tools and raise awareness among industries and governmental agencies;
- To co-operate with domestic and international organizations with the aim of supporting the implementation of preventive environmental protection; and
- To serve as a focal point of the UNEP/UNIDO Network of National Cleaner Production Centres.

Our Organisation

The Vietnam Cleaner Production Centre was established in 1998 within the framework of the UNIDO/UNEP programme of National Cleaner Production Centres. It is sponsored by the Swiss Government through the State Secretariat for Economic Affairs and executed by UNIDO. The Centre is hosted by the Ministry of Education and Training and located at the Institute for Environmental Science and Technology of the Ha Noi University of Technology. The activities of the Centre are evaluated jointly every two years by representatives of SECO, UNIDO and the Government of Vietnam.

Organisational Structure



Organizational Structure of the Vietnam Cleaner Production Centre

Board of Management

The Management of the Centre are expertise experts of the Institute for Environmental Science and Technology who have practical experiences in industries. The Director is in charge of the Centre's future development, CP networking, activities on policy advice and the development of new projects. The Deputy Director coordinates daily activities and provides directions in the fields of in-company and training services and information.

Staff

In 2009, the VNCPC team included 16 full time employees. 2 staff members hold Doctoral degrees; 6 hold Masters degrees, and 8 Bachelors. Tasks are assigned to each staff according to the needs of projects, not to the functioning division.

Staff of the Centre by the end 2009

(Please check our website for update)



Management

Mr. Tran Van Nhan, Director
Ms. Ngo Thi Nga, Deputy Director

Administration

Ms. Nguyen Thanh Huyen/Ms. Bui Thi Hong Ha, Admin cum Accountant
Ms. Ms. Tran Thu Huong/Ms. Ly Thi Thuy Duong, Interpreter
Mr. Le Hong Hai, Driver
Mr. Vu Ha, IT Specialist

Technical Consultants

Mr. Dinh Manh Thang, Cleaner production – Energy Efficiency Consultant
Mr. Nguyen Hong Long, Cleaner production – Sustainable Product Innovation Consultant
Ms. Nguyen Le Hang, Cleaner Production – Social Responsibility Consultant
Mr. Le Xuan Thinh, Cleaner Production – Cleaner Technologies Consultant
Ms. Duong Thi Lien, Cleaner Production Consultant
Ms. Le Thu Ha, Cleaner Production – Environmental Accountant Management Consultant
Mr. Tran Duc Chung, Cleaner Production – CDM Consultant
Mr. Le Manh Hieu, Cleaner Production – Energy Efficiency Consultant
Mr. Nguyen Ngoc Khanh – Project staff
Ms. Ta Huong Thu – Project staff

Staff training

In conjunction to the Centre's expansion of service range, during 2009, VNCPC appointed its staff members to in the following training courses:

- Japan (Chung);
- Vinh Phuc (Hieu)
- Long ???;

Along with external trainings, the Centre organized 3 trainings for staff's capacity enhancement. The topics covered were "Business Starting" (five days), "Lean Manufacturing" (four days) and "Technology Management" (3 days).

Advisory Board

The Advisory Board of the Centre consists of 12 members at department managing levels of relevant ministries and organizations: MOET, MOI, MONRE, MOF, MPI, HUT, INEST, HCM DONRE, UNIDO and SECO/SDC. The Rector of the Ha Noi University of Technology, Prof. Hoang Ba Chu, is the Chairman of the Board. The board members meet once a year.

South Vietnam Office

The South Vietnam Office finished its missions and closed its activities as of January 2009. During the operating period June 2006 – Dec 2008, the South Vietnam Office was active in promoting CP and CP-related services and the CP networking in the South of Vietnam.

Counterparts and Networks

The Vietnam Cleaner Production Centre has established long-term cooperation with the University of Applied Sciences, Nordwestschweiz in Switzerland (FHNW). The Centre has contacts with numerous national and international experts in the fields of environment and cleaner production.

In 2008, the Centre continued the cooperation with the CP in Industry Component of the Denmark-Vietnam Cooperation for Environment under MOIT to implement the CP-EMS programme in 5 provinces: Thai Nguyen, Phu Tho, Quang Nam, Nghe An and Ben Tre.

VNCPC promoted further networking by financially supporting the CP assessment done by its trained service providers through the voucher scheme system. This mechanism aims at assisting local experts in building capacity and practical experiences in the field of Cleaner Production and also strengthening the network of CP service providers in Vietnam. In 2009, 4 CPA reports were registered, submitted and approved for reimbursement.

The Centre has maintained its cooperation with Swedish Environmental Management and Land Administration (SEMLA) project and the DONRE Nghe An in the field of Cleaner Production promotion.



In the framework of the project Cleaner Production for Better Product (CP4BP), the Centre has established and maintained its close collaboration with AIT Centre in Vietnam, UNEP DTIE (France), Delft University of Technology (Netherlands), Laos Cleaner Production Programme and Cambodia Cleaner Production Programme. In parallel, the Centre expanded its relationships with Vietnam's industry society and sectoral associations through the visits, marketing and consultations.

In the year, the relationship between Department of Industry and Trading in various cities and provinces and the Centre was strengthened in order to promote the investment into cleaner technologies with the support of the Green Credit Trust Fund.

The CP network activities in Vietnam in 2009 was characterized by the 4th National Roundtable Meeting on Sustainable Consumption and Production, which is co-organized by the Vietnam Environmental Administration, the CP component in Industry (Danida/MOIT) and the Vietnam Cleaner Production Centre on 8-9 October in Hue.

Within the UNIDO/UNEP network, the VNCPC is working closely with the 43 other National Cleaner Production Centres and Programmes worldwide as well as with the participants at the Asia Pacific Roundtable for Sustainable Consumption and Production. The Centre is a member of the Asian Society for Environmental Protection. VNCPC is maintaining a network of CP experts and institutions throughout Vietnam.

Facilities



Thanks to its location in the Hanoi University of Technology, the Centre enjoys close relations with faculties, institutes, researching centres and experts who are serving the industries.

The Vietnam Cleaner Production Centre is equipped with portable measuring and analytical equipment for both rapid and in-depth assessment of material and energy consumption in various industrial sectors at the fields. The portable equipment includes instruments to measure and analyze boiler efficiency, temperature, lighting, motor efficiency, wastewater quality... In addition, the direct host institute of VNCPC (INEST), which has its own laboratories equipped with modern environmental analytical equipment, so that it can actively support VNCPC in monitoring and assessing environmental performance of CP measures.

Facilities for training (room and equipment) are available at good conditions. The standard training room for 30 participants has been equipped and maintained by the in-kind contribution. Sector-specific databases are kept up-to-date together with the Centre's electronic library.

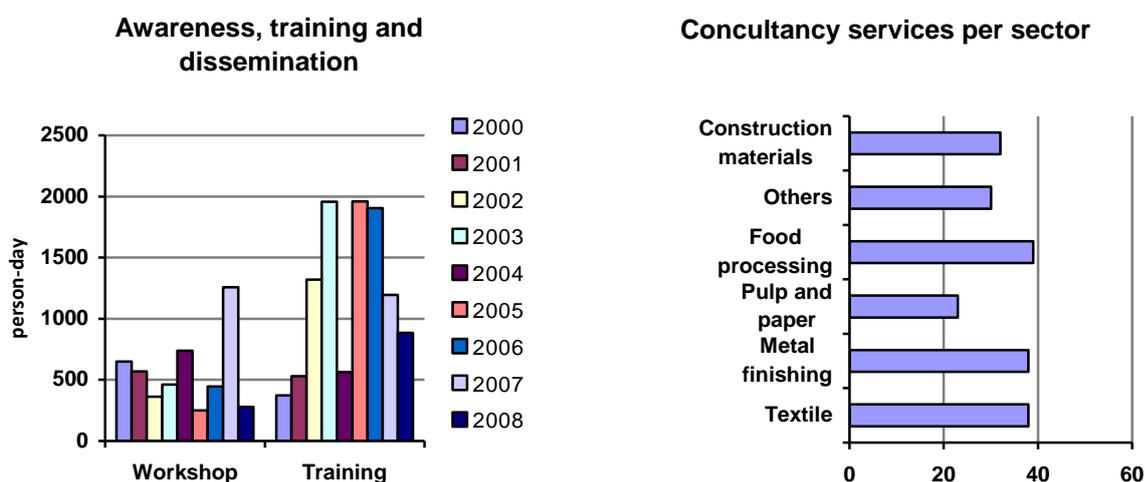
The Centre provides favorable working conditions to all staff members. Besides the office with good quality facilities and internet access, the staff members receive supports on mobile phone charge to ensure sufficient communication.

Overview of activities

The year 2008 witnessed numerous activities in the form of both traditional and emerging services of the Centre. Along with cleaner production services, training materials, consultancy skills have been adapted and enhanced as well as integrated with CP-related topics. The Centre promoted its activities in providing high quality services in the field of technology assessment, technology transfer, financial engineering, technical appraisal for Green Credit Trust Fund application, social responsibility, design for sustainability, etc.

The Centre has received and maintained its integrated management system following ISO 9001 and ISO 14001, which was first certified in 2002. The management of the Centre expressed its strong commitment to ensure the effectiveness of the system in order to secure high quality services for a cleaner environment through the 2nd re-certification in March 2008.

Since its establishment, the Centre has achieved the key results as follows:



Annual savings achieved from our cleaner production consultancy

Sector	Electricity, Mwh	Coal, ton	FO, ton	DO, ton	Gas, ton	Water, m3	Chemicals, ton	Annual savings, USD	Investment, USD
Textile	7,054	1,933	6,563	0	0	1,057,242	506	2,186,073	536,167
Paper	44,381	24,978	1,959	0	0	3,129,270	1,228	3,596,514	766,246
Metal	1,091	1,490	123	21	41	150,203	88	671,838	307,481
Construction Materials	7,352	8,230	0	285	208	2,064,314	2,677	1,242,639	593,669
Food and beverage	1,033	1,233	163	30.2	0	120,198	60	1,024,257	173,840
Others	1,836	4,745	29	0	0.2	1,126,402	34	443,805	372,892
Total	62,747	42,609	8,837	336.2	249	7,647,629	4.593	9,165,126	2.750.295

Note: 1. Others stands for rubber, chemical, ship building, wood processing, printing, ...
2. The total data are accumulated from 1999 to 2008.

Our activities and achievements during 2008 will be presented in five main key areas: training, in-company services, information dissemination, policy advice and new and on-going project developments.

Training

In the year 2008, the Centre further provided advanced knowledge and tools to its service providers through its training activity. Besides, in the framework of different projects and programmes, the trainings organized by the VNCPC provided updated knowledge and practices for improving companies' performances in different areas. The following table presents an overview of the training courses held by the Centre in 2008:

Overview of training 2008

Type of training	No of trainings	No. of participants	Participant days
Advance training on Industrial Maintenance	1	32	96
Train the trainers on "Design for Sustainability"	1	40	200
Design for packaging	1	25	125
Design for sustainability in Hanoi	1	25	100
Design for sustainability in Hochiminh City	1	47	94
Module 1 of CP training in Quang Nam	1	30	120
Module 2 of CP training in Quang Nam	1	30	90
Module 3 of CP training in Quang Nam	1	30	60
Total			885

Integrated training in CP and related topics



Launched in early 2008, the project of **Cleaner Production for Better Product (CP4BP)**, which is sponsored by the EU Asia Invest, continuously delivered 4 training courses on Design for Sustainability in Hanoi and HCMC. 3 courses including ToT on D4S (in April), Design for Packaging (in July) and D4S (in October) were delivered by expertise and experience trainers

on D4S of Technology University of Delft. Targets of those courses were staff from involved organizations, experts on relating fields and lecturers from universities.

The first Train-the-Trainers workshop was held in three days in April with the purpose of transferring knowledge on product-related Cleaner production (CP) and

Design for Sustainability (D4S) techniques to the participants and equipped them with basic skills for D4S implementation. Target groups included key CP consultants and experts, product design experts, product development staff from 8 pilot companies in CP4BP project. The trainees of the course will become the key persons, who implements D4S methodology in companies.



The second training course focused on a new concept of “sustainable packaging design”. This course was organized from 14 to 18 July for VNCP staff and its service providers. The course included 3 days of theory training in Hanoi and 2 days of practical work in Xuan Hoa company. The expert, Prof. Roland Ten Klooster, introduced to the participants the packaging and material innovation to build

capacity of packaging design, optimize the use of packaging materials, increasing the value of the product, reduce the costs and environmental impacts in the packaging process. A number of packagings was redesigned by Xuan Hoa company and attending participants.

Upon the request of the Hochiminh City Department of Natural Resources and Environment (HCM DONRE), the third training course on D4S was delivered by the CP4BP project coordinator/CP expert of the Centre. The target groups were CP lecturers from universities and environmental management officers in Hochiminh city. The course was held from 25-26 August 2008.



In October 2008, another D4S training course was held by VNCP targeting to CP experts and consultants of the network, product design experts and representatives from product design centres. The course was delivered by Prof. Johan Carel Diehl from Delft University of Technology (The Netherlands).

Training in Industrial Maintenance



Continuing the project of “Industrial Maintenance” in 2007, 1 advanced training course on condition-based maintenance was organized in January 2008. The project aims at demonstrating that if a company has a regular and proper maintenance, it can save up energy, water, other resources and by the same time, reduce stoppage time, thus, improving productivity. Training component of the project is to provide knowledge and industrial maintenance tools for a target group of industrial production companies.

Training on CP in specific sector



as well as to help participating enterprises improving environmental and production performance..

In 2008, the Centre continued to cooperate with the CPI of the Denmark-Vietnam Cooperation for Environment (DCE) in organizing a 3-module training programme on Cleaner Production in Quang Nam province. 3 missions were conducted in October, November and December up to each specific module with the aim to build CP capacity for the food processing sector in the province

In-company services

Cleaner production application has been promoted and expanded by the raised awareness within industrial society and the help of different supporting projects and programmes. In the year 2008, most of the CP services provided by the Centre were in the form of the combination with other related aspects such as EE, EMS, CSR, renewal resources exploitation...

In 2008, the Centre has carried out the consultancy and follow-up in the following projects:

Cleaner Production and Environmental Management System



In 2008, VNCPC conducted a monitoring and evaluation mission at the companies which were financially supported by the CPI in 2007 and fulfilled their CP and EMS projects in 2008. As a result, 10/11 companies have implemented CP options generated and received significant socio-economic and environmental benefits such as the reduction of 236,124 m³ water consumption, , 7,611

tons coal consumption, 1,216 Mwh electricity consumption, 57.8 tons FO and remarkable raw materials consumption. These contributed to the environmental performance improvement by reducing CO₂ emissions by 19,108 tons per annum, wastewater by 232,524 m³, solid wastes by 26,529 tons. Notably, Thai Nguyen Paper Company reduced 100% of solid wastes in production process and Luu Xa Cement Company has the reduction of 84 to 86% of dust emissions. The total investment for different CP-EMS options was over VND 25 billion, while the annual savings reached VND 11.35 billion.

Continuing the programme, this year VNCPC conducted CPA-EMS in 10 companies in Thai Nguyen, Phu Tho, Quang Nam and Nghe An provinces. In 2008, the total investment into CPA-EMS projects of the participating companies was approximately VND 40 billions. Estimated annual savings are 1,474 MWh electricity, 612.6 tons coal, 112 tons FO, 238 m³ fire wood, 3.936.800 m³ water consumption. At the same time, those companies expect the emission reduction of 3,000,000 m³ wastewater, 3.6 tons SO₂, 4 tons dust and about 2,025 tons CO₂. Total estimated savings are VND 7.74 billions per year.

Technology Gap Assessment

After the successful Technology Gap Assessment (TGA) in 2007 at 6 companies in cement and electro-plating sectors, this year VNCPC promoted this service in 5 other companies in battery, pulp and paper, tapioca, ceramics and non-ferrous sectors. The assessment technically compares the existing technology and

practices with the best available technology and best practices in order to assist the companies in making the decisions of proper improvement actions.



According to these assessments, savings of production cost could reach VND 15.7 billion through the consumption reductions of 112 tons FO, 39% to 45% of electricity, 36,900 m³ water and 287 tons coal per annum. Generally, total CO₂ emission could reduce by 6,855 tons/year.

Cleaner Technology Assessment and Implementation

The activity aims at implementing cleaner technologies in Vietnamese industries. It consists of 2 sub-activities as CT assessment (CTA) and CT implementation (CTI). The former sub-activity looks at the possibilities and feasibility of the application of CT in the companies' contexts, while the latter reports the process and results from the realization of chosen CT and the lessons learnt.



In 2008, this service has been conducted at 8 companies in the metallurgy, materials construction, tea processing, cassava processing and plastics sectors. Out of 8 companies, 5 CTI and 3 CTA reports were prepared and submitted to the management. The implementation of cleaner technology will help the companies to save up to 1,100.6 Mwh electricity, 772 tons coal, 5,742

tons FO, 55,000 m³ water annually. With the total investment of VND 75 billions, the grand annual saving at these companies will be VND 39.9 billions. Amount of CO₂ reduction will be approximately 73,867 ton/year.

Supporting EST investments with the Green Credit Trust Fund



Following the launching ceremony and two introduction workshops which were held in Hanoi and Hochiminh City in 2007, this year, VNCPG continued to organize 3 workshops to raise the Fund's visibility to interested companies nation-wide, provide them with the conditions and procedures for applying for a support. All updated information on GCTF has been published in the public media.

There was one company in the brick production sector, whose the investment projects was disbursed in 2008. Total value of the credit is VND 2,450,000,000 and it is expected to reduce 1,576 kg PM10/year equivalent to a reduction of 98% dust emission. Level of the foreseen reimbursement will be USD 38,281.

One company in the plastic production sector was technically appraised by VNCPC with the total credit value, which was accepted by the Fund, of VND 2,182,795,000. The estimated reduction is 782, 315 kWh/year of electricity consumption (61%), 400 liters/year of discharged hydraulic oil/year (100%). There were 3 applications for GTCF supports from a textile, ceramics and lead recycling companies which have been on the way for technical appraisal.

Industrial Maintenance



With the support of the Wallonie-Bruxelles region of Belgium, VNCPC continued the 1½-year project to integrate industrial maintenance with CP as the significant factor in the inefficient use of energy, water and other resources in the Vietnamese industry is the improper maintenance of the productive equipment. 01 advanced training module on condition-based maintenance was organized in January 2008 with the duration of 3 days

and 32 participants. This course was delivered by a Belgian expert, Mr. Rudy Bunda. In May 2008, the final workshop for disseminating the project outcomes was conducted with the participation of representative of the head of delegation from the region

Within the framework of the project, two VNCPC staff members attended a study tour in Belgium for building up the capacity of the Centre in the new field of service. The study tour was conducted in February-March 2008 at different institutions, including Technofutur Industrie, a centre of competence in industrial technology maintenance, and Ets Collinel, Proferro companies under Picanol Group, Akzno Nobel, and Jupiter Company.

Integrated Water Management in Textile Industry

Following the implementation of the Industrial Maintenance project, the Wallonia-Brussels region of Belgium carried on to support a project on "Integrated Water Management in Textile Industry" for VNCPC. The project was started in September 2008 with a mission of Mr. Marc Cludts, a Belgium expert, at VNCPC.

Together with the expert, VNCPC conducted field surveys to 3 companies to identify their potentials for participating in the demonstration project on waste water management. 3 visited companies were Pho Noi B Textile Industrial Zone, Hadong Hanoisimex Company, Dong Xuan Knitting Company. Out of 3 companies, one company was chosen for the demonstration project. This project is on-going and expected to be finished by May 2009.

Design for Sustainability

The EU funded project of Cleaner Production for Better Products Project (CB4BP), which aims at building up the capacity of selected industries in Vietnam, Cambodia and Lao PDR to develop environmentally friendly and socially responsible products adapted to the requirements of the European market through the application of product-related CPA methodology, has been initiated since January 2008.

In March 2008, 8 companies in 3 priority sectors: furniture, handicrafts and aquaculture were selected for the demonstration projects. These companies locate at Hanoi, Vinh Phuc, HCMC, Dong Thap, Soc Trang and Binh Duong Province. Under the framework of CB4BP project, these companies were provided with training and state-of-the-art information



on sustainable product design, as well as the support from international and national experts for the (re-)design of some of their products toward the Sustainable Development criteria during 9-month demonstration projects. The project team together with other international partners has been studying to create opportunities for the sustainable products to access to European and global market.



As a result, 7 out of the 8 companies have applied the method at place and created 100 newly designed products in line with D4S method. Tentatively, these products will participate in trade fairs in Japan, Australia and the Netherlands, etc.

Among other activities, training was a primary and important component of the project. In 2008, 4 training courses were organized (see Training chapter in page 14 for more details).



Information Dissemination and Awareness Raising



The purpose of these activities is to share the achievements and experiences of our activities with industries, consultancy, government agencies and universities so that we can join hands toward sustainable industrial development.

Our website is the major medium for this purpose (www.vncpc.org). News and events about the Centre's activities and actions in the fields related to cleaner production in Vietnam are updated monthly. Information on CB4BP project and GTCF are published on this website also.



In the framework of CB4BP, the Centre has developed a separate website specialised in the project information, including methodology and sector case studies (www.cb4bp.org). Information is also available in Vietnamese.



The Centre had its own booth at the Eco-products International Fair 2008 that took place from 01 to 04 March 2008 in Hanoi. Along with the information dissemination, a number of service orders were received at the fair.



Within this year, the Centre has also published CP guidelines in textile, pulp and paper, brewery, starch and steel-making sectors. These guidelines target to factory managers, technicians and personnel from the government department and organizations responsible for promoting and regulating the environmental management in the concerning industrial sectors in Vietnam.

Policy Advice



This year, the 8th APRSCP was held successfully in Shangrila Mactan, Cebu, Philippines on 18-20, September, 2008 with the theme “SCP and Green Growth for Climate Action”. The 8th APRSCP in Cebu is a unique opportunity to hear and share with regional and global experts about the viewpoints on the key issues and risks. More than 240 delegates from 33 countries world-wide participated in the event with 9 keynote messages, 32 plenary presentations 22 poster presentations, 2 ESCAP workshops and 1 Marrakech Workshop. The 8 key sub-themes of the roundtable were (1) Marrakech Process, (2) Water & Sanitation, (3) Financing / Carbon Fund Market, (4) Waste, (5) Energy, (6) Sustainable Building & Construction, (7) Chemicals and (8)

Sustainable Transport and Mobility. VNCPC had contributed 3 articles and 3 posters on the topic of Sustainable Consumption and Production. This event created favourable conditions for the Centre to share and exchange knowledge and experiences, to strengthen the relation with international colleagues and friends in SCP network as well as to prepare the programme for 4th National Roundtable for Sustainable Consumption and Production that will be organized next year in Vietnam.

Under request of the Vietnam Environment Protection Agency (VEPA) and MOIT, the Centre continues to provide inputs for the development of the cleaner production action plan 2006-2010 and the cleaner production strategy.

Key Vietnamese legal documents supporting CP application

National Strategy on Environmental Protection to 2010 and orientation to 2020, 2003

Socio-economic Development Plan for the period of 2001-2010, 2004

Resolution No 41-NQ/TW "On environmental protection in the period of industrialization and modernization enhancement", 2004

Revised Law on Environmental Protection, 2005

Law on Technology Transfer, 2006

Industrial Development Policy and Strategy to 2010

Key actions by the Government of Vietnam for the promotion of CP

Montreal protocols on substances that deplete the ozone layer, ratified in January 1994

Vienna Convention for the protection of ozone layer, ratified in April 1994

International Cleaner Production Declaration signed in September 1999

Basel Convention on the control of transboundary movement of hazardous waste and their disposal, ratified in March 1995

Stockholm convention on human health and environmental protection from persistent organic pollutants (POPs), ratified in July 2002

On-going and new developments

In 2008, the Centre has started and continues with the following activities (please contact us for updates):

Cleaner Technology Assessment and Implementation

The activity of CT Assessment (CTA) has fulfilled the target set out by the project. In 2009, the Centre strives to complete 3 projects related to CT Implementation (CTI), out of which, at least one project will be supported by the GCTF. This service can also connect with CDM projects.

Supporting EST investments with the Green Credit Trust Fund



The impact of the global financial crisis has dramatically raised the inflation rate in Vietnam since early 2008., This fact subsequently affects the operations of enterprises in general and their financial matters in particular. This also restricts them, especially SMEs, to invest in new cleaner technology although the investment can bring forth the long-term benefits. Besides, selected partner banks, which are Techcombank, ACB and VIB , themselves have been fallen into difficulties regarding fund and budgets. This GCTF activity has greatly depended on the prospective of inflation curbing and re-development potentials of Vietnamese Economy in 2009.

In 2009, VNCPC will continue to conduct the technically appraisal for 3 applications of companies of textile, ceramics and lead recycling sectors.

Cleaner Production and integrated topics

In 2009, it is expected that the Centre will continue to carry out 12 CPA- EMS under the CPI of MOIT, funded by Danida and 02 CPA integrated with wastewater management in textile sector.

Under the activity of "CP network extended in Vietnam", the Centre continued the mechanism to support all local CP experts in conducting CPA services for enterprises, called "Voucher System".. As schedule, in 2009, VNCPC targets that 4 CPA reports will be registered and approved from other CP experts.

Social Responsibility

In partnership with the Asia-UNIDO SWITCH programme, VNCPC intends to participate in a Corporate Social Responsibility Project in 2009. Besides, VNCPC continues to assign one staff member with the nomination from the Directorate for Standards and Quality to represent the Vietnamese Industry Stakeholder Group at the ISO 26000 Working Group Meetings. This is the process for developing the International Guidance Standard Document on Social Responsibility which can be applied for any kind of organisations. In 2008, the group made contributions for the Working Draft 3. The publication of the new ISO 26000 standard has been delayed to September 2010. More information is available at www.iso.org/wgsr.

Clean Development Mechanism (CDM)

In 2008 and 2009, VNCPC carries on with searching for potential CDM projects. The Centre also continues to build up and develops the acquired initial expertise and to facilitate the further development of the PINs and PDD elaborated during the first project. The Centre keeps contacts with potential buyers and partners in order to have 1 or 2 CDM project registered by the CDM Executive Board by the end of 2009.

Design for Sustainability

Learning on the positive outputs/outcomes derived from the first year of implementation, CB4BP project continues to move up in the next year. Results of the demonstration projects at 8 companies of 03 selected sectors, i.e. furniture, handicrafts and aquaculture, will be assessed in February 2009 and then comes the 5 sector-specific training courses in Hanoi, Can Tho, Hochiminh City, Phnomphenh and Vientiane in March and April. Will the aim of disseminating experiences and information sharing among stakeholders, the project will organize different dissemination workshops as well as a national working conference on sustainable product design policies in May 2009. Before the period of phasing out, the last activities of the project will be different workshops and seminars in Hanoi, Phnomphenh and Vientiane.

The project has kept its schedule and expected to be completed by July 2009.

Establishing a Sustainable Production System for Rattan sector in Cambodia, Lao PDR and Vietnam

In 2009, in conjunction with WWF, VNCPC will conduct the project of establishing a sustainable production system for rattan product in Cambodia, Lao PDR and Vietnam. The overall objective of this project is that by 2015, at least 50% of rattan processing in Cambodia, Laos and Vietnam is done sustainably, leading to improved environmental performance, strengthened competitiveness, poverty alleviation and national economic benefits.

The tasks of VNCPC in this project are to provide CP trainings focus on rattan sector for different target groups, conduct rapid and full CPAs and research and

prepare the tailor-made CP manual for rattan sector. The expected project duration is 2009 - 2011.

Promoting Resource Efficiency for Small and Medium Enterprises in developing countries (UNEP)

Based on the existing UNEP/UNIDO collaboration in the area of cleaner production and the linkage with UNDP's SME-related activities, UNEP proposed to develop two new projects on resource efficiency for SMEs in developing countries, including Vietnam. The project is expected to be approved by the Government of Vietnam and taken place in 18 months from early 2009 until mid 2010.

The objective of the project is to enhance the capacities of the pilot countries to assist SMEs to develop and implement cleaner and resource efficient production programmes that will result in reduced manufacturing costs, lowered environment pollution and improved health and safety conditions.

In this project, VNCPC will play the role of providing technical support, consultancy and trainings for pilot SMEs to improve the overall efficiency of their production processes from life cycle perspective. The Centre will also be responsible for conducting a national workshop and an information portal aiming at disseminating the training resources and outcomes from the implementation of the project.

Outlook

In the last ten years of development, VNCPC has accomplished the mission of propagating the CP concept as well as putting this approach into practices in pilot in the Vietnamese industrial activities. Basic legislations for CP implementation were promulgated, practical experiences were gained and human resources were developed during the implementation of a variety of internationally-sponsored CP projects. These initially enabling factors make it possible for the Centre to deliver services to enterprises in order to help them to improve material and energy efficiency, also to build up competitive capacities via environmentally friendly, economically viable and socially responsible production.

As the national focal point of Vietnam in the network of national CP centres of UNIDO/UNEP, VNCPC can make it easier for enterprises to access to different sources of information, as well as to expertise international experts and advanced instruments for better environmental and production management.

An important remark in the process of promoting CP application in the period of 2008 - 2009 is that 4 small and medium enterprises have been and to be granted credits by the Green Credit Trust Fund, which was found by the Swiss Secretariat for Economics Affairs (SECO) in Vietnam to implement cleaner technology investment projects. VNCPC takes a role as a technical reviewer of the project proposals. This Fund continues to support small and medium enterprises in implementing technology and equipment innovation projects towards energy efficiency, pollution minimisation and contribution to the objective of sustainable industrial development of Vietnam.

In parallel to the activity of developing sustainable consumption and production models in the industry, and with the existing international relationships and the established reputation, VNCPC has developed some projects to extend the CP application to other fields such as improving the value chains in the production and environmental performance of craft-villages in the years to come.

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