



Vietnam International
WATER
Week 22-25 March 2019
Hanoi, Vietnam

VIETNAM INTERNATIONAL WATER WEEK
VACI 2019 **Water Smarter -**
Leaving No One Behind
22-25 March 2019, Hanoi, Vietnam

PROCEEDINGS & DIRECTORY

CONFERENCE | EXHIBITION | BUSINESS CONNECT | SOCIAL-NETWORKING
HOSTED BY VIETNAM WATER COOPERATION INITIATIVE - VACI/NAWAPI
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT (MONRE) OF VIETNAM



SCIENCE AND TECHNICS PUBLISHING HOUSE

■ Agenda

	Order	Presentation / Discussion topic	Confirmed Speakers
Session plan in details	1	Keynote: CCOP's Groundwater study in East and Southeast Asia and way forward	Dr. Adichat Surinkum CCOP THAILAND
	2	Characteristics of the hot thermal mineral water source and capability to exploit for using to service ecological tourism	Do Van Binh , Ho Van Thuy , Do Thi Hai Hanoi University of Mining and Geology (HUMG), VIETNAM
	3	Characteristics of the area village 5, Ha Tri commune, Hoa An district, Cao Bang province	Pham Van Chung Hanoi University of Natural Resources and Environment, VIETNAM
	4	Electrical resistivity imaging (ERI) monitoring and Geochemical analysis for soil contamination zone along Bang Yai canal Maeang Phuket District, Phuket, Thailand	Avirut Avirut Puttiwongrak Prince of Songkla University, THAILAND
	5	Modeling Heat Transport At The Outfall Of A Thermal Power Plant	Master Nguyen Xuan Dao Institute of Water Resources Science , VIETNAM
	6	Cleaner production: Case study of Miza paper Factory in Dong Anh, Ha Noi	Pham Thi Thuy VNU/Hanoi University of Science, VIETNAM
	7	Measuring the effect of environmental education for sustainable development at senior high school: A case study in Chuong My A high school, Ha Noi.	Phan Thi Mai Hoa Hanoi University of Mining and Geology, VIETNAM
	8	Research on impact caused by sand exploitation activities on environment and propose some solution to protect river	Nguyen Thi Thuc Anh Hanoi University of Natural Resources and Environment, VIETNAM
	9	Applied Aquaponics for Saving More Water and Enhancing the Quality and Quantity of Food Production	Bich Ngoc Thi TRAN Da- Yeh University, TAIWAN
	10	Panel discussion	

MEASURING THE EFFECT OF ENVIRONMENTAL EDUCATION FOR SUSTAINABLE DEVELOPMENT AT SENIOR HIGH SCHOOL: A CASE STUDY IN CHUONG MY A HIGH SCHOOL

Hoa Phan Thi Mai



Hoa Phan Thi Mai

Organization: Department of Environmental Sciences, Hanoi University of Mining and Geology (HUMG)

Address: No.18, Vien street, Duc Thang ward, North Tu Liem district, Hanoi, Vietnam

Email: phmaihoa@gmail.com; Mobile: (+84) 973-988-968

MSc in Natural Resource and Environmental Management, MFU, Thailand (2013)

5 years of experience in doing research and teaching on environmental policy, management, environmental economic in Vietnam. She has published about 8 articles domestically and internationally.

This study provides a detailed description of the environmental education of high school students in Chuong My A, Hanoi city, Vietnam. In April 2018, the study surveyed 240 students at the high School. An evaluation of the students' knowledge of solid waste management was conducted. Students had basic knowledge about the environment, but their knowledge was limited with regard to solid waste management. In May 2018, an environmental education workshop was conducted for the students. The result showed that 72.2% of the students were interested in solid waste management activities. In addition, the study found that there were changes in the students' knowledge before and after environmental education activities. Before the activity 45.8% of the students said that they knew about environmental pollution, and 45.8% of the students said that their family joined in classify solid wastes. After environmental education 73.6% of the students answered that they liked environmental education activities, and 68% of the students said that they will act on knowledge learned in the activities. This suggests that the propagation of education and awareness activities organized for students to participate in environmental sanitation activities need to be strengthened in schools.

Keywords: Awareness, waste classification, Chuong My A high school

CLEANER PRODUCTION: CASE STUDY OF MIZA 1 PAPER FACTORY IN DONG ANH, HANOI

*Thi Thuy Pham, Thi Mai Hoa Phan, Thanh Son Ngo,
Thuy Linh Nguyen, Manh Khai Nguyen, Duc Hai Lum*



Thi Thuy Pham

Position: Lecturer of Department

Organization: VNU Hanoi University of Science

Address: No. 334 Nguyen Trai, Thanh Xuan, Hanoi, Vietnam

Email: phamthithuy@hus.edu.vn; Mobile: (+84) 982.888.499

PhD in Environment Engineering, Katholieke Universiteit Leuven, Belgium (2012)

Over 15 years of experience in doing research and consultant on Water supply and sanitation and treatment of environmental pollution toward sustainable development in Vietnam and other countries. She has extensive relationships with universities and research institutions around the world.

According to UNEP, cleaner production (CP) refers to the continuous application of an integrated preventive environmental strategy to processes, products and services to improve efficiency of production and reduce risks to humans and the environment. The key idea of CP is that it makes more sense to eliminate problems at the source rather than trying to rectify them. The concept of CP can be regarded as an international technique for reducing environmental impacts from processes, products and services using better management strategies, methods and tools, moving towards improving business performance and a profitable, cleaner and sustainable future. Expensive traditional methods as end-of-pipe treatment systems are gradually replaced with effective approach that reduces and avoids pollution and waste throughout the entire production cycle, starting from the product design, and then moving to manufacturing issues such as efficient use of raw materials, energy and water.

The paper industry is one of the large and capital and resources (raw materials, energy, water) intensive industry that causes serious environmental problems, such as global warming, human toxicity, ecotoxicity, photochemical oxidation, acidification, eutrophication and solid wastes production. Miza 1 paper factory in Dong Anh, Hanoi was chosen to perform CP. There are 41 proposed clean production solutions mainly to reduce the amount of water loss (focusing on reuse and recycling) and the amount of generated solid waste (producing more plastic pellet production lines). The factory should initially implement solutions for internal management, recovery and reuse on the spot, then implement solutions to replace materials, create by-products, improve equipment and change production process.

Keywords: cleaner production, paper industry, balance materials, reuse and recycling