





# **ZHUB NEWSLETTER**

## Q1/2024 HANOI CAPITAL, VIET NAM

According to the Law on Environmental Protection 2020 "agencies, organizations, residential communities, households, and individuals within the territory of the Socialist Republic of Vietnam, including the mainland, islands, territorial waters, underground space, and airspace". These responsible entities are required to separate domestic waste by the end of 2024. This is therefore a special year that people need to focus on developing and practicing effective solid waste separation skills.



The Experimental School Education and Science (Hanoi) in the lesson "How to do waste separation" for the TV Programme "For Vietnam's stature" (VTV1). Murals are a ZHub student project activity.









Students and teachers are listening to GreenHub staff training on "Instructions for separating types of waste" in audit activities at Bach Dang Primary School (Ho Chi Minh city).

## **CONTENTS**



**HANOI CITY - STUDENT AWARENESS** IN UNIVERSITY COMPETITIONS

HO CHI MINH CITY - NEW CITY, **NEW PARTNERSHIP** 

**ZHUB PLAN IN QUARTER 2 (2024)** 









Principal of Bach Dang Primary School (Ho Chi Minh city) and GreenHub Director together signing the Memorandum of Understanding (MOU)

### I. TERMS AND DEFINITIONS

- ZHUB This Programme is developed and implemented by GreenHub, to raise student and community awareness towards behaviour change about environmental protection, limiting Single-Use Plastics, and encouraging product reuse, recovery and environmentally friendly materials.
- ZERO WASTE The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health. (Source: Zero Waste International Alliance - https://zwia.org/zero-waste-definition/).
- "ZERO WASTE SCHOOL" MODEL The Zero waste concept implemented by schools and universities with practical activities by students, teachers, and staff, seeking to raise awareness and minimize waste impacts on the environment or human health.
- **MRF MODEL** A "Material Recovery Facility" (physical structure, equipment, and operation) adapted to each school's capacity, to convert organic solid waste to compost, and collect recyclable materials from other solid waste.
- COMPOSTING Composting is the natural process of recycling organic matter, such as leaves, stems and food scraps, into a valuable fertilizer that can enrich soil and plants.
- SINGLE-USE PLASTIC (SUP) PRODUCTS Means products (other than non-replaceable attachments) including trays, food containers, bowls, chopsticks, glasses, cups, knives, spoons, forks, straws and other cutlery with plastic, components which are designed and marketed with the intention to be used once before being discharged into the environment. (Source: Government of Vietnam (2022) Elaboration of Several Articles of the Law on Environmental Protection. Decree No. 8/2022/ND-CP, January 10,2022 (English Translation: MONRE/WINROCK International/ USAID,)









All participants including: Students, lecturers, university board of directors, businesses and GreenHub at the end of the "EcoPin Box Challenge" Gala event.

### **HANOI CITY - STUDENT AWARENESS IN UNIVERSITY COMPETITIONS**

The contest "Ecopin Box Challenge: Designing a recycling bin" (for used batteries) and "Zero waste football contest" were organized for students at the Academy of Policy and Development University (APD) from January to March 2024.

### ★Contest "EcoPin Box Challenge: Designing a recycling bin" (for used batteries)

In education, especially universities, a significant number of batteries are used for teaching activities. Usage includes computer mice, projectors, teaching microphones, and other electronic tools. At APD it is estimated that a huge number (about 200) of used batteries are disposed every day.

ZHub Programmeme **APD** The recognized this challenge and launched a contest with the goals of promoting students' understanding of electronic waste<sup>2</sup> and stimulating their creativity in recycling such waste at the university into reusable products, starting with a suitable waste bin design.

This extends the waste separation present priorities of the revised Law on Environmental Protection (2020), and minimizes the pollution from battery waste leaking into the environment. This also promotes concepts of a "circular economy" in Vietnam for APD students.

<sup>(2)</sup> Electronic waste (E-waste) is waste from any appliance using an electric power supply that has reached its end-of life. Including household appliances, IT and telecommunications equipment, toys, leisure, and sports and other electric powered appliances and equipment. (Source: GIZ (2019) E-Waste Training Manual. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, 136p)

















Competition teams and the jury board discuss to improve and perfect battery bin models in the "EcoPin Box Challenge" Gala event. At the Academy of Policy and Development (Hanoi).



The models from this competition will contribute to developing a battery waste collection model customized for the Academy of Policy and Development University in the next quarter, and provide quidance to extend similar activities to other educational institutions.

At the preparation stage of the contest, the students researched battery features under the supervision of GreenHub and APD Lecturers, who have technical knowledge about electronic waste, and determined suitable materials for a model of a battery bin adapted to the University. The competing student teams came up with unique designs for battery waste bins, demonstrating careful investment, creativity and high awareness of environmental protection.

One month from the research concept to forming ideas for the bin construction organizing stage, the committee (GreenHub and Management Board of APD) received battery bin models with a variety of designs, structures, and materials, from simple to complex, from traditional to modern. Throughout all student teams stages, competing showed great enthusiasm, with a lot of dedicated energy.









Women's football team in a match of the "APD Zero waste Football League".

### **★The "APD Zero waste Football League"**



Players use water bottles and reusable cups during the match replacing Single - Use Plastic bottles.

Realizing that football is the most popular sport in Vietnam, since 2011 the Academy of Policy and Development (APD) organized an annual 'Football League' to encourage a spirit of student sportsmanship, solidarity and learning.

Each year, the university Football League receives attention from all students of the APD, because it entertains them as both players and spectators.

For each annual League,





have participated.

In 2024, with ZHub's support and partnership, to increase the impact of waste lifestyles, Zero the Management Board and GreenHub jointly promoted the Football League as a "Zero waste Football League", committed to reducing Single-Use Plastic Products, especially plastic water bottles used by players and spectators during matches.











According to the survey of the organization committee, in the League this year,

# 1,450 Single-Use Plastic water bottles

were reduced over 1 month



It has been a great success: It raised greater and wider awareness in the university when the number of water bottles saved from disposal from this year League was made known.



Vu Le, a student player of the Faculty of **Business Administration** in an interview with GreenHub said:

"Players and spectators now realize how much plastic had been mismanaged with the previous matches"









## III. HO CHI MINH CITY - NEW CITY, **NEW PARTNERSHIP**



Waste audit activity in 5 working days with the participation of GreenHub Staff, Students and Teachers at Bach Dang Primary School (Ho Chi Minh city).



Ho Chi Minh city is the largest city in Vietnam. With a dense population and rapid economic development, the alarming waste problem has led to challenges of pollution and many health problems. Also, Ho Chi Minh city borders the sea with many canals and rivers, so focusing on solving waste problems at schools there can also directly help limit solid waste leaking into the marine environment.



After the process of research and evaluation of a number of candidate schools, Bach Dang Primary School in Tan Binh District was selected to become a new member of ZHub and the first ZHub school in Ho Chi Minh city.



Students of Bach Dang Primary School visit the media area during the Signing Ceremony event.

It is a school that has demonstrated environmental protection initiative: it promotes environmental education for students in its official curricula; the school's Management Board has organized activities to separate and collect recyclable waste, but could not maintain it properly due to difficulties in resources and technical guidance on waste separation methods.

Critically importantly as well, the Bach Dang Primary School leadership is enthusiastic to collaborate. All these factors make the school stand-out as a "demonstration" school for ZHub in Ho Ch Minh city. Bach Dang Primary School will be a model pilot for other schools in Ho Chi Minh city.









Students participated in mini-games with GreenHub staff to answer questions about the environment.

To quantify the baseline status of waste management and school needs, GreenHub conducted a Knowledge - Attitude - Practice (KAP) survey and waste audit at the school in March 2024. KAP survey results of 319 students and 27 teachers show that, students and school staff have a basic, but incomplete, understanding of plastic waste and especially its origin and harmful effects (approximately 50% of the number of teachers and students).



Students receive the ZHub Notebook after correctly answering mini-game questions.

GreenHub also conducted an on-site solid waste audit with students. In term of mass, organic waste (78.4%) and plastic waste (12%) account for the highest proportion of daily solid waste.



Based on the results of GreenHub surveys, GreenHub will coordinate with the school Management Board to implement a customized waste reduction model for the school, enhancing environmental knowledge and waste separation skills for students and staff in the school.







# IV. ZHUB PLAN IN **QUARTER 2 (2024)**

#### **Expanding the ZHub network in Da Nang City**



The focus of ZHub actions will be at the University of Da Nang system - specifically the University of Science and Education

Aiming to expand the ZHub partnership as the sixth core school of the ZHub Programmeme, GreenHub will leverage the university's research and pedagogical strengths to design and promote the publication of educational materials on environmental protection, so improving the whole ZHub network's capacity. It is expected that the GreenHub and the university's Management Board will sign a cooperation agreement in the second quarter of 2024.

During the next quarter, GreenHub will survey the University's human resources, facilities, needs and prepare a plan to pilot a suitable Zero waste school model.

### Initiate the "MRF Model" at Bach Dang Primary School in Ho Chi Minh city



Based on the results of the waste audit and KAP survey activities at Bach Dang Primary School, the ZHub Programmeme will build a customized MRF model at the school to optimize the existing space for separating and collecting recyclable waste. In addition, a visual learning model for students will be installed, illustrating the types of waste disposed by students so that they understand the types and differences of their own daily waste. This also has the benefitin raising their environmental awareness.

### Establishing a waste battery separation model at the Academy of Policy and Development University (APD) in Hanoi city



After the contest "Ecopin Box Challenge: Designing a recycling bin" with potential waste bin models, the university will establish an electronic waste separation model (for used batteries), including a collection point for students, teachers, their families, and surrounding communities.

By implementing this model, APD will become the pioneer among Hanoi's Universities and Schools in collecting battery waste to transfer to processors and reducing the amount of electronic waste leaking to the environment. All faculty and students will directly participate, learning about their role and harmful effects of waste batteries, and collecting all battery waste to hand over to treatment organizations.







H&M is the first and main sponsor of ZHub Programmeme - Zero waste Schools and More

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