

Promotion of Environmental Education in Primary School Education

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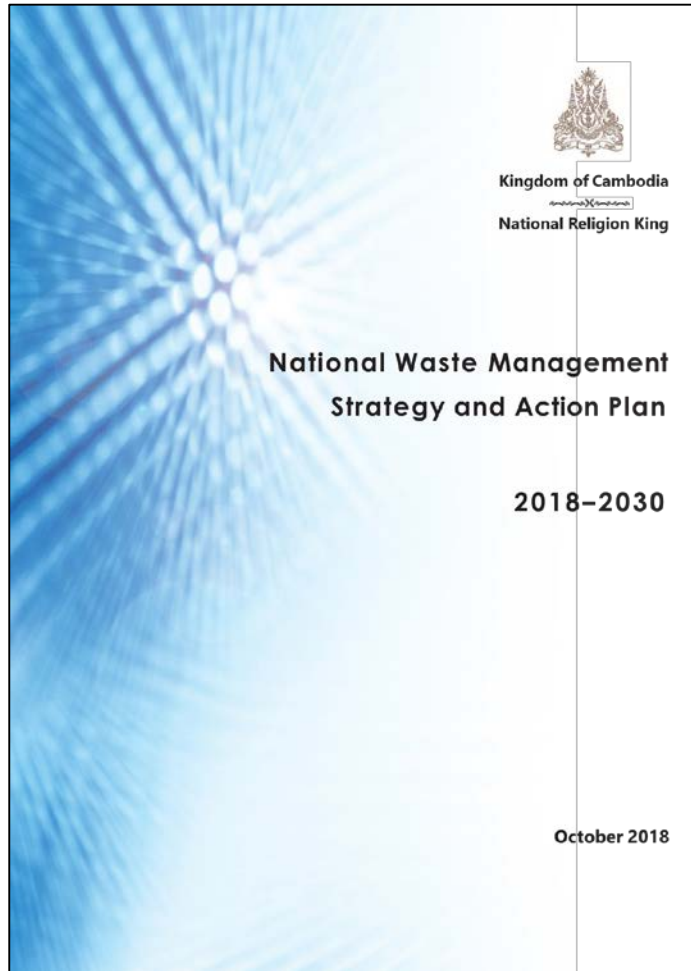
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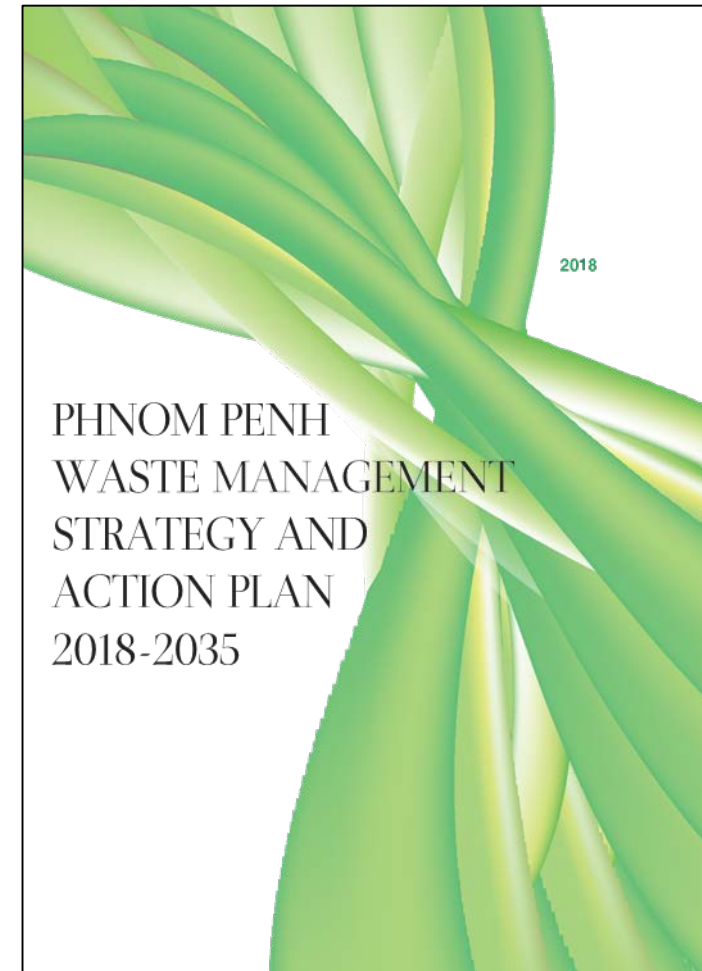
Ministry of Environment



Phnom Penh Capital Administration

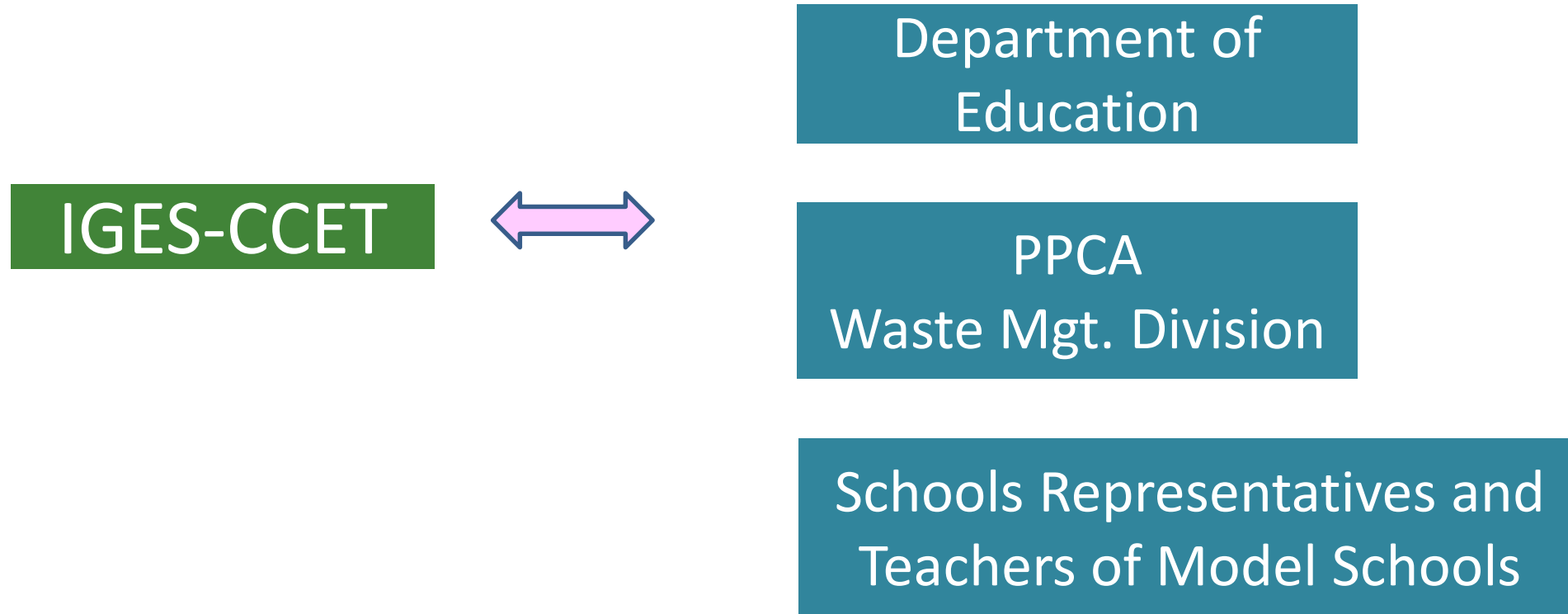


Awaiting final approval

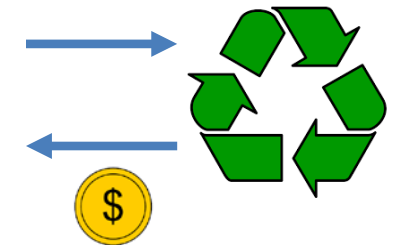


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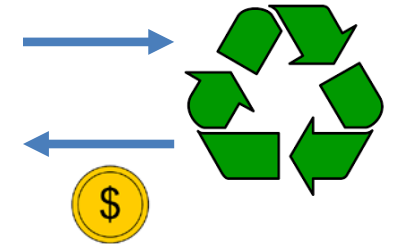
Pilot Project for Promoting Environmental Education



Waste Management Problems

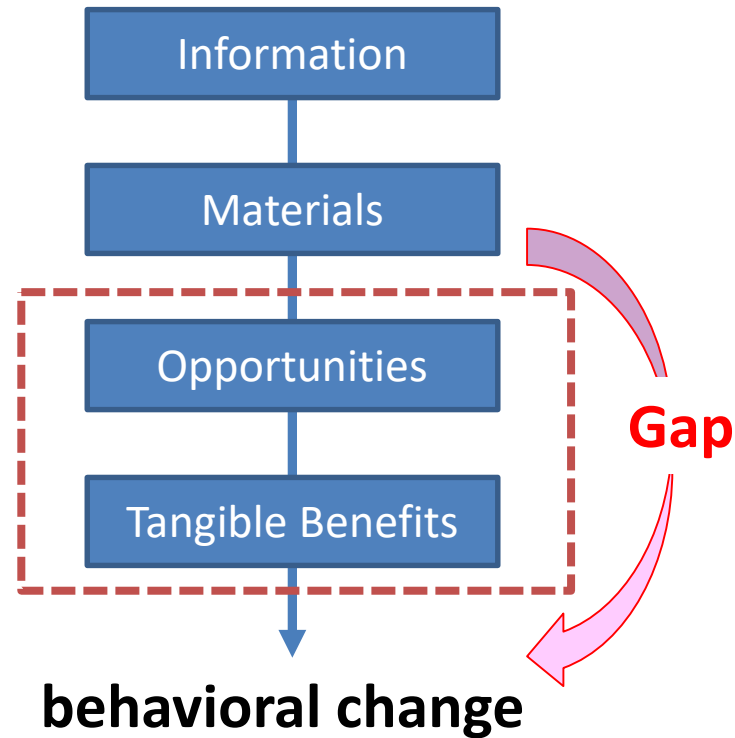


Waste Management Problems





Behavioral Change



Project Activities for Promoting 3R in the frame of Eco-School Program

Waste Sources

Vendors' Zone



Place of Consumption

- Class-room
- School yard...etc



Source Segregation

Segregated Storage



Residuals to be collected by WM company



Recycling all recyclables
Plastic, cans, glass, PET...etc



Composting

Preliminary Survey

SAMPLE SURVEY FOR STUDENTS

1. General Information of the respondent

1	Name of School		
2	Grade - Class		
3	Gender	Male	Female
4	Age		
5	Street of Your Residence		

2. Understanding on Waste Separation and 3R

1	Do you know what will happen to the waste after you put into the waste bins?	
	1. Yes	2. No
	If "yes", please describe what will happen: 	

Waste Audit



Pilot Project for Promoting Environmental Education

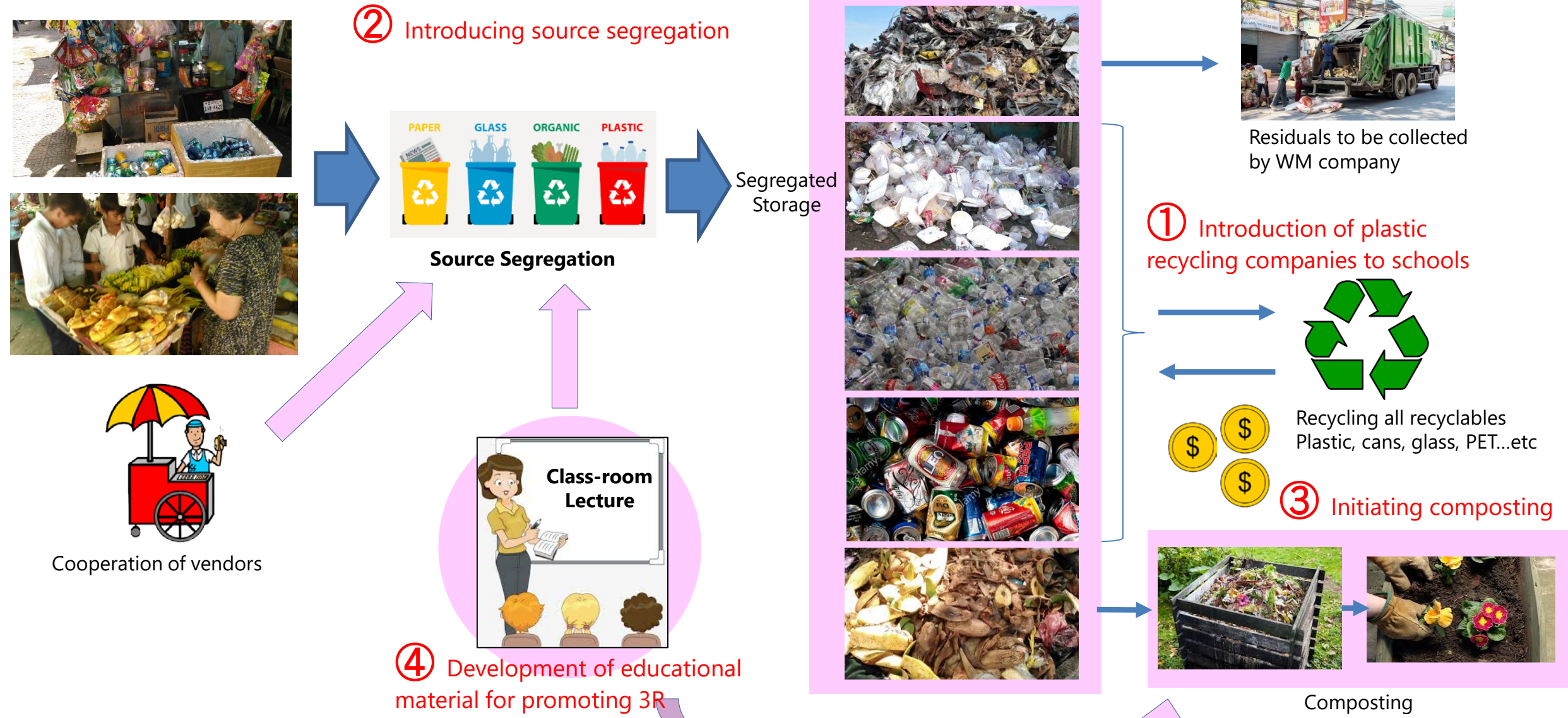
Aim:

1. Promotion of Environmental Education
2. Address real waste management problem in schools

Activities:

- ❑ Development of material for environmental education
- ❑ Development of Guiding Tool for Teachers (waste audit, segregation, composting)
- ❑ Participatory waste audit
- ❑ Initiating source segregation
- ❑ Initiating composting

Project Activities for Promoting 3R in the frame of Eco-School Program



Practice



Lecture



Workshop on Env. Edu.





Final Outputs

Ecology Note



Guiding Tool for Teachers

1. Teaching Tools on Environmental Education: Waste Audit (Analysis)

Credit: Pilot Environmental Education at [Dag 666](#) and [Sen Sok](#) Primary Schools, under Phnom Penh Waste Management Strategy and Action Plan 2018 – 2035

AIMS

- Identify quantities and types of all generated waste from the schools
- Link to potential waste recycling at the school

NOTE: Then the schools can decide base on the result and respective school situation and commitment, for instance:

- Reduction or ban of using Styrofoam packaging at schools
- Small scale composting at school
- Selling some recyclable waste into cash for equipping school materials

DESCRIPTION

Theory Duration: Total 15 Minutes
Description 1: 5 Minutes
Description 2: 10 Minutes

Practice Duration: 2 hours for waste collection and analysis

Group Size: 1 class students

Spatial Set-up:

- Poster on the wall of required tools; waste categories; and analysis performance
- Colorful white board pens/chalks
- Flip Charts/ classroom chalk board
- This instruction sheet printed to help facilitators/ teachers.

1. Preparatory Logistic

- Tools and equipment
 - 2-3 spades and forks
 - 5-8 plastic containers
 - 4-6 small chairs
 - 3 scales (from small to large 1kg scale, 2kg and 20kg scale)
 - 1 large bin
 - 1 large tent sheet (min. 3m*4m)
 - Sanitary hand socks
 - 3-5 pairs of Boots
 - 2-4 foraxes
 - 1 recorder

2. Training on Waste Audit

- Waste categories**
 - Newsprint
 - Cardboard
 - Aluminum
 - Ferrous
 - Glass
 - Plastic
 - Organic (food, garden waste)
- Physical Waste analysis performance**
 - Sampling
 - Identify location and collection of waste from school
 - Mixing
 - Mix all the collected waste to make it homogenic view/uniform
 - Dividing
 - To formulate 4 blocks to reduce
 - Reducing
 - By discarding diagonally opposite waste
 - Some extra-ordinary waste categories can be taken out for making division in consistence with the time of reduction of the waste
- Data recording and analysis**
 - Weigh each waste categories, read the scale in either Kg or g and write down into the ready-made table
 - Calculate per centage of each waste categories

Let's Practice.

1. Preparatory logistic.

2. Training on Waste Audit

Physical Waste Analysis

The waste sample shall be collected from the whole school including from classrooms, school yard and school shops... for the analysis of 7 days (Day 1st till Day 7th) subsequently.

Start Mixing, Dividing and Reducing as illustrated in the figure next to it. It can be made between 2-4 time of the procedure to reduce the ultimate feasible waste amount for segregation.

Data Recording and Analysis

- Calculating of the total waste generation each day = Weigh all the collected waste for the analysis
- Calculating the per centage of each waste categories

Date:	1 st time weight (g)	2 nd time weight (g)	3 rd time weight (g)
Organic waste (food, garden, wood):			
Plastic bottles:			
.....			

Formula: Percentage (%) = (weight kg)/total weight (kg)

1

2

Composting Center Constructed



Outcome

- Source segregation has initiated
- Composting operation started as a class activity
- Env. Edu. will be initiated

Thank you

Why environmental education?

Global climate change, deforestation, pollution of air, water, and soil...

We need to take action at global, regional, national, community level.

... but any transformation requires behavioral change at the individual level.

Benefit of environmental education in school

Environmental issues are collective problem solving in real life.

Environmental education gives opportunities to integrate what students have learned through mathematics, social studies, history, language, art, ethics, as it touches upon all these subjects.

EE can assist students to advance their ability to think: critically analyze, discuss, interact with people, and take action.