Evidence-Based Approach (EBA) Fieldwork:
Host: University of the Philippines Diliman

Philippines Fieldwork 2014 (EBA)

1. OBJECTIVES

This EBA fieldwork is to expose the students to the issues of the environment particularly on the degradation of surface water quality and challenges in the solid waste management for them to be an integral part of the solution as future leaders.

The overall objectives of this fieldwork is for the students to:

1. learn the issues in water quality degradation of rivers (surface waters) nearby mining sites where both small scale and large scale mining are located
2. learn the issues in solid waste management
3. propose possible solutions to these issues and address the challenges in the proposed solutions

2.DETAILS OF THE FIELDWORK

A. Nature of Fieldwork

The fieldwork covers three main parts:

Part 1 Clean Mining Processing Technology

Part 1 emphasizes on alternative clean technology on flotation and gravitation for processing gold-copper mining ores without the use of mercury or cyanide. The focus of this is on the small scale mining industry which is known to use mercury or cyanide in ore processing. The Clean Mining Processing Technology Project is being implemented by the Philippine Department of Science and Technology with Dr. Herman Mendoza of UP Diliman. After the lecture, visit to the pilot plant at the Department of Mining Metallurgical and Mining Engineering of UP Diliman will be conducted to demonstrate to the students this technology.

Location of the pilot plant is at the Department of Mining Metallurgical and Mining Engineering in UP Diliman.

Part 2 Solid waste management problems and issues

An interactive lecture will be given to the participants on the solid waste and management problems and issues, particularly on the solid waste management system of Quezon City, Philippines. Particular focus is on the Quezon City Controlled Dumping Facility (largest dumping site in the Philippines). With videos and presentations from Dr. Maria Antonia N. Tanchuling of Institute of Civil Engineering, University of the Philippines Diliman. After the lecture, students will visit the Payatas dumpsite to learn on the solid waste disposal management and operations.

Location of the Payatas dumpsite is in Quezon City; around 20 -30 minutes by at the Department of Mining Metallurgical and Mining Engineering in UP Diliman.

Part 3. Impact of Mining in the Water Environment

Students will be given lectures on the monitoring of water quality including heavy metals in the rivers and streams nearby mining communities. They will go to the actual rivers to conduct water quality monitoring. A visit also to the Philex Mining Corporation (one of the largest mining companies in the Philippines for a fieldwork tour to mining activities and to the tailings dam.

B. Expected Set of Activities

1. Lectures
    a. Clean Mining Processing Technology
    b. Solid Waste Management
    c. Water quality Monitoring

2. Visits
    a. Pilot plant in UP Diliman
    b. Payatas dumpsite and PANGEA methane recovery facility
    c. Bued River, Acupan Area and Philex Mining Corporation. Note: Travel time from Manila to mining site is 5-6 hours; Accommodation is at Baguio City.

3. SCHEDULE

Date: November 30 – December 9, 2014

Duration: 10 days

Day	Activities	Venue
1 (30 Nov)	Arrival in the Philippines	
2 (1 Dec)	Pre-fieldwork lectures Introduction of UP, College of Engineering and Philippines Introduction of participants (ice-breaker) Lecture on the Clean Mining Processing Technology (PM) Visit to the Pilot Scale Gold Processing Plant at the Department of Mining, Metallurgical and Materials Engineering Tour in UP Diliman (Walk around the academic oval; Oblation, Vargas Museum, Sunken Garden, etc.)	UP Diliman
	Welcome dinner	*Executive House
3 (2 Dec)	Pre-fieldwork lecture -Data Visualization, Story Telling, Community Building	UP Diliman
	Pre-fieldwork lecture - Lecture on Solid Waste Management	UP Diliman
4 (3 Dec)	Visit to a controlled dumpsite -Reaction Paper/Report -Propose Solutions to waste problems	UP Diliman
	(Visit to MRFs in Quezon City)	Payatas, Quezon City
5 (4 Dec)	Morning: Travel to Itogon, Benguet	UP→Itogon

	Fieldwork day1 Pre-fieldwork workshop; Lecture on Water Quality Monitoring	Itogon, Benguet
6 (5 Dec)	Fieldwork day2 Fieldwork at Small Scale Mining Processing Plant CESSMAI Fieldwork on Monitoring of Water Quality (Bued River – CESSMAI, Liwliw Creek, Camp 1)	Itogon, Benguet
7 (6 Dec)	Fieldwork day3 Field work at Large Scale Mining Plant (PHILEX)	Itogon, Benguet
8 (7 Dec)	Fieldwork day4 Morning – Baguio Visit Afternoon - Leave for Manila	Itogon→UP
9 (8 Dec)	Post-fieldwork workshop Data Visualization, Story Telling	UP Diliman
10 (9 Dec)	Leave the Philippines	