

PROJECTS / ACTIVITIES

1. Acid Deposition Monitoring Network in East Asia (EANET)

- Wet Deposition Monitoring in Metro Manila, Los Baños and Mt. Sto. Tomas in Benguet (Parameters: pH, EC, NH₄⁺, Na⁺, K⁺, Mg²⁺, Ca²⁺, SO₄²⁻, NO₃⁻, and Cl⁻)
- Dry Deposition Monitoring in Metro Manila, Los Baños and Mt. Sto. Tomas in Benguet (Parameters: Aerosol - NH₄⁺, Na⁺, K⁺, Mg²⁺, Ca²⁺, SO₄²⁻, NO₃⁻, and Cl⁻; Gas - NH₃, SO₂, HNO₃, and HCl)
- Inland Aquatic Environment Monitoring in Mojicap, Pandin, Bunot, Calibato, Palakpakin, Sampaloc, and Yambo Lakes and Ambulalakao Lake in Kabayan, Benguet (Parameters: pH, EC, NH₄⁺, Na⁺, K⁺, Mg²⁺, Ca²⁺, SO₄²⁻, NO₃⁻, Cl⁻, Alkalinity, PO₄³⁻, and NO₂⁻)
- Soil and Vegetation Monitoring in Mt. Makiling Forest Reserve; UP Laguna-Quezon Land Grant; La Mesa Dam Watershed and Boneco Long Term Research Station in Itogon, Benguet
 - Soil Parameters: Moisture Content; pH (H₂O) and pH (KCl); Exchangeable Base Cations (CA, Mg, K and Na); Exchangeable Acidity; Exchangeable Al, H; Effective Cation Exchangeable Capacity (ECEC); Carbonate Content (for calcareous soil); Total Carbon Content; Total Nitrogen Content; Available Phosphate; and Sulfate;
 - Vegetation Data: Description of Trees @ 7.98 m radius (height > 1.3 m); @ 11.28 m radius (DBH > 4 cm); and @ 17.85 m radius (DBH > 18 cm); Photographic Record of Tree Decline; Observation of Tree Decline; and Understorey Vegetation Survey

2. Analyses of Environmental Samples and Proficiency Test Samples

- Air
- Biota (Fish/Shellfish)
- Leachate
- Sediment/ Sludge/Soil
- Water and Wastewater

3. Capacity Building, e.g. ISO 17025, Equipment Calibration

4. Development of Soil and Sediment Quality Guidelines

5. Ecological Indicators of Pollution

6. Lake Characterization Study (Inland Aquatic Environment Monitoring)

7. Environmental Laboratory Recognition

8. Environmental Sample Collectors Registration

9. Inter-laboratory Comparison Exercises for EMB-DENR Laboratory Analysts (Lectures, Sampling and Analyses)

Matrix	Parameters
Air	NO ₂ , SO ₂ (Ambient Air & Stationary Source Emission)
Water	BOD ₅ , Cadmium, COD, Coliform (Total, Fecal), Color, Copper, Lead, Mercury, Oil & Grease, pH, TDS, TS, TSS, Zinc

10. Manila Bay Monitoring

Matrix	Parameters
Bathing Water	Total and Fecal Coliforms
Shellfish	Total and Fecal Coliforms, Cd, Cu, Pb, Zn
Water Ammonia	Chlorophyll-a, DO, PO ₄ ³⁻ , TSS, Cd, Cu, Pb, Zn

11. Metro Manila Drinking Water Quality

Matrix	Parameters
Drinking Water	Total and Fecal Coliforms

12. **Pasig River Monitoring**

Matrix	Parameters
Water	Ammonia, BOD5, DO, NO3- , NO2- , PO43-, Cd, Cu, Pb, Zn

13. **Persistent Organic Pollutants (POPs) Monitoring**

- Parameter
 - o Aldrin; alpha-BHC; beta-BHC; delta-BHC; gamma-BHC (lindane); 4,4'-DDD; 4,4'-DDE; 4,4'-DDT; Dieldrin, Endosulfan I; Endosulfan II; Endosulfan sulfate; Endrin; Heptachlor; Heptachlor epoxide; Methoxychlor; Total PCBs

14. **Proficiency Testing**

15. **PAWB Lagoon Monitoring**

Parameters	
Bacteriological	Total and Fecal Coliforms
Metals	Cadmium, Copper, Lead, Mercury, Zinc
Physical-Chemical	Ammonia, BOD5, Chlorophyll-a, COD, Conductivity, Cyanide, DO, Nitrate, Nitrite, pH, Salinity, Temperature, Turbidity

16. **Leachate Characterization Study**

- Matrix : Leachate, Water (Deep Well, Creek, River)
- Parameters:

Metals	Cadmium, Calcium, Copper, Iron, Lead, Magnesium, Potassium, Sodium, Zinc
Physical-chemical	Alkalinity, Ammonia, BOD, Chloride, COD, Color, EC, Hardness, Nitrate, pH, Phosphate, TDS, TS, TSS
Organics	Aldrin; alpha-BHC; beta-BHC; delta-BHC; gamma-BHC (lindane); 4,4'-DDD; 4,4'-DDE; 4,4'-DDT; Dieldrin, Endosulfan I; Endosulfan II; Endosulfan sulfate; Endrin; Heptachlor; Heptachlor epoxide; Methoxychlor; Total PCBs

17. **Support to Sylvatrop Editorial Board**

18. **Tap Watch Project**

- Consolidation of results of analyses on tap water samples for Total and Fecal Coliforms submitted by EMB Regional Laboratories: Regions 1-13, ARMM, CAR & NCR

19. **Training of Laboratory Analysts**

- EMB Analysts
- Non-EMB Analysts
- On-the-Job Training of Students

20. **Toxicity Testing Project**

96-Hour Acute Toxicity Tests

Toxicant	: Arsenic, Cadmium, Cyanide, Mercury, Nitrate
Reference Toxicant	: Cadmium
Test Organism	: Milkfish (<i>Chanos chanos</i>) fry; Bighead carp (<i>Aristichthys nobilis</i>) fry; Common carp (<i>Nubilus carpio</i>) fry
Test End Point	: 96-hr Median Lethal Concentration, LC ₅₀

21. UNEP/GEF South China Sea Strategic Action Program (SCS-SAP) Implementation

- Project Components:
 - Mangroves
 - Non-Oceanic Coral Reefs
 - Seagrass
 - Wetlands
 - Land-based Pollution
 - Fisheries
 - Economic Valuation
 - Legal Matters
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22. UNEP Coordinating Body on the Seas of East Asia (COBSEA) Project

- Spatial Planning in the Coastal Zone
- Coastal Erosion

23. Maintenance /Calibration/Upgrading of Laboratory Facilities

24. Upgrading of EMB Laboratory Facilities