

FINAL REPORT

RISK ASSESSMENT AND MONITORING OF ENVIRONMENTAL CHEMICALS



LECEL
SANDIGAN

PHILIPPINES

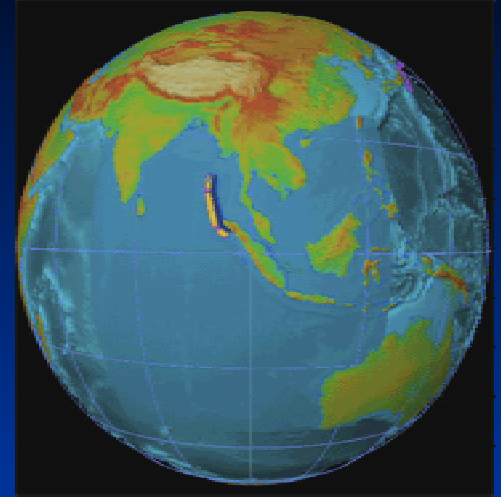
Contents

- ④ Summary
- ④ Areas of Interest
- ④ Knowledge Transfer Strategy
- ④ Action Plan



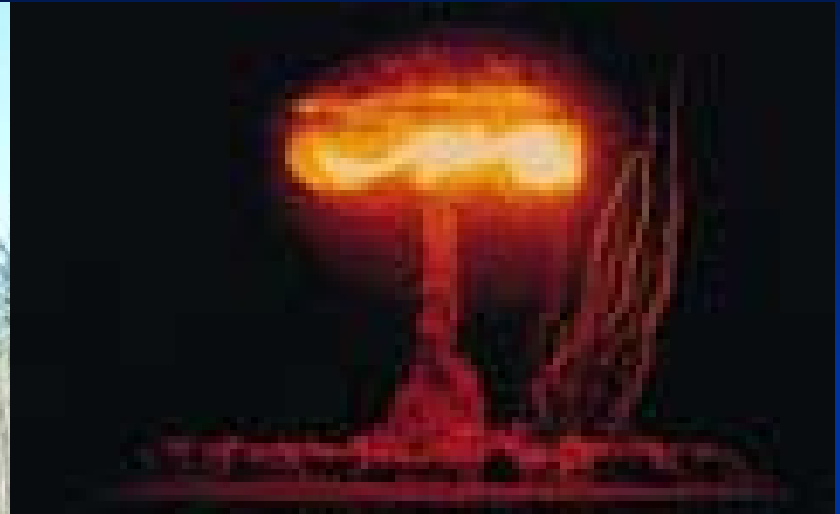
POLLUTANTS

Natural Sources



POLLUTANTS

Human Activities



Key points ...

Product of human activities

Introduced in small concentrations

Accumulates in animal and human tissues

Long-distance transport

Acute and Long-term toxicity



Environmental Chemicals

- ④ Synthetic pesticides
- ④ Other chlorinated hydrocarbons
- ④ Plasticizers
- ④ Detergents/surfactants
- ④ Heavy metals and their salts
- ④ Inorganic pollutants (SO_x, NO_x, O₃, H₂S, CH₄, etc...)



Management...



- ④ Risk assessment
- ④ Regulation
- ④ Monitoring
- ④ Chemical handling to disposal



Risk Assessment...

- Toxicity
- Transport mechanism
- Exposure
- Rate of degradation
- Breakdown into other forms
- Risk-benefit analysis



Environmental Chemicals

Regulation



Local laws and guidelines

International conventions and standards



Environmental Chemicals

Monitoring

- Instrumental
- On-site analysis
- Biological agents



Monitoring

Instrumental

- gas chromatography
- liquid chromatography
- atomic absorption
- atomic emission
- Spectrophotometry
- inductively-coupled plasma



Environmental Chemicals

Monitoring

● Instrumental

● On-site analysis

- test kits
- pack test
- strips
- detector tubes
- portable meters



Environmental Chemicals

Monitoring

- Instrumental

- On-site analysis

- Biological agents

- Immunoassay

- Bioassay



Environmental Chemicals

From handling to disposal...

- ④ Handling
- ④ Storage
- ④ Product distribution and use
- ④ Treatment
- ④ Disposal



Areas of Interest



- ④ Environmental management programs of Japan's national and local government units
- ④ Risk assessment of industrial pollutants
- ④ Environmental impact assessment
- ④ Principles and analytical techniques for air, water and soil quality



Forging Partnership for Environmental Stewardship



Objectives

- Continue creating products that support life
- Increasing awareness at the community level
- Promoting good environmental practice



Action Plan

Echo-Seminar for the Local Government



Action Plan

Echo-Seminar for the Local Government

Aims...

- Increase environmental awareness
- Provide a venue for information exchange, camaraderie and to promote unity
- Present the environmental status and regulations of the Philippines
- Present technical information and options to improve environmental management practices of the local units



Action Plan

Echo-Seminar for the Local Government

Expected Output

Action plan for...



- Improvement of environmental management for each town
- Environmental information dissemination to the community



Action Plan

Echo-Seminar for the Local Government

Related Organizations...

- Japan International Cooperation Agency
- National Economic Development Authority
- Department of Environment and Natural Resources
- Department of Interior and Local Government
- Philippine Phosphate Fertilizer Corporation



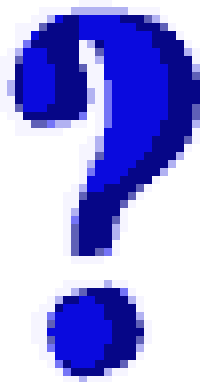
Action Plan

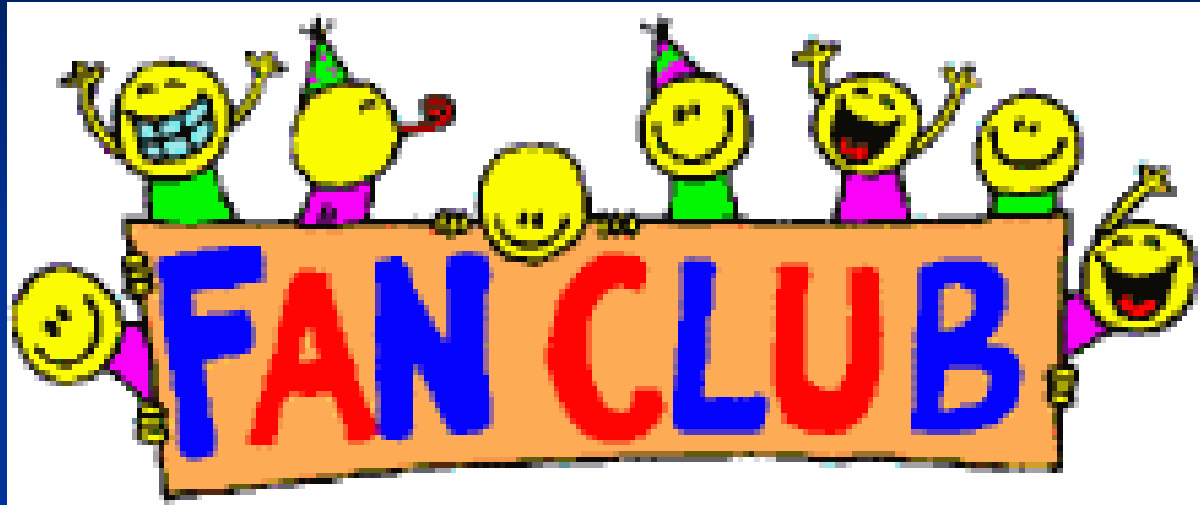
Echo-Seminar for the Local Government

Outline of Topics...

- State of Philippine environment
- Philippine environmental laws and regulatory framework
- Global environmental issues
- Solid waste and wastewater management
- Lesson on sustainable development (Minamata case)
- Environmental initiative of the community (Palompon, Leyte)







FUTURE
ENVIRONMENT

ARIGATO GOZAIMASU!!!

