KOICA-ESCAP CB Program
for Digital Technology & Climate Change

August 2025

KOICA ESCAP
Economic and Social Commission for Asia and the Pacific

Tae Hyung Kim/Byung-Gul Lee(BG)

Objectives of the Program

The KOICA-ESCAP CB Training Program is specifically developed to tackle the increasing challenges of climate change affecting the Pacific region using digital technologies. **The program offers participants a chance to engage in interactive lectures, practical exercises, and collaborative group discussions** that showcase the newest developments in digital technologies along with effective strategies for climate adaptation and mitigation. By uniting experts and policymakers, **this initiative aims to enhance the region's capacity, support sustainable development goals, and ultimately help build stronger, more resilient communities capable of confronting the impacts of climate change based on Digital Technologies.**

Programme

Date/Time	Sessions
19 August	Arrival of participants in Brisbane, Australia - Preparation meeting for the programme by organizers (ESCAP and Jeju National University of Korea)
Day 1 (20 Aug 2025) — Orientation and country reports	
09:00 - 09:20	Opening and welcome speeches - Ms. Joo Yeon Kim, Department of Capacity Enhancement Program, KOICA - Mr. Tae Hyung KIM, Chief, ICT and Development Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP - Mr. Raj SINGH, CEO, APNIC Foundation
09:20 - 12:00	Orientation: reviewing progress since the last training - Prof. Byung Gul LEE, Jeju National University of Korea on behalf of KOICA - Mr. Tae Hyung KIM, Chief, ICT and Development Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP
12:00 — 14:00	Lunch
14:00 - 17:00	Presentation on challenges and plan from PICs & knowledge sharing - Country presentations by each participating country (Fiji, Samoa, Solomon Islands, Tonga)
18:00 — 20:00	Welcome dinner *Leading moderator: Byung Gul Lee and Tae Hyung Kim*
Day 2 (21 Aug 2025) — Artificial intelligence (AI) and climate adaptation	
09:00 - 12:00	Lecture 1: Climate Change Impacts on Built Environments: Adaptation Strategies for Coastal Areas of Islands (Prof. Na, Won Bae, Pukyung National University)
14:00 - 17:00	Lecture 2: Sustainable Built Environments Responding to Climate Change Risks: Digitally Based Illustrations (Prof. Lee, Incheol, Pukyung National University)

	Leading moderator: Byung Gul Lee
Day 3 (22 Aug 2025) – Digital connectivity, ocean tech & sustainable resource management	
09:00 – 12:00 14:00 - 17:00	Lecture 1: Analysis of Marine Environment and Fish Catch using Marine Monitoring Data (Prof. Kim, Pukyung National University) Lecture 2: Utilization of Coastal Sediment Microbial Fuel Cells for Climate Change Adaptation (Prof. Kim, Pukyung National University) *Leading moderator: Byung Gul Lee and Tae Hyung Kim*
Day 4 (23 Aug 2025) – Field visit – APNIC Foundation	
09:00- 16:00	*Leading moderator: Aftab Siddiqui, Byung Gul Lee & Korean experts*
(24 Aug 2025) – Free time / Sunday	
	Free time
Day 5 (25 Aug 2025) – APNIC Foundation	
09:00 - 12:00 14:00 - 17:00	Lecture 1: APNIC Foundation - Digital connectivity in Pacific islands – key issues for policy makers Lecture 1: Group discussion – national action plans *Leading moderator: Aftab Siddiqui and Byung Gul Lee*
Day 6 (26 Aug 2025) – Digital technologies for climate action - opportunities and challenges for Pacific Island countries	
09:00 - 12:00	• "Technologies for disaster risk reduction – ESCAP Risk and Resilience Portal", Mr Daisuke Maruichi, Economic Affairs Officer, Disaster Reduction Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP) • "AI and satellite technologies" (Mr Keran Wang, Chief, Space Applications Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP) • "Disaster resilience technologies" (Mr. Amin Shamseddini, Programme Management Officer, United Nations Office for Disaster Risk Reduction – Pacific Subregional Office

	• "GeoAI for an equitable future. Updates on localizing foundational models, agentic tools, and the imperative for openness", (Mr. Hamid Mehmood, Scientific Affairs Officer, OOSA) Questions and Answer Session • "Digital connectivity in Pacific Island countries — are we connected?" (Dr. Amanda H.A. Watson, Australian National University) • "Challenges and opportunities of broadband infrastructure deployment in Pacific Island countries", (Mr Aftab Siddiqui, APNIC Foundation) • "Strengthening efficient internet traffic management for climate action" Mr Siope Vakataki Ofa, Economic Affairs Officer, ICT and Development Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP) Questions and Answer Session *Leading moderator: Siope Vakataki 'Ofa and Byung Gul Lee*
Day 7 (27 Aug 2025) –Study tour Brisbane City Council	
10:00 — 16:00	*Leading moderator: Aftab Siddiqui and Byung Gul Lee, Siope Vakataki 'Ofa*
Day 8 (28 Aug 2025) — National action plan on digital for climate action	
09:00 - 12:00 14:00 - 17:00	Outline for a national action plan and group discussion - Group discussions and drafting of national action plan by participants Outline for a national action plan and group discussion (continued) - Group discussions and drafting of national action plan by participants *Leading moderator: Siope Vakataki 'Ofa and Byung Gul Lee*
Day 9 (29 Aug 2025) — Pacific strategic discussion on national action plans on digital technologies for climate adaptation	
09:00 - 12:00	Country discussions for drafting national action plans on digital technologies for climate adaptation - All participants from the Pacific Island countries

14:00 - 17:00	Country presentations of draft national action plans on digital technologies for climate adaptation by each Pacific Island country *Leading moderator: Siope Vakataki Ofa and Byung Gul Lee*
Day 10 (30 Aug 2025) – Field trip#3 and closing ceremony	
09:00 - 12:00 14:00 - 17:00	Lecture 1: Group tour in city Lecture 2: Closing ceremony *Leading moderator: Byung Gul Lee and Siope Vakataki 'Ofa*
31 Aug 2025	*Depart Brisbane, Australia*

Why are National Report and Action Plan necessary?

EN | KR

KOICA Projects & Funds

Category	2018	2019	2020	2021
Number of partner countries	59	63	64	65
Total number of projects	260	257	292	311
Number of new projects	41	56	76	75
Total disbursement (USD)	305,462,929	291,056,125	262,557,505	345,620,052

Provided by KOICA website, 2025

Why is Action Plan important?

An action plan based on the National Reports provides a clear, structured approach for project implementation, which is essential for success. It outlines roles, responsibilities, and timelines for all stakeholders, including national governments, regional organizations, and local communities. A well-defined plan helps:

- **Strengthen Partnerships:** It fosters strong partnerships between KOICA, UNESCAP, and local partners, ensuring buy-in and ownership from all parties. This is particularly important for triangular cooperation projects, where knowledge and resources are shared among partners.
- **Capacity Building:** Many projects involve transferring knowledge and technology. An action plan ensures that capacity-building initiatives are targeted and effective, equipping local communities and institutions with the skills they need to sustain the project's benefits long after it is completed.
- **Risk Management:** It identifies potential risks and challenges—such as political instability, logistical hurdles, or cultural barriers—and outlines strategies to mitigate them, ensuring a smoother implementation process.

Action Plan

In Search of a Solution

Public Sector Training Development Program

For (Country Name) Government Officials

Name of the Participant

Name of the Participant

Name of the Participant

Contents

1. Background and Purpose
2. Current Status and Issues
3. Improvement Strategy
4. Specific Action Plan
5. Outline of the Action Plan
6. Expected Results

1. Background and Purpose

- **Background**

※ Describe why you have chosen this topic:

✓
✓
✓

- **Purpose**

※ Describe the topic's significance and purpose:

✓
✓
✓

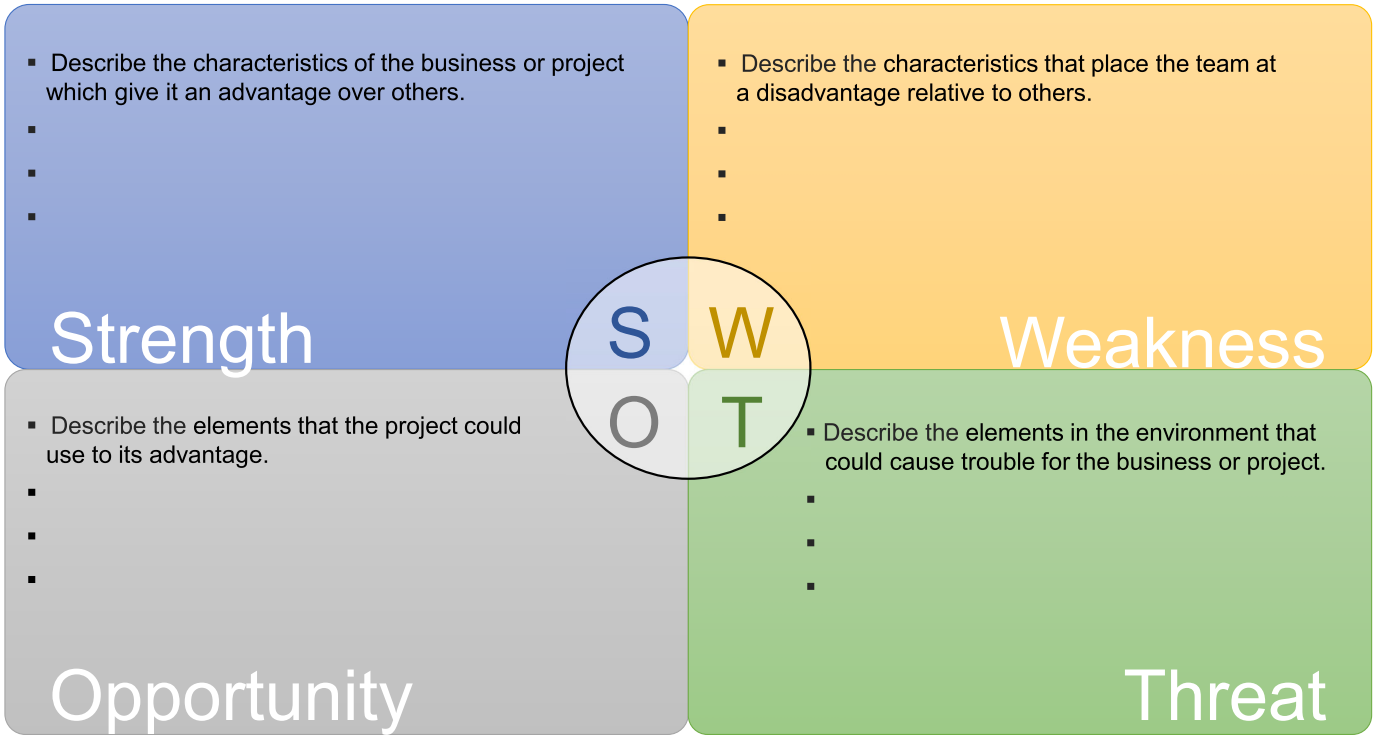
2. Current Status and Issues

※ Identify the current problems and issues of your part of the ministry or the government

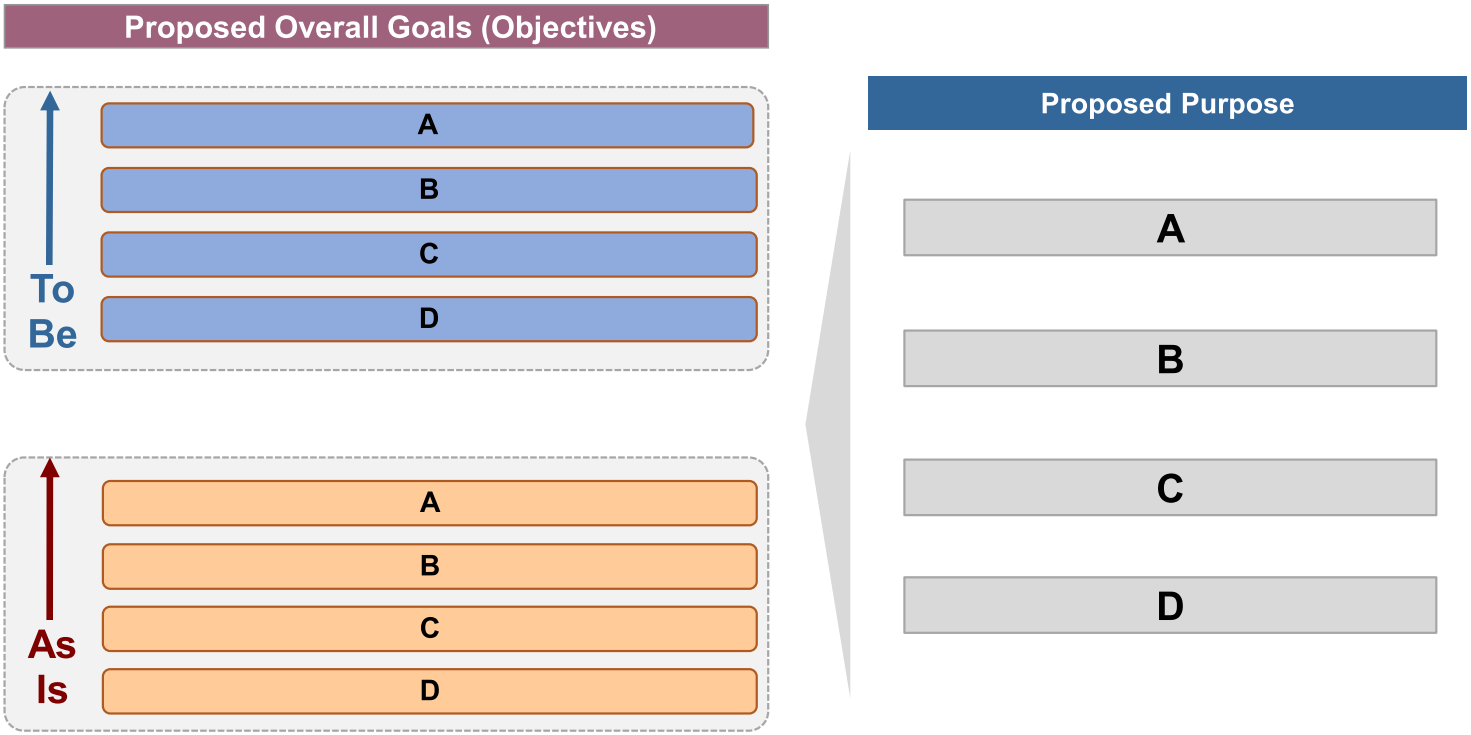
※ Describe the problems of the existing enforcement policies

※ Do not provide general information about your country (e.g., population, location, map, etc.)

2. Current Status and Issues – SWOT Analysis



2. Current Status and Issues – Gap Analysis



※ In this section, the proposal's overall goals and purpose need to be filled in.

3. Improvement Strategy

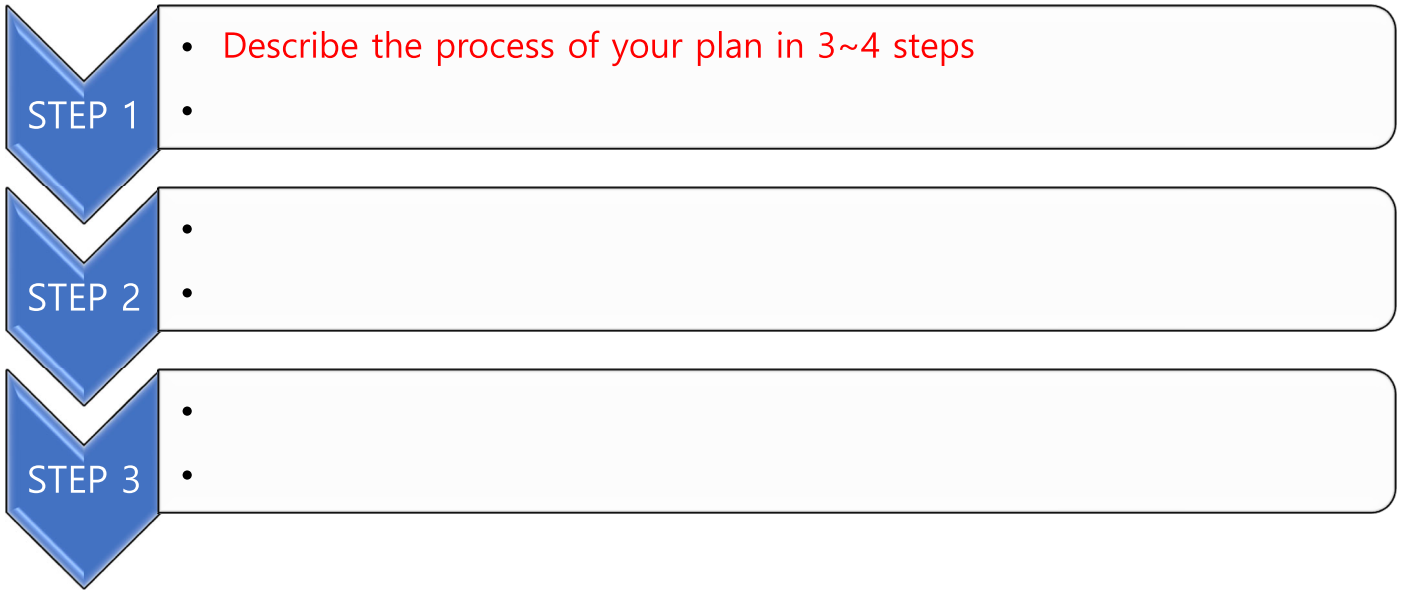
- ✓ Describe how do you want to improve current status of your country and what you will do to solve issues of your country or government.
- ✓ Develop strategies that promote cooperation with senior officers and connection with subordinate officers within the department.
- ✓ Improve your current duties and present the methods to combine them with other duties.

4. Specific Action Plan

- ✓ Describe and formulate the new policies to solve the current status and problems.
- ✓ Illustrate the objectives and main goals to be applied to your home country using the cases and knowledge obtained from the training courses in Korea.
- ✓ Do not be too general or abstract in this process.
- ✓ Be concrete in describing the results that may appear to set the direction of the specified period and the commitment of resources.
- ✓ Describe specific plans about how and what you will pursue to accomplish your goals

4. Specific Action Plan

- **The steps to achieve your goals**



5. Outline of the Action Plan

- **Implementing Organization**
  - Name of the organization: _____
  - Nature or type of the organization: _____
  - Major functions of the organization:

    _____
    _____
    _____
    _____
    _____
    _____

- **Duration of the Project : (0) Year(s)**
  - Date of commencement: _____
  - Date of completion: _____

※ Action Plan – Time Table (Examples)

- **Duration: (0) Year(s), First Year Work Plan: 2013**

No	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Fund US$
1	Action Plan presentation													
2	Report and dissemination													
3	Feedback from stakeholders													
4	Institutional reform, administrative approval													
5	Workshop to framework of activities													
6	Training for all concerns													
7														
8														
9														
10														

※ **Action Plan – Duration (Examples)**

- **Duration : (0) Year(s), Second Year Work Plan:(2026)**

No	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Fund US$
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

※ Outline of the Action Plan–Budget (if needed)

- **Fill in the necessary budget and manpower if needed**
- **Fill in the plan for cooperation between institutions**

✓

✓

✓

6. Expected Results – Outputs/Outcomes

- **Economic Effects**

✓
✓ Describe the expected economic effects of the proposal.
✓

- **Technical Effects**

✓
✓ Describe the expected technical effects of the proposal.
✓

- **Social and Environmental Effects**

✓
✓ Describe the expected social and environmental effects of the proposal.
✓
✓

6. Expected Results – Challenges/Solutions

- **Challenges and Risks**

✓
✓ Explain the expected problems and risks that may result from this proposal.
✓
✓
✓

- **Solutions**

✓ Illustrate how you would manage and provide solutions for the problems and risks.
✓
✓
✓

Action Plan Examples

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Action Plan

Implementation of a Volume-Based Waste Fee System in Sri Lanka

Name :

Contents

- Background and Purpose
- Current Status and Issues
- Improvement Strategy
- Specific Action Plan
- Expected Results

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Background and Purpose

• Background

✓ In Sri Lanka, due to economic development and rising living standards, the volume of municipal solid waste (MSW) has increased rapidly, and the quality of waste has become more complicated and complex to dispose of.

✓ In the absence of an efficient waste management system, over 80% of 7,000 tons of unsegregated MSW are being sent to dump sites every day.

• Purpose

✓ To implement a Volume-Based Waste Fee System with a definite target to minimize waste generation and increase recycling in three identified local authorities in the Western Province.

Current Status and Issues

• Current Status and Issues

✓ National Policy on Solid Waste Management prepared by the Ministry of Environment proclaimed that maximum opportunities for the application of the 3R concepts (reduce, reuse, and recycle) should be provided.

✓ Western Provincial Council enacted the Municipal Solid Waste Management Rules in 2008 to govern municipal solid waste management based on the policy principles of 3R.

✓ National Policy and Western Provincial Rules have not been fully satisfactorily enforced.

✓ This is largely attributable to the absence of an efficiently functioning waste management system in Sri Lanka.

✓ Possible only through satisfactory implementation of the 3R policy measures which are primarily based on sound accomplishment of source segregation.

Current Status and Issues – Gap Analysis

Proposed Overall Goals (Objectives)

To Be

- Minimize waste generation
- Increase recycling in target areas
- Promote "Resource Re-Circulated Society"

As Is

- Increase in volume of Municipal Solid Waste
- Quality of waste complicated to dispose of
- Absence of efficient waste management system
- 80% of 7,000 tons of unsegregated MSW

Proposed Purpose

- Implement Volume-Based Waste Fee System
- Implement the 3R Policy
- Accomplish source segregation
- Prepare waste management guidelines

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Improvement Strategy

- **Improvement Strategy**

Implementation of Volume-Based Waste Fee System

System evolved which normally adopted economic Incentives based on The polluter-pays principle



Implementation of the 3R policy

3R

Reduce
Reuse
Recycle

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Improvement Strategy

Benefits

- Reduce the volume of municipal solid waste **headed to landfills and incinerators**
- **Provide a large increase in recycling volumes**
- **Increase citizen participation in recycling and composting activities through segregation**
- **Increase flexibility, efficiency and cost effectiveness in waste management**

Risks

- **Increase in illegal dumping**
  → Can be minimized by enforcement activities by Environmental Unit in every police station
- **Illegal VBWF bag production**
  → Can be minimized if Korean VBWF bags are used initially for the program.

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Specific Action Plan

- **Specific Action Plan and Activities**

✓ Purchase equipment and vehicles appropriate to the program

✓ Obtain VBW bags for mixed waste and non-recyclable wastes from KOICA to provide to households and other discharges

✓ Providing bags and bins for recyclables and perishables

✓ Implement the program in 40% of the individual local authority area within six (6) months

✓ Preparation of VBWF Guidelines for local conditions on classification of wastes, the type/size/price/material/technical specifications of VBWB bags, collection frequency, monitoring of illegal disposals, etc.

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Action Plan

- **The steps to achieve the Action Plan's goals**

STEP 1

- Minimize mixed waste handling
- Promote segregation of waste

STEP 2

- Develop the concept of "Resource Re-Circulated Society"
- Meet the recurrent expenses of the LAs for the MSW program through sales of VBWF bags

STEP 3

- Expand the lifetime of existing landfill sites
- Replicate the program in other 45 local authorities of the province and thereafter the other 287 local authorities of Sri Lanka

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Outline of the Action Plan

- **Implementing Organization**

  - Name of the organization: Waste Management Authority

  - Nature or type of the organization: Provincial Authority established under the Provincial Waste Management Statute of No.01 of 1999

  - Major functions of the organization:
    Facilitation and regulation of local authorities of the Western Province for the management of their wastes.

- **Duration of the Project : 1 Year**
  - Date of commencement : 2026.05.13
  - Date of completion : 2027.05.01

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Action Plan Time Table

- **Duration: (1 Year) First Year Work Plan: 2013**

No	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Purchase equipment and vehicles appropriate to the program												
2	Obtain VBW bags from Korea												
3	Awareness of local governments, police and people of the area												
4	Implementation of the program in 40% of individual local authority area												
5	Implementation of the program in 100% of individual local authority area												
6	Monitor, evaluate and report the outcome to all stakeholder agencies												
7	Preparation of VBWF Guidelines for local conditions												

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Outline of the Action Plan–Budget (if necessary)

Activity	TOTAL	First Year (Cost US$)	Responsibility
Awareness	5000	5000	Provincial and Local Governments
Domestic Fund(in kind)	100,000	100,000	Provincial and Local Governments
Foreign Fund (Korea)	15,000	15,000	KOICA through Government of Korea
TOTAL AMOUNT	120,000	120,000	-

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Expected Results – Outputs/Outcomes

• Economic Effects

- ✓ Present direct expenses for local governments will be reduced.
- ✓ The drastic decrease in sales of segregated recyclables could be effectively utilized for better management of MSW in the respective local community.

• Technical Effects

- ✓ Korea's experiences and technology for the implementation of the VBW Fee and the usage of waste as a "resource" could be introduced.
- ✓ Various recycling technologies that utilize recyclable waste to be segregated in great volumes for industrial purposes will be introduced to the country.

• Social and Environmental Effects

- ✓ There will be a significant greenhouse gas emission reduction due to less dumping and burning of waste.
- ✓ Vector-borne and pandemic diseases due to improper waste management will be reduced.
- ✓ Changes in the behaviors and thinking pattern of the people will create a new social lifestyle in the country.

Thank you!

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