



Delivering AI for Climate Action in Developing Countries CO₂ Credit-Based e-mobility Innovation in Cambodia

23 April 2026, Climate Week Yeosu

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VERYWORDS



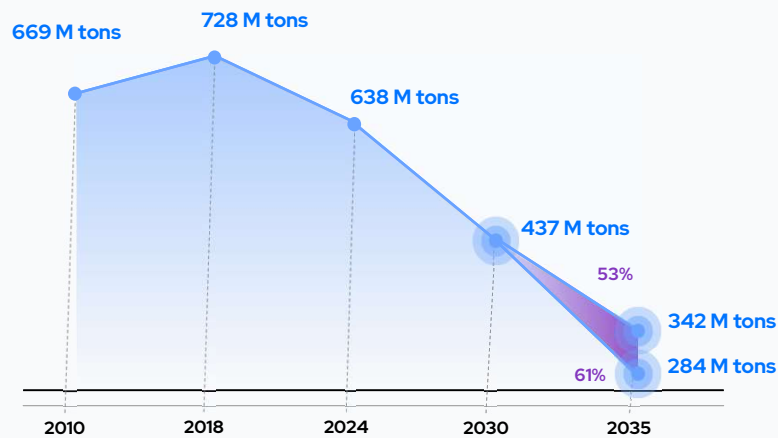
Project Overview

KOICA IBS Program

Establishment of a Sustainable e-Mobility Ecosystem for Carbon Emissions Reduction in Cambodia

Project Background: KOREA NDC, Cambodia Policy Problem Solution

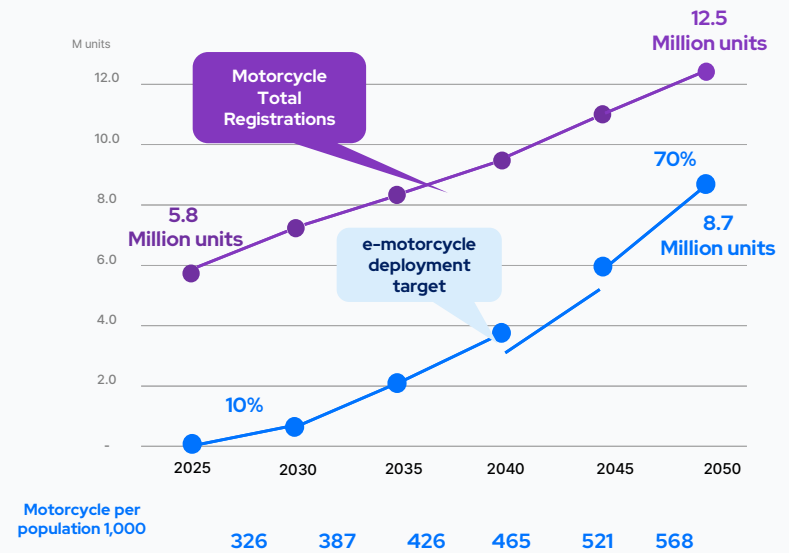
Korea 2035 Carbon Reduction target



- ✓ Industrial sector: 260 → 230 M tons (29.8 M tons Reduction)
- ✓ ITMOs: '30 annually from 37.5 M tons → annual 1.3 Billion+ USD
- ✓ ITMO Installation Support Program: 40 M USD ('26)

Growing Need for Korea's ITMO Projects

Cambodia Motorcycle Market Current Status




※ Vietnam, in the case of population 1,000 per person 655 units

Need to Promote Electric Motorcycles in Cambodia

KOICA IBS Program

E-Motorcycle

- No production infra, high import reliance
- Existing models: low cost-performance
- Li-ion battery cost drives high prices

 Local production, Body-only sales

Charging Infra

- Long charge time (~5-8 hrs)
- Poor power supply causes battery degradation
- E-motorcycle charging infra shortage

 "Subscription" charging, Location-based Data

Env. Policy

- e-Mobility adoption → waste battery issues
- Carbon neutrality needs GHG support
- e-Mobility alone: minimal GHG impact

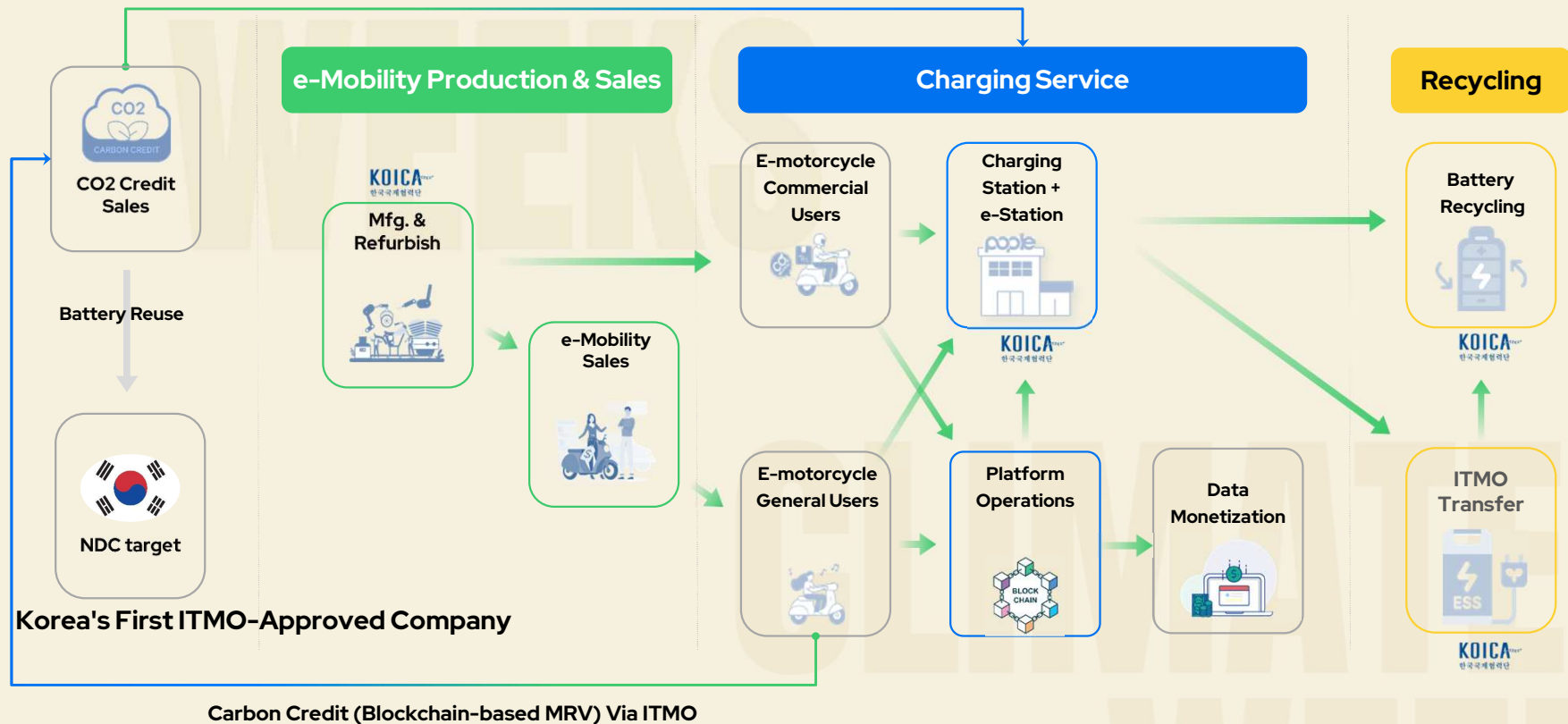
 Battery recycling, Carbon credit sales

KOICA IBS Program: Establishment of a Sustainable e-Mobility Ecosystem for Carbon Emissions Reduction in Cambodia (Dec 2021~Dec 2025/ 3,156M KRW)

Contributing to Cambodia's carbon emission reduction through renewable energy supply and revitalization of the recycling industry, while improving electricity accessibility for underserved communities.

Business Activities: VERYWORDS Ecosystem

Building Charging Infra through CO2 Credit Pre-sale Revenue



KOICA IBS Program Implemented



Assembly Factory



Assembly Process



Battery Recycling Plant



Assembly Factory



E-Motorcycle Dispatch Area



ITMO Platform

KOICA IBS Program Implemented



AI Integration

Smart Battery & Safe Driving


Leveraging AI diagnostics for battery health prediction and IoT-powered safe driving guidance across Cambodia

AI Integration for Batteries and e-Mobility

① Batteries

② e-Mobility

“ Problem ”
Complex Battery Diagnostics




High cost and slow performance evaluation of used batteries

AI-driven battery evaluation system needed




“ Solution ”
AI Battery Performance Evaluation



Low-cost, high-efficiency AI model predicting remaining battery capacity

Fast, cost-effective diagnostics at scale

“ Problem ”
Unsafe Driving in Extreme Conditions




Accident risk from poor roads, erratic traffic, and unsafe driving habits

Data-driven safe driving system required



“ Solution ”
AI-Powered Safe Driving Guidance



IoT data collection + AI analysis for personalized safe driving

Boosting rider safety & convenience

AI Integration for Batteries and e-Mobility

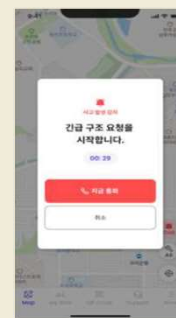
① AI Battery Diagnostic Simulation



No	Process	Details
1	Data Collection via BMS	Collect & process SoC/SoH training data
	Algorithm Design & Training	Build prediction models for SoC & SoH
2	Device Connection & Setup	Link BMS, Simulator, Hi Tester; input charge/discharge data
3	Run Diagnostics	Execute battery charge/discharge simulation
4	Verify SoH Results	Review predicted State of Health values

② Smart Safe Driving Guide

Accident Detection and Alert



Real-time accident detection and emergency alert notifications

Safe Driving Alert44s



Notifications to raise awareness and promote safe driving habits

Safety Score Report



Monthly safety score reports generated based on IoT driving data analysis

No	Process	Details
1	Driving Data Collection	Capture patterns via gyroscope, accelerometer & IoT sensors
	AI Model Training	Train risk prediction & real-time safe driving guidance model
2	Safe Driving Guide	Score driving safety in real-time; push alerts via mobile app

AI Integration for Batteries and e-Mobility

Enhancing e-Mobility Driving Safety and Increasing Battery Reuse and Recycling Efficiency through AI Integration

Battery Diagnostic System



BMS-based
Battery Data Collection
and Analysis

Simplified diagnostic system
to enhance the convenience

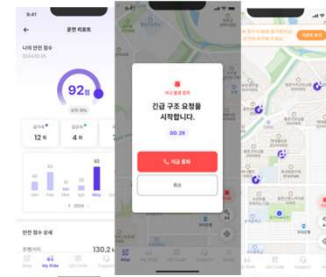
Development of self-balancing systems



Real-Time Tilt Data Collection and
Rollover Prevention

Automatic balance maintenance to
prevent tipping

IoT-based Safe Driving Guide



Collection and Analysis of Speed,
Acceleration, and Braking Data

Provision of improvement guidance
for safer driving

Thank you.

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