

Capacity Building on the Promotion of Energy
Efficiency for Local Authorities in the *Republic of*
Example ('24-'26)

Program Concept Paper

April 28, 2022

PROGRAM CONCEPT PAPER (PCP)

SECTION 1. PROGRAM OVERVIEW				
Title	Capacity Building on Energy Efficiency for Local Authorities in the <i>Republic of Example</i> (2022-2024)			
Target Country	<input checked="" type="checkbox"/> Country-specific Program <input type="checkbox"/> Multi-country Program Country: <i>Republic of Example</i>			
Duration	2024-2026 (3 years)			
Budget	US\$15,000 yearly (Tentative, Subject to Change)			
Field/Sector	Priority	2nd	Cross-cutting	Policy Marker
	Energy	Climate Change and Environment	N/A	Green/Carbon Neutral/Climate Change
Proposed by	<input type="checkbox"/> Partner Country <input checked="" type="checkbox"/> Government of Republic of Korea <input type="checkbox"/> Donor Agency <input type="checkbox"/> International Organization			
Proposer Org. Information	Ministry of Environment (in Korea)			
Objectives	<ul style="list-style-type: none"> ▪ To enhance energy efficiency and sustainable development in different regions of the <i>Republic of Example</i> ▪ To build capacity in the establishment and modification of standards and procedures for energy quality management and utilization of new energy 			
Outcome	<ul style="list-style-type: none"> ▪ Sharing of the high-quality knowledge of MIE staff with government officials ▪ Implementation of energy efficiency policies and approaches by local authorities 			
Output	<ul style="list-style-type: none"> ▪ Participants with increased capacity and knowledge on energy efficiency ▪ Curriculum for energy efficiency and quality management ▪ Action Plan for the design and implementation of energy efficiency projects 			
Course Description	Yr.	Length		Plan (Input)
	1	12	Days	<ul style="list-style-type: none"> ▪ Module information - Successful implementation of energy efficiency policy in South Korea, international standards of energy efficiency ▪ Activity information - Training in South Korea, workshop, site visits ▪ Action Plan Review
	2	17	Days	<ul style="list-style-type: none"> ▪ Module information - Installation and management of eco-friendly energy facilities, projects and raising awareness for energy efficiency ▪ Activity information - Online lecture and Q&A, invitational off-line group discussion and field tour ▪ Action Plan Review
				<input type="checkbox"/> Online <input checked="" type="checkbox"/> Invitational <input type="checkbox"/> In-country <input type="checkbox"/> Blended <input type="checkbox"/> Etc (e.g. Third country)
				<input type="checkbox"/> Online <input type="checkbox"/> Invitational <input type="checkbox"/> In-country <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Etc. (e.g. Third country)

	3	17	Days	<ul style="list-style-type: none"> ▪ Module information - Understanding renewable energy, practice on operation and management of eco-friendly energy facilities, facilitation of energy efficiency on local level ▪ Activity information - Online lecture and Q&A, offline practice sessions and local site visits ▪ Action Plan Review 	<input type="checkbox"/> Online <input type="checkbox"/> Invitational <input type="checkbox"/> In-country <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Etc. (e.g. Third country)
Target Group(s)	Yr.	No. of Participants		Target Ministry/Org.	Target Position
	1	15		<ul style="list-style-type: none"> ▪ Ministry of Industry and Energy ▪ National Energy Agency 	<input checked="" type="checkbox"/> High-level <input type="checkbox"/> Director General <input type="checkbox"/> Senior level <input type="checkbox"/> Junior level <input type="checkbox"/> Etc. (e.g. non-government official, expert, etc.)
	2	25		<ul style="list-style-type: none"> ▪ Ministry of Industry and Energy ▪ National Energy Agency ▪ Ministry of Finance – Planning and Budget Department 	<input type="checkbox"/> High-level <input type="checkbox"/> Director General <input checked="" type="checkbox"/> Senior level <input type="checkbox"/> Junior level <input type="checkbox"/> Etc. (e.g. non-government official, expert, etc.)
	3	20		<ul style="list-style-type: none"> ▪ Ministry of Industry and Energy ▪ National Energy Agency ▪ Ministry of Finance – Planning and Budget Department 	<input type="checkbox"/> High-level <input type="checkbox"/> Director General <input type="checkbox"/> Senior level <input checked="" type="checkbox"/> Junior level <input type="checkbox"/> Etc. (e.g. non-government official, expert, etc.)
Undertakings	Target Country				
	<ul style="list-style-type: none"> ▪ Recommend eligible participants for the program ▪ Allow participants to fully take part in the program ▪ Utilize output of the program including Action Plan ▪ Disseminate training outcomes 				
	KOICA				
<ul style="list-style-type: none"> ▪ Recruit training organization with expertise and experience ▪ Provide training program in cooperation with training organization by supporting budget and other necessary resources. 					
Follow-up Plan/ Exit Strategy	<ul style="list-style-type: none"> ▪ Support participants to join KOICA CIAT alumni network ▪ Support alumni members to disseminate the achievement and knowledge ▪ Provide adequate support to carry out Action Plan 				
Policy and Strategy	International				
	<ul style="list-style-type: none"> ▪ (Priority) SDG 7 : Ensure access to affordable, reliable, sustainable and modern energy for all ▪ SDG 13 : Take urgent action to combat climate change and its impacts 				
National (Target Country)					

	<ul style="list-style-type: none"> ▪ 2030 National Strategy for Sustainable Development ▪ National Energy Strategy in <i>the Republic of Example</i> ▪ National Solar Energy Development Plan 2020-2030 ▪ 2030 National Climate Plan 																				
	Republic of Korea (KOICA)																				
	<ul style="list-style-type: none"> ▪ KOICA CPS <ul style="list-style-type: none"> - (Energy) Supporting the development of electricity and energy infrastructure for industrial development and improvement of the quality of life ▪ KOICA Country Program <ul style="list-style-type: none"> - Strengthening capabilities for environment-friendly energy to enable sustainable development ▪ KOICA Mid-term Strategy for Energy <ul style="list-style-type: none"> - Promoting sustainable development through ethical energy production and consumption 																				
Other Relevant Project/ Program	<ul style="list-style-type: none"> ▪ KOICA Project (The Project for the Establishment of the Green Building and Smart Grid Research & Development Platform in the <i>Republic of Example</i>) <ul style="list-style-type: none"> - (How to link) The KOICA project aims to build the necessary infrastructure for the use and research of green energy. The CIAT program targets the related personnel involved with this project, which can enhance the effectiveness of the project with improved capacity. 																				
Communication History	<ul style="list-style-type: none"> ▪ Discussion between Ministry of Environment(Korea) and Secretary State of the <i>Republic of Example</i> ▪ Date of Discussion 02 / 19 / 2022 ▪ Major Agreement Finalize PCP draft by joint review 																				
M&E Plan & Indicator	<ul style="list-style-type: none"> ▪ Survey will be conducted by KOICA HQs every year after the training program: <ol style="list-style-type: none"> 1) Level of Satisfaction 2) Level of Achievement 3) Level of Action Plan Influence ▪ The result of the survey will be reflected to the Program in subsequent year or follow-up program 																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Indicators</i></th> <th style="text-align: center;">2024</th> <th style="text-align: center;">2025</th> <th style="text-align: center;">2026</th> </tr> </thead> <tbody> <tr> <td><i>Level of Satisfaction</i></td> <td style="text-align: center;">90.00</td> <td style="text-align: center;">90.03</td> <td style="text-align: center;">90.08</td> </tr> <tr> <td><i>Level of Achievement</i></td> <td style="text-align: center;">94.50</td> <td style="text-align: center;">94.40</td> <td style="text-align: center;">94.27</td> </tr> <tr> <td><i>Level of Action Plan Influence</i></td> <td style="text-align: center;">84.70</td> <td style="text-align: center;">84.87</td> <td style="text-align: center;">85.09</td> </tr> </tbody> </table>			<i>Indicators</i>	2024	2025	2026	<i>Level of Satisfaction</i>	90.00	90.03	90.08	<i>Level of Achievement</i>	94.50	94.40	94.27	<i>Level of Action Plan Influence</i>	84.70	84.87	85.09		
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Contact Information	Ministry (Korea)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="2">Name</td></tr> <tr><td colspan="2">Ms. Minji Kim</td></tr> <tr><td colspan="2">Organization / Department</td></tr> <tr><td colspan="2">(ROK) Ministry of Environment</td></tr> <tr><td colspan="2">Position</td></tr> <tr><td colspan="2">Project Manager</td></tr> <tr><td colspan="2">Contact</td></tr> <tr><td>Phone</td><td>+82 2 345 7809</td></tr> <tr><td>E-mail</td><td>moeinkorea@me.go.kr</td></tr> </table>	Name		Ms. Minji Kim		Organization / Department		(ROK) Ministry of Environment		Position		Project Manager		Contact		Phone	+82 2 345 7809	E-mail	moeinkorea@me.go.kr	<input checked="" type="checkbox"/> Proposer (Initial writer) <input type="checkbox"/> Reviewer <input type="checkbox"/> Elaborator
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SECTION 2. PROGRAM RATIONALE

SITUATION ANALYSIS & JUSTIFICATION FOR INTERVENTION:

According to the Ministry of Industry and Energy, the *Republic of Example* imports approximately 90% of its energy needs, which amounted to 8 billion USD in 2018 (International Energy Agency). The total primary energy consumption has increased by about 5 % per year since 2004. Over the medium to long term, the *Republic of Example* hopes to increase the production of electricity from renewable energy and also to export to Europe.

The *Republic of Example* is currently leading Africa in terms of contributions to energy efficiency and efforts to combat climate change. The *Republic of Example* committed, under the Paris Agreements, to reduce its greenhouse gas emissions by 42% by 2030, with its ambitious goal to put forward the projects for facilitating the use of renewable energy.

The national energy strategy of *RoE* gives pride of place to renewable energy and energy efficiency. The renewable energy component is operated through several structuring programs for solar, wind and hydraulic energy. The development of renewable energy projects in *RoE* allows the country to position itself as a model for other African countries and a leader in this field.

The development of renewable energies and energy efficiency in *RoE* also calls for capacity building and training actions in various sectors for decision-makers, engineers, technicians and installers involved in these areas.

POLICIES AND STRATEGIES :

International

The program mainly aims to contribute to achieving the SDG 7 and the SDG 13 as below:

- SDG 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- SDG 7.1. By 2030, ensure universal access to affordable, reliable and modern energy services
 - SDG 7.2. By 2030, increase substantially the share of renewable energy in the global energy mix
 - SDG 7.3. By 2030, double the global rate of improvement in energy efficiency
 - SDG 7.a. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
 - SDG 7.b. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programs of support

SDG 13. Take urgent action to combat climate change and its impacts

- SDG 13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

National

In 2009, the *Republic of Example* adopted a national energy strategy in order to improve the security and availability/affordability of its energy supply, while also addressing environmental and safety concerns. The strategy seeks to reach these goals by diversifying energy sources, optimizing the electricity mix, increasing local production particularly from renewable sources, promoting energy efficiency, and advancing regional integration. The strategy is to be implemented through energy sector reforms, particularly including legislative changes, increased transparency and competition, as well as capacity building.

In 2019, the *Republic of Example* issued its 2030 National Climate Plan. The strategy confirms the climate objective set under the Paris Agreement pledge of RoE and lays out measures to enhance climate governance, notably by creating a National Commission on Climate Change.

With the National Energy Strategy, the “Solar Energy Development Plan (SEDP)” was launched, which aims to install 2 GW of solar-based generation capacity by 2020 and is implemented mainly by the National Agency for Solar Energy (NASEN). The first plant “Powerplant 1” has been providing electricity to approximately 650,000 people since its launch in 2016.

Republic of Korea (KOICA)

The KOICA Country Program of the *Republic of Example* sets the goal to achieve strengthened capabilities for environment-friendly energy to enable sustainable development. With the CP, the KOICA Office in RoE is to propose projects and programs related to the field of sustainable energy. In the field of energy, the Project for the Establishment of the Green Building and Smart Grid Research & Development Platform in the *Republic of Example* is ongoing and is to be completed by 2023. In this sense, the project and the CIAT program that is currently being proposed can generate synergy.

Also, the KOICA Mid-term Strategy for Energy specifies its mission to promote sustainable development through ethical energy production and consumption.

Other Relevant Program Information in Recent 5 years

In the energy sector, KOICA had provided a course on “Capacity Building for the Efficient Utilization of Energy and the Management of Energy Facilities (’15-’17)” in the *Republic of Example*, which targeted junior-level officials in the Ministry of Industry and Energy at the time. Most of the fellows who participated in the course are still working in MIE and are currently positioned at a senior or high-level. It is expected that the course will be more effective if they are to participate again in this course in the first or second year.

Moreover, JICA is currently providing a training course for the managers and working staff in the Ministry of Environment regarding the implementation of environment-friendly energy policies at the local level. The ministries will be able to collaborate and create synergy when making policies for energy efficiency and facilitating sustainable development in the country.

SECTION 3. PROGRAM DESCRIPTION

Expected Result

Objective

This CIAT course aims enhance energy efficiency and sustainable development in different regions of the *Republic of Example*.

The course is designed to build up the capacity of high-level to junior officials in the energy sector who can contribute to the establishment, modification and fulfillment of the standards and procedures for quality management and new uses of energy.

Outcome

The MIE staff who participate in the course will be able to disseminate the knowledge acquired from the lectures and the writing of the action plan to other government officials related to the field of energy. Not only can they apply the lessons learned to their actual work to create better outcomes, but they can also take part as a lecturer in KOICA’s knowledge sharing program, organized by the KOICA club (alumni association) of the *Republic of Example*. This allows more related personnel in the country to acquire the knowledge from the CIAT course without actually having to participate in it, which increases its effectiveness.

Moreover, local authorities will be able to implement the energy efficiency policies at the local level. The roles of the participants may be divided with regards to policymaking and

implementation – the officials on the higher level shall actually be making and implementing the policies, while the junior-level officials are to apply and oversee their effectiveness.

Output

The course curriculum for energy efficiency shall be designed specifically for the *Republic of Example*.

The technical and managerial staff of MIE shall have the capacity to train government officials including local authorities as well as to design and implement energy efficiency projects.

The government officials and local authorities shall have the technical capacity to develop and support the energy efficiency policies that meet international standards.

Training Plan (Inputs)

Module, Course Brief and Activity Plan

1 st year	<p>[Module]</p> <ul style="list-style-type: none"> • Successful implementation of energy efficiency policy in Korea (Policymaking, process of implementation and its effects) • International standards of energy efficiency <p>[Activity information]</p> <ul style="list-style-type: none"> • Training in Korea (Off-line lectures, real-time Q&A) • Workshop <ul style="list-style-type: none"> - Group discussions and group work for action plan building • Site visits <p>Renewable energy facilities of ROK, Ministry of Environment, etc.</p>	<input type="checkbox"/> Online <input checked="" type="checkbox"/> Invitational <input type="checkbox"/> In-country <input type="checkbox"/> Blended <input type="checkbox"/> Etc. (e.g. Third country)
2 nd year	<p>[Module]</p> <ul style="list-style-type: none"> • Installation and management of eco-friendly energy facilities • Designing projects for energy efficiency • Raising awareness for the effective implementation of energy-efficiency projects <p>[Activity information]</p> <ul style="list-style-type: none"> • (Online) Lectures, Q&A though Zoom sessions and email for 2 weeks • (Invitational) Workshop <ul style="list-style-type: none"> - Group discussions and group work for action plan building (collective training in the Republic of Korea for 5 days) - Lecture on Action Plan methodology • Field visits <p>Visiting facilities and related organizations in South Korea</p>	<input type="checkbox"/> Online <input type="checkbox"/> Invitational <input type="checkbox"/> In-country <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Etc. (e.g. Third country)
3 rd year	<p>[Module]</p> <ul style="list-style-type: none"> • Understanding renewable energy • Practice on the operation and management of eco-friendly energy facilities • Facilitation of energy efficiency at the local level <p>[Activity information]</p> <ul style="list-style-type: none"> • (Online) Lectures, Q&A though Zoom sessions and email for 2 weeks • (In-country) Workshop <ul style="list-style-type: none"> - Group discussions and group work for action plan building (collective training of participants for 5 days) 	<input type="checkbox"/> Online <input type="checkbox"/> Invitational <input type="checkbox"/> In-country <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Etc. (e.g. Third country)

	<ul style="list-style-type: none">- Action Plan presentation and knowledge sharing• Field visits- Visiting facilities and related organizations in the <i>Republic of Example</i>	
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SECTION 4. STAKEHOLDER ANALYSIS

TARGET GROUP OUTLINE

YEAR	MINISTRY/ORG.	POSITION	NO. OF PARTICIPANTS
2022	MIE	High-level	15
2023	MIE, energy-related organization	Senior level	25*
2024	MIE	Junior level	20

Participating/Target Organization needs to be changed during the program: Yes No

In second year, the program targets junior-level local authorities, who may or may not be a person working in MIE. He/she must be working in the field of energy but can be from the private sector or an affiliated organization of MIE.

*Reason for having 25 participants in the second year

Regarding the promotion of energy efficiency, the senior-level staff members are the most influential key players in the government. In this sense, by having more participants, more related personnel will be able to take part in discussions and learn from the course. Moreover, some of the high-level participants from the first year could join as key persons to inform themselves about the issues at the practical working level.

QUALIFICATION FOR TRAINEE

Required qualification:

- Be nominated by his/her government
- Have a willingness to show a high level of participation and commitment throughout the course and contribute to the capacity building of his/her organization after the completion of the program
- Have worked for ministries/organizations in the energy sector for at least 2 years
- Have language competency in English to participate in seminars and write an Action Plan

Key persons Information

Involvement of Key Persons (within 30%) with intensive course: Yes No

In the first year, the high-level officials are to participate to learn the theories, standards and successful policymaking process. If some of them are to participate as key persons in more practical sessions of this course, they will be able to better understand the issues that must be tackled and considered in the strategizing process. In this sense, the involvement of key persons will enhance the effectiveness of this CIAT course.

QUALIFICATION FOR TRAINING ORGANIZATION

- Must be an energy-related government organization of Korea
- Preference shall be given to organizations with a sustainable and/or renewable energy project that has been ongoing for at least 10 years
- Nomination (if applicable): Korea Energy Agency
 - Reason: The organization is a government organization of Korea, which was established in 1980 with expertise in renewable energy and energy efficiency. It has been taking part in other ODA projects of KOICA in the energy sector. Hence it seems to be an appropriate organization for running and managing the course.

OTHER STAKEHOLDERS INFORMATION

In 2020, the Energy Company of Example(ECE) signed an MOU with Republic of Korea regarding renewable energy integration. ECE is the largest energy company in the *Republic of Example* and has been endeavoring to initiate a renewable energy project in the country. It is expected that this MOU will be critical in laying the foundation for the construction and utilization of renewable energy facilities in the country, and for promotion of better relationship between the *RoE* and Korea.

SECTION 5. PLAN FOR MONITORING AND EVALUATIONS

M&E PLAN AND INDICATORS

M&E Plan

- Survey will be conducted by KOICA HQs every year after the training program to measure:
 - 1) Level of Satisfaction
 - 2) Level of Achievement
 - 3) Level of Action Plan Influence
- The result of the survey will be reflected to the subsequent year program or follow-up program

Indicators

Indicators	Targets			Means of Verification	Source of Data
	2024	2025	2026		
Level of Satisfaction	90.00	90.03	90.08	Average figure of global program from previous 3 years	Survey result
Level of Achievement	94.50	94.40	94.27	Average figure of global program from previous 3 years	Survey result
Level of Action Plan Influence	84.70	87.87	85.09	Average figure of global program from previous 3 years	Survey result

Follow-up Plan

Knowledge sharing during and after the program internally and externally

- Knowledge/result sharing with respective ministries and within respective agencies.

CIAT On-site Program (Follow-up Program)

- Upon completion of this course, MIE plans to carry out the CIAT on-site program as a follow-up measure. To do so, the outcome and effectiveness of this project will be carefully managed.

Link with KOICA Projects

- The Ministry of Industry and Energy is planning to propose a KOICA project in 2025 for better infrastructure and technology that can be utilized with the lessons learned from the CIAT course. Also, with the World Friends Korea program, the *Republic of Example* shall submit a proposal for the dispatch of a short-term volunteer in the energy sector, to assist with the implementation of the best Action Plan of this course on demand.

Project Review (Project Board)

- As the project's governance mechanism, the project board will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socially disseminate the project results and lessons learned with relevant audiences.

Plan for sustainable partnership

The proposed joint fellowship program is related to and opens opportunity of collaboration with numerous programs, projects and initiatives implemented in Morocco, not only by UNDP or KOICA but also by the Ministry of Energy, Mines and Environment of Morocco, the Moroccan Agency for Energy Efficiency (MIE). UNDP plans to hold steering committee meetings and

reviews of annual project quality assurance shall be conducted by the Project Board to keep the sustainable partnership between KOICA, UNDP, MIE and other related organizations.