



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



## **UNIDO-JCM in African JCM Partner Countries Including Fukuoka method applied JCM project**

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## UNIDO at a glance

- The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability.
- UNIDO's mission is to promote and accelerate inclusive and sustainable industrial development (ISID) (SDG9) in developing countries and economies in transition
- UNIDO programmatic focus is structured in four strategic priorities



Creating shared  
prosperity



Advancing economic  
competitiveness



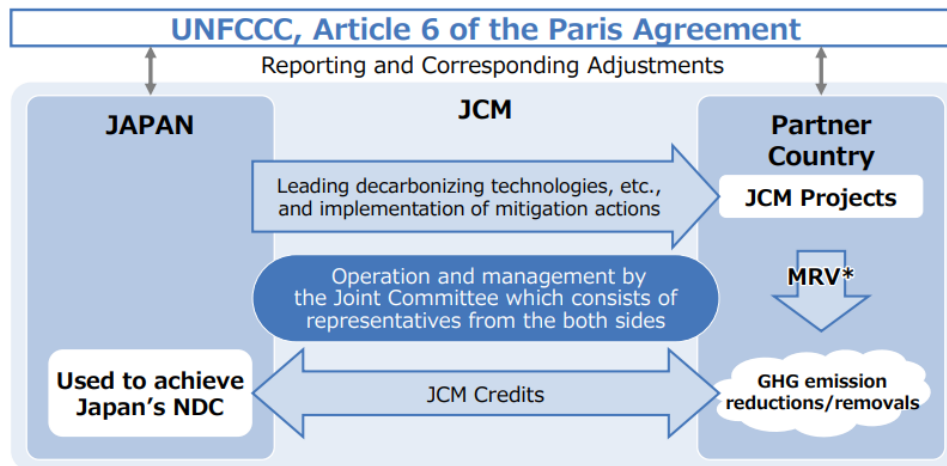
Safeguarding the  
environment



Strengthening knowledge  
and institutions

## Basic Concept of the JCM

- Facilitate diffusion of leading decarbonizing technologies and infrastructure, etc., through investment by Japanese entities, thereby contributing to GHG emission reductions or removals and sustainable development in partner countries.
- Contribute to the achievement of both countries' NDCs while ensuring the avoidance of double counting through corresponding adjustments.
- Implement the JCM consistent with the guidance on cooperative approaches, referred to in Article 6, paragraph 2 of the Paris Agreement.



\*measurement, reporting and verification

### Eastern Europe • Caucasus

-  20. Azerbaijan
-  21. Moldova
-  22. Georgia
-  29. Ukraine


### Asia Pacific

-  1. Mongolia: 12 projects
-  2. Bangladesh: 5 projects
-  5. Maldives: 4 projects
-  6. Viet Nam: 51 projects
-  7. Laos: 7 projects
-  8. Indonesia: 60 projects
-  10. Palau: 7 projects
-  11. Cambodia: 7 projects
-  15. Myanmar: 8 projects
-  16. Thailand: 57 projects
-  17. Philippines: 21 projects
-  23. Sri Lanka: 3 projects
-  24. Uzbekistan
-  25. Papua New Guinea: 1 project
-  27. Kyrgyz: 1 project
-  28. Kazakhstan

### Latin America

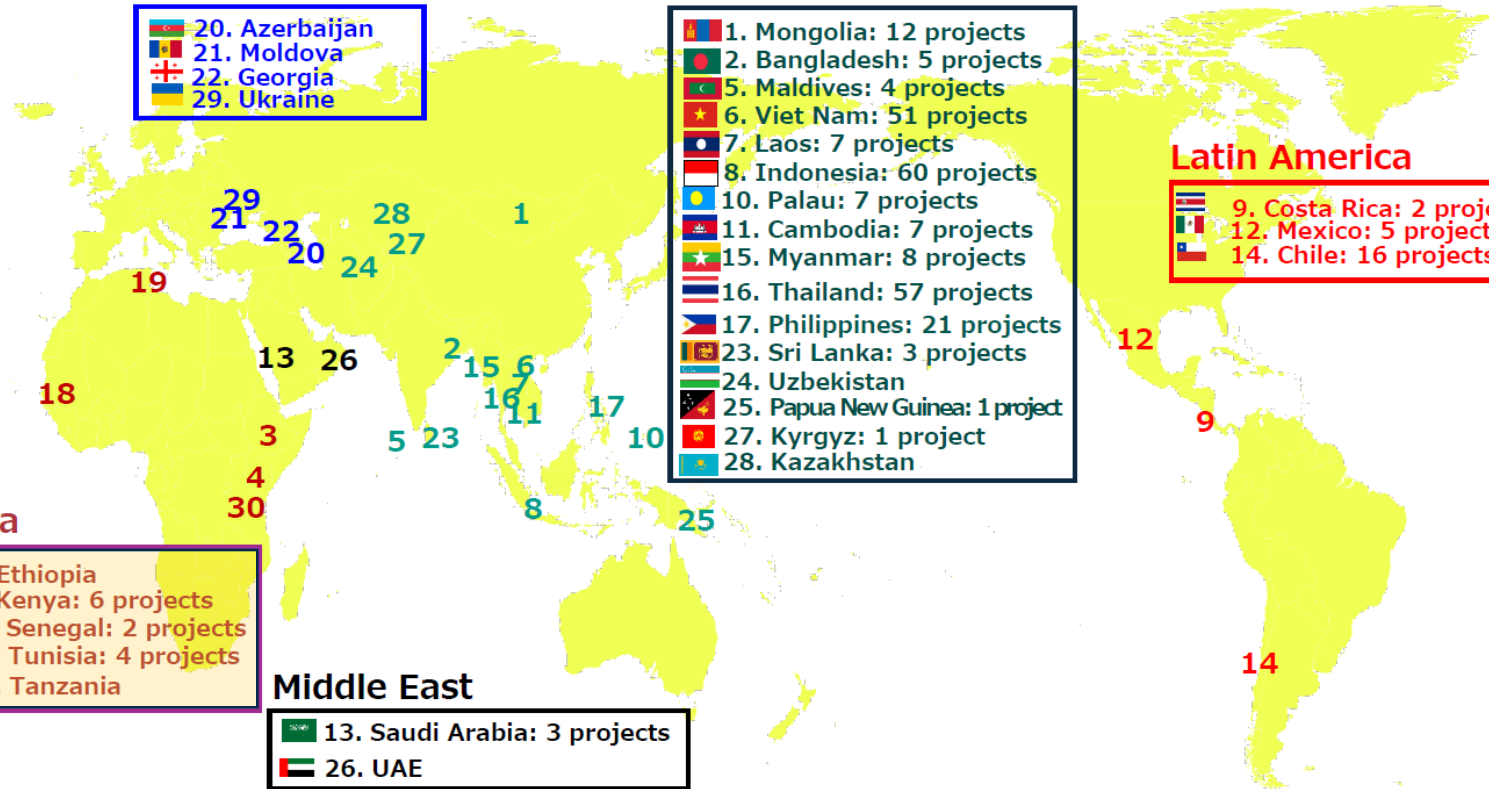
-  9. Costa Rica: 2 projects
-  12. Mexico: 5 projects
-  14. Chile: 16 projects

### Africa

-  3. Ethiopia
-  4. Kenya: 6 projects
-  18. Senegal: 2 projects
-  19. Tunisia: 4 projects
-  30. Tanzania

### Middle East

-  13. Saudi Arabia: 3 projects
-  26. UAE

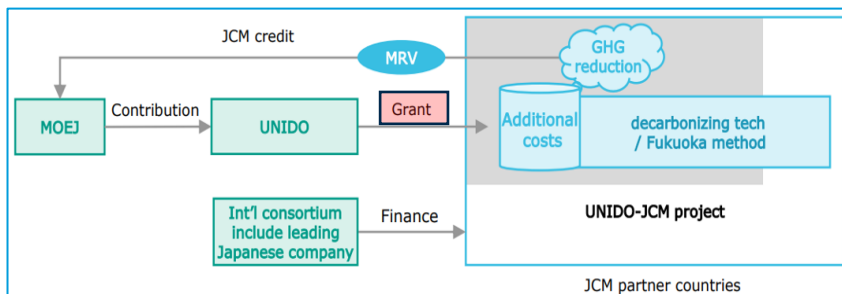




## UNIDO–JCM

### Accelerate JCM projects formulation in Africa, funded by MOEJ (by 2028)

- UNIDO grant for early JCM projects formulation in African JCM countries: Kenya, Ethiopia, Tunisia, Senegal and Tanzania
- Eligible applicants for the Call for Proposals (CfP): leading Japanese company with the consortium comprising of at least one local firm
- CfP 2025 deadline for submission: 29 August 2025



Targeted JCM projects	Renewable energy and/or Energy-efficiency (*)	Fukuoka method (semi-aerobic waste landfill disposal technology) (*)
Max. amount of grant (**)	<b>USD 1,500,000</b>	<b>USD 500,000</b>
Max. % of eligible cost covered by grant	<b>75%</b>	<b>75%</b>
Schedules	- 2027: Installation of the facilities/equipment until commission 2028 -: Commissioning, Monitoring, Submission of JCM Methodology draft to the JC, etc.	- 2027: Installation of the facilities/equipment until commission - 2028: Complete waste fill-in, Submission of JCM methodology draft to the JC 2029 -: Monitoring, etc.
Min. monitoring period	<b>5 years</b>	<b>10 years</b>
Cost-effectiveness	<b>USD 30 / tCO-2</b>	<b>USD 60 / tCO-2</b>

(\*) the proposed project shall refer to the existing approved/proposed JCM methodologies

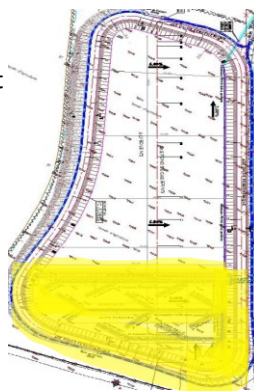
(\*\*) 30% of the grant will be disbursed upon confirmation of the evidence of the publication on the official JCM website of the proposed JCM methodology which shall be submitted as part of the final report

## UNIDO-JCM project example: Implementation of a Fukuoka method (semi-aerobic landfill) project for waste management in Beja, Tunisia

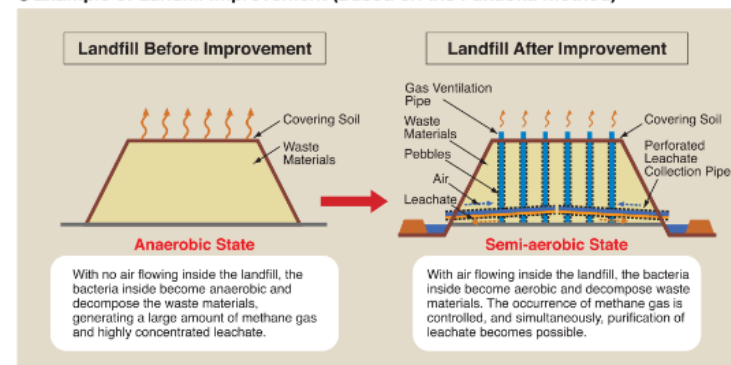
- The “Fukuoka Method” is a semi-aerobic landfill disposal technology developed in Japan. It has a proven track record as a technology that reduces methane gas emissions from landfill sites, prevents fires, improves drainage water quality, reduces odors, and achieves early stabilization.
- In Tunisia, there are disposal sites with inadequate sanitation management due to increasing amounts of waste. This poses risks such as methane emissions with high greenhouse effects, water pollution, fires, and collapse of disposal sites.
- A first JCM project applying the Fukuoka method at Beja disposal site, utilizing UNIDO-JCM grant support funded by the Ministry of the Environment of Japan.
- Implementation is scheduled for the end of 2025. Following this, the JCM project aims to expand to other JCM partner countries.

### <Key features>

- The Consortium of Japanese leading company (EX Research Institute) and local entity (ANGED) to implement the project
- In line with expansion of Beja disposal site, the Fukuoka method will be introduced to approx. one-third of the site



### ● Example of Landfill Improvement (Based on the Fukuoka Method)





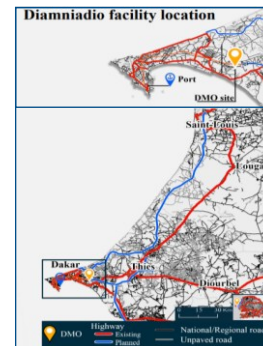


## UNIDO-JCM project example: Installation of Energy-Efficient Refrigeration System Using Natural Refrigerant and Solar Power System at a Cold Storage Project in Diamniadio, Senegal

- In the Senegalese capital area, where more than half of Senegal's growing population lives, there is insufficient cold chain management for the delivery and storage of fresh food (agricultural products, fish, meat, etc.) from production areas to consumption areas, resulting in a loss of market opportunities for local agricultural producers and the disposal of food that should otherwise be supplied to the market.
- Introducing appropriate cold chain facilities to stabilize the supply of fresh food while reducing CO2 emissions will not only improve local agricultural producers' market access and income but also contribute to reducing food waste.
- Introducing energy-efficient refrigeration facilities using natural refrigerants and solar power generation in refrigeration facilities by utilizing the UNIDO-JCM grant in key transportation hubs near major roads and airports in the capital area.

### <Key features>

- The consortium of Japanese leading company (SDG Impact Japan) and local entity (Ifria Senegal) to implement the project with a new cold chain project in Senegal.
- At the newly constructed food refrigeration facility in Diamniadio, a key transportation hub for goods in the capital area, an energy-efficient refrigeration facility using natural refrigerants will be introduced, along with solar power generation equipment on the roof of the refrigeration facility.



## UNIDO-JCM project example: Introduction of 220 kW Solar Power plus battery to rose farm in Athi Kapiti Plains, Kajiado District, Kenya

- In rural Kenya, power outages caused by unstable power supply and natural disasters occur frequently. Ensuring a stable power supply for the production of agricultural products, which are an important export industry, is a challenge in strengthening the country's industrial capacity.
- Solar power generation equipment and storage batteries are being introduced at a large rose farm by utilizing UNIDO-JCM grant to stabilize the power supply for irrigation and refrigeration at the farm and promoting decarbonization to achieve Kenyan NDC.
- The project is being commenced of operation, and subsequent JCM procedure will be taken.

### <Key features>

- The consortium of Japanese leading company (Farmland) and local entity (Astonfield Solesa Solar Kenya Ltd.) to implement the project in the largest rose farm (PJ Dave Flora Ltd.) in Kenya
- A 220kW solar power generation system and 240kWh storage battery were introduced to supply electricity for irrigation, refrigeration, and other purposes at the rose farm for self-consumption.

