



# LOW CARBON LOW EMISSION CLEAN ENERGY TECHNOLOGY TRANSFER (LCET) PROGRAMME

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**Hiromi Sugiura**

**Senior Programme Manager, Energy and Climate Change  
United Nations Industrial Development Organization**

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# The global energy agenda is being shaped by **two** predominant forces:



The need to address the energy poverty through reliable, affordable and sustainable forms of energy

**ENERGY POVERTY/SECURITY**

The need to shift energy production and consumption towards cleaner, efficient and greener patterns to ensure

**CLIMATE SECURITY**

**These forces create opportunities and challenges for all countries to meet twin objectives of ENERGY AND CLIMATE SECURITY for ensuring long term sustainable development**

# UNIDO's Energy and Climate Change Programme

## *Four Strategic Pillars to Promote ISID*

### Industrial Energy Efficiency

Energy Management System-ISO 50001

Energy System Optimization

Sub-sector, process and product specific

### Renewable Energy for Productive Uses

Smart Mini-Grids

Renewable Energy for Industrial Applications

Business Models

### Low-Carbon Low Emission Technologies

Integrated Low Emission Technologies

Innovative Clean Technologies; Hydrogen, Carbon Capture Storage

Sustainable Transport/ Cities

### Policy, Partnership and Global Forums

EE & RE Regional and National Policies

Transformational, Strategic and Knowledge Partnerships

Vienna Energy Forum, COP, Climate Summit



# Low Carbon Low Emission Clean Energy Technology Transfer (LCET) Programme

**A Strategic Partnership between  
UNIDO - Ministry of Economy, Trade and Industry, Japan  
in Kenya, Ethiopia**



**METI**  
*Ministry of Economy, Trade and Industry*



# New UNIDO-Japan Collaborative Programme

“Catalyzing ISID pathways through adoption & dissemination of advanced low carbon low emission clean energy technologies (LCETs)”



Low Carbon Low Emission  
Clean Energy Technology Programme

METI-UNIDO Collaborative Initiative

- **Duration: 3.5 years**
- **Starting Date: 1 Sept. 2013**
- **Budget: USD 5.6 million**  
**(additional USD 2.7 million will be allocated in 2014)**



## Strategic Focus



**Innovative Technology Demonstration**

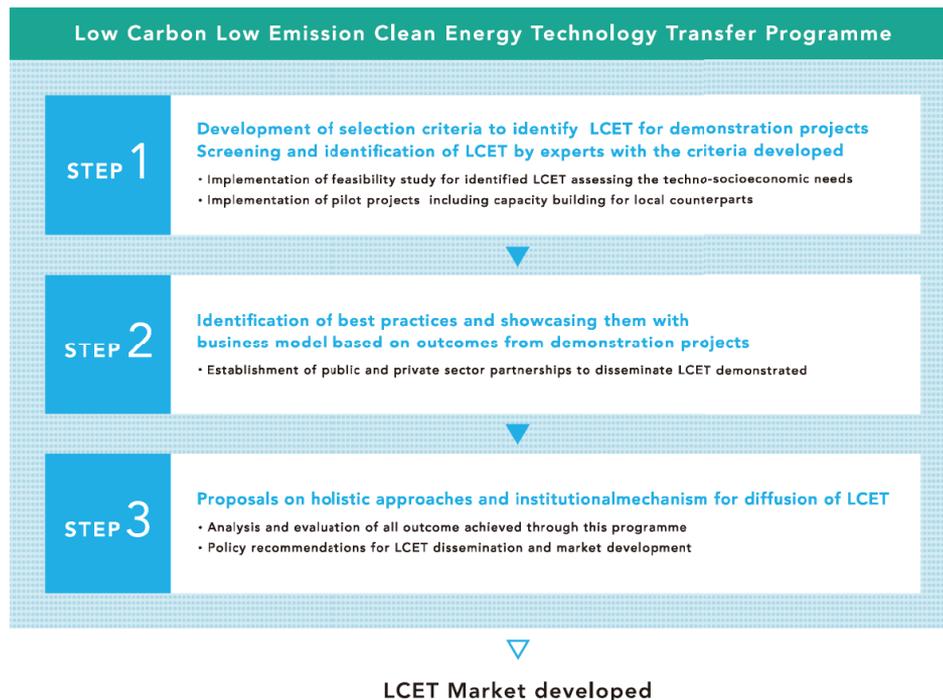
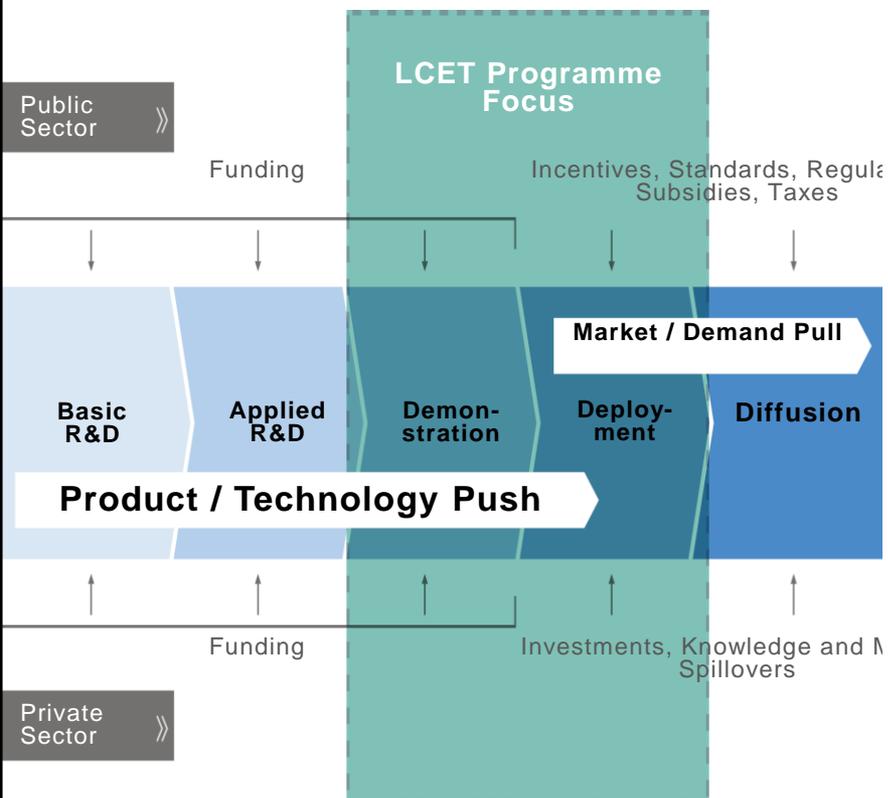
**Promoting Productive Capacity**

**Business Models and Replication**

**Fostering Strategic Partnerships**

**Linkage with Joint Crediting Mechanism  
(JCM)**

# Technology Transfer Approach Adopted



Register first at the Environmental Technology DB to join the Programme:  
[http://www.unido.or.jp/activities/technology\\_transfer/technology\\_db/](http://www.unido.or.jp/activities/technology_transfer/technology_db/)

## Demonstrating Innovative Sustainable Energy Technologies in Ethiopia and Kenya

- **Initial Budget: US \$ 5.6 million (additional US \$ 2.7 million replenished)**
- **Demonstrating Innovative Advanced Micro Hydropower and Solar Energy Technologies in the Initial Phase**



# Ongoing Micro Hydropower Project in India

- **Location: Uttarakhand (North India)**
- **Budget: USD 1.5 millions**
- **Key Partners: MNRE, State of Uttarakhand, University and NEDO**



- **1<sup>st</sup> pilot 10 kW mini-grid system running**
- **Business partnership for local manufacturing established**



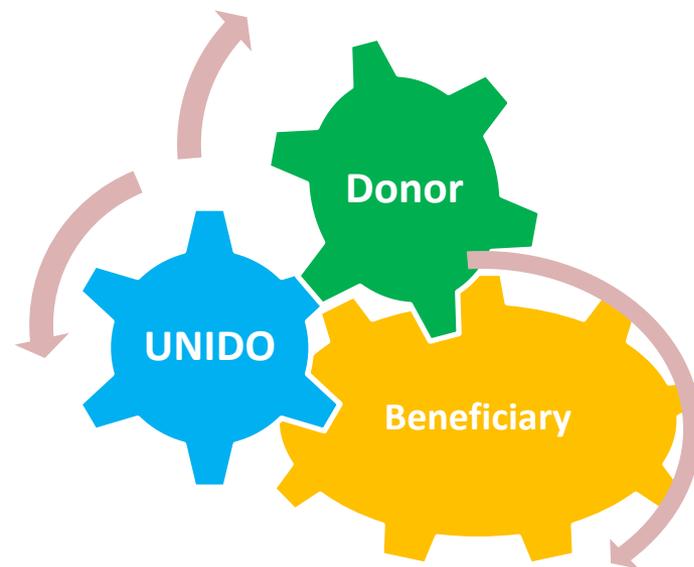
# Video

## Results and Impacts

- **Demonstrating innovative sustainable energy technologies for enhancing access to energy**
- **Setting up replicable technology transfer mechanisms for industrial value chain**
- **Providing a platform for capacity building, knowledge management and business models**
- **Building policy and institutional framework**
- **Fostering strategic partnerships (including linking with Joint Crediting Mechanism – JCM)**

## Outlook for LCET:

- Showcasing best practices of innovative technology transfer
- Building strategic PPP partnerships
- Promoting manufacturing value chain in beneficiary countries
- Promoting sustainable energy for inclusive development



THANK YOU FOR YOUR ATTENTION!  
Sustainable Energy for Inclusive Development



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

Energy and Climate Change Branch (ECC)

Hiromi Sugiura

Senior Programme Manager  
Energy and Climate Change  
[E-Mail] [H.SUGIURA@unido.org](mailto:H.SUGIURA@unido.org)