



Independent  
Evaluation Office  
GLOBAL ENVIRONMENT FACILITY

# Applying Rapid Impact Evaluation to Assess Impacts of the GEF-UNIDO Energy Efficiency Program in South East Asia

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Carlo Carugi  
Senior Evaluation Officer  
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# Background



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- **Independent unit** in the GEF tasked with higher-than-project level evaluations
- IEO's **mission** is to enhance global environmental benefits through excellence in evaluation
- IEO assesses **environmental impacts** in five focal areas:



Biodiversity



Land  
degradation



Climate  
change



International  
waters



Chemicals

# Evaluating Transformative Change at the GEF

- **Assessment Criteria:** transformational interventions are Relevant; Deep/Systemic; Large-scale; and Sustainable.
- **Findings** on GEF interventions that supported completed transformations:
  - i. Established a *Demonstration and Replication mechanism*;
  - ii. Supported by the *Policy and Economic Environment*;
  - iii. Achieved *Financial Sustainability* by mobilizing market forces or by eliciting government budgetary allocations.
- **Lessons:** level of ambition; effective transformational mechanism; quality of implementation and execution; harnessing market forces; size does not matter.

# Why RIE?

- RIE can inform on **transformational change** in the environmental sector
- We applied RIE for a case study in a highly complex **mixed-methods evaluation** on GEF programs
- We needed an **alternative impact assessment** approach to geospatial impact analysis
- The aim was to obtain **estimates of GHG emission reductions** attributable to the program

On What?



## Energy Efficiency Program in South East Asia

- **Aim:** assist countries to improve EE in targeted industrial sectors in 5 countries, and extend to other countries in SE Asia
- **Components:**
  - i. Support to government for a National Regulatory Framework for EE in industries (including ISO 50,001)
  - ii. Tools/Training for enterprises on EnMS and SO, and of service providers (equipment, consulting) as well as financial institutions (lending for EE investments)
  - iii. EE Pilots with national commitments to the number of enterprises adopting EnMS and SO.

# How?

- The **full RIE approach** was applied
- An **iterative design phase** (visits in DC and Vienna)
- **One-week missions** to two out of five countries
- **Estimates** of the program contribution to improved energy efficiency in industries from the three expert groups in each country and from a global panel
- The evaluation report and RIE case study are available on

[www.gefieo.org](http://www.gefieo.org)

# What did it take?

- A **longer time** to set it all up, and to carry it out
- A **larger budget** than expected
- An **adaptation** of the RIE approach to a mission type setting, to maintain the user-seeking nature of RIE. Use of Technical Advisers was different from standard RIE, as was the expert panels, and e-surveys
- **Strong and continued support** was needed from GEF Secretariat and especially from UNIDO, both in HQ and in the countries

# Did it yield what we expected?

- **Estimates of the EE results** attributable to the intervention were generated, which could be triangulated with other sources in the evaluation
- **Cronbach Alpha** test confirmed the validity and internal reliability of the results
- To note, the **actual estimates** of GHG emission reductions from the two technical advisors involved many iterations



# What would we do differently?

- Hiring of **RIE Technical Advisors** could have been done earlier in the process. Their use was different: they helped with logistics and language
- A **Mission Type setting** requires a different RIE process, with the risk of it being less use-seeking
- Sharing the **Project Summaries** could have been done prior to the missions
- Country **Expert Panels composition**... maybe we could have sought advice from others beyond the TAs
- Calculation of **GHG estimates** would have required less iterations, had the estimating methods been worked through in advance.

# Concluding remarks

## On **RIE**

- RIE proved fit for purpose. It provided valid and reliable GHG estimates attributable to the intervention
- Although not its main purpose, RIE proved useful in informing on some criteria of the program potential for transformative results

## On the **GEF/UNIDO EE Program in SE Asia**

- Program design potentially had all the elements for achieving transformational change in EE in SE Asia
- It was an ambitious and well executed program, and RIE showed the potential for in-country replication
- But the program fell short in describing an effective transformational mechanism to achieve change beyond the 5 countries