MECS
Modern Energy Cooking Services

‘Results-based financing (RBF) for modern energy cooking solutions: an analysis of RBF as a scale-up tool and potential programme interventions’

ACEF Deep Dive Workshop on clean cooking in the Asia-Pacific

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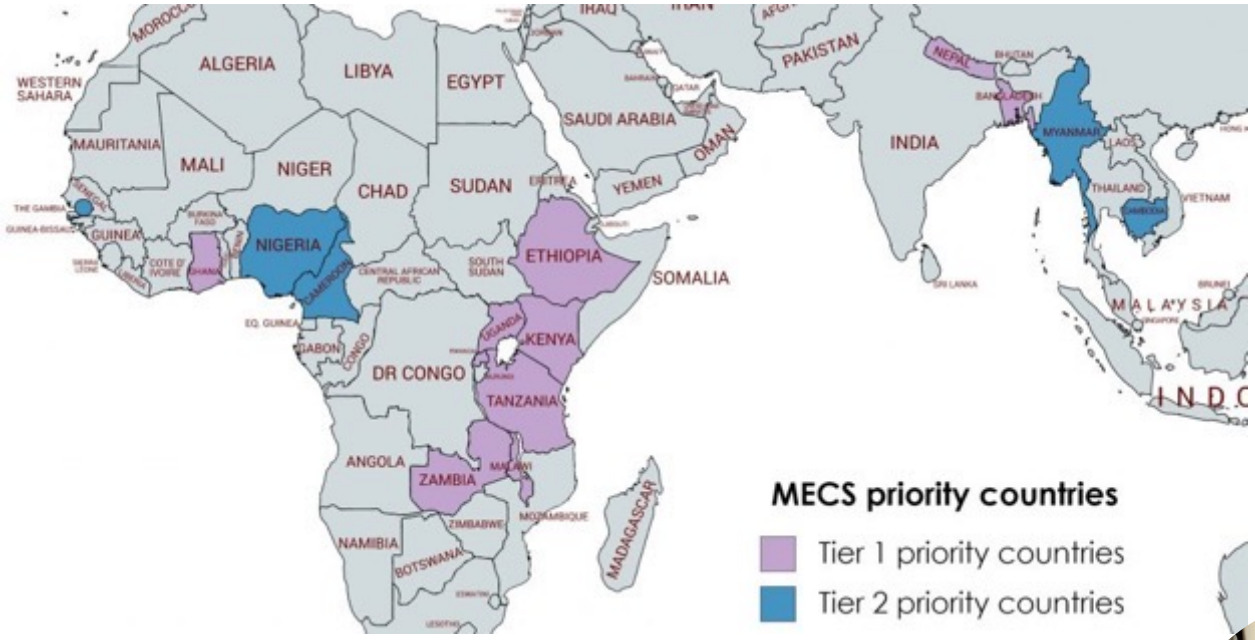
ESMAP
Energy Sector Management Assistance Program

UKaid

Modern Energy Cooking Services (MECS) is a 5-year £40m programme funded by UK Aid (FCDO) operating in:



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Manufacturer engagement

- India
- China

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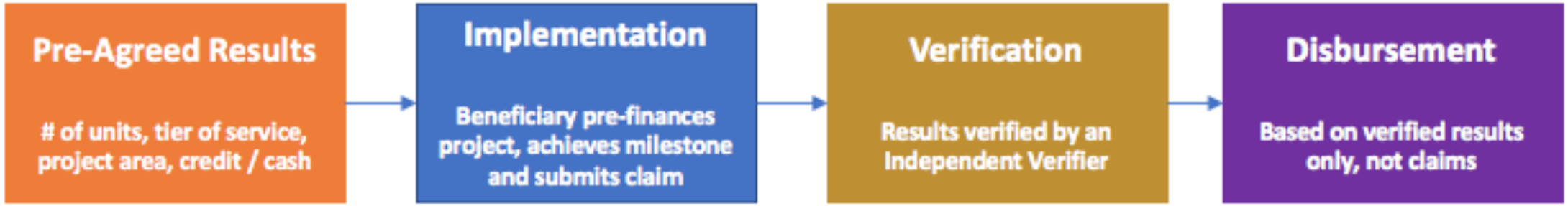
‘Results-based financing (RBF) for modern energy cooking solutions

- Traditionally, investment into clean cooking as part of the energy sector was almost entirely sourced from international public funding for improved lower-tier biomass cookstoves (ICS)
- Results-based financing (RBF) programmes in the clean cooking sector have gained increasing donor interest over the last decade
- RBF has shifted from ICS to higher-tier solutions including e-cooking
- RBF programming is becoming more complex and sophisticated reflecting the fundamental transitions and technological advancements in the clean cooking market

The key logic of RBF mechanism is the provision of public funds to private companies upon the delivery of **pre-agreed outputs** (such as the number of stoves sold) and **independent verification** of those outputs.

Key process steps in RBF programme



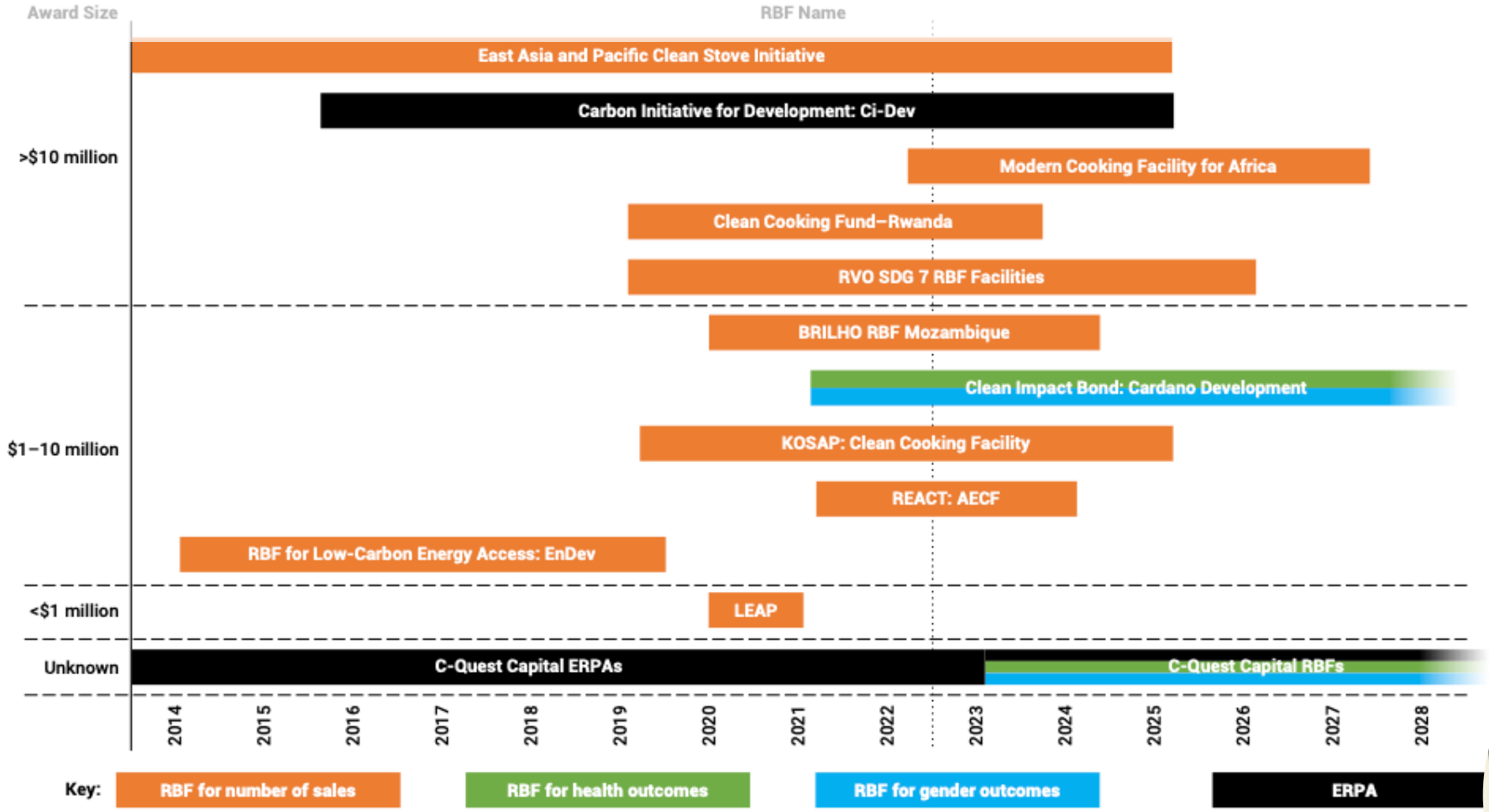
Source: MECS/E4I

The risk of **non-performance rests with the private company** delivering the project.

While the RBF approach has obvious advantages, it also **creates challenges** for the RBF programme managers and donors:

1. Higher incentives per unit of output required
2. Reputational risk of non-performance for donors and other risks e.g force majeure events, potential fraud.
3. Upfront capital and equity challenges

The current landscape of clean cooking RBF



Source: MECS/CCA

Key elements & trends of RBF programming

Output targets**: based on the number of stoves sold**

Eligibility: **trend towards supporting higher tier, more efficient technologies**

Bidding mechanism: increasing **bids through reverse auctions** to reduce the subsidies per unit of output

Incentive structure: **tiered structure, with higher incentives for more highly valued outcomes**

Monitoring, reporting and verification (MRV): The **MRV process can be costly and resource-intensive and is often still done manually**

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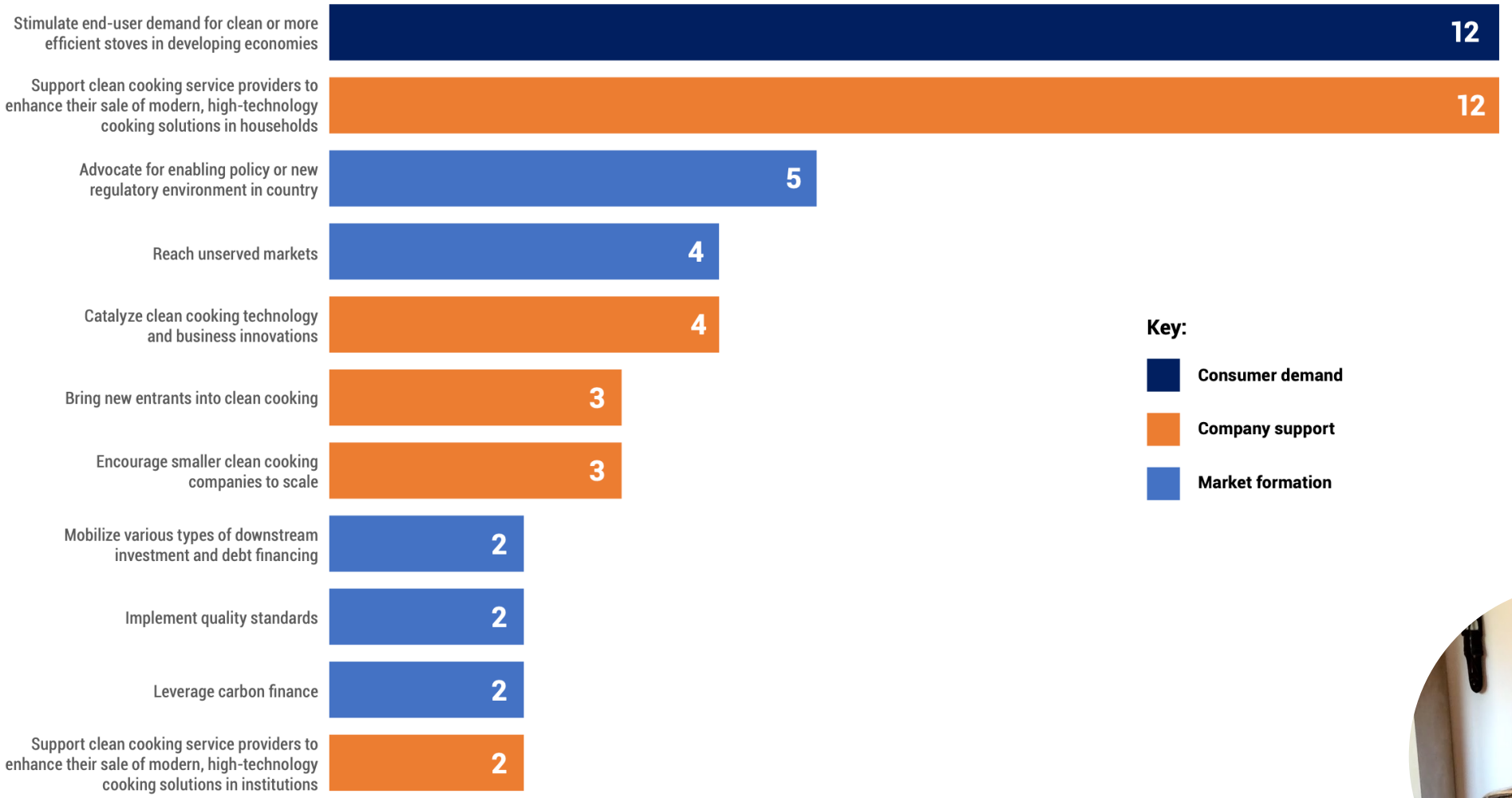
Common RBF objectives



Source: MECS/CCA

Case study: East Asia and Pacific (EAP) Clean Stove Initiative (CSI)

Technologies in scope: Improved biomass cookstoves, biogas, pellets, LPG, e-cooking

Funding Volume: US$137 million

Regions: China, Indonesia, Lao PDR, Mongolia - **Timeline:** 2012-2025

- Goals: increase access to clean cooking and heating solutions beyond 2030, especially for disadvantaged rural communities that are still dependent on solid fuels.

- Key elements: (1) establishment of an enabling policy and regulatory environment for scaled-up access to advanced stoves & strengthening of institutional capacity; (2) support for the supply-side market and business development; (3) stimulation of end-user demand for clean and efficient stoves

- 4-phase approach in each country: 1. initial stocktaking and development of the implementation strategy; 2. institutional strengthening, capacity building, and piloting of the strategy; 3. scaled-up pro- gram implementation; 4. an evaluation and dissemination of lessons learned.

Some CSI key outcomes and learning lessons

- Innovation Recognition
- Market scale-up
- Development of a national plan for clean cooking in Mongolia

Substantial national support is key for program adoption and implementation

Connecting with other partners in the ecosystem helps achieve scale

Subsidies for the achievement of energy access goals must be well targeted

Source: MECS/CCA

RBF key design principles

- Partnerships elevate the effectiveness of RBF programs
- Verification is the Achilles' heel of RBF programs
- RBF program objectives should be kept simple

Clean Cooking RBFs

Key Design Principles

Loughborough University | UKaid from the British people | ESMAP Energy Sector Management Assistance Program

This research is funded by UK aid. However, the views expressed do not necessarily reflect the official policies of the UK g

Overall lessons learnt

1. Affordability and Willingness to Pay
2. Competitiveness of the new technology
3. **Consumer awareness is key**
4. Technologies must be **consumer-friendl**y and easy to use
5. There must be a **functioning supply chain** for the stoves/canisters & after-sales service.
6. The **infrastructure for modern fuel solutions should already exist**
7. **Attractive policy environment** for clean cooking
8. **End-user financing** for the appliances
9. Data-driven RBF development

Photo 1 Kenya EPC solar-hub trial. Jon Leary/MECS

“Call to Action”

1. **Understand the market and adapt the RBF design to fit** – don't make the market fit the RBF design.

2. Examine and (re)design financing approaches to **support RBF supplier organisations** (especially smaller ones) in being able to participate in RBF calls.

3. Provide **TA to smaller companies** to apply for RBF schemes.

4. Convene industry stakeholders to **develop a digitalized and outcome-based clean cooking RBF**.

5. Further **develop partnerships** between RBF programme developers, implementers, stakeholders, and researchers to share lessons and best practice for future RBF development

Broadening RBF Discussions to include Carbon Credits and Impact Funding

RBF is essentially performance-based funding linked to pre-agreed results. In a broad sense **carbon credits** and grant payments linked to verified SDG impacts may be considered under the umbrella of RBF because they also fit into this definition.

Carbon credits are hugely important. A typical household MEC cookstove might save 3-4 tonnes CO2e per annum. At current VER prices of $ 6-9 per tonne this represents a great opportunity for companies to boost earning margins and sales which has major implications for strategies to promote clean cooking.

Smart data features of modern energy cooking appliances allow for a simpler and more accurate approach in calculating emission reductions with Gold Standard now introducing a new approach to certification.

Other instruments to help promote donor SDG goals based on clean cooking RBF are being developed such as the **Development Impact Bond (DIB)** arranged by Cardano Development**.**

Focussing efforts to make these opportunities work efficiently has the potential to achieve outstanding results.

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Further Resources & Contact

CCA/MECS: Clean Cooking RBFs Key Design Principles

MECS/E4I: 'Results-based financing (RBF) for modern energy cooking solutions: an analysis of RBF as a scale-up tool and potential programme interventions'

MECS: Results-Based Financing (RBF) for Modern Energy Cooking Solutions: An Effective Driver for Innovation and Scale?

Clean Impact Bond: Mobilizing Finance for Clean Cooking

MECS/E4I: MODERN ENERGY COOKING: REVIEW OF THE FUNDING LANDSCAPE

www.MECS.org.uk

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