

VISUALISATION OF KEY DATA AND DECISION (VKDD)-MAKING TOOL



A cost savings and
co-benefit calculation tool





Why do we need the VKDD tool?

- Today, many existing energy models—such as OSeMOSYS or the Clean Cooking Explorer—are powerful but complex, requiring users to detail assumptions about factors related to clean cooking interventions. These assumptions can be difficult to provide, especially for stakeholders new to clean cooking.
- This complexity can create a barrier for decision-makers trying to determine whether it's even worth investing the time and effort to engage with these advanced models.
- The VKDD Tool addresses this gap by offering a simple, user-friendly way to test and refine key assumptions in the early stages of analysis, helping them to make an informed decision about whether or not to proceed with more sophisticated modelling tools.

What is the VKDD tool?

- The VKDD tool is designed to model the costs-effectiveness and environmental benefits of switching to modern cooking solutions.
- It is designed to support the user in testing assumptions and making informed decisions on clean cooking scenarios before using more complex energy models.
- The VKDD tool includes a data repository outlining all key input data and its source. The repository is designed to be easy to add to over time as more data points become available. In the meantime, it allows the tool to provide default values within a reasonable range.
- It allows the user to model the impact of switching to clean cooking in terms of:
 - Cost savings (available in local currency and in USD (in 2023 prices))
 - Health benefits
 - Time savings
 - Climate impact





Who is the VKDD tool for?

- The tool is developed primarily for policymakers, and can also be used by organizations designing modern cooking solutions as a means to generating easily-accessible and data-backed numbers on a programme's beneficial impacts.
- The tool aims to inform decision making by outlining the benefits of switching to modern cooking solutions, in terms of cost and time savings to households, health benefits, and climate impact.

What can the tool do?

The tool generates visual results as an output, including:

- Cost savings at the household level, showing data on contrasting expenditures from the baseline and project scenarios.
- Co-benefits at the national level, showing data on health impacts (the number of averted deaths/disabilities achieved by switching to the project scenario),
- and climate benefits (the total emission reductions achieved).
- Co-benefits at the household level, showing data on time savings (reductions in time spent cooking and hours spent collecting fuel wood).
- Exportable scenarios. Generates CSV files or visuals for export and cross-comparison.



A woman using an electric pressure cooker.

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What distinguishes the tool from others?

- **Easy to use.** Provides step-by-step instructions and an integrated glossary. The tool requires fewer inputs than other advanced tools.
- **User-friendly design.** An excel-based interface with graphical representation of results; the tool does not require extensive technical or coding knowledge, or deep knowledge on clean cooking – as it allows the user to either input their own data or use data from the tool's underlying Data Repository (a built-in resource base that underpins the tool's calculations).
- **Adaptability.** The tool targets the 16 countries of interest that the MECS programme is focused on and allows for the inclusion of new ones in future.
- **Transparent.** Data sources and references are clearly cited throughout the tool, showing how they result in the four key outputs of cost savings, time savings, climate benefits, and health benefits. Financial outputs can be shown in local currencies alongside US dollars.



About Modern Energy Cooking Services

Modern Energy Cooking Services (MECS) is an eleven year programme funded by UK aid (FCDO) which aims to accelerate the transition in cooking away from biomass to modern energy. By integrating modern energy cooking services into energy planning, MECS hopes to leverage investment in clean electricity access, both grid and off-grid, to address the clean cooking challenge. Modern energy cooking is tier 5 clean cooking, and therefore MECS also supports new innovations in other relevant cooking fuels such as biogas, LPG (bio) and ethanol, though the evidence points to the viability, cost effectiveness, and user satisfaction that energy efficient electric cooking devices provide. The intended outcome is a market-ready range of innovations (technology and business models) which lead to improved choices of affordable, reliable and sustainable modern energy cooking services for consumers. We seek to have the MECS principles adopted in the SDG 7 global tracking framework, including integrating access (7.1), renewables (7.2) and energy efficiency (7.3) and promote an informed integrated approach. For more information, visit www.mecs.org.uk

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