

ADOPTING MODERN ENERGY COOKING SERVICES IN LOWER INCOME COUNTRIES: DRIVERS & CONSTRAINTS

TEAM PROFILE

5 students

PARTNER

The World Bank (WB)
Energy Sector Management Assistance Program (ESMAP) <https://www.esmap.org/>
1818 H Street, NW
Washington, DC 20433 USA

PERSON IN CHARGE OF THE PROJECT

Yabei Zhang, Task Team Lead: (Sr Energy Specialist)

Contact Points:

Franck Gbaguidi , Sciences Po Alumni

Laurent Durix

BRIEF DESCRIPTION OF THE INSTITUTION AND CONTEXT OF THE PROJECT

The Energy Sector Management Assistance Program (ESMAP) is a partnership between the World Bank Group (WB) and 18 partners to help low and middle-income countries reduce poverty and boost growth, through environmentally sustainable energy solutions. ESMAP's analytical and advisory services are fully integrated within the WBG's country financing and policy dialogue in the energy sector. Through the WBG, ESMAP works to accelerate the energy transition required to achieve Sustainable Development Goal 7 (SDG7) to ensure access to affordable, reliable, sustainable and modern energy for all.

Energy Access is one of ESMAP working pillar which supports initiatives to reduce energy poverty by expanding access to modern, safe, affordable and sustainable energy services. ESMAP's energy access work covers electrification and household energy needs in rural areas and for the urban poor. The recently published Tracking SDG7: The Energy Progress Report 2019 shows that, despite advances on other SDG7 targets, there has been little progress on improving access to clean cooking fuels and technologies. The annual access growth rate during 2014-2016 did not keep pace with population growth, thus resulting in an increase in the absolute global deficit in access to clean cooking. The global population without access to clean cooking solutions increased by 2 million annually to reach 2.985 billion in 2016.

As part of the global effort to tackle this development challenge, ESMAP launched the Efficient, Clean Cooking and Heating (ECCH) program in 2015, a cross-sectoral collaboration between the Energy, Environment, Health, Gender, Agriculture, and Climate Change units of the World Bank and IFC. Its objective is to support countries to increase access to cleaner, more efficient cooking and heating solutions to achieve health, gender, social, financial, environmental, and climate benefits. ESMAP is currently implementing a research program aimed at understanding the holistic system of the modern energy cooking services (MECS) seeking to analyse the key drivers and propose pathways for accelerating universal access to MECS, and inform policy makers and other decision makers regarding key investments, as well as policy and institutional changes needed to effectively and affordably accelerate the transition.

EDUCATIONAL CONTENT

The Project aims at providing a conceptual input into the understanding of the drivers and constraints for transitions to modern energy cooking services. While this activity is usually undertaken through a mix of internal work and consulting companies-led activities, it is thought that students' contribution could bring original inputs to the teams working on MECS by emphasizing applicability to developing countries.

The project team would be required to think through the nexus and interactions between Economic, Technological, Political and Social aspects of development in the context of the adoption of MECS. To do so will require to review examples of historical transition by some countries deemed to be of value to others. The project team is expected to weigh the advantages and limits of arbitrations such as narrowing the analysis to a geographical area or historical period to ensure higher relevance.

Some early pointers questions are listed below:

Economic Development: Does GDP per capita or poverty prevalence affect a country's level of access to modern energy cooking services? Is there a threshold above which the adoption of MECS happens organically? Does urbanization play a role? What is the private sector attitude with regards to disruptive technologies on the market? Is financing available for making initial capacity investments?

Technological development: How does technological innovation play a role in the pathway? Can some disruptive technologies (e.g. rice cooker, slow cooker, pressure cooker, microwave, solar/PV cooker) change the pathway to MECS for some countries? To what extent can we expect more disruptive technologies in the sector in the future?

Political development: Are certain political environments more conducive to the transition? Does policy (and associated public financing) play a role in the pathway? Can a national program make a difference in accelerating the transition? On the contrary, is there any evidence that certain policies and programs could slow the transition? Do internal pressure (e.g. air pollution, resource crisis, etc.) or external financing and pressure from donors or development agencies support the transition?

Social development: What are the factors influencing individual behaviour and how do they affect technology uptake and adoption rates? Do social, gender and cultural norms play a role in the pathway? How does fuel stacking interact with MECS dissemination?

RESULTS AND DELIVERABLES INTENDED

Required deliverables:

- Intermediate report, soft copy in Word format [30-50 pages maximum, excluding appendix]
- Final report, soft copy in Word format [circa 50 pages, excluding appendix]
- Presentation with the key messages from the final report, in PowerPoint format

[Possible] additional deliverables:

- 4-6 pager on in-depth topic, Word format – editing and typesetting to be done by the WB

- Video Presentation during a World Bank event

SCHEDULE

September/October 2019: Inception conference call to discuss the understanding of assignment and the proposed methodology

Mid December 2019: Mid-year report provided for comments, Call for choice of in-depth analysis theme

March 2020: Draft final report on in-depth topic provided, peer review process by World Bank representatives to provide feedback in writing or by conference call + Decision on further processing

April 2020: Final report provided. Depending on results and peer reviewer feedback, possible Video presentation during a Bank event to the Energy Access Community of Practice and possible editing process and publication of the report in the Livewire series.

METHODOLOGY

A three-step process is proposed to ensure optimal use of time of all parties:

Global Learning Phase:

- This phase implies a general catch-up by students on a topic new to them; that stage primarily seeks to align understanding.
- Inception call, basic information transfer followed by work by students to grasp the topic and provide their first understanding in writing [general mid-term report] as well as up to 5 sub-topics they see of interest to the WB and propose to drill further into.

Deepening Phase:

- Following choice by WB team of 1 or 2 in-depth topics and feedback on mid-term report; the students will finalise their general report and undertake an in-depth analysis of the sub-topic(s) and will provide the draft final reports for peer-review.
- During that phase, pointers towards what could be done to add value to WB team and other stakeholders will have been provided and will be integrated into the final draft for peer-review.

Restitution Phase:

- Students will integrate the peer-review feedback, finalize the report and produce some presentation material.
- Depending on the perceived value-added by the peer reviewers; the WB team may recommend further live video presentation to a broader audience and a publication of the findings may be considered.

Monthly conference call can be held in addition to the meetings listed above. Ad-hoc email communication can also be done, subject to frequency.

LOGISTIC

No specific logistical support needs are expected as the work envisaged is desk-based. The WB will provide Webex for calls between students and WB team. The WB team may provide pointers to some key reference online and public documents to strengthen students' findings as needed.

The students will have access to the Team Projects' room, equipped with a computer and a phone.