

Clean Air, Shared Future: German-Swiss Collaboration on Agriculture, Forestry and Waste SLCP Action

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The report identifies 15 solutions that can improve air quality and address climate change in ASEAN

* The future potential shown includes the potential scope for what accelerated electrification of vehicle fleet can achieve, i.e., most likely less than half of that could be achieved by electrification by 2030

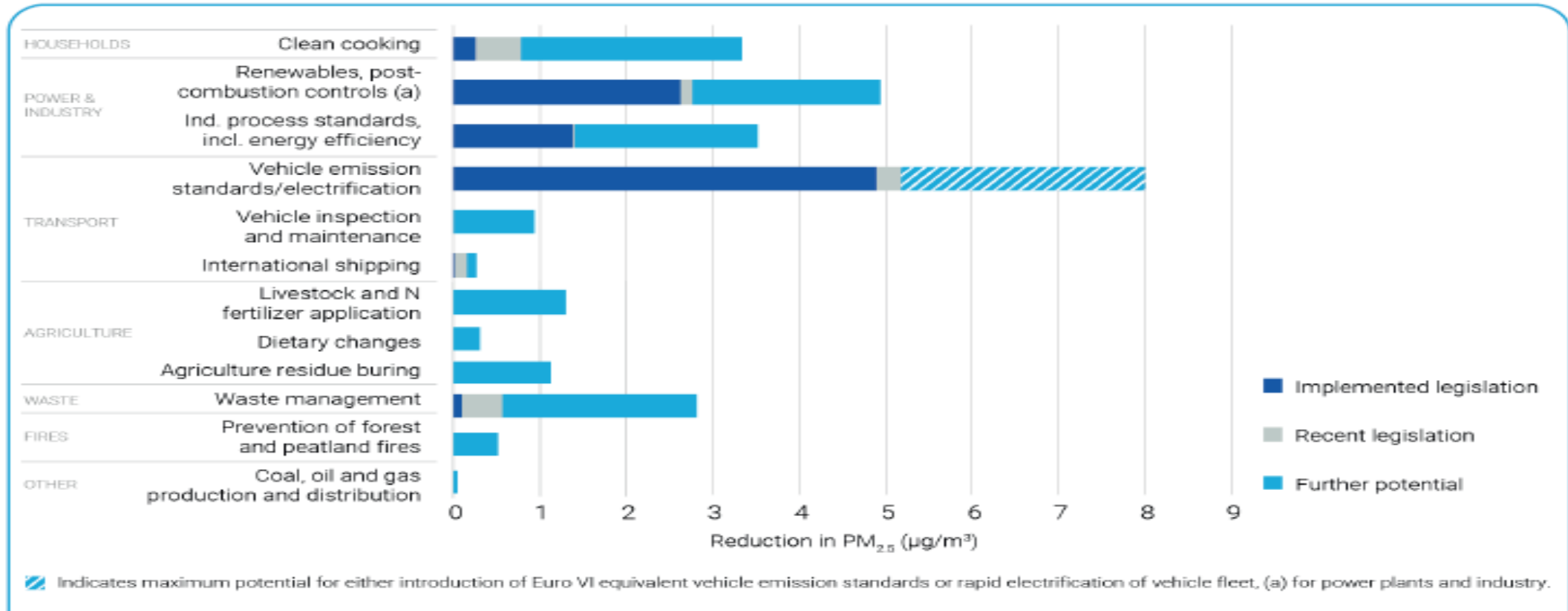
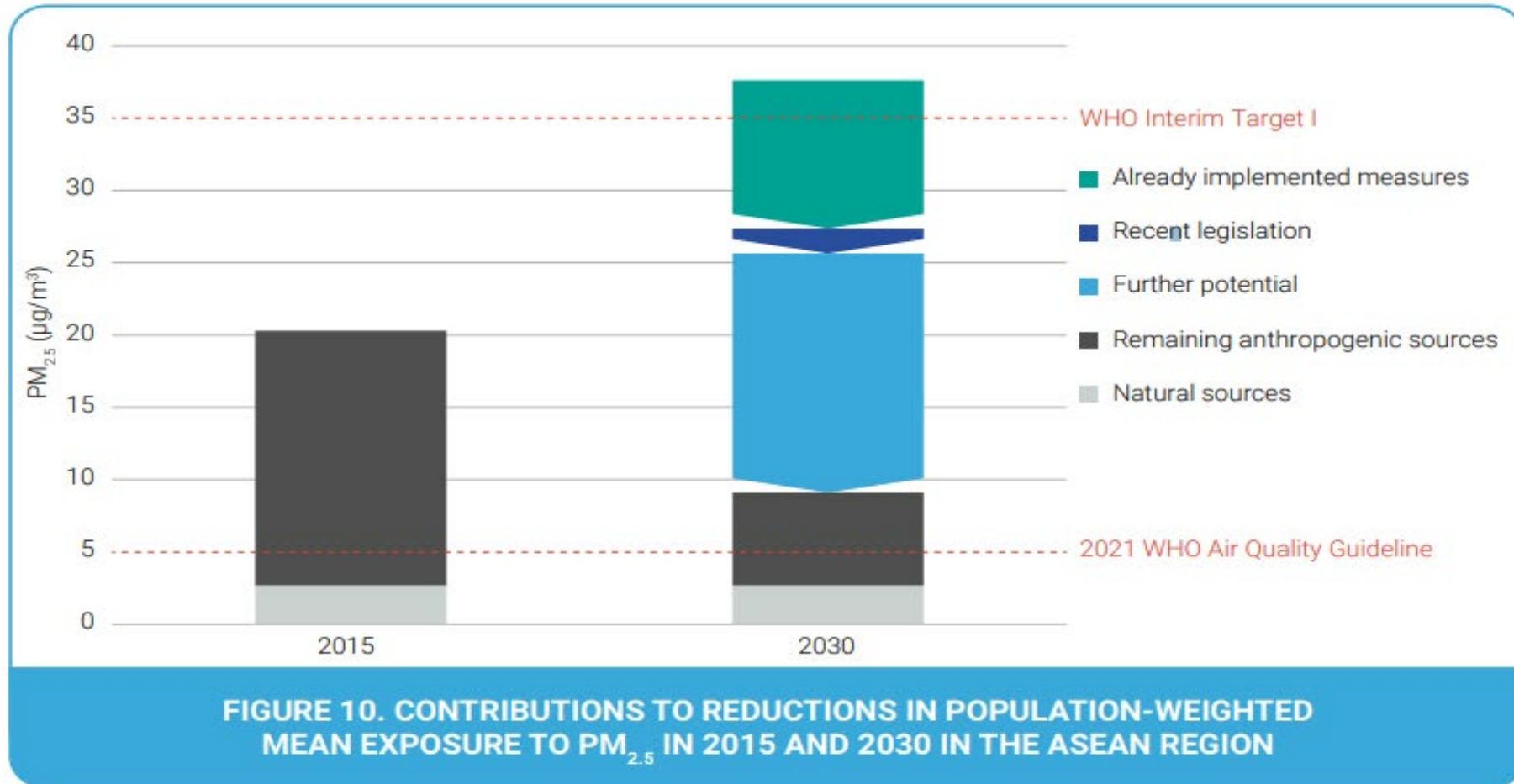


FIGURE 8. Impact of the priority solutions (measures with direct air quality benefits shown) on PM_{2.5} concentrations in the ASEAN region by 2030

Those solutions would help the region come close to WHO air quality guidelines by 2030



Implementing the solutions would also mitigate climate change

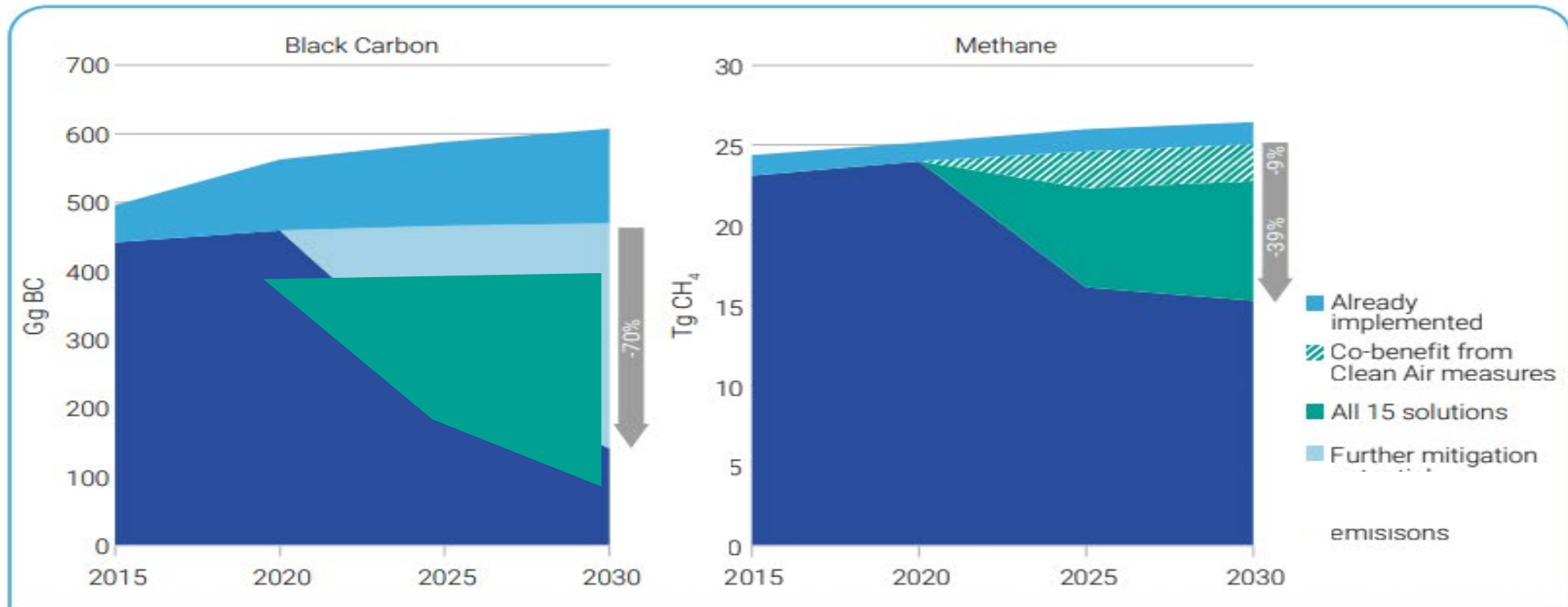


FIGURE 15. CO-BENEFITS OF INTRODUCTION OF AIR QUALITY POLICY AND 15 SOLUTIONS ON SLCP EMISSIONS: BLACK CARBON (BC) AND METHANE (CH₄)

ASEAN: home to many successful examples of the solutions



Cleaner cooking: In Laos PDR



Clean Diesel In Thailand

....also scope to spread success throughout the region.

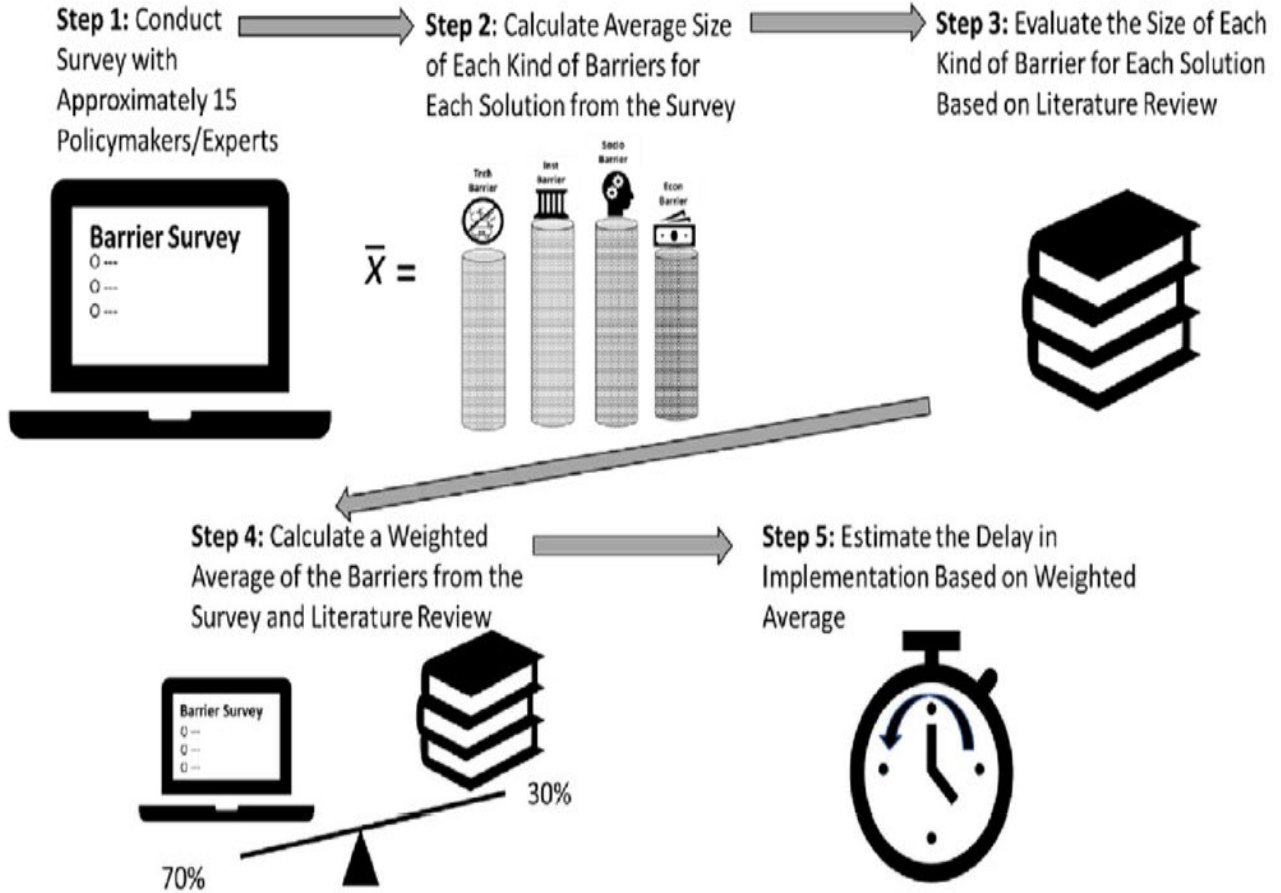
**There are various
barriers to
implementing SLCP
control measures**



**We try to assess
feasibility of
Those measures.**



Five steps approach to estimating barriers and delays



【Category of barriers】

Technological	Access to cleaner technology/fuels and technologies/infrastructure enabling implementation.
Economic	Costs of cleaner technology fuels as well as policies (i.e. subsidies) that lower prices of resource-intensive options.
Institutional	Lack of interagency coordination/capacity as well as design flaws in policies promoting cleaner options.
Social	Limited acceptance/awareness of benefits from the clean alternatives as well as a shortage of awareness raising mechanisms/stakeholder engagement mechanisms.

【BC reduction measure analysis target】

Country: Thailand

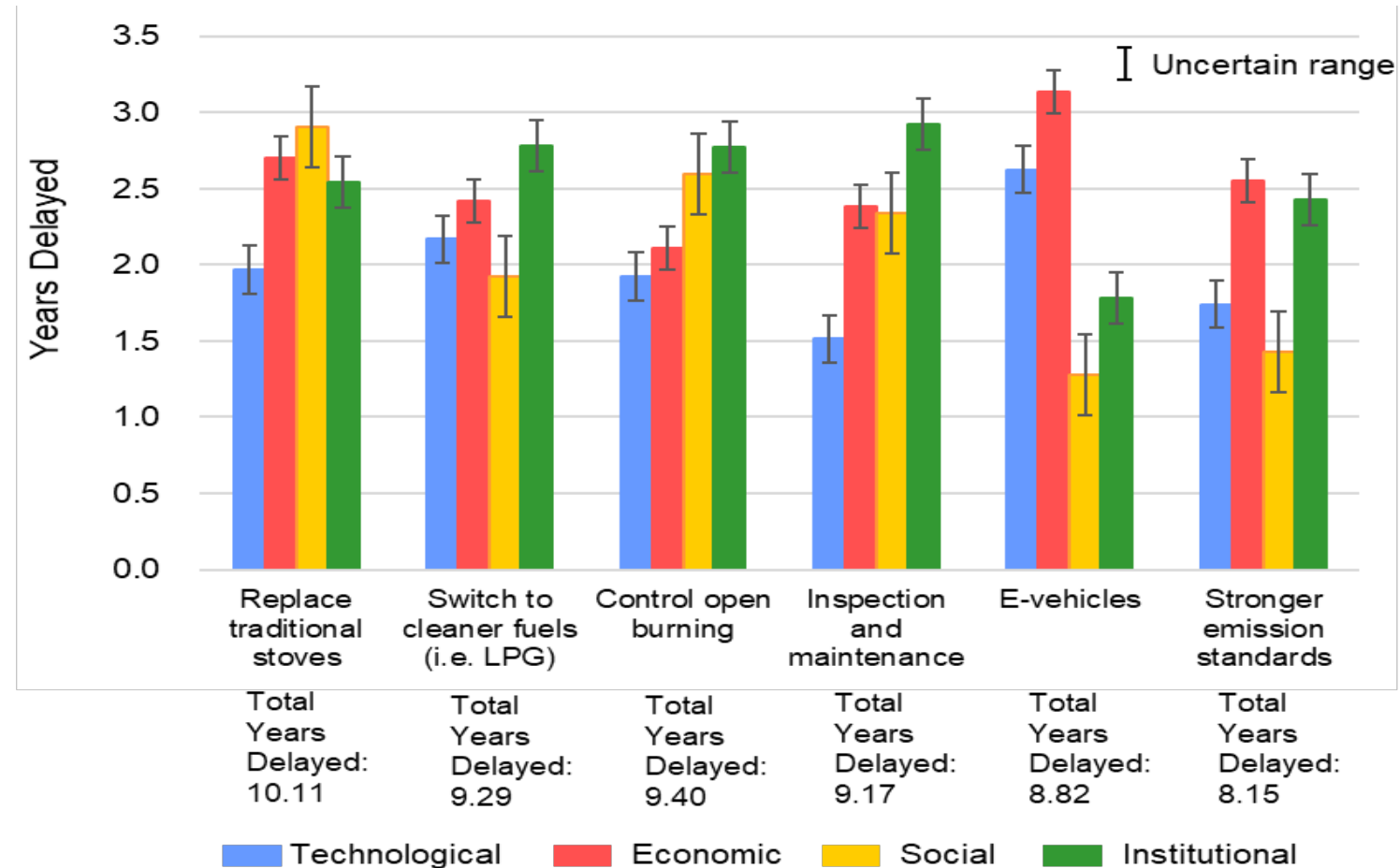
- **Transportation:** vehicle inspections and maintenance, promotion of E-vehicles, exhaust gas regulations
- **Household energy:** improvements to cooking stoves and electrification
- **Agriculture:** reduction of open burning of agricultural waste

Estimation of delay due to barriers (how many years will the barriers delay the implementation of key measures?)

Findings

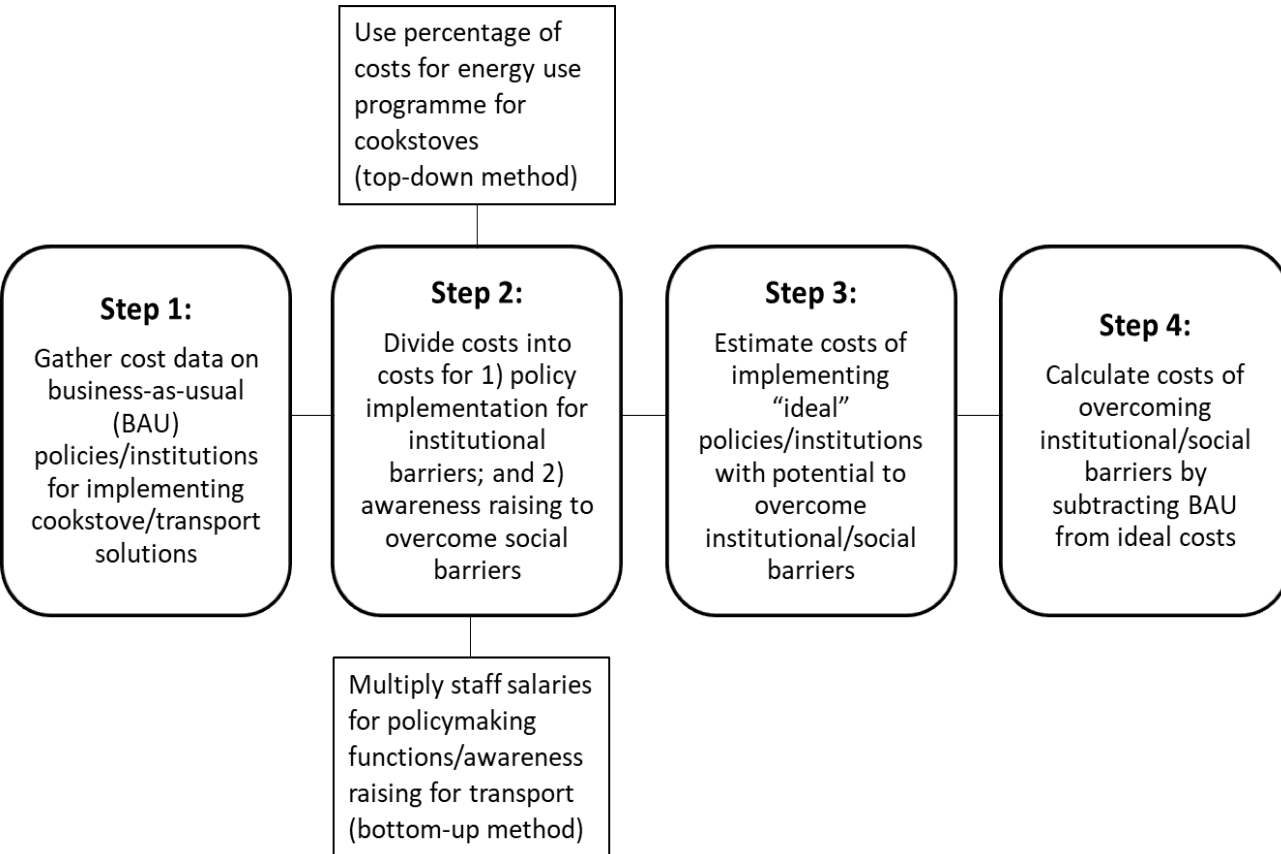
- Technical and economic barriers are greater for the popularization of electric vehicles and strengthening of emission standards.
- For the other measures, institutional and social barriers are greater than the total of technical and economic barriers.
- The institutional and social barriers would cause a delay in implementing measures of between five and six years over a 15-year period.

Estimated Delays in Implementation of Major BC Reduction Measures in Thailand (2020-2035)

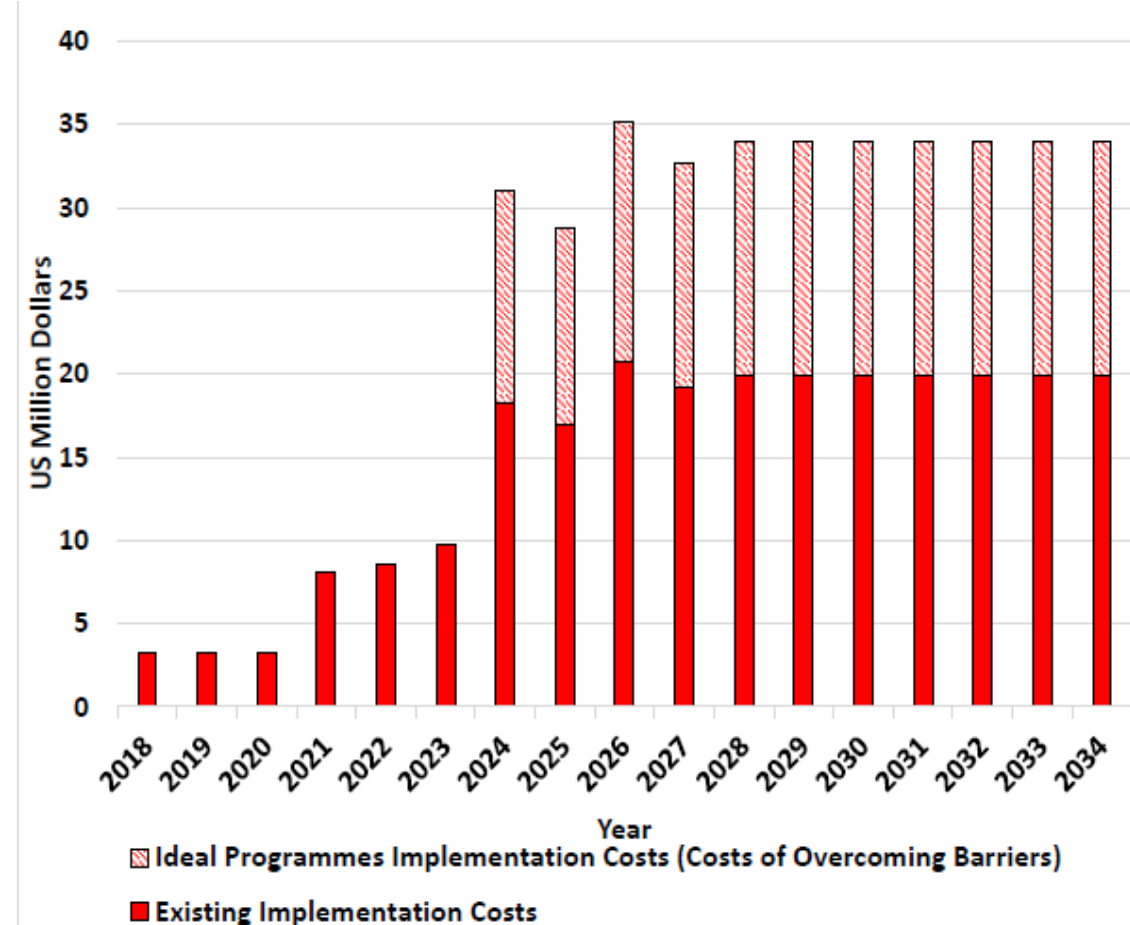


Estimation of the measures and costs required to overcome the barrier

Case: Open Burning Control Measures in Thailand: Estimating the cost of overcoming barriers (transaction costs)



***In this research, transaction costs refer to the costs associated with the implementation and implementation of policies.**



- ◆ Overcoming **social and institutional barriers**, which have not been fully considered so far, is essential for achieving SLCF/P emission reductions and co-benefits.
- ◆ A multidimensional assessment framework is useful for policy planning and decision-making.
- ◆ **Transaction costs** need to be considered when formulating policies.
 - ✓ Promoting the development of an environment for introducing technologies and implementing policies in an integrated manner is important.
 - ✓ Investment in strengthening institutions and organizations and awareness-raising programs is essential.

Significance of this research

- We developed a method for linking qualitative research on policy implementation with quantitative research on benefits.
- This approach can be applied to other sectors, policies and technologies.
- Contributing to improving probability of scenarios.

Thank you/Arigatou 

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