

# Agricultural input subsidies raise input use, yields and farm income



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*Input subsidies can increase input use, and raise agricultural productivity with wider benefits*

## What is the aim of this review?

This Campbell systematic review examines the effects of input subsidies on agricultural productivity, beneficiary incomes and welfare, consumer welfare and wider economic growth. The review summarizes evidence from 15 experimental and quasi-experimental studies and 16 studies that use computable models, the majority concerning sub-Saharan Africa.

**Agricultural input subsidies raise input use, yields and farm income, but the evidence base is small and comes from a limited number of schemes and countries.**

## What is this review about?

Greater use of improved seeds and inorganic fertilisers, and increased mechanisation, could boost agricultural productivity in some low- or lower-middle-income countries, but there is disagreement about whether subsidising these inputs is an effective way to stimulate their use.

This review examines the evidence for impacts of input subsidies on agricultural productivity, beneficiary incomes and welfare, consumer welfare and wider economic growth.

## What are the main findings of this review?

### *What studies are included?*

This review examines studies that evaluate the impact of agricultural input subsidies, including subsidies for agricultural machinery, seeds or fertilisers, on farmers, farm households, wage labourers or food consumers in low- or lower- middle-income countries. It includes 15 experimental and quasi-experimental studies and 16 simulation modelling studies. The majority relate to sub-Saharan Africa (15 to Malawi) and to subsidised fertilizers and seeds.

### *What are the main results of this review?*

Fertiliser and seed subsidies are associated with increased use of these inputs, higher agricultural yields and increased income among farm households, but evidence of their effects on poverty is limited. There is much evidence that subsidy schemes are prone to inefficiency, bias and corruption. Models show that introducing or increasing subsidies generally results in positive effects for consumers and wider economic growth. However, the models indicate that the way subsidies are funded, world input prices



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#### How up-to-date is this review?

The review authors searched for studies up to 2013. This Campbell Systematic Review was published in May 2018.

#### What is the Campbell Collaboration?

The Campbell Collaboration is an international, voluntary, non-profit research network that publishes systematic reviews. We summarise and evaluate the quality of evidence about programmes in the social and behavioural sciences. Our aim is to help people make better choices and better policy decisions.

#### About this summary

This summary was prepared by the authors of the Campbell Systematic Review 2018:4 “Agricultural input subsidies for improving productivity, farm income, consumer welfare and wider growth in low- and lower-middle-income countries: a systematic review” by David J. Hemming, Ephraim W. Chirwa, Andrew Dorward, Holly J. Ruffhead, Rachel Hill, Janice Osborn, Laurenz Langer, Luke Harman, Hiro Asaoka, Chris Coffey, Daniel Phillips (DOI 10.4073/csr.2018:4). Tanya Kristiansen (Campbell Collaboration) redesigned and edited the summary. Financial support from the American Institutes for Research for the production of this summary is gratefully acknowledged.

and beneficiary targeting all have important influences on predicted outcomes. The authors were not able to find any studies examining subsidies for machinery.

*Greater use of improved seeds and inorganic fertilisers could boost agricultural productivity in some LMICs, but there is disagreement about whether subsidising these inputs is an effective way to stimulate their use.*

#### What do the findings of this review mean?

Input subsidies can increase input use, and raise agricultural productivity with wider benefits. However, the design of subsidy schemes is crucial to their effectiveness, if they are to reach the desired farmers and stimulate input use. The effectiveness of subsidies in comparison to other interventions requires further study.

A relatively small number of appropriate studies were found, and well-documented research in countries beyond sub-Saharan Africa is needed to ensure the wider relevance of these results. Mixed-methods, theory-based impact evaluations would help explore the impacts of different levels of subsidies for different beneficiaries. Simulation models studies could make more use of rigorous evidence from experimental and quasi-experimental studies and examine more helpful subsidy comparisons. More clarity is needed in the reporting of methodological approaches, statistical information and the type and size of input subsidy implemented or modelled.

