

SPIA-emLab Agricultural Interventions Database

User Guide

October 2023

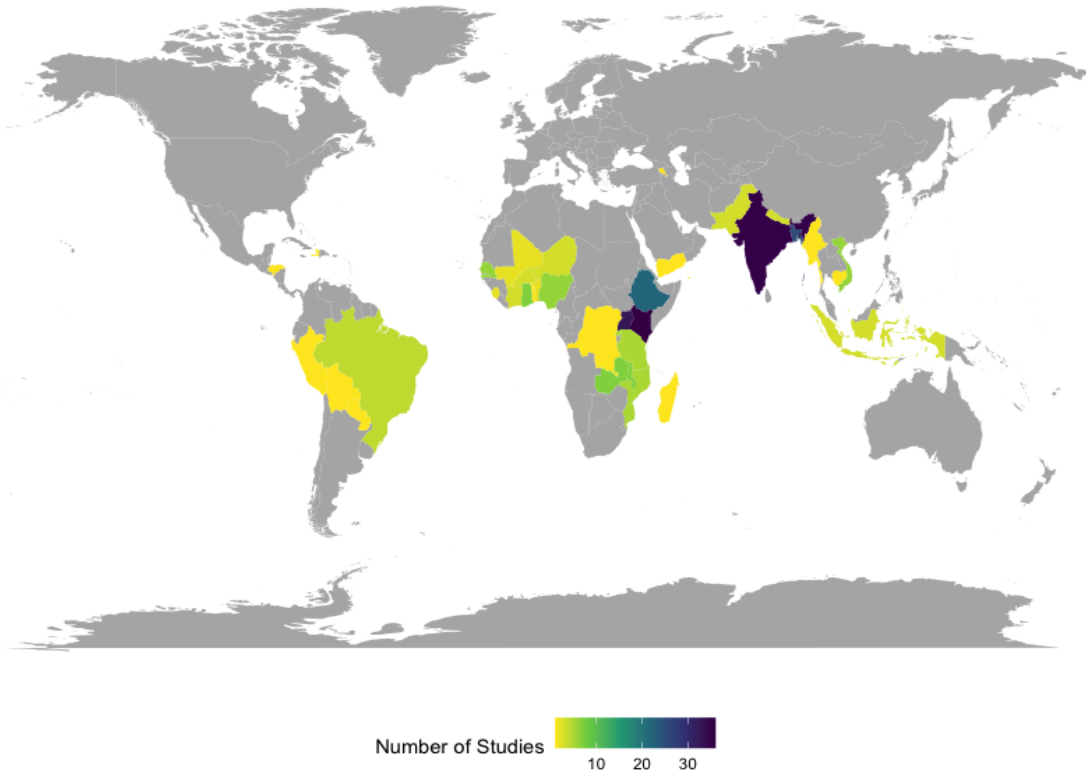
The number of rigorous evaluations of interventions designed to increase agricultural productivity and spur agricultural intensification continues to grow. However, few of these evaluations examine spillovers in time (long run impacts) or on other outcomes (particularly environmental). The goal of the *Agricultural Interventions Database* is to provide a convenient and organized repository of existing interventions, with the goal of lowering the cost of pursuing follow up research on these studies. The version as of October 2023 includes only randomized trials, which are particularly suited to follow up research.

This user guide includes tips for use, a summary of the *Agricultural Interventions Database*, and an overview of the methodology used to construct it.

Tips for use: The database is searchable and serves as a starting point for identifying interventions that may be suitable for follow up study on environmental spillovers or long run impacts. Researchers should, of course, use their own judgement on suitability. First, the original studies can offer more detail on implementation than is included in the database. Second, the availability of data, including spatial identifiers, to facilitate follow up research, needs to be determined by the researcher – including, in some cases, by contacting the original authors. Third, the availability of appropriate data for follow up is not guaranteed, and may require new remote sensing measurement or new field work. A potentially useful set of guidelines for combining randomized interventions with remote sensing is available here: tinyurl.com/RCT-RS-Guide.

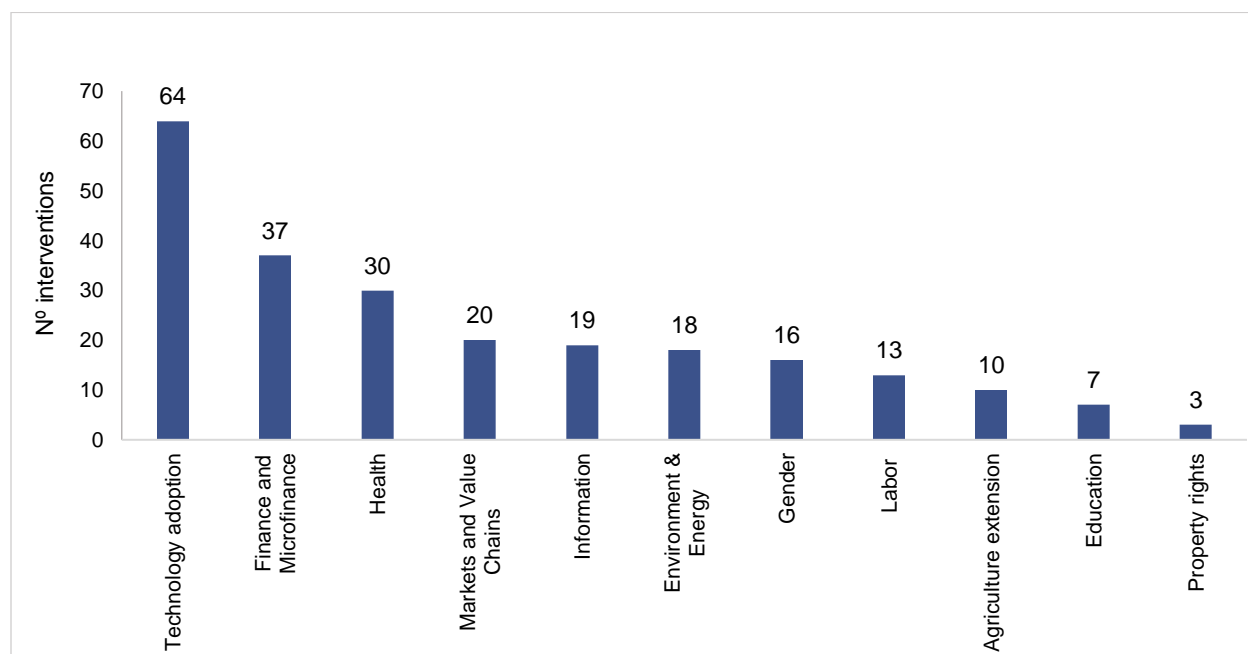
Summary of contents: Figure 1 exhibits the geographical distribution of the interventions included in the database as of October 2023. They took place in 36 countries, mainly in Africa, Asia, and South America.

Figure 1: Geographical distribution of the interventions



The database draws from a wide range of interventions. Figure 2 displays the distribution of the intervention's primary subfield, following the AEA trial registry's classifications.

Figure 2: Interventions primary subfield (n=237)



The database, as of late 2023, includes over 200 studies that comprehended interventions across the global south. Out of these, 75 studies are linked to one of CGIAR's (Consultative Group on International Agricultural Research) Research Centers. Therefore, almost a third of the interventions reviewed for this project have either CGIAR-affiliated researchers, financing or technologies. Most studies (71%) were clustered; most of these clusters are administrative units such as villages, counties, and districts.

Methodology and inclusion criteria: The *Agricultural Interventions Database* focuses on randomized controlled trials, which are well suited for follow up evaluation. Trials were identified by searching the following sources: AEA trial registry, RIDIE trial registry, and selected sites including DIME, ATAI IFAD, WB AGL and PAD) involving a form of agricultural intervention. Table 1.A. in the Appendix summarizes the variables and methodology considered to structure the final product.

Interventions are classified based on their potential for follow up evaluation: (1) Initial intervention was evaluated; treatment effects were detected; (2) Either no program evaluation was done (but one seems possible) or no treatment effects were detected; (3) No program evaluation was done / none is possible. Table 2.A. summarizes these tiers.

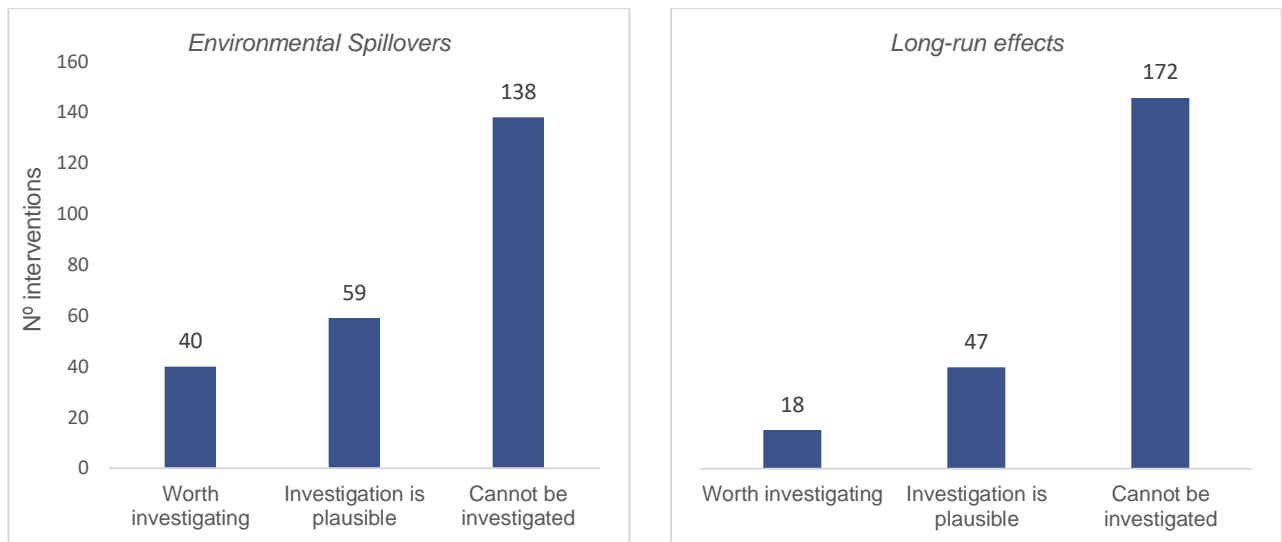
Interventions are also classified on their potential to be extended to comprehend environmental spillovers and long-run implications. Specifically, environmental spillovers are designated as “worth investigating” if the intervention was clustered, has been published in a peer-reviewed paper, and strong results were found. Table 3.A. summarizes this classification. Long run

evaluation is designated as “worth investigating” if the intervention was completed at least eight years ago, was clustered interventions, published in a peer-reviewed journal and presented strong results. This classification is explained in more detail in Table 4.A.

Lastly, it is worth highlighting that we did not consider the data availability and geo-coordinates columns as criteria to select studies into the categories described because studies do not systematically report information about these variables.

Finally, Figures 3 summarizes the potential to extend the evaluation of the interventions, accessing its environmental spillovers and long-run impacts. Relatively few studies fall into the highest potential category for either, with more (40) worth investigating for environmental spillovers than for long run effects (18). With time, the number that have potential for long run effects will (hopefully) grow.

Figure 3: Interventions Potential



Additional guidance on use:

Appendix

Table 1.A.: Database variables description

Column Name	Description
Program Title	Contains the title of the RCT study as mentioned in the Registry. If published, use the published title.
Published (Peer-reviewed academic journal)	Yes – 1 No – 0
Country	Contains the country where the RCT was implemented.
Detailed Location	Details on which part of any country the study took place in; Were there multiple study sites? Area of the study site?
Reference	Include an APA cited version reference.
Tiers	We divide each of the studies into colored tiers: <ol style="list-style-type: none"> 1. Initial intervention has been evaluated; any treatment effects were detected; 2. Either no program evaluation has been done (but one seems possible) or no treatment effects were detected; 3. No program evaluation has been done / none is possible.
Technology/ Innovation Used	Contains the name of the intervention used in the RCT and details on the kind of agricultural technology that was used in this study.
Authors/Primary Investigator	Contains the name of all the authors and PI's of the study.
Treatment Arms	Contains the description of the treatment arms including control.
Intervention Start Date	Contains the date on which the intervention started.
Duration Intervention	Contains, in months, the duration of the study's intervention. OR '--' - Intervention end date not given
Intervention End Date	Contains the date on which the intervention ended OR Not Given – The end date is not given in the Registry and no published document is available for consultation of the same;

Sponsors and Partners	Contains the names of sponsors and the partners in the study if mentioned in the Registry Or the paper acknowledgements. Not Available – The name of the sponsors and partners were hidden on the Registry
Short Summary	Contains a brief summary of the study, usually borrowed from the abstract.
CGIAR Centre/IRB	Contains the name of the CGIAR center the study is linked to. This can be the center the researcher is affiliation to, center of IRB registration or the center through which the program intervention is linked OR '—' – No CGIAR affiliation
Investigator Affiliation (IF Other)	Contains the affiliation (in order of the mention in Primary Investigator) of the researcher who is not affiliated to CGIAR or its centers OR '—' – No non CGIAR researcher affiliation
Keyword	Contains the key word of the study. E.g. Agriculture, Nutrition, among others. Note: Add a dropdown over here to standardize this.
Trial Registry Available	Yes – 1 No – 0
Trial Registry Link	Link to the trial registry
Evaluation Methodology	What methodology was used for evaluation? RCT, Diff-in-Diff, etc.
Sample Size	Contains the sample size of the study;
Clusters	Contains the unit of clustering (For Example: Village level) OR NA – There is no clustering
Cluster RCT	Contains Yes – If the RCT in the study is clustered OR No – If the RCT in the study is not clustered
Publication Document	Contains the link to the published document containing results OR

	None – No published document with results is available
Other Documents/Links	Contains the link to any other documents or write-up pertaining to the study OR NA – No other document/ write up available
Data	Contains the link to publicly available data of the study Add details on the data section as well. OR NA – No public data available
Results	Contains the description of the overall result analysis of the paper. Add details on the intensification outcome as well.
Point Estimates/Effect Size	Contains the main point estimates provided in the paper (Sometimes the same as the results column as this column was added later)
Heterogeneity	Contains Yes – if any of the ITT effects are separately estimated for certain subgroups No – Otherwise
Geo-Coordinates	Contains Yes – If geo coordinates are provided Or No – If no geo coordinates are provided
Comments	General comments which are relevant to the user

Table 2.A.: Tier classification

Tiers	We divide each of the studies into colored tiers: <ol style="list-style-type: none">1. The initial intervention has been evaluated; any treatment effects were detected;2. Either no program evaluation has been done (but one seems possible), or no treatment effects were detected;3. No program evaluation has been done / none is possible.
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Table 3.A.: Environmental spillovers' potential classification

Tiers	We divide each of the studies into the following tiers: <ul style="list-style-type: none">• Worth investigating: clustered intervention. The intervention has been evaluated in a published academic paper, and strong intervention results were found.• Investigation is plausible: clustered intervention but hasn't been evaluated in a peer-reviewed journal or/and evaluation didn't find strong results.• Environmental spillovers cannot be investigated: non-clustered randomized-control trial.
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Table 4.A.: Long run potential classification

Tiers	<p>We divide each of the studies into the following tiers:</p> <ul style="list-style-type: none">• Worth investigating: intervention was completed at least eight years ago. The intervention was evaluated in a peer-reviewed academic publication, the randomized control trial was clustered, and strong evidence of impacts was found.• Investigation is plausible: intervention was completed more than eight years ago but didn't meet the additional criteria of category 1.• Long-run impacts cannot be studied: the intervention was completed less than eight years ago.
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