

# Theory-based systematic reviews

Howard White, 3ie

# Review questions

1. Effects of community-driven development programmes on social cohesion
2. Effects of input subsidies on agricultural productivity
3. Effects of payment for environment services on deforestation
4. Effects of cookstoves on child health and deforestation
5. Effects on computer-assisted learning on learning outcomes

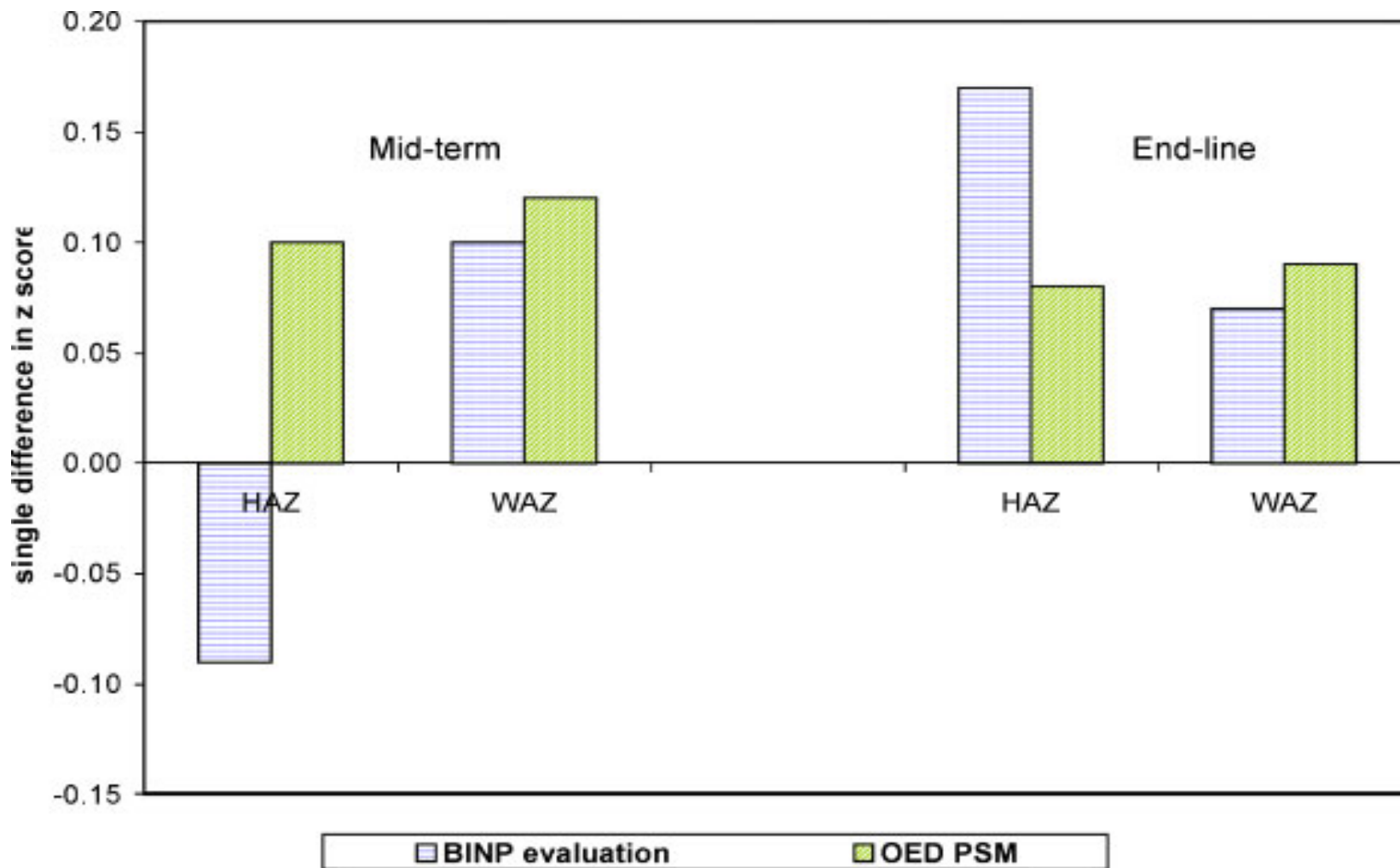
# What do we mean by theory-based?

Impact evaluation: an example

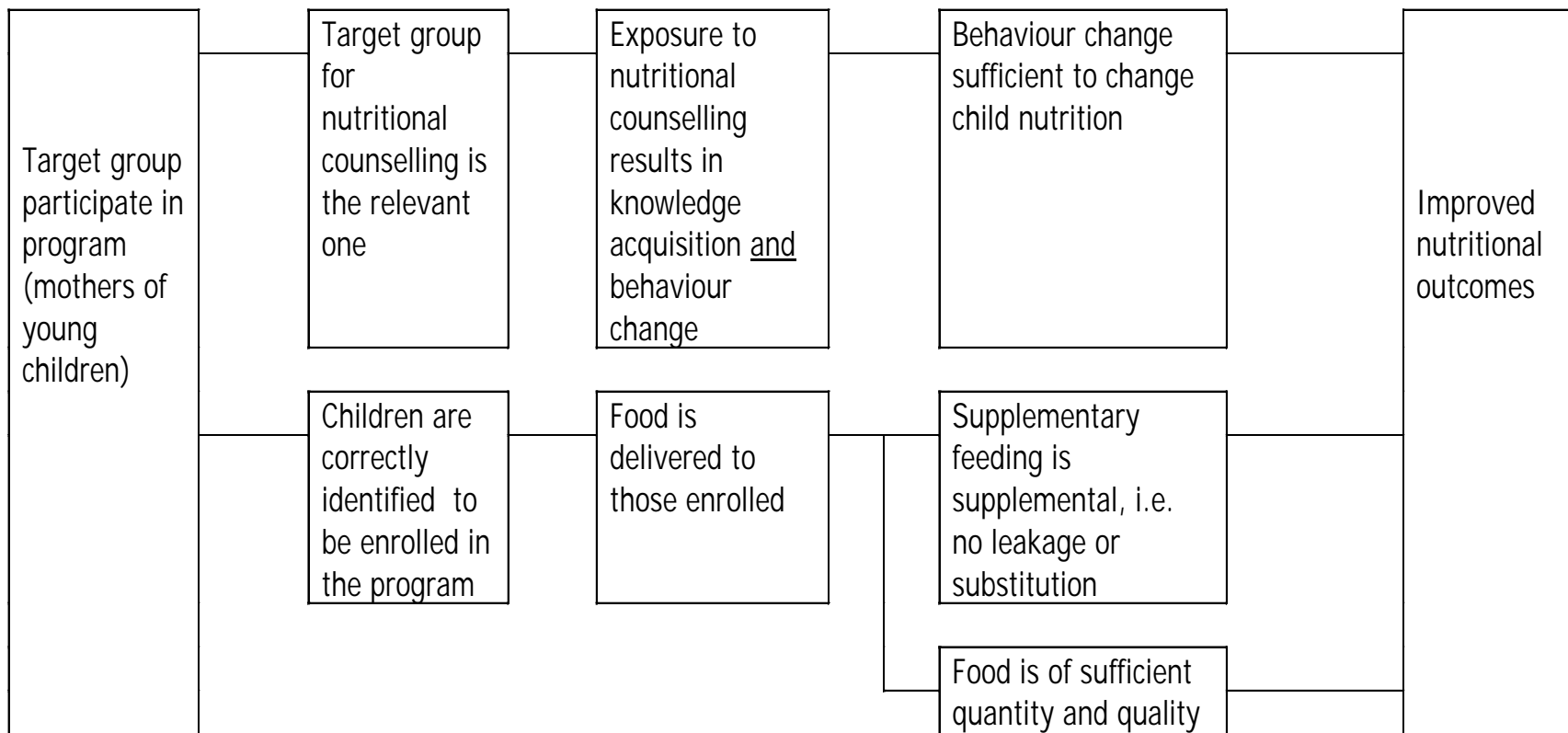


# The case of the Bangladesh Integrated Nutrition Project (BINP)

# Comparison of impact estimates



# Summary of theory



# The theory of change



Right target group for nutritional counselling

Target group participate in program (mothers of young children)

Target group for nutritional counselling is the relevant one

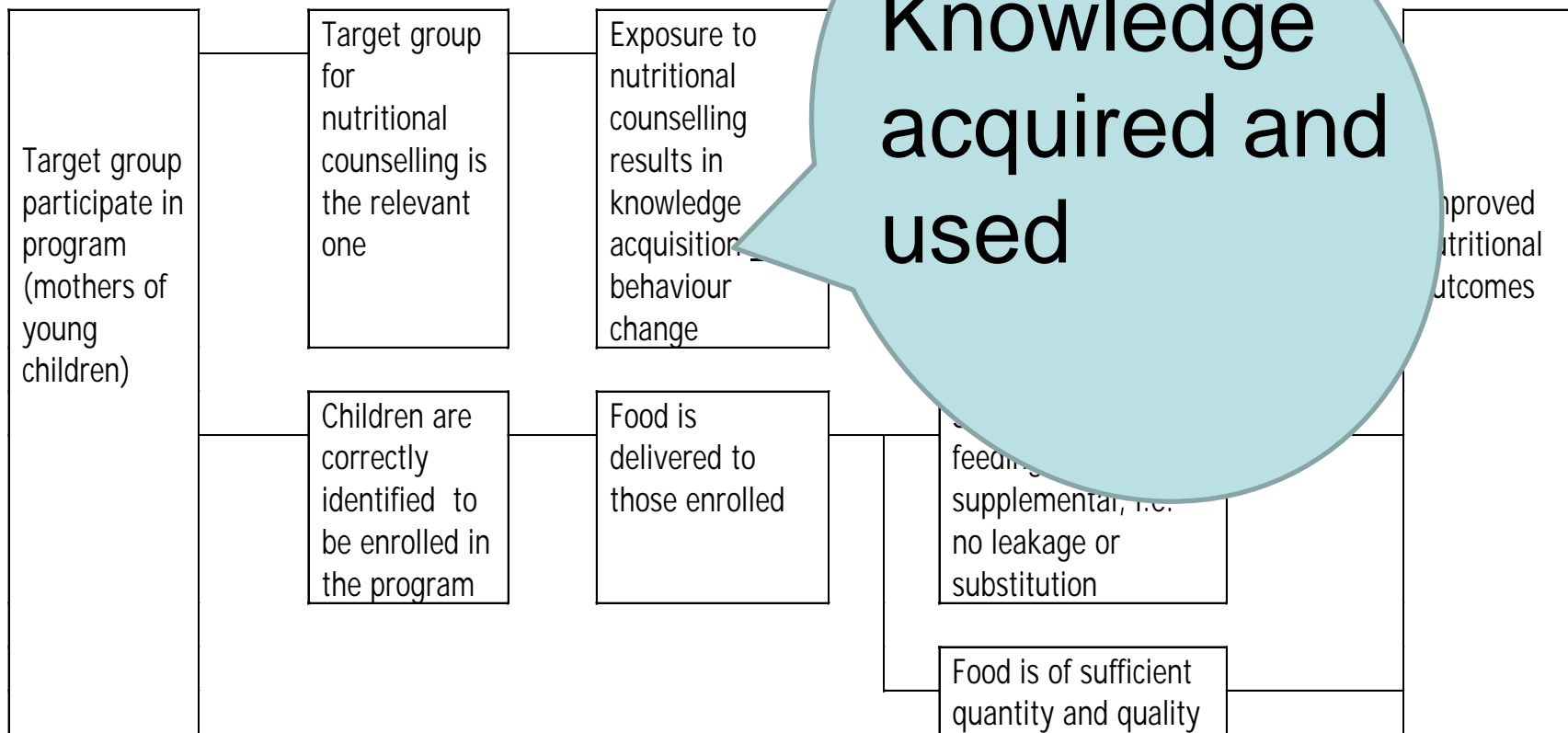
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**PARTICIPATION RATES WERE UP TO 30% LOWER FOR WOMEN LIVING WITH THEIR MOTHER-IN-LAW**

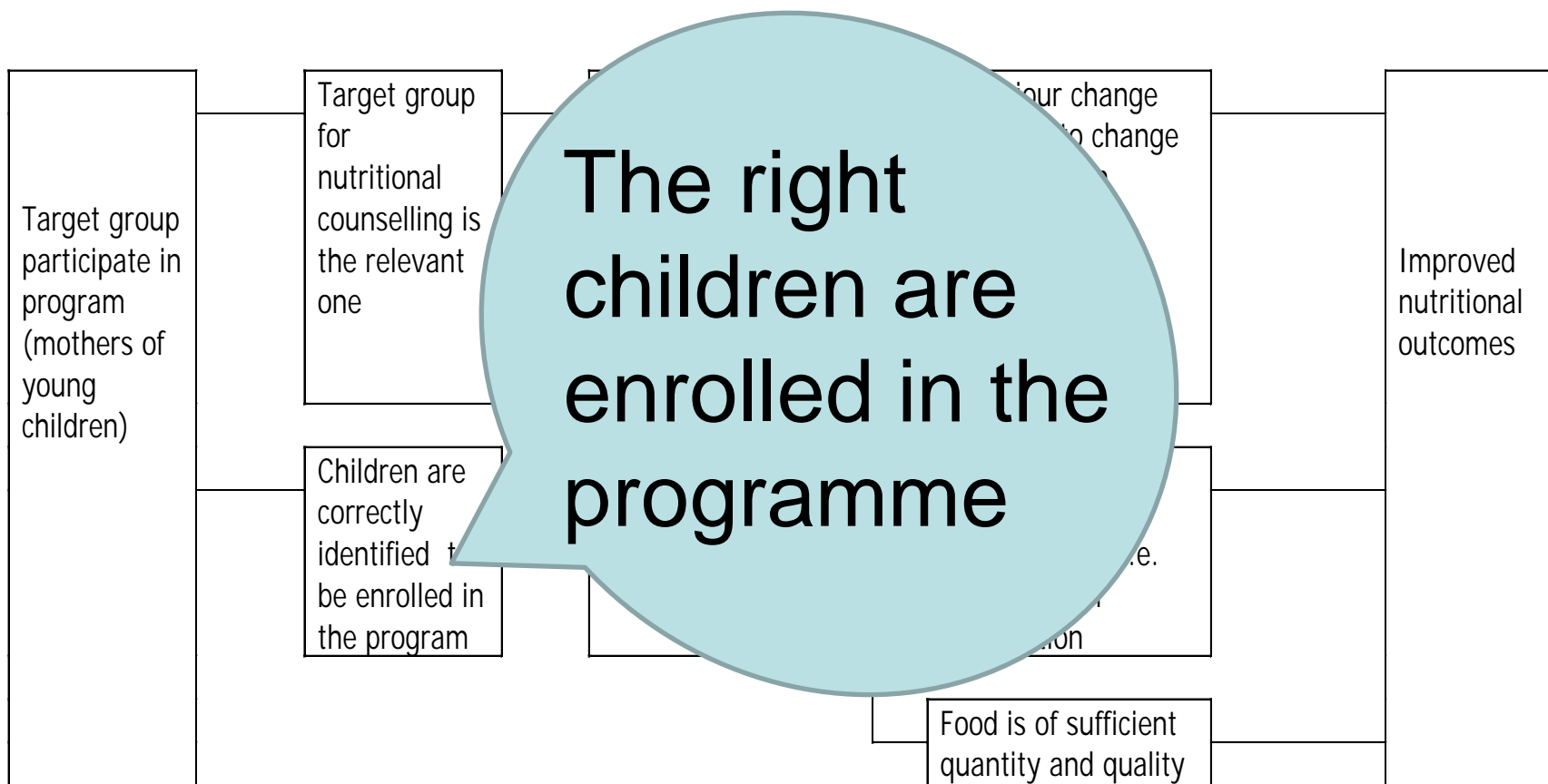
Quantity and quality

# The theory of change

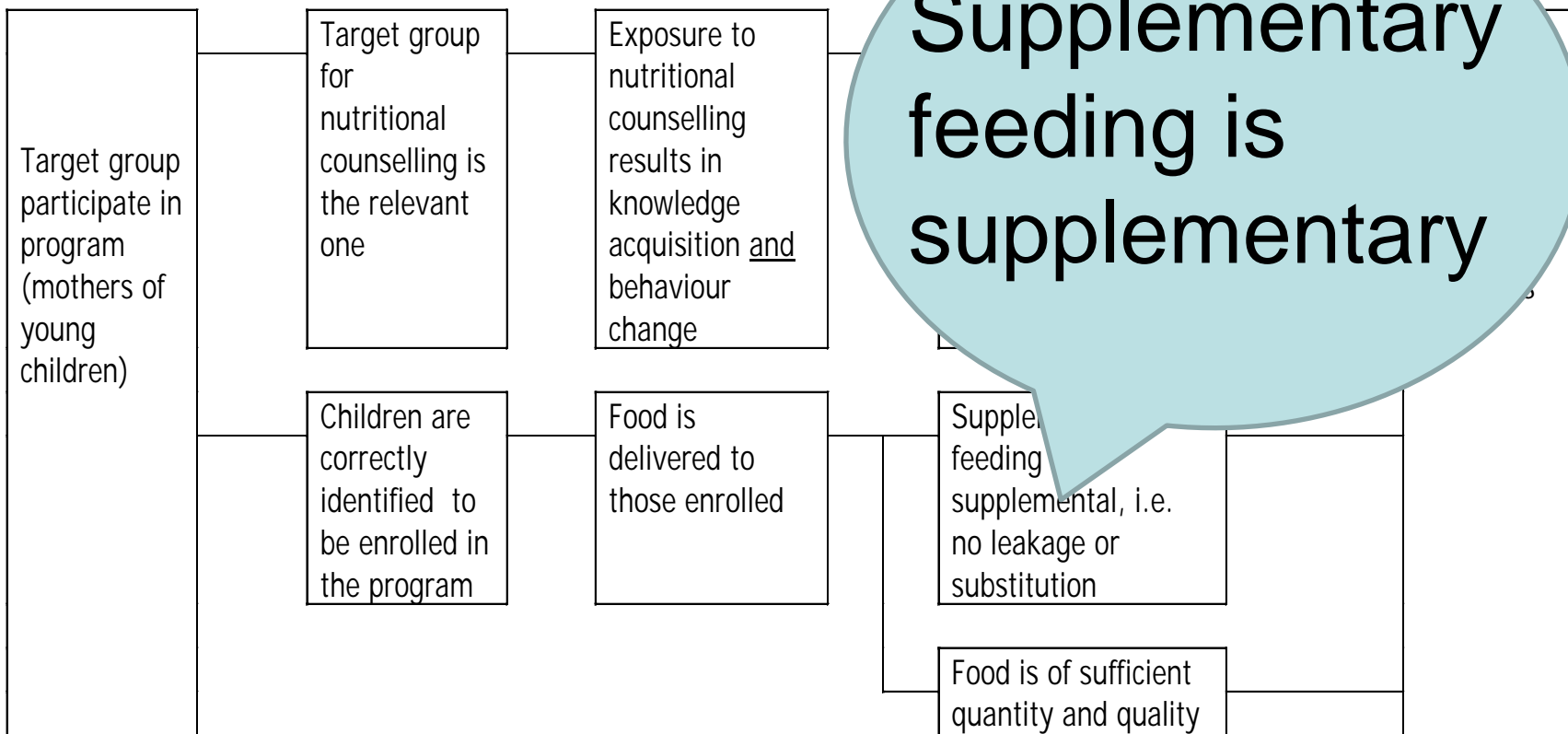




# The theory of change

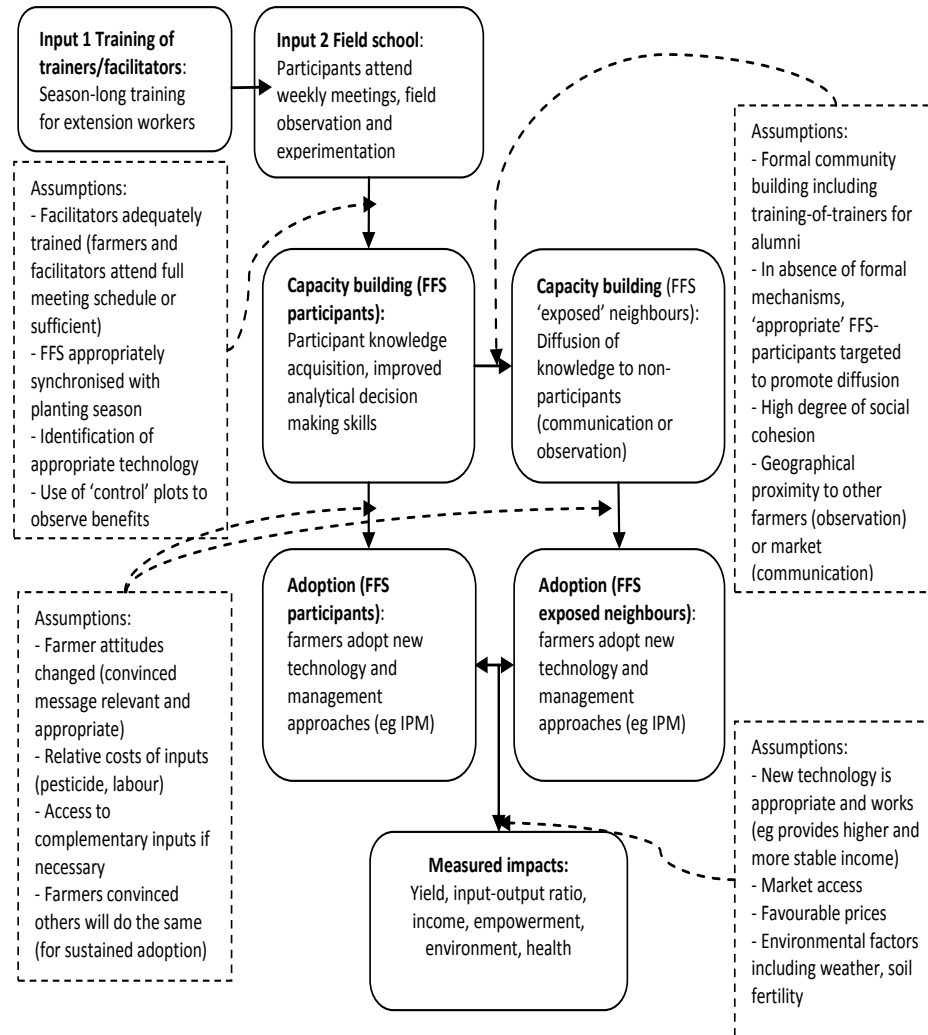


# The theory of change



# Exercise 1

- Pick key outcome variable(s)
- Sketch basic theory of change



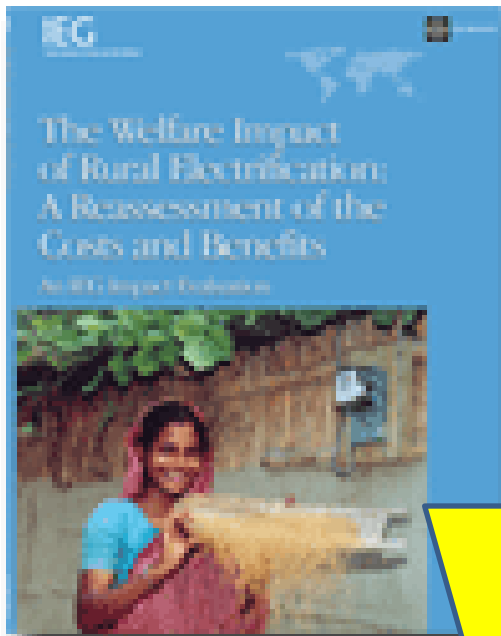
# Components

- Intervention dimensions and design (global portfolio review, GPR)
- Intervention implementation
- Outputs produced
- Beneficiary knowledge, perceptions and participation (access/use)
- Intermediate and final outcomes

- Define and list the universe
- Collect project documentation (and strategy and policy documents)
- Categorize, code and aggregate
  - ‘Portfolio’ (country/region, budget, year)
  - Objectives
  - Design components
  - Target groups and targeting mechanisms
- Document main trends and characteristics

# Key points

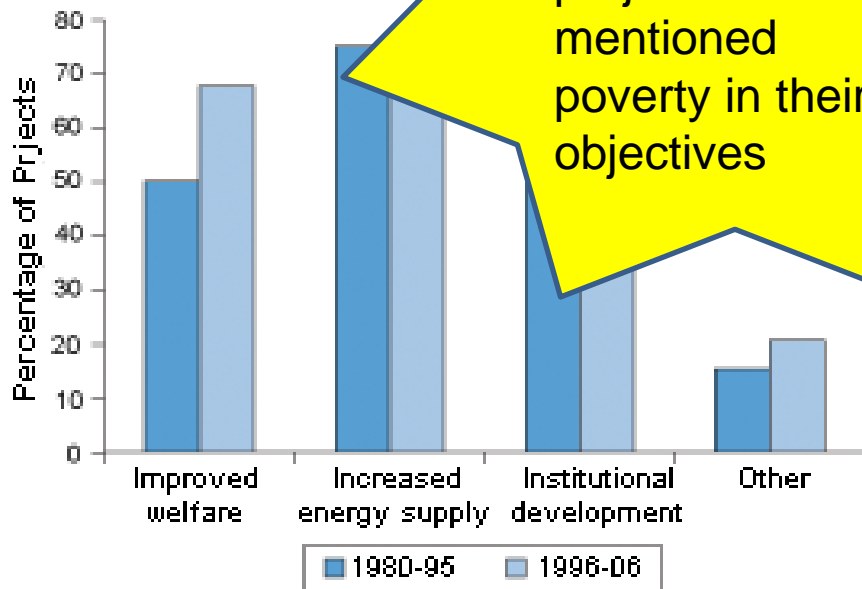
- Causal chain analysis used mixed methods: factual and counterfactual
- Causal chain analysis enhances policy relevance, and stresses context ('realist review')



## Major policy shifts:

- Private sector involvement
- Poverty focus
- Pro-environment

Just 7percent of RE and energy projects mentioned poverty in their objectives



- Since 1980 identified 120 RE projects:
  - 42 (35 percent) were dedicated RE projects,
    - 16 (37 percent) were larger energy projects with RE components, and
  - 34 (28 percent) were multisector projects that included RE components

Total around US\$3 billion

# RET & Off grid electrification



- Rapid growth: only 2 off-grid projects before 1995 and 31 after
- Most (75%) include photovoltaic, usually solar home systems
- Others are micro-hydro (74%) and wind power (31%)

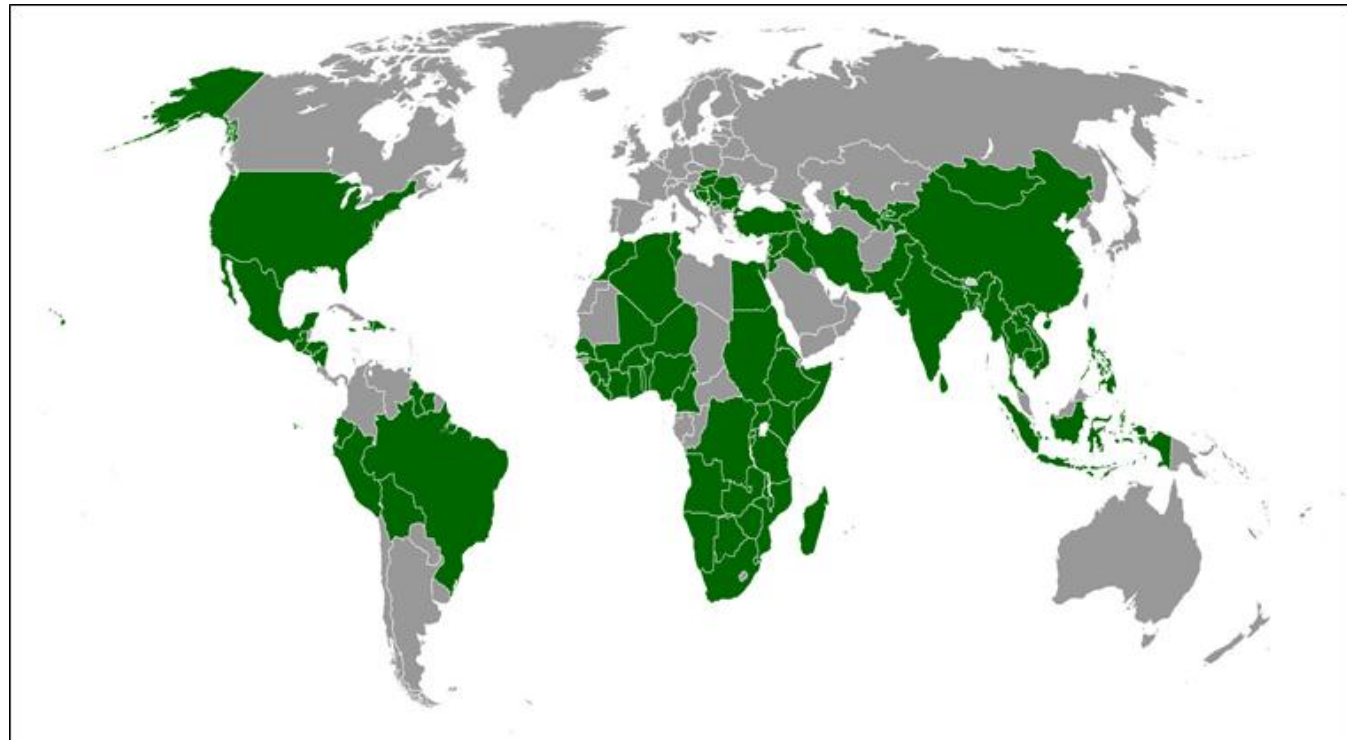


# FFS: global portfolio review



- 400-475,000 FFS with 10-12 million beneficiaries since started in Indonesia in 1989

Nearly all projects have production amongst their objectives, but 2/3 also have empowerment



# Exercise 2

- Define your intervention
- How would you map the universe?
- What documents do you need for a global portfolio review (GPR)? Where would you get them from?

# Rural electrification design



- 82% build infrastructure and 85% have institutional development
- Tariff conditionality: 1/3 projects prior 1995, 14% thereafter
- One quarter address rehabilitation or system losses
- Few have explicitly pro-poor components (only two subsidize connection charge)

# Implementation: outputs

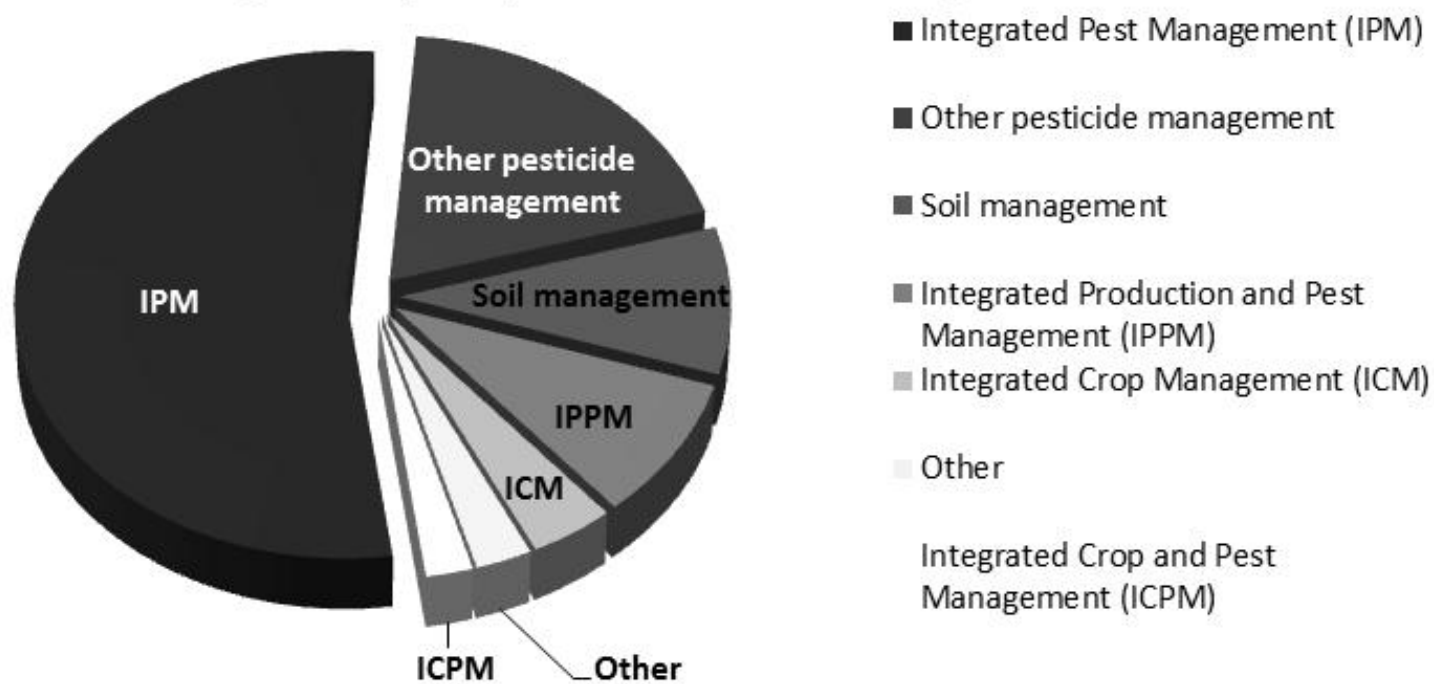


- Bangladesh: rural connections near 0 in early 80s to more than 4 million in 2002 of which Bank 600,000 (15%)
- Indonesia: coverage rose 33 to 85% from 1993 to 2003, 11 million new h/h, of which 10 million under First and Second Indonesia RE projects (1/2 paid for by Bank)
- Laos: 1993-2004 coverage from 14-45%



# Focus of FFS

Figure 13, pest, pesticide and soil management



# Exercise 3

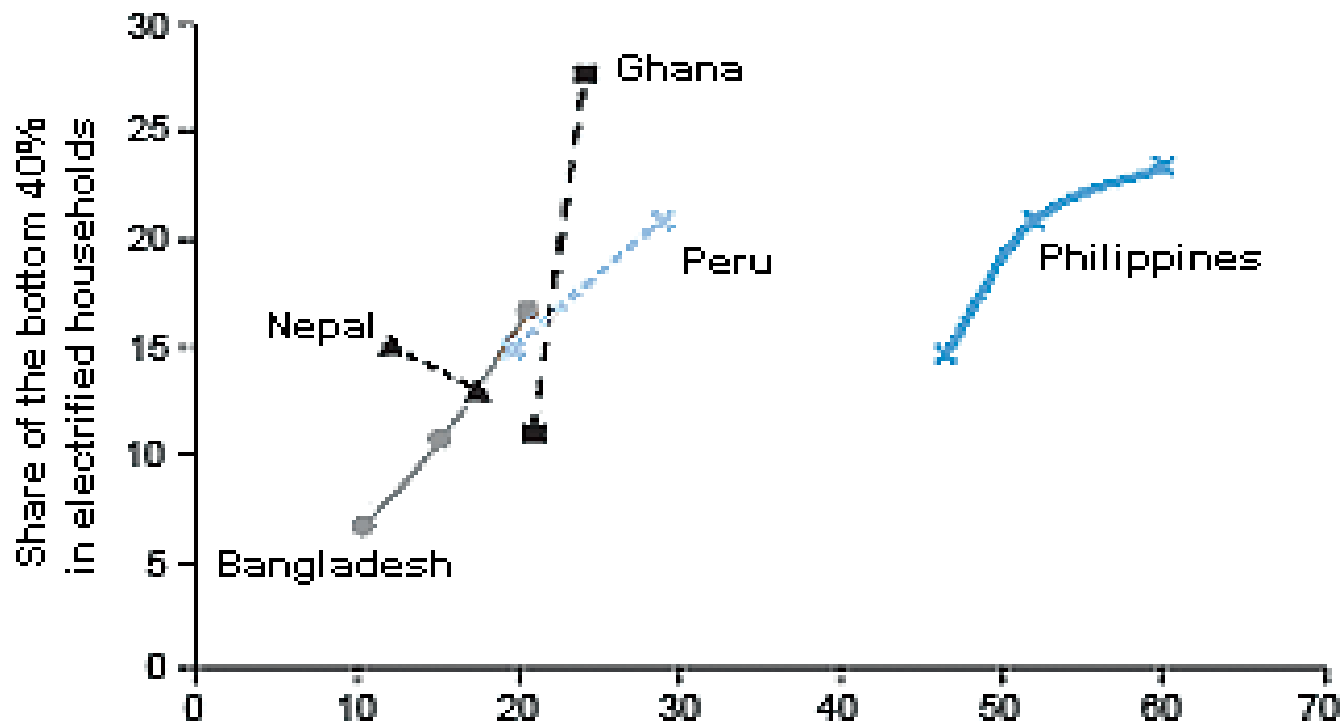
- How would you identify, categorize and code main design features?
- Where do data come from and how do you assess their credibility?

# Implementation: FFS



- Targeting varies
  - In many cases deliberate or self-selections better off and men
  - But in other only women can take part
- High-levels of drop out, with participants being replaced by non-farmers
- Weak facilitators with little experience and poorly trained

# Access and use



**Share of bottom 40% in RE coverage**

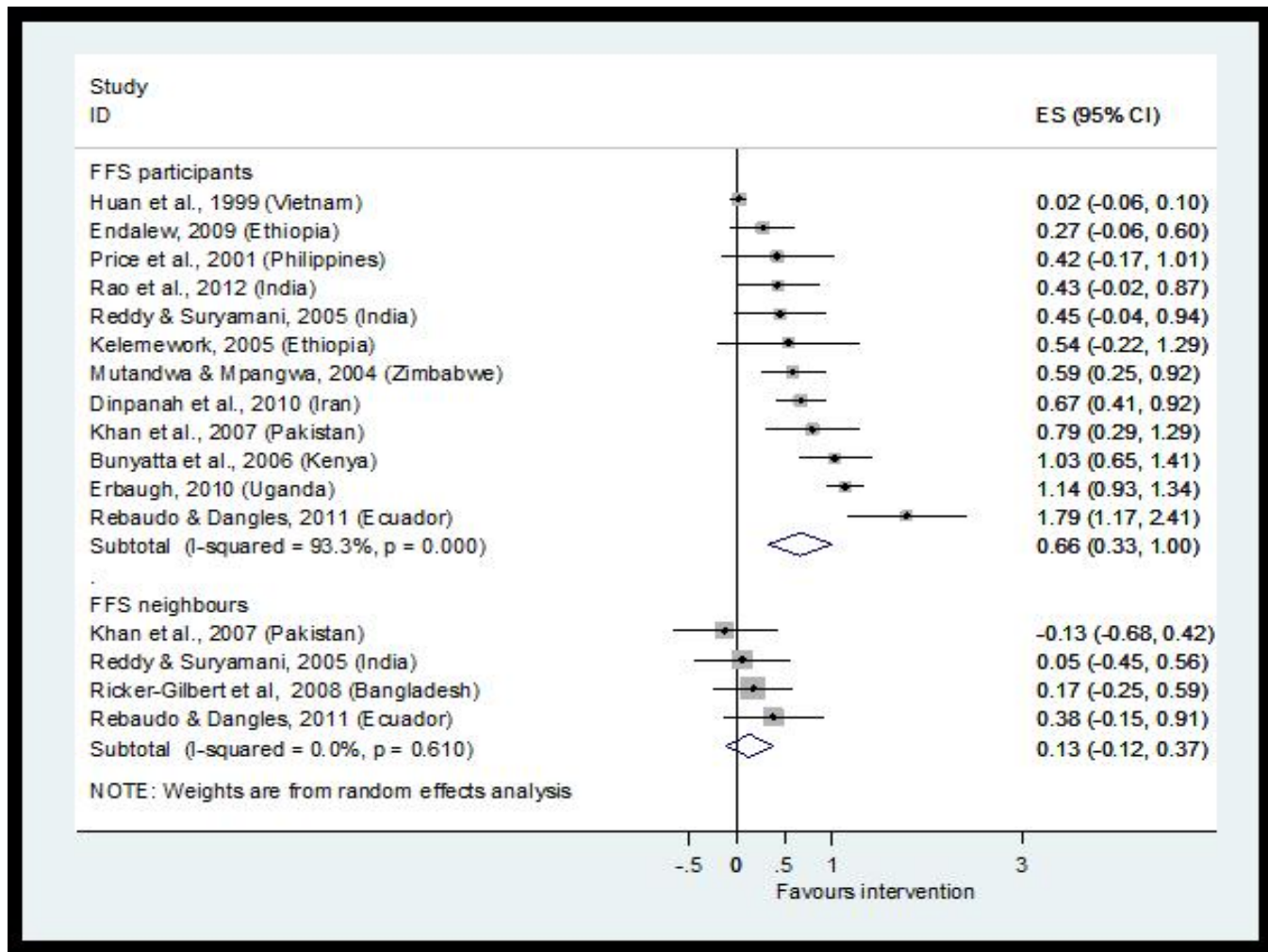


# Uses of RE

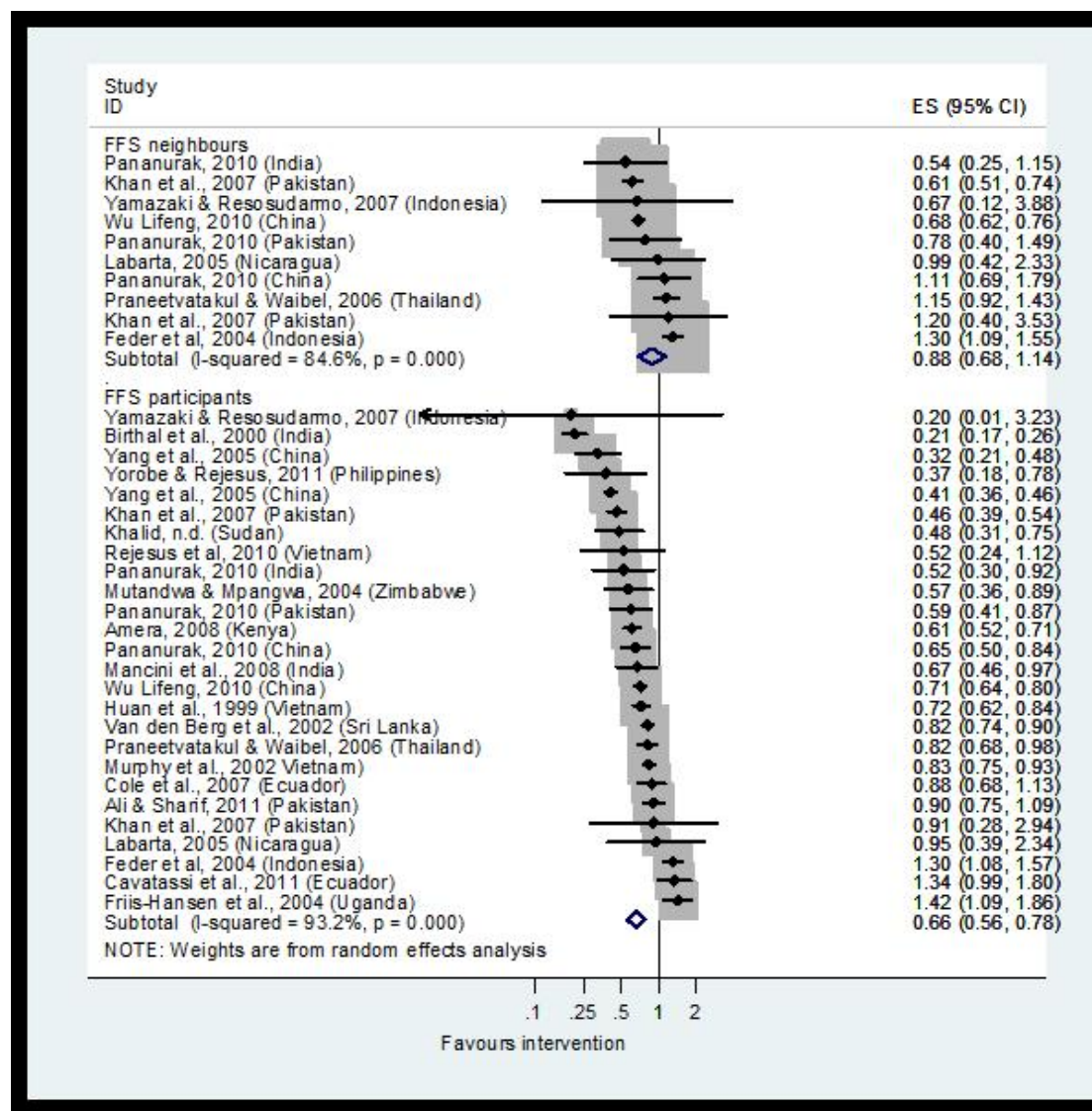
- Lighting
- TV (not radio)
- Some enterprises
- NOT cooking



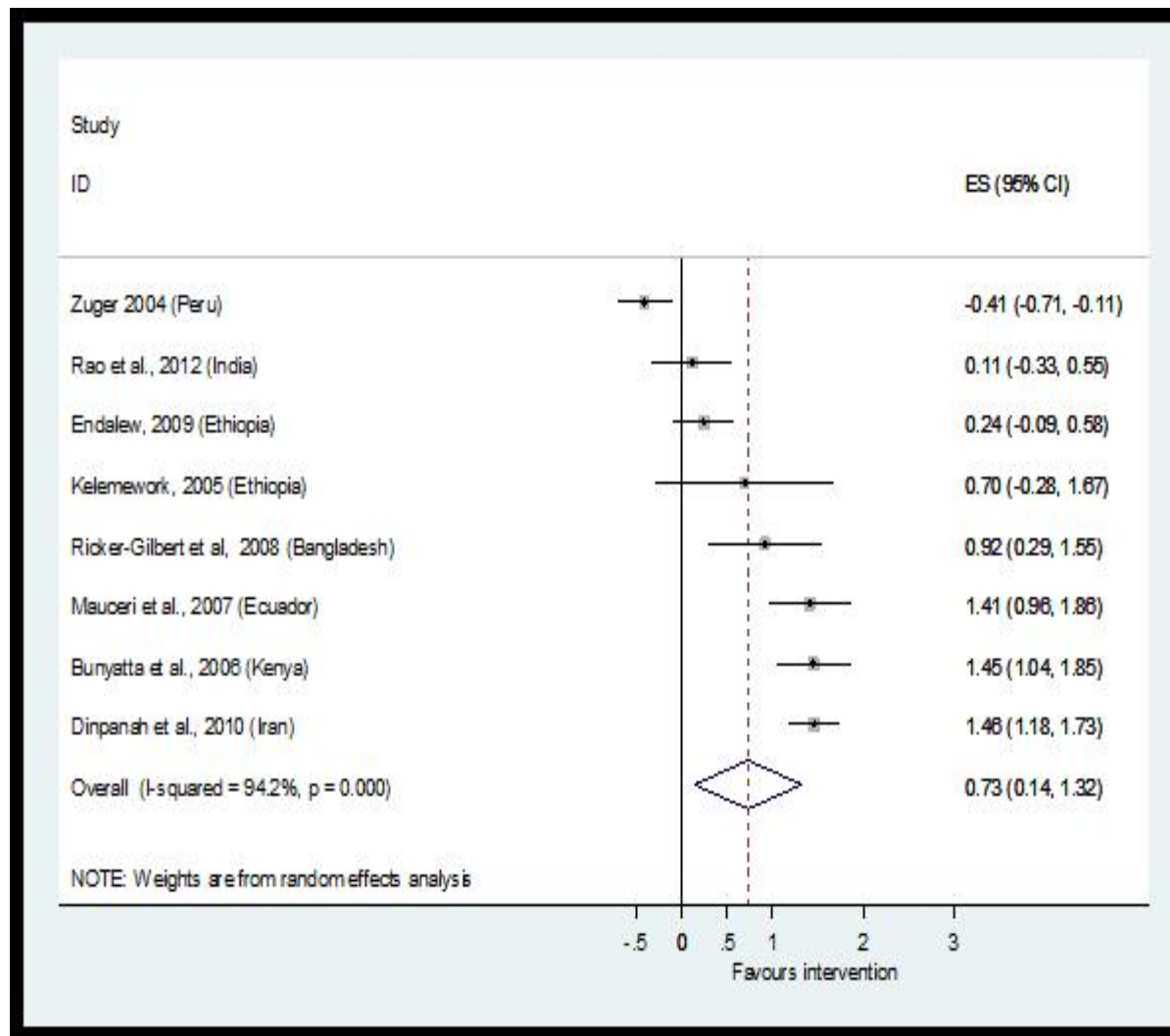
# Effectiveness review: along the causal chain knowledge test scores



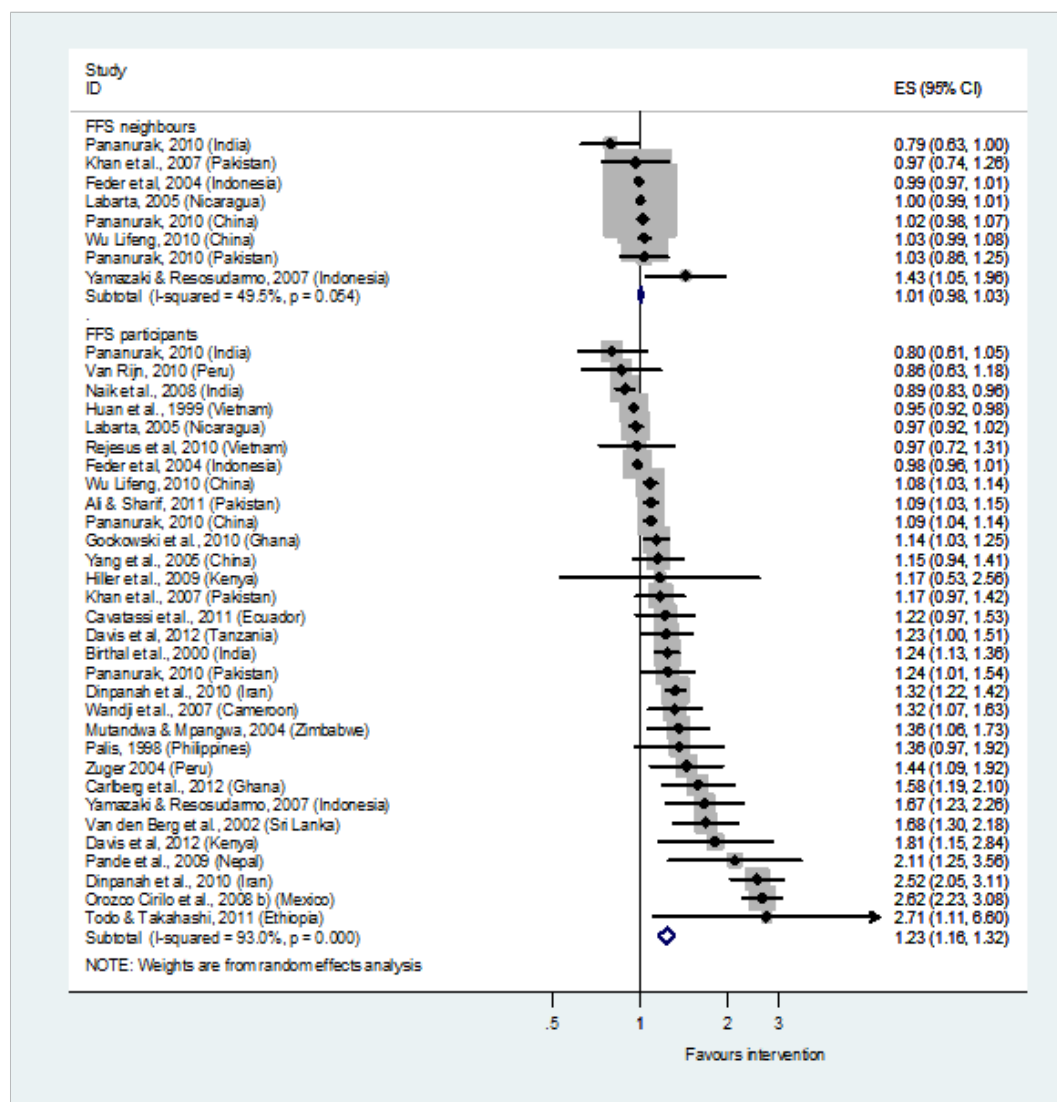
# Pesticide use



# ‘Practices adopted’



# Yields



# Exercise 4

- For which variables would you collect effect sizes?