# Promoting a RealWorld and Holistic approach to Impact Evaluation

Designing Evaluations under Budget, Time, Data and Political Constraints

## National Evaluation Conference IEO-UNDP

#### **Nermine Wally**

Note: The summary chapter of the book and other resources are available at:

www.RealWorldEvaluation.org

## **Workshop Objectives**

1. Briefly introduce the RealWorld Evaluation approach for addressing common issues and constraints faced by evaluations such as: when the evaluator is not called in until the project is nearly completed and there was **no baseline** nor **comparison group**; or where the evaluation must be conducted with inadequate budget and insufficient time; and where there are political pressures and expectations for how the evaluation should be conducted and what the conclusions should say.

## **Workshop Objectives**

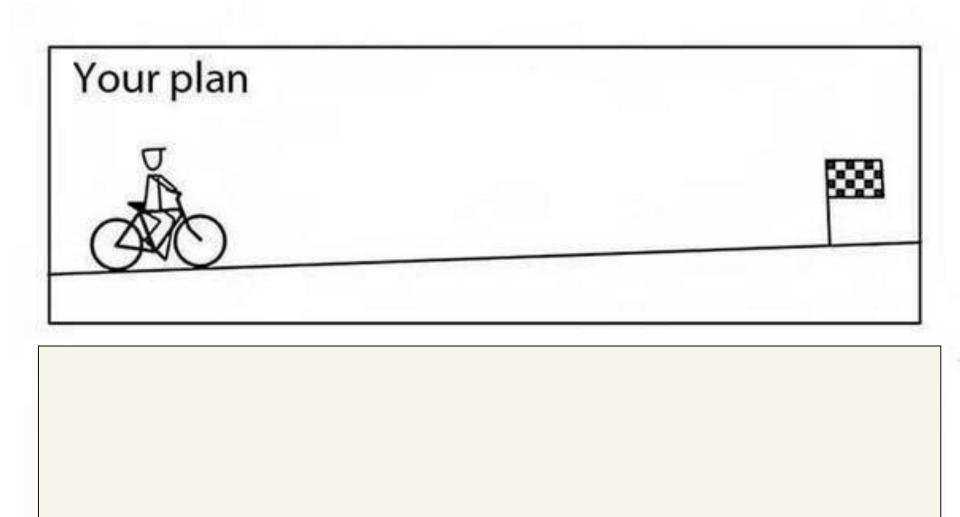
- 2. Identifying and assessing various **design options** that could be used in a particular evaluation setting;
- 3. Ways to **reconstruct baseline data** when the evaluation does not begin until the project is well advanced or completed;

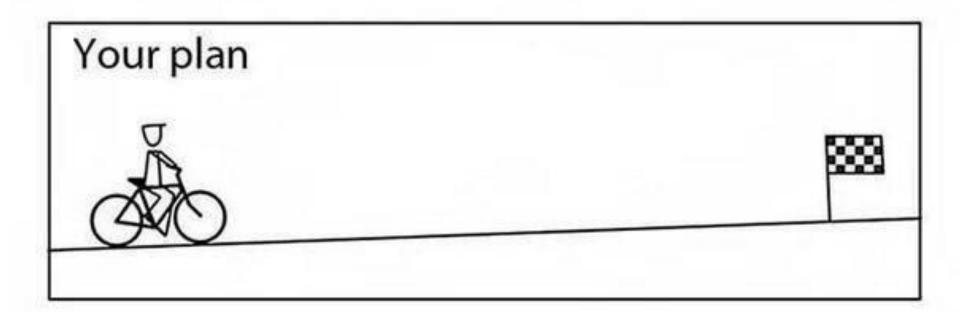
#### RealWorld Evaluation

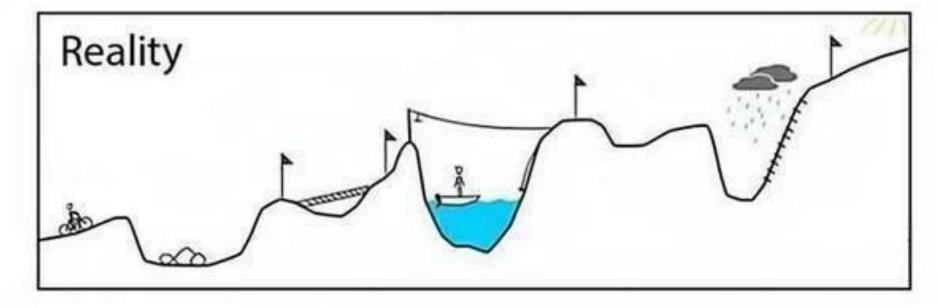
**Designing Evaluations under Budget,** 

**Time, Data and Political Constraints** 

OVERVIEW OF THE
RWE APPROACH







## Reality Check – Real-World Challenges to Evaluation

- All too often, project designers do not think evaluatively – evaluation not designed until the end
- There was no baseline at least not one with data comparable to evaluation
- There was/can be no control/comparison group.
- Limited time and resources for evaluation
- Clients have prior expectations for what they want evaluation findings to say
- Many stakeholders do not understand evaluation; distrust the process; or even see it as a threat (dislike of being judged)

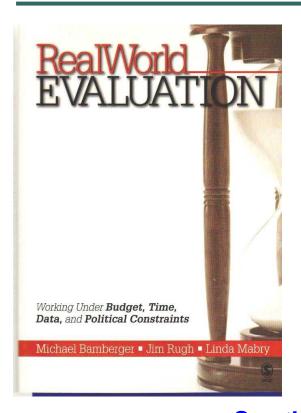
## RealWorld Evaluation Quality Control Goals

- Achieve maximum possible evaluation rigor within the limitations of a given context
- Identify and control for methodological weaknesses in the evaluation design
- Negotiate with clients trade-offs between desired rigor and available resources
- Presentation of findings must acknowledge methodological weaknesses and how they affect generalization to broader populations

## The Need for the RealWorld Evaluation Approach

As a result of these kinds of constraints, many of the basic principles of rigorous impact evaluation design (comparable pre-test -- post test design, control group, adequate instrument development and testing, random sample selection, control for researcher bias, thorough documentation of the evaluation methodology etc.) are often sacrificed.

#### The RealWorld Evaluation Approach



An integrated approach to ensure acceptable standards of methodological rigor while operating under real-world budget, time, data and political constraints.

See the RealWorld Evaluation book or at least condensed summary for more details



## RealWorld **Evaluation**

This book addresses the challenges of conducting program evaluations in real-world contexts where evaluators and their clients face budget and time constraints and where critical data may be missing. The book is organized around a seven-step model developed by the authors, which has been tested and refined in workshops and in practice. Vignettes and case studies—representing evaluations from a variety of geographic regions and sectors—demonstrate adaptive possibilities for small projects with budgets of a few thousand dollars to large-scale, long-term evaluations of complex programs. The text incorporates quantitative, qualitative, and mixed-method designs and this Second Edition reflects important developments in the field over the last five years.

#### New to the Second Edition:

- Adds two new chapters on organizing and managing evaluations, including how to strengthen capacity and promote the institutionalization of evaluation systems
- Includes a new chapter on the evaluation of complex development interventions, with a number of promising new approaches presented
- Incorporates new material, including on ethical standards, debates over the "best" evaluation designs and how to assess their validity, and the importance of understanding settings
- Expands the discussion of program theory, incorporating theory of change, contextual and process analysis, multi-level logic models, using competing theories, and trajectory analysis
- Provides case studies of each of the 19 evaluation designs, showing how they have been applied in the field

"This book represents a significant achievement. The authors have succeeded in creating a book that can be used in a wide variety of locations and by a large community of evaluation practitioners."

-Michael D. Niles. Missouri Western State University

"This book is exceptional and unique in the way that it combines foundational knowledge from social sciences with theory and methods that are specific to evaluation."

—Gary Miron, Western Michigan University

"The book represents a very good and timely contribution worth having on an evaluator's shelf. especially if you work in the international development arena."

-Thomaz Chianca, independent evaluation consultant, Rio de Janeiro, Brazil

RealWorld Evaluation

#### RealWorld -valuation

Working Under Budget, Time, Data, and Political Constraints

Michael Bamberger .Jim Rugh

Linda Mabry

**EDITION** 



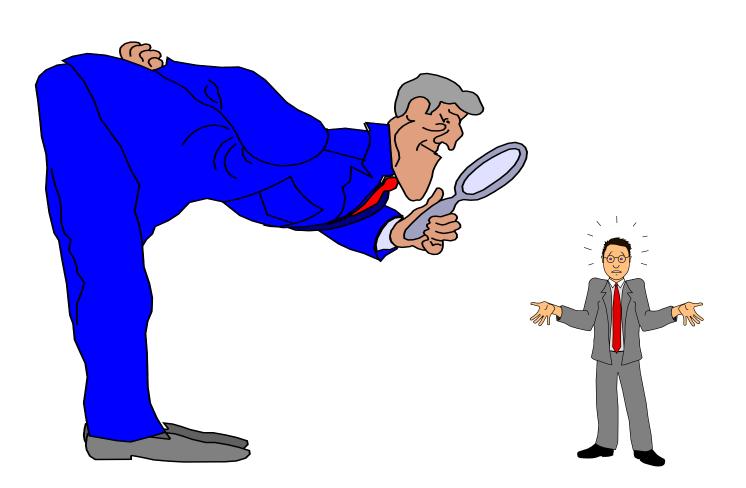




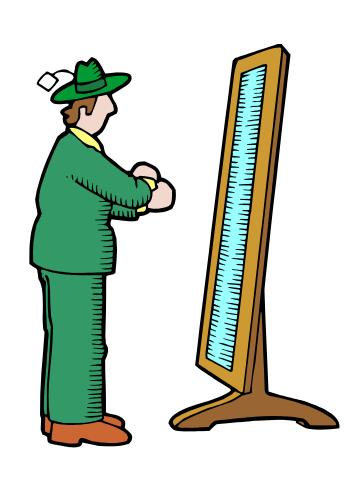




Caution: Too often what is called Impact Evaluation is based on a "we will examine and judge you" paradigm. When we want our own programs evaluated we prefer a more holistic approach.



How much more helpful it is when the approach to evaluation is more like holding up a mirror to help people reflect on their own reality: *facilitated self-evaluation*.



## The RealWorld Evaluation approach

- Developed to help evaluation practitioners and clients
  - Including managers, funding agencies and external consultants
- Still a work in progress (we continue to learn more through workshops like this)
- Originally designed for developing countries, but equally applicable in industrialized nations

## Special Evaluation Challenges in Developing Countries

- Unavailability of needed secondary data
- Scarce local evaluation resources
- Limited budgets for evaluations
- Institutional and political constraints
- Lack of an evaluation culture (though evaluation associations are addressing this)
- Many evaluations are designed by and for external funding agencies and seldom reflect local and national stakeholder priorities

## Most RealWorld Evaluation tools are not new—but promote a holistic, integrated approach

- Most of the RealWorld Evaluation data collection and analysis tools will be familiar to experienced researchers and evaluators.
- What we emphasize is an integrated approach which combines a wide range of tools adapted to produce the best quality evaluation under RealWorld constraints.

## What is Special About the RealWorld Evaluation Approach?

- There is a series of steps, each with checklists for identifying constraints and determining how to address them
- These steps are summarized on the following slide ...

## The Steps of the RealWorld Evaluation Approach

- Step 1: Planning and **scoping** the evaluation
- Step 2: Addressing **budget** constraints
- Step 3: Addressing **time** constraints
- Step 4: Addressing data constraints
- Step 5: Addressing **political** constraints
- Step 6: Assessing and addressing the strengths and
  - weaknesses of the evaluation design
- Step 7: Helping clients <u>use</u> the evaluation

## We will not have time in this workshop to cover all those steps

#### We could focus on any of the following:

- Scoping the evaluation
- > Evaluation designs
- Logic models
- Reconstructing baselines
- Alternative counterfactuals
- Realistic, holistic impact evaluation
- Negotiating ToRs

Before we return to the RealWorld steps, let's gain a perspective on levels of rigor, and what a life-of-project evaluation plan could look like

#### Different levels of rigor

depends on source of evidence; *level of confidence; use of information*Objective, high precision – but requiring more time & expense

Level 5: A very thorough research depth analysis of situation; P= +/- 1% Book published!

Level 4: Good sampling and data collection methods used to gather data that is representative of target population; P= +/- 5% Decision maker reads full report

Level 3: A rapid survey is conducted on a convenient sample of participants; *P*= +/- 10% Decision maker reads 10-page summary of report

Level 2: A fairly good mix of people are asked their perspectives about project; *P*= +/- 25% Decision maker reads at least executive summary of report

Level 1: A few people are asked their perspectives about project;

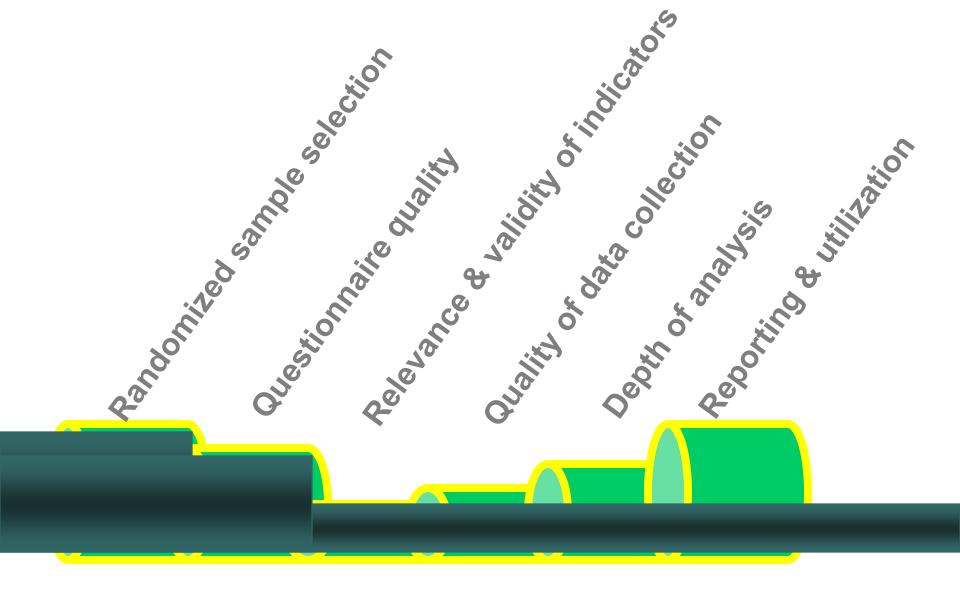
P= +/- 40% Decision made in a few minutes

Level 0: Decision-maker's impressions based on anecdotes and sound bytes heard during brief encounters (hallway gossip), mostly intuition;

Level of confidence +/- 50%; Decision made in a few seconds

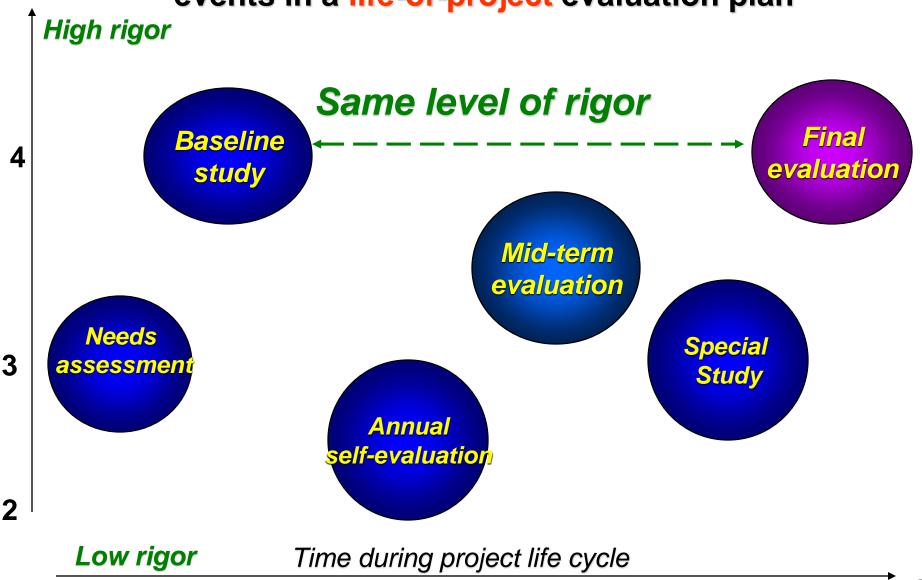
# CONDUCTING AN EVALUATION IS LIKE LAYING A PIPELINE

QUALITY OF INFORMATION GENERATED BY AN EVALUATION DEPENDS UPON LEVEL OF RIGOR OF ALL COMPONENTS



AMOUNT OF "FLOW" (QUALITY) OF INFORMATION IS LIMITED TO THE SMALLEST COMPONENT OF THE SURVEY "PIPELINE"

## Determining appropriate levels of precision for events in a life-of-project evaluation plan





# TIME FOR SMALL GROUP DISCUSSION

## 1. Self-introductions

- 2. What constraints of these types have you faced in your evaluation practice?
- 3. How did you cope with them?

Which RealWorld **Evaluation constraints** does your group feel we need to mostly focus on during the rest of this workshop?

#### RealWorld Evaluation

**Designing Evaluations under Budget,** 

**Time, Data and Political Constraints** 

LOGIC MODELS

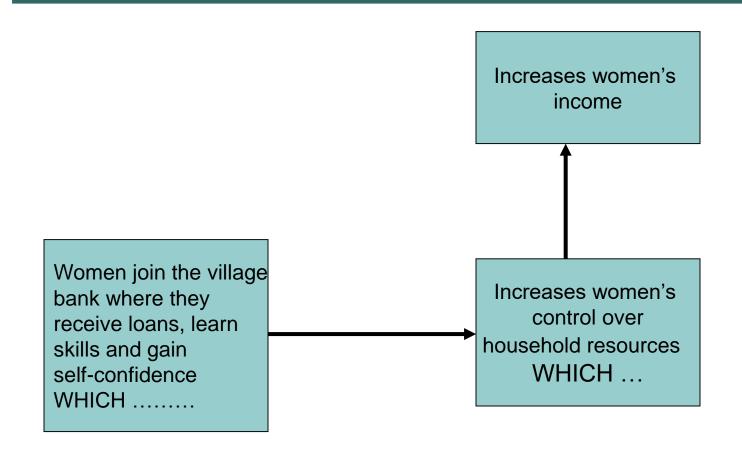
## Defining the program theory model

- All programs are based on a set of assumptions (hypothesis) about how the project's interventions should lead to desired outcomes.
- Sometimes this is clearly spelled out in project documents.
- Sometimes it is only implicit and the evaluator needs to help stakeholders articulate the hypothesis through a logic model.

## Defining the program theory model

- Defining and testing critical assumptions are essential (but often ignored) elements of program theory models.
- The following is an example of a model to assess the impacts of microcredit on women's social and economic empowerment

#### The assumed causal model

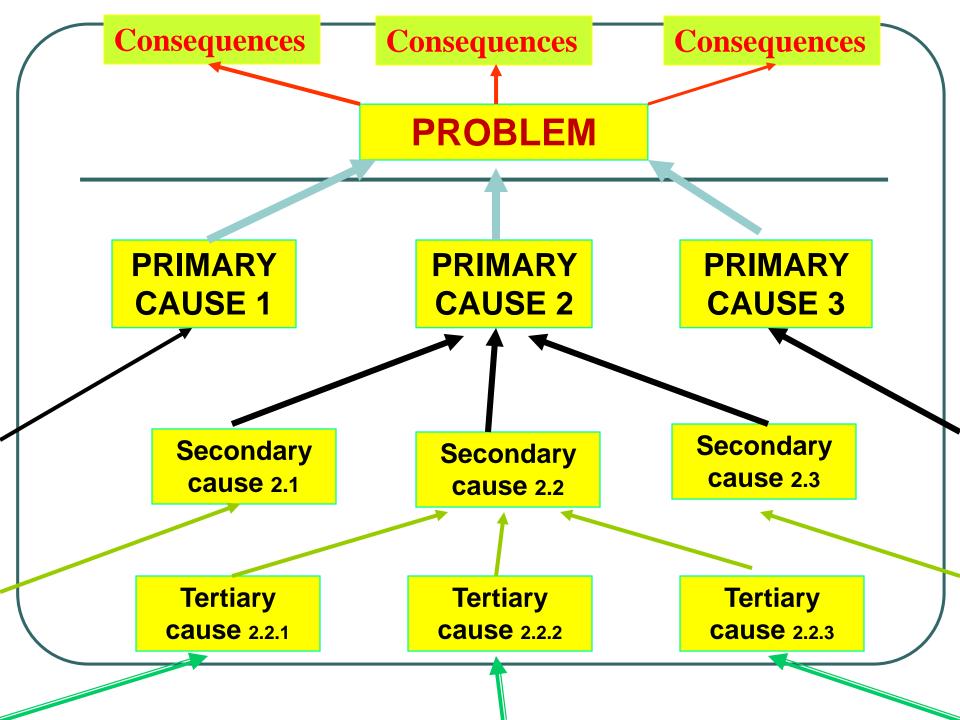


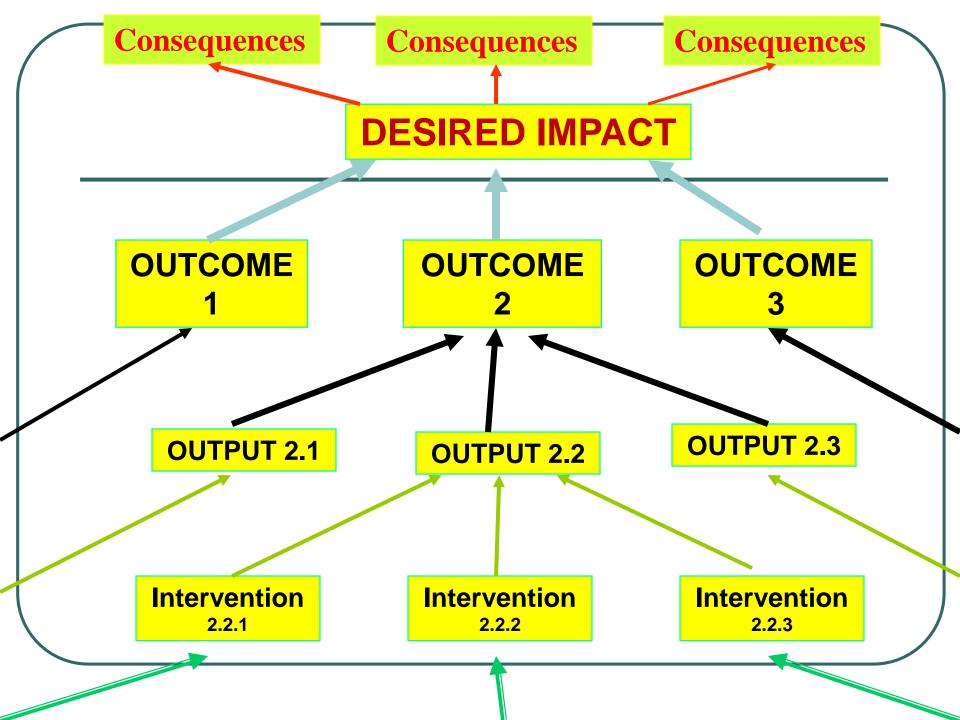
#### An alternative causal model

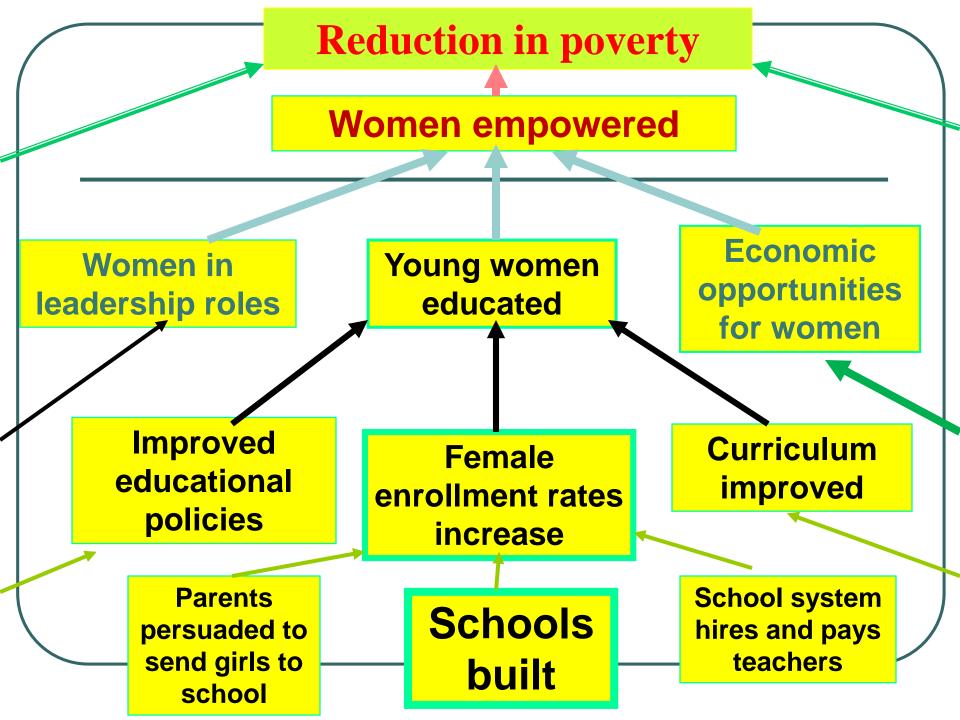
Some women
had
previously taken
literacy training
which increased
their selfconfidence and
work skills

Women who had taken literacy training are more likely to join the village bank.
Their literacy and self-confidence makes them more effective entrepreneurs

Women's income and control over household resources increased as a combined result of literacy, self-confidence and loans







To have synergy and achieve impact all of these need to address the same target population.

Program Goal: Young women educated

Advocacy
Project
Goal:
Improved
educational
policies
enacted

Construction
Project Goal:
More
classrooms
built

Teacher
Education
Project
Goal:
Improve
quality of
curriculum

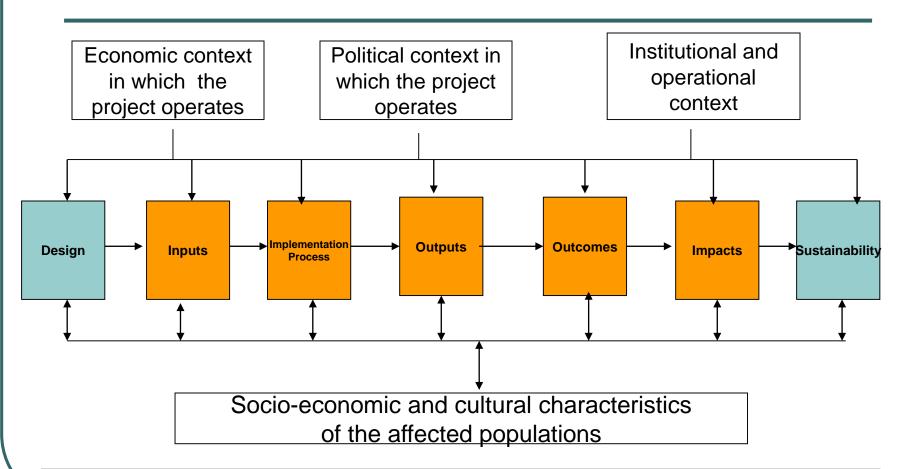
ASSUMPTION (that others will do this)

**OUR** project

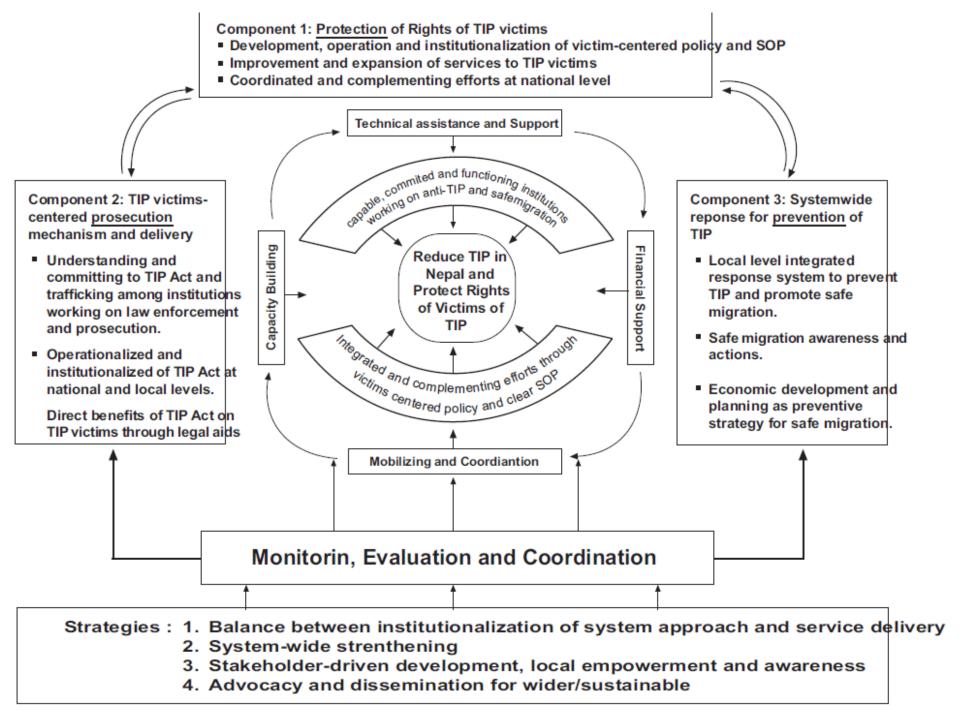
PARTNER will do this

Program goal at impact level

#### One form of Program Theory (Logic) Model



**Note**: The orange boxes are included in conventional Program Theory Models. The addition of the blue boxes provides the recommended more complete analysis.



## What does it take to measure indicators at each level?

Impact: Population-based survey (baseline, endline evaluation)

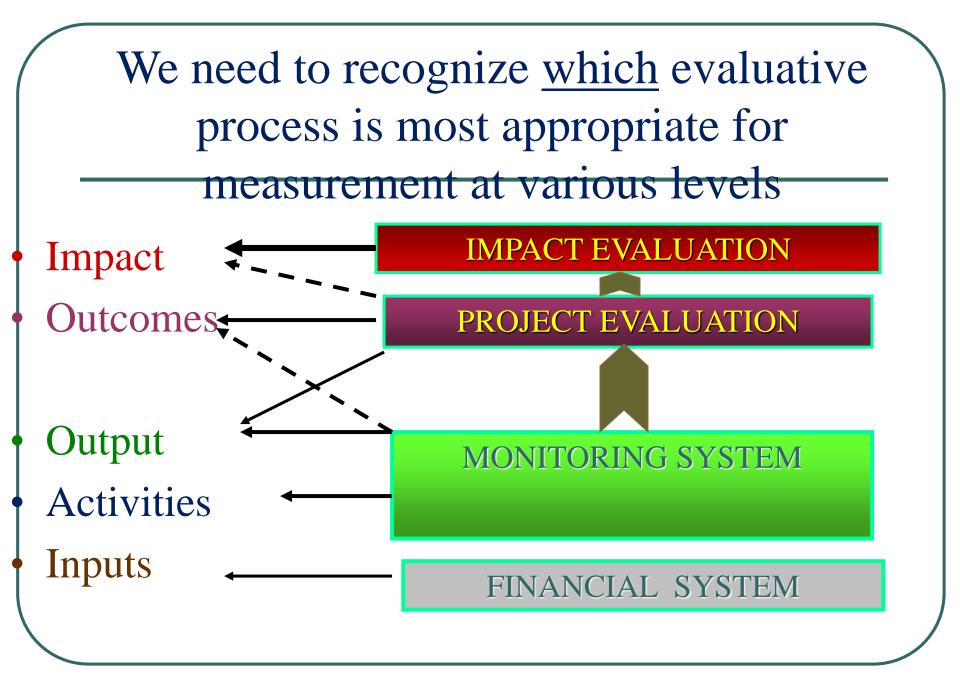
Outcome: Change in behavior of participants

(can be surveyed annually)

Output: Measured and reported by project staff (annually)

Activities: On-going (monitoring of interventions)

Inputs: On-going (financial accounts)



#### RealWorld Evaluation

**Designing Evaluations under Budget,** 

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## **EVALUATION DESIGNS**

#### Some of the purposes for program evaluation

- **Formative**: learning and improvement including early identification of possible problems
- **Knowledge generating**: identify cause-effect correlations and generic principles about effectiveness.
- Accountability: to demonstrate that resources are used efficiently to attain desired results
- Summative judgment: to determine value and future of program
- Developmental evaluation: adaptation in complex, emergent and dynamic conditions

-- Michael Quinn Patton, Utilization-Focused Evaluation, 4th edition, pages 139-140

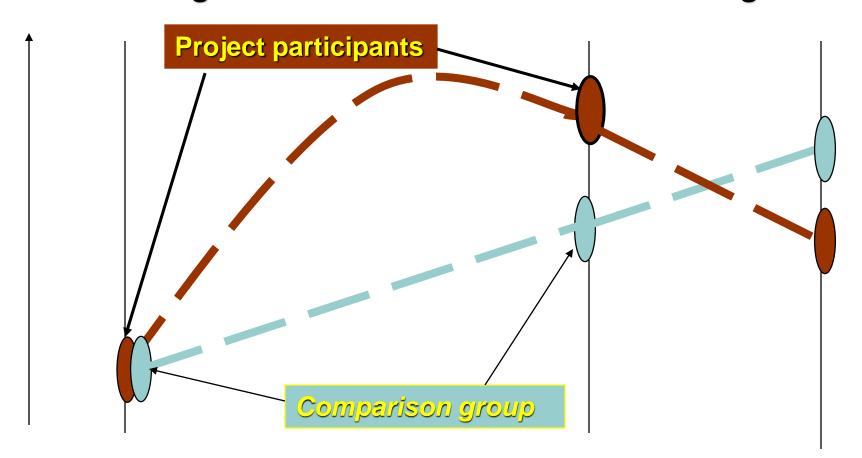
## Some of the considerations pertaining to evaluation design

When evaluation events take place (baseline, midterm, endline)

Review different evaluation designs (experimental, quasi-experimental, other)

Qualitative & quantitative methods for filling in "missing data"

#### An introduction to various evaluation designs Illustrating the need for quasi-experimental longitudinal time series evaluation design



baseline

scale of major impact indicator

end of project evaluation

post project evaluation

# OK, let's stop the action to identify each of the major types of evaluation (research) design ...

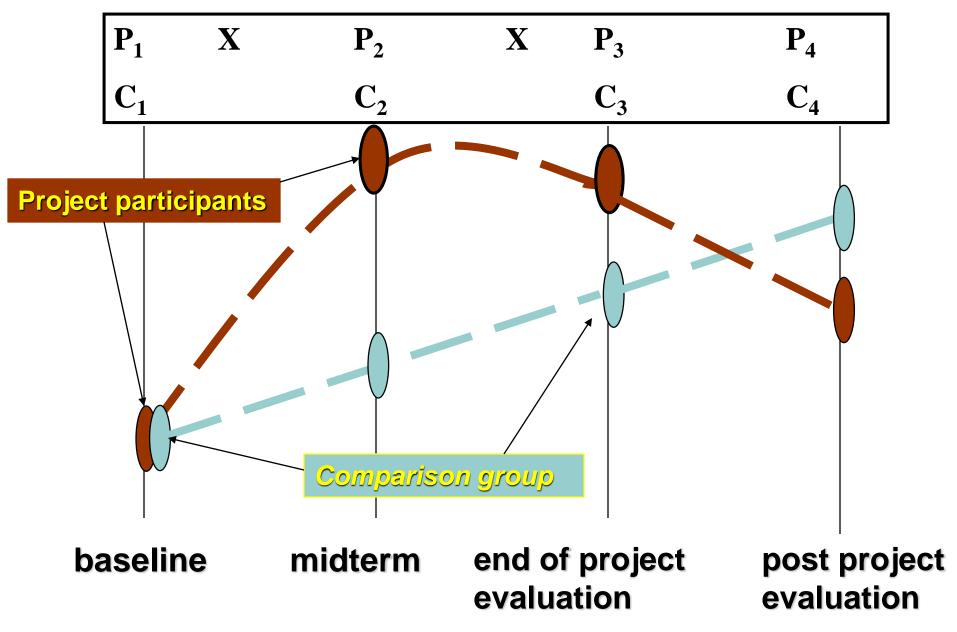
... one at a time, beginning with the most rigorous design.

#### First of all: the key to the traditional symbols:

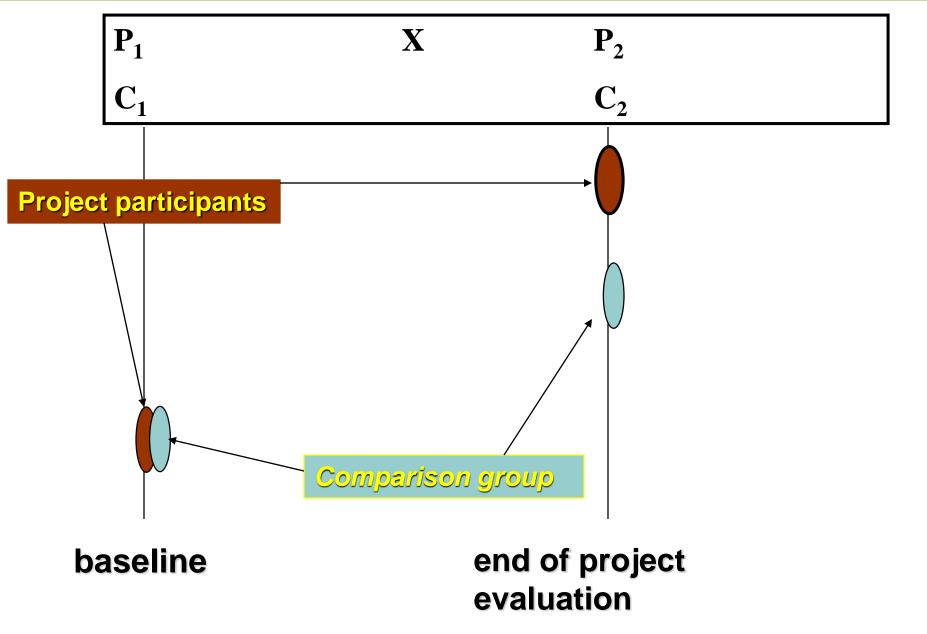
- X = Intervention (treatment), I.e. what the project does in a community
- O = Observation event (e.g. baseline, mid-term evaluation, end-of-project evaluation)
- P (top row): Project participants
- C (bottom row): Comparison (control) group

Note: the 7 RWE evaluation designs are laid out on page 8 of the Condensed Overview of the *RealWorld Evaluation* book

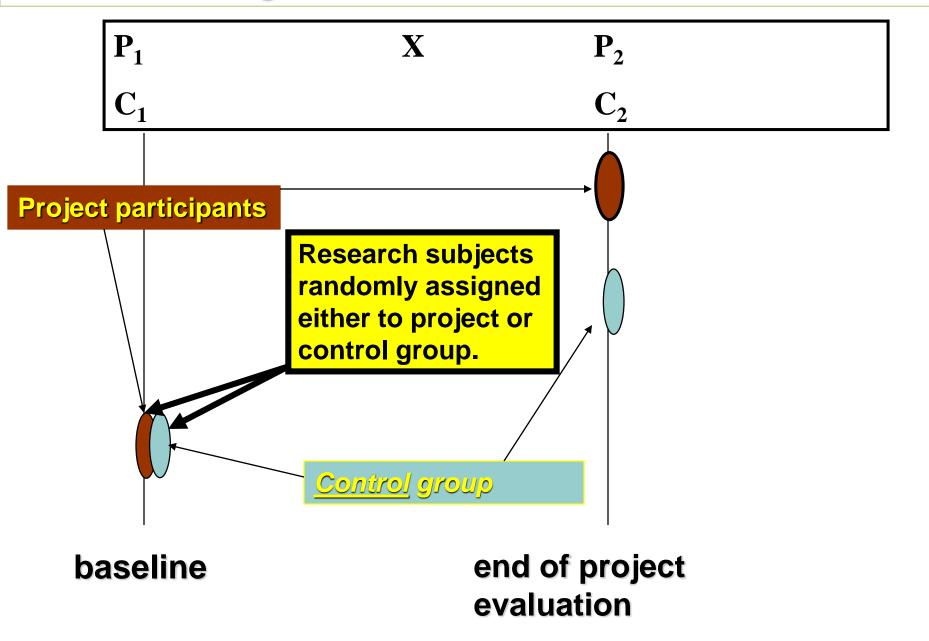
#### Design #1: Longitudinal Quasi-experimental



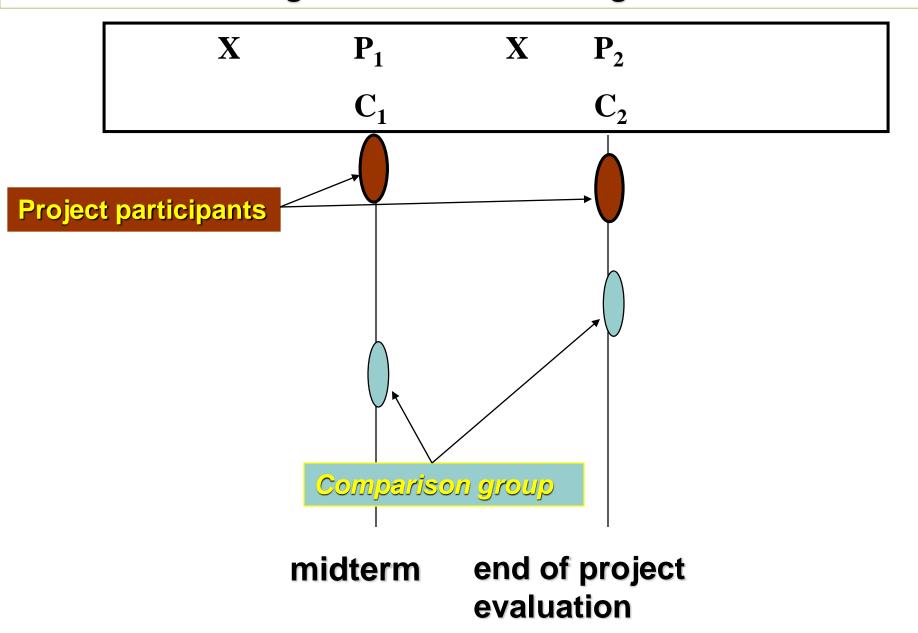
#### Design #2: Quasi-experimental (pre+post, with comparison)



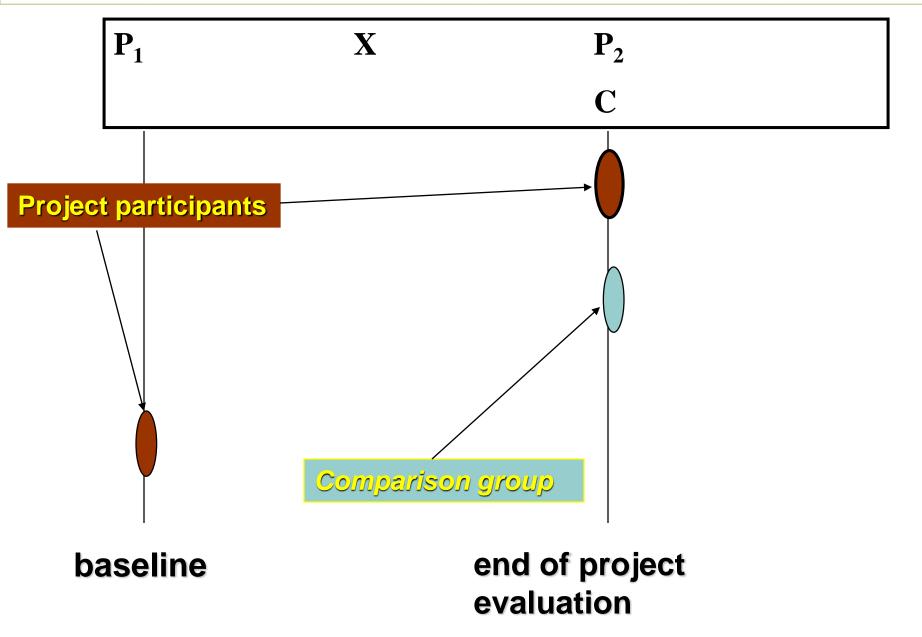
#### Design #2+: Randomized Control Trial



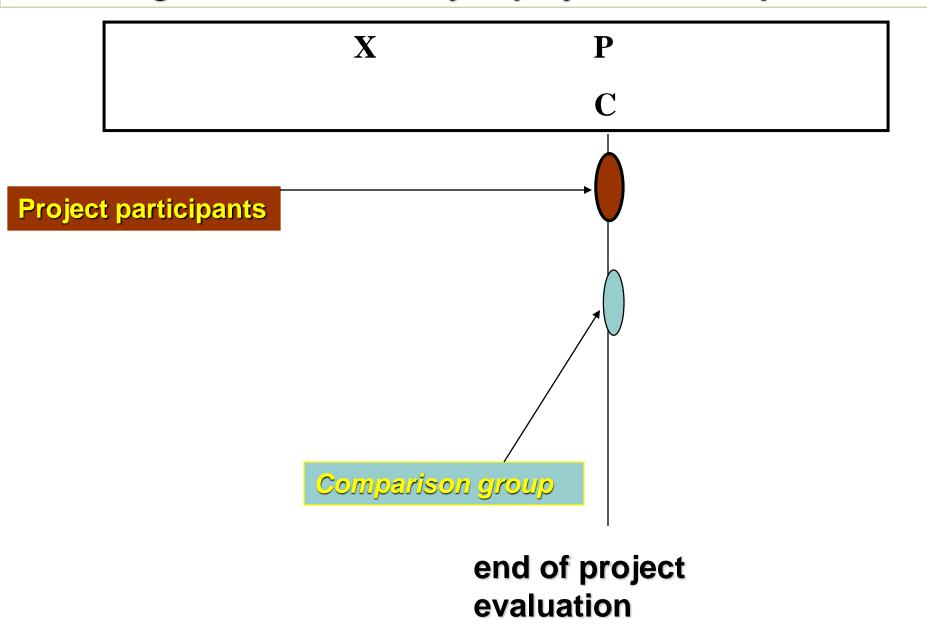
#### Design #3: Truncated Longitudinal



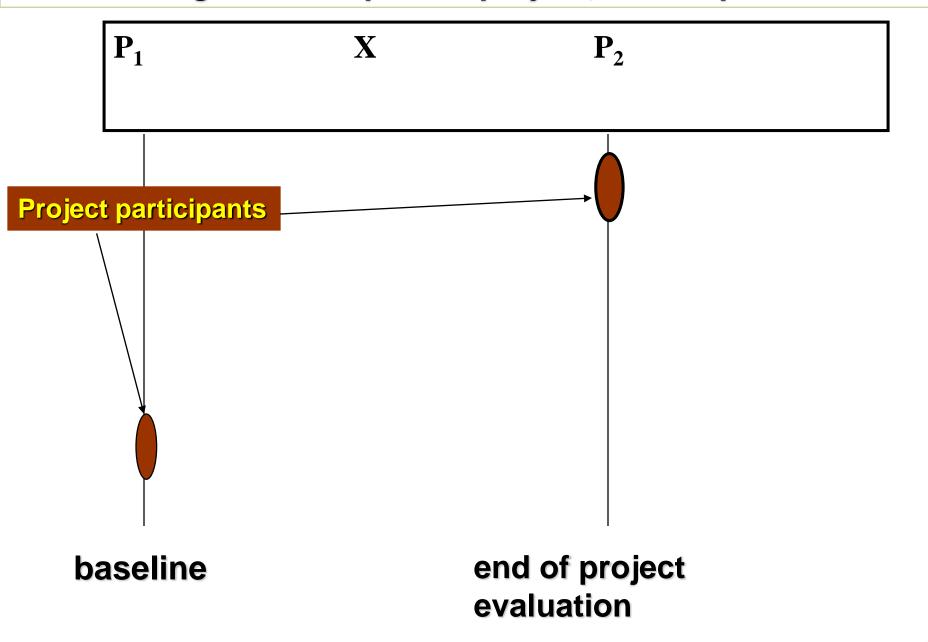
#### Design #4: Pre+post of project; post-only comparison



#### Design #5: Post-test only of project and comparison



#### Design #6: Pre+post of project; no comparison



#### Design #7: Post-test only of project participants

Project participants

P

### Need to fill in missing data through other means:

- What change occurred during the life of the project?
- What would have happened without the project (counterfactual)?
- How sustainable is that change likely to be?

#### RealWorld Evaluation

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Step #4

Addressing data constraints

#### RealWorld Evaluation

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Where there was not a baseline comparable to endline

## Ways to reconstruct baseline conditions

- A. Secondary data
- в. Project records
- c. Recall
- D. Key informants
- E. Participatory methods

## Assessing the utility of potential secondary data

- Reference period
- Population coverage
- Inclusion of required indicators
- Completeness
- Accuracy
- Free from bias

#### Using internal project records

#### Types of data

- Feasibility/planning studies
- Application/registration forms
- Supervision reports
- Management Information System (MIS) data
- Meeting reports
- Community and agency meeting minutes
- Progress reports
- Construction, training and other implementation records, including costs

## Assessing the reliability of project records

- Who collected the data and for what purpose?
- Were they collected for record-keeping or to influence policymakers or other groups?
- Do monitoring data only refer to project activities or do they also cover changes in outcomes?
- Were the data intended exclusively for internal use? For use by a restricted group?
   Or for public use?

## Typical kinds of information for which we try to reconstruct baseline data

- School attendance and time/cost of travel
- Sickness/use of health facilities
- Income and expenditures
- Community/individual knowledge and skills
- Social cohesion/conflict
- Water usage/quality/cost
- Periods of stress
- Travel patterns

#### Improving the validity of recall

- Conduct small studies to compare recall with survey or other findings.
- Ensure all relevant groups interviewed
- Triangulation
- Link recall to important reference events
  - Elections
  - Drought/flood/tsunami/war/displacement
  - Construction of road, school etc

#### **Key informants**

- Not just officials and high status people
- Everyone can be a key informant on their own situation:
  - Single mothers
  - Factory workers
  - Sex workers
  - Street children
  - Illegal immigrants

#### **Guidelines for key-informant analysis**

- Triangulation greatly enhances validity and understanding
- Include informants with different experiences and perspectives
- Understand how each informant fits into the picture
- Employ multiple rounds if necessary
- Carefully manage ethical issues

## PRA and related participatory techniques

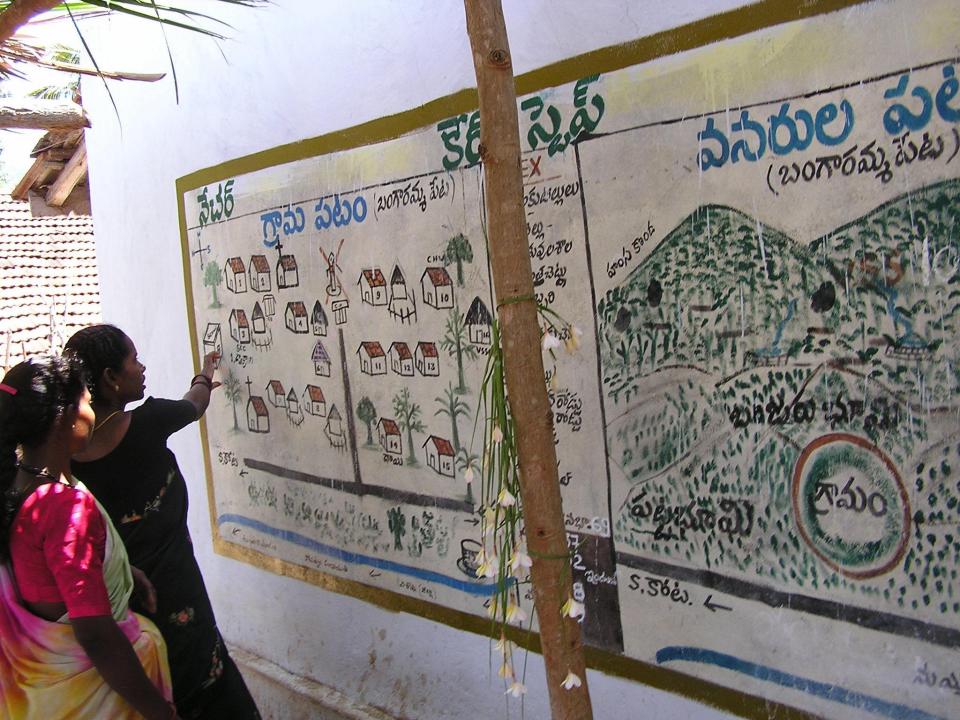
- PRA (Participatory Rapid Appraisal) and PLA (Participatory Learning and Action) techniques collect data at the group or community [rather than individual] level
- Can either seek to identify consensus or identify different perspectives
- Risk of bias:
  - If only certain sectors of the community participate
  - If certain people dominate the discussion

## PRA and related participatory techniques

- Most Significant Change is a popular participatory methodology.
- Essentially, the process involves the collection of significant change stories told by project participants, and the systematic selection of the most significant of these stories by panels of designated stakeholders or staff.

## **Summary of issues in baseline reconstruction**

- Variations in reliability of recall
- Memory distortion
- Secondary data not easy to use
- Secondary data incomplete or unreliable
- Key informants may distort the past
- Yet in many situations there was no primary baseline data collected, so we have to obtain it in some other way.





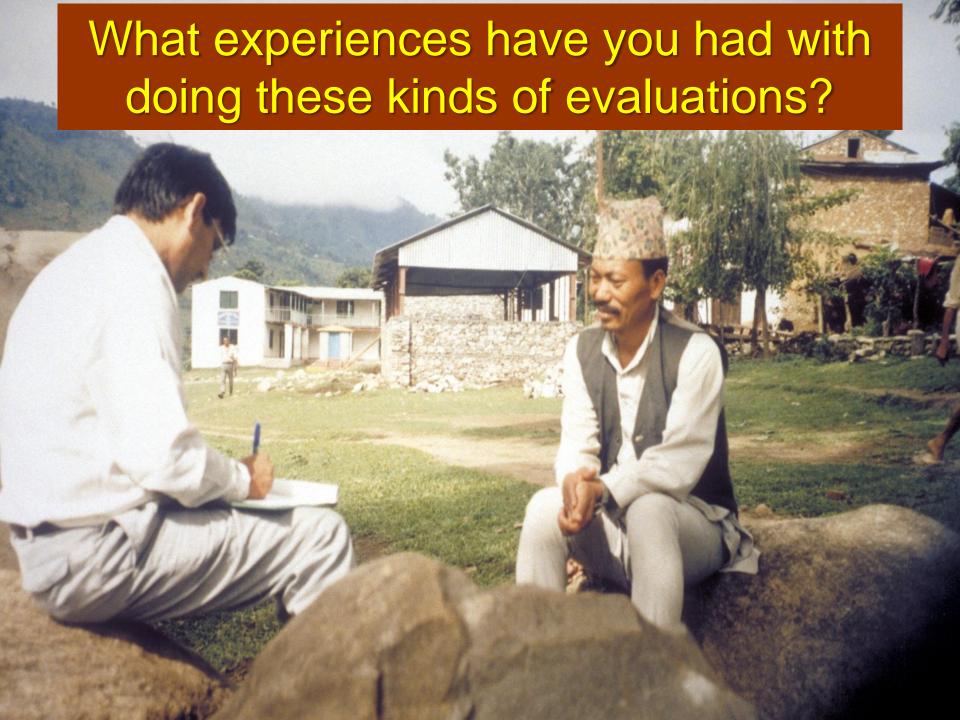


# Time to negotiate with the other team (evaluators – clients)

- 1. How have you proposed to address the constraints (inadequate budget)?
- 2. Can you agree on what should be done to make needed changes in the plans for the evaluation?



What were the main learnings for your group from this exercise?



### RealWorld Evaluation

**Designing Evaluations under Budget,** 

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# Challenges and Strategies

### What should be included in a "rigorous impact evaluation"?

Direct cause-effect relationship between one output (or a very limited number of outputs) and an outcome that can be measured by the end of the research project? → Pretty clear attribution.

... OR ...

2. Changes in higher-level indicators of sustainable improvement in the quality of life of people, e.g. the MDGs (Millennium Development Goals)? → More significant but much more difficult to assess direct attribution.

### So what should be included in a "rigorous impact evaluation"?

OECD-DAC (2002: 24) defines impact as "the positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended. These effects can be economic, sociocultural, institutional, environmental, technological or of other types".

Does it mention or imply direct attribution? Or point to the need for counterfactuals or Randomized Control Trials (RCTs)?

## Some recent developments in impact evaluation in development

2003



J-PAL is best understood as a network of affiliated researchers ... united by their use of the randomized trial methodology...



Center & Global Development 2006

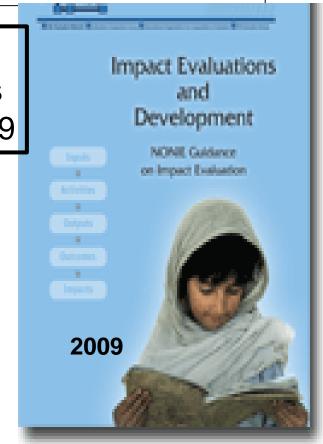
WHEN WILL WE EVER LEARN?

IMPROVING LIVES THROUGH IMPACT EVALUATION

NONIE guidelines March 2009

### <u>3ie Annual Report 2013: Evidence, Influence, Impact</u>

Last year, 3ie continued to lead in the production of high-quality, policy-relevant evidence that helped improve development policy and practice in developing countries. Read highlights about our work, continued growth in new and important thematic areas and achievements.



### Some recent very relevant contributions to these subjects:

"Broadening the Range of Impact Evaluation Designs" by Elliot Stern, Nicoletta Stame, John Mayne, Kim Forss, Rick Davies and Barbara Befani. DFID Working Paper 38 April 2012

"Experimentalism and Development Evaluation: Will the Bubble Burst?" Robert Picciotto in *Evaluation* 2012 18:213

[Longer list of relevant references on last slide.]

### Some recent very relevant contributions to these subjects:

"Contribution Analysis" described the BetterEvaluation website and with links to other sources.

Contribution analysis: An approach to exploring cause and effect by John Mayne. The Institutional Learning and Change (ILAC) Initiative, (2008).

# So, are we saying that Randomized Control Trials (RCTs) are the Gold Standard and should be used in most if not all program impact evaluations?

Yes or no?

Why or why not?

If so, under what circumstances should they be used?

If not, under what circumstances would they not be appropriate?

### Different lenses needed for different situations in the RealWorld

Simple	Complicated	Complex
Following a recipe	Sending a rocket to the moon	Raising a child
Recipes are tested to assure easy replication	Sending one rocket to the moon increases assurance that the next will also be a success	Raising one child provides experience but is no guarantee of success with the next
The best recipes give good results every time	There is a high degree of certainty of outcome	Uncertainty of outcome remains
Sources: Westley et al (2006) and Stacey (2007), cited in Patton 2008; also presented by Patricia Rodgers at Cairo impact conference 2009.		

#### When might rigorous evaluations of higherlevel "*impact*" indicators <u>not</u> be needed?

- Complicated, complex programs where there are multiple interventions by multiple actors
- Projects working in evolving contexts (e.g. conflicts, natural disasters)
- Projects with multiple layered logic models, or unclear cause-effect relationships between outputs and higher level "vision statements" (as is often the case in the RealWorld of international development projects)

#### When might rigorous evaluations of higherlevel "impact" indicators not be needed?

 An approach evaluators might take is that if the correlation between intermediary effects (outcomes) and higher-level impact has been adequately established though research and previous evaluations, then assessing intermediary outcome-level indicators might suffice, as long as the contexts (internal and external conditions) can be shown to be sufficiently similar to where such cause-effect correlations have been tested.

### Examples of cause-effect correlations that are generally accepted

- Vaccinating young children with a standard set of vaccinations at prescribed ages leads to reduction of childhood diseases (means of verification involves viewing children's health charts, not just total quantity of vaccines delivered to clinic). That's more feasible than monitoring disease rates in the community.
- Other examples ... ?

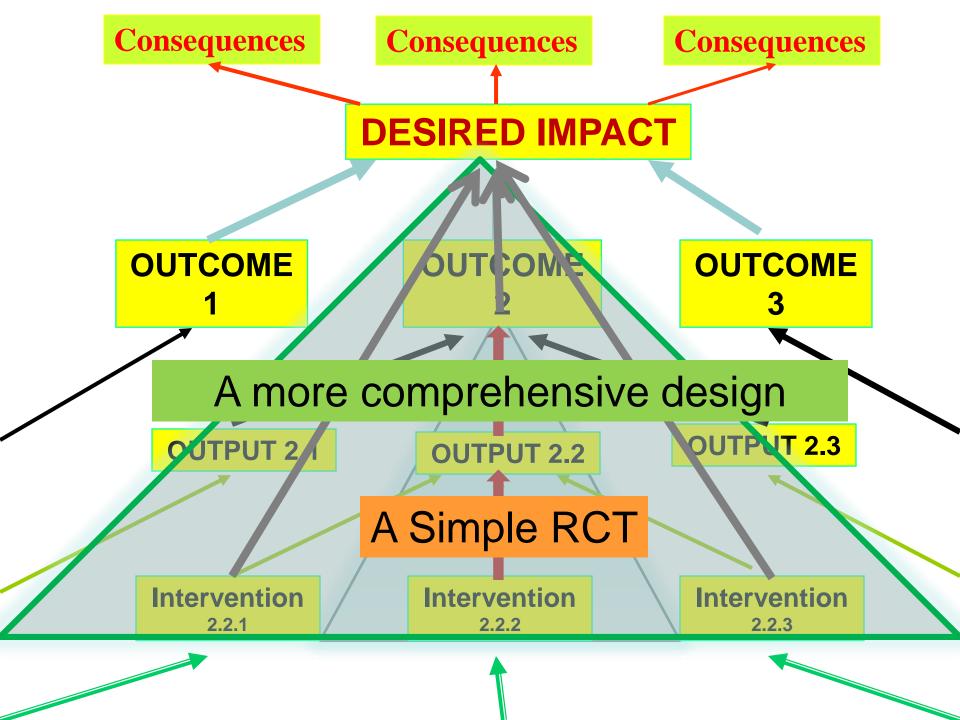
"Far better an approximate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise."

J. W. Tukey (1962, page 13), "The future of data analysis". *Annals of Mathematical Statistics* 33(1), pp. 1-67.

"An expert is someone who knows more and more about less and less until he knows absolutely everything about nothing at all."\*

Is that what we call "scientific method"?

There is much more to impact, to rigor, and to "the scientific method" than RTCs. Serious impact evaluations require a more holistic approach.



## The limited use of strong evaluation designs

- In the RealWorld (at least of international development programs) we estimate that:
  - fewer than 5%-10% of project impact evaluations use a strong experimental or even quasi-experimental designs
  - significantly less than 5% use randomized control trials ('pure' experimental design)

### Rigorous impact evaluation should include (but is not limited to):

- 1) thorough consultation with and involvement by a variety of stakeholders,
- 2) articulating a comprehensive logic model that includes relevant external influences,
- 3) getting agreement on desirable 'impact level' goals and indicators,
- 4) adapting evaluation design as well as data collection and analysis methodologies to respond to the questions being asked, ...

### Rigorous impact evaluation should include (but is not limited to):

- 5) adequately monitoring and documenting the process throughout the life of the program being evaluated,6) using an appropriate combination of methods to triangulate evidence being
- 7) being sufficiently flexible to account for evolving contexts, ...

collected,

## Rigorous impact evaluation should include (but is not limited to):

- 8) using a variety of ways to determine the counterfactual,
- 9) estimating the potential sustainability of whatever changes have been observed,
- 10) communicating the findings to different audiences in useful ways, 11) etc. ...

The point is that the list of what's required for 'rigorous' impact evaluation goes way beyond initial randomization into treatment and 'control' groups.

# We must be careful that in using the "Gold Standard"

we do not violate the "Golden Rule": "Judge not that you not be judged!"

In other words: "Evaluate others as you would have them evaluate you."

### There are two main questions to be answered by "impact evaluations":

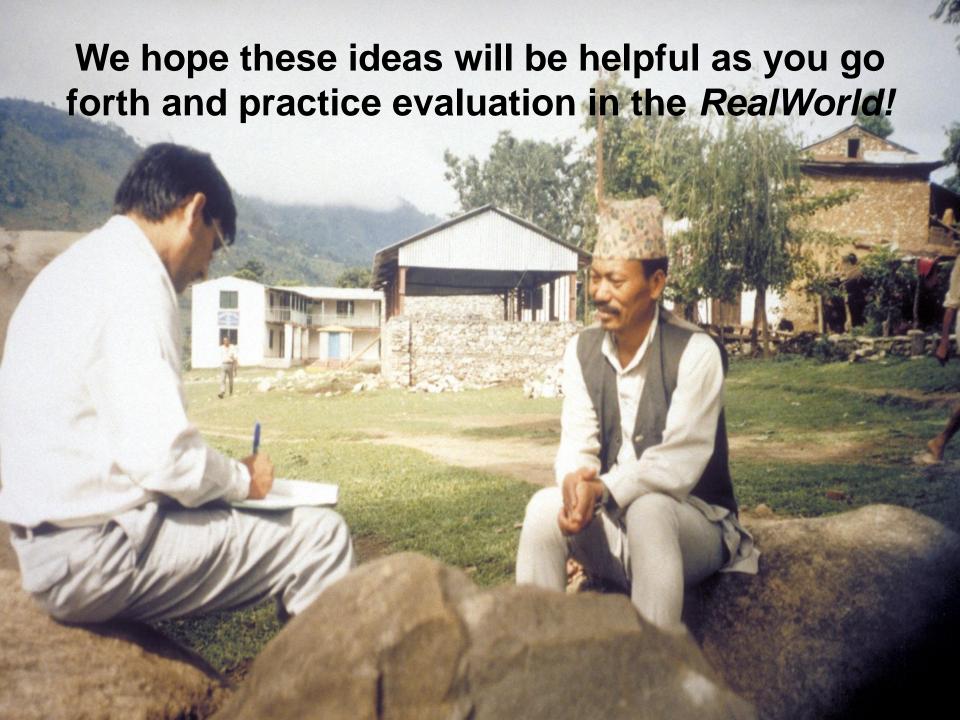
- Is the quality of life of our intended beneficiaries improving?
- 2. Are our programs making *plausible* contributions (along with other influences) towards such positive changes?

The 1<sup>st</sup> question is much more important than the 2<sup>nd</sup>!



### Main workshop messages

- 1. Evaluators must be prepared for RealWorld evaluation challenges.
- 2. There is considerable experience to learn from.
- 3. A toolkit of practical "RealWorld" evaluation techniques is available (see <a href="www.RealWorldEvaluation.org">www.RealWorldEvaluation.org</a>).
- 4. Never use time and budget constraints as an excuse for sloppy evaluation methodology.
- 5. A "threats to validity" checklist helps keep you honest by identifying potential weaknesses in your evaluation design and analysis.



#### **Additional References for IE**

- DFID "Broadening the range of designs and methods for impact evaluations" <a href="http://www.oecd.org/dataoecd/0/16/50399683.pdf">http://www.oecd.org/dataoecd/0/16/50399683.pdf</a>
- Robert Picciotto "Experimententalism and development evaluation: Will the bubble burst?" in *Evaluation* journal (EES) April 2012: <a href="http://evi.sagepub.com/">http://evi.sagepub.com/</a>
- Martin Ravallion "Should the Randomistas Rule?" (Economists' Voice 2009)
   <a href="http://ideas.repec.org/a/bpj/evoice/v6y2009i2n6.html">http://ideas.repec.org/a/bpj/evoice/v6y2009i2n6.html</a>
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