LESSONS LEARNED IN CONDUCTING EFFECTIVE LAND EVALUATIONS

Land Evaluation Workshop, October 2016

Jennifer (Witriol) Lisher

Millennium Challenge Corporation (MCC)

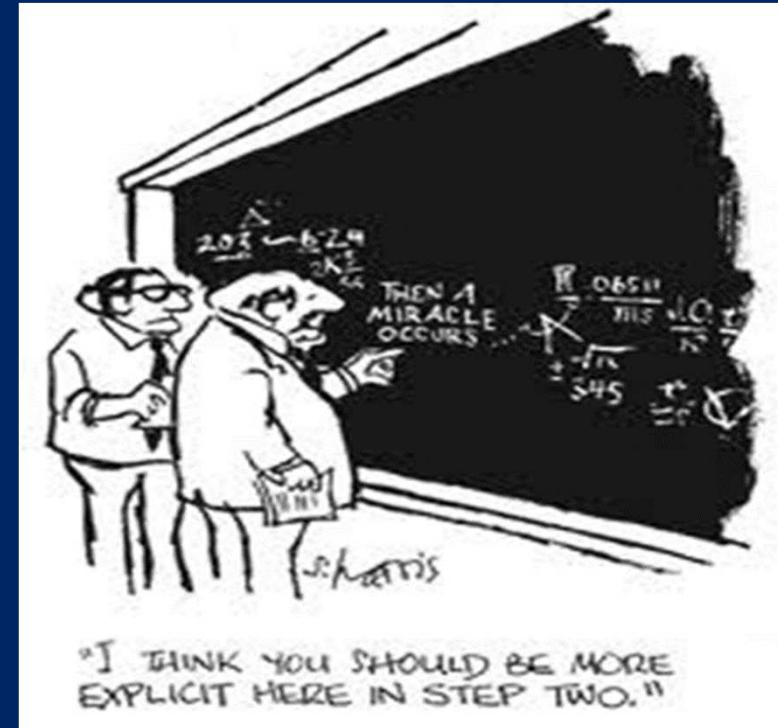Monitoring and Evaluation Team,

Land Practice Group

MCC Overview

- Created in 2004, the Millennium Challenge Corporation (MCC) is a U.S. Government agency designed to reduce poverty through economic growth

- Over 10 years, MCC has invested $487 million in land and property rights programs in 16 partner countries, including 14 of its 32 signed compacts and 2 threshold programs

- Committed to accountability, transparency and evidence-based decision making, MCC monitors and evaluates all its Compact activities

- As of September 2016, land outputs include:
    - Adoption of 122 legal and regulatory reforms
    - Establishment or upgrade of 384 land administration offices
    - Formalization of 311,786 land use rights, including provision of certificates/leases/titles to individuals, households, communities, businesses and herder groups

- MCC has in process around 20 land evaluations, including performance and impact evaluations
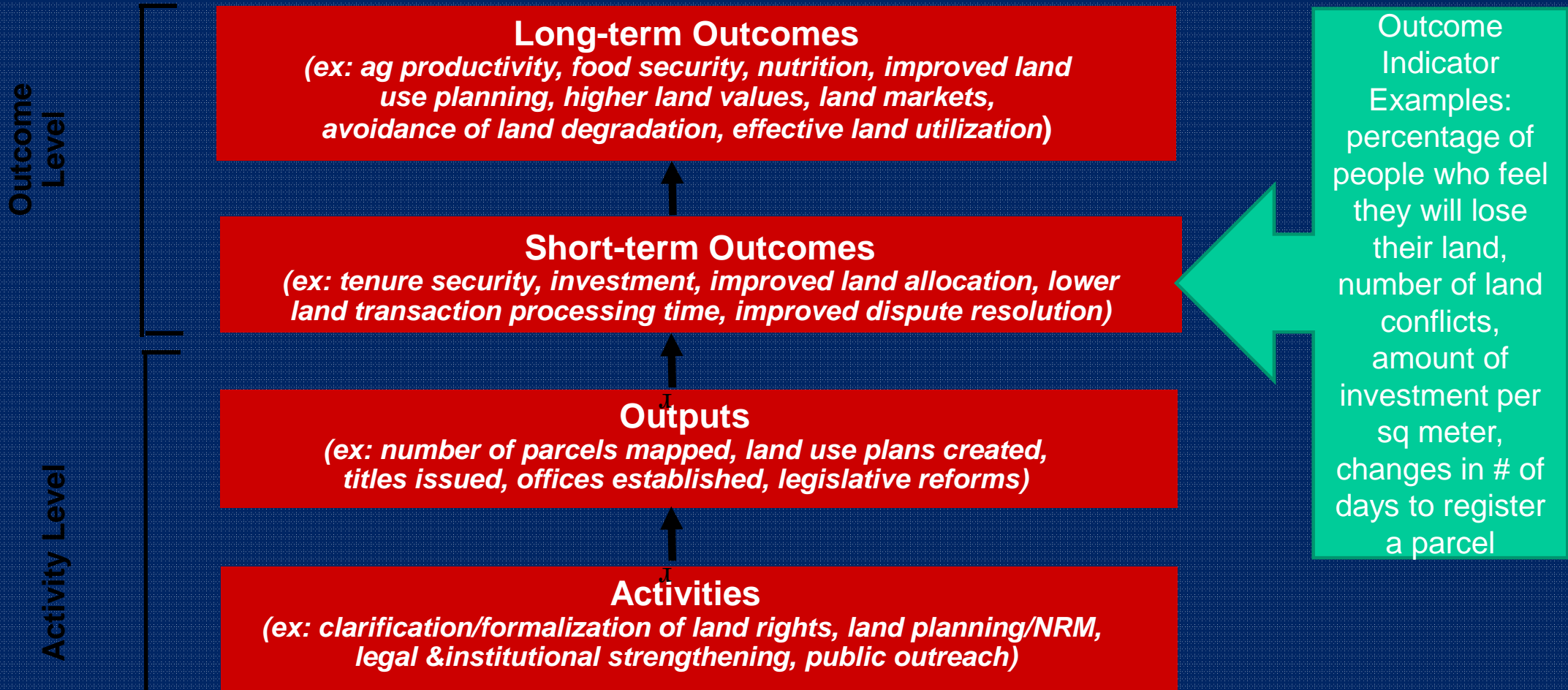
MCC Approach: Building a Framework

- Economic assessments:

  - <u>Pre-Compact Economic Rates of Return (ERR)</u>: a cost benefit analysis of project costs and returns-hurdle rate: 10%

  - Beneficiary analyses: an analysis of changes in income for project beneficiaries

  - <u>End of Compact ERRs</u>: updates made to ERR model based on changes in assumptions, project implementation, and results (outputs and outcomes)

  - Grounded in evidence from existing land literature and country data

- Project logic models:

  - Illustrate the chain of events/relationship among project activities, outputs and outcomes

  - Provide the base for M&E interventions-indicators, research questions and work plans derive from the logic model

"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

MCC Approach: Project Logic Model

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Outcome Level

Long-term Outcomes
(ex: ag productivity, food security, nutrition, improved land use planning, higher land values, land markets, avoidance of land degradation, effective land utilization)

Short-term Outcomes
(ex: tenure security, investment, improved land allocation, lower land transaction processing time, improved dispute resolution)

Activity Level

Outputs
(ex: number of parcels mapped, land use plans created, titles issued, offices established, legislative reforms)

Activities
(ex: clarification/formalization of land rights, land planning/NRM, legal &institutional strengthening, public outreach)

Outcome Indicator Examples: percentage of people who feel they will lose their land, number of land conflicts, amount of investment per sq meter, changes in # of days to register a parcel

2008- Lack of comparable data across countries led to establishment of common sector indicators, including 8 common land indicators (similar definitions and guidance for tracking)

2009- Beneficiary scrub highlighted various and competing assumptions across land portfolio

2009-2010- Literature review and development of land economic logic model created common base framework for estimating land beneficiary streams

2011-2012- Development of Land M&E guidance and Interest by MCC in measuring all activities

2013-2014- Revision of land project logics and restructuring of MCC Evaluations to effectively capture outcomes across *all* activities (refocus research questions, alternative designs and sampling, additional data sources, strengthening survey instruments, extending evaluations to Post Compact and incorporating land quality and governance)
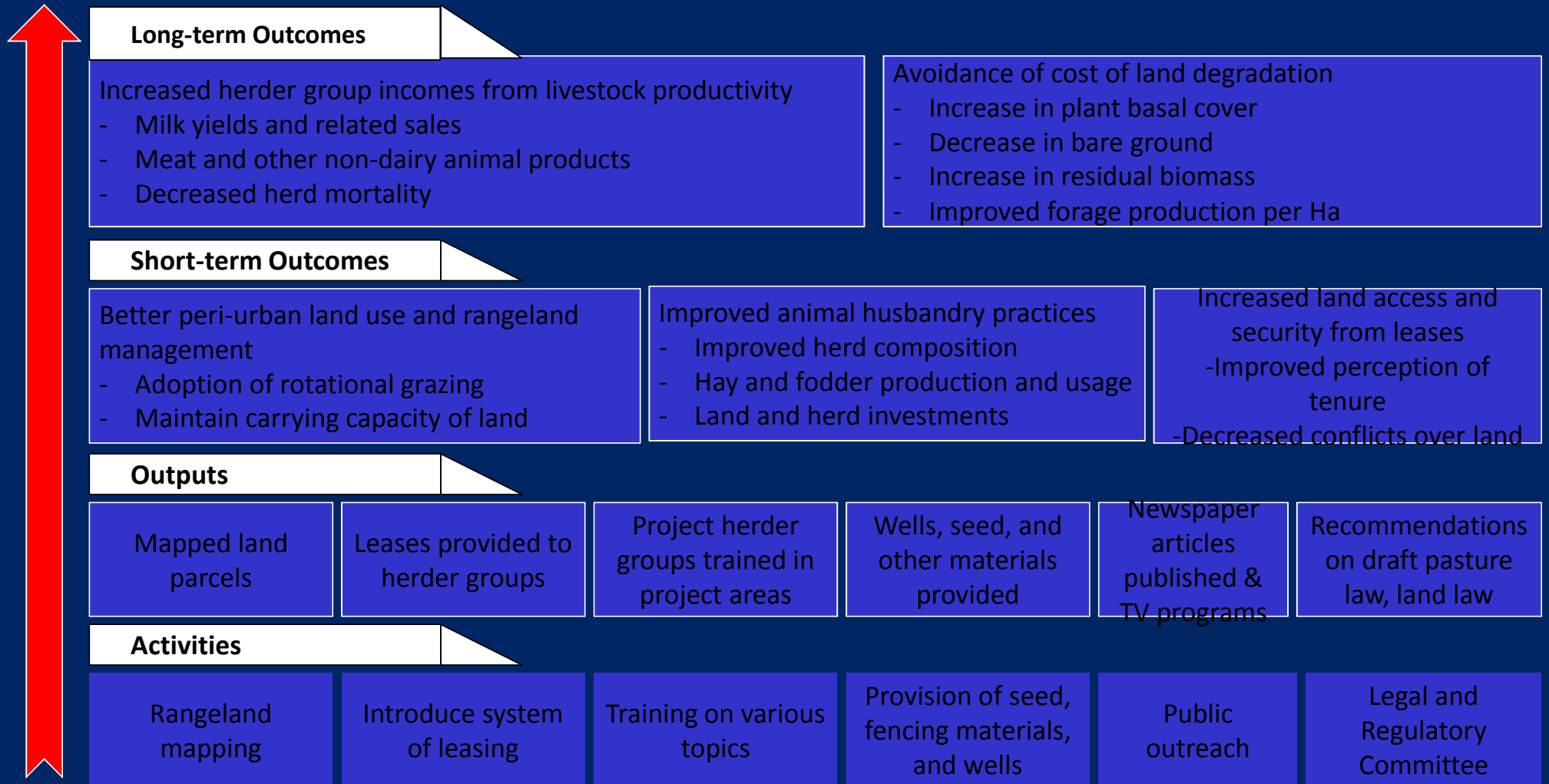
2016-Updating of land literature review and revision of Land M&E Guidance into a <u>Land Consistent Design Framework </u>(still under review)

MCC Approach: Land Economic Model (2010)

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Impact

HIGHER REAL INCOMES

Long-term Outcomes

Increased Land Productivity

- Increase in Productive Investments by Households and Firms
- Increase in Productivity from Existing Uses

Cost Savings

- Direct Value of Lower Transaction Costs
- Direct Value of Lower Costs of Conflict
- Direct Value of Avoided Environmental Damage
- Direct Value of Lower Cost of Basic Infrastructure and Related Services

Short-term Outcomes

- Increased Ability and Security to Realize Full Returns From Investments
- Increased Access to and Lower Cost of Finance
- Increased Ability to Monetize Land Value
- Improved Knowledge to Productively Allocate and Invest in Land

Inputs (PRLP Activities)

- Clarification and Formalization of Property and Improved Access to Land
- Public Outreach
- Strengthening of Land Administration Agencies
- Legal, Regulatory and Policy Reform to Strengthen Property Rights and Enable Land Markets
- Improved Land Use Planning and Natural Resources Management

Ex: Mongolia Logic and Performance Indicators

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Long-term Outcomes

Increased herder group incomes from livestock productivity
- Milk yields and related sales
- Meat and other non-dairy animal products
- Decreased herd mortality

Avoidance of cost of land degradation
- Increase in plant basal cover
- Decrease in bare ground
- Increase in residual biomass
- Improved forage production per Ha

Short-term Outcomes

Better peri-urban land use and rangeland management
- Adoption of rotational grazing
- Maintain carrying capacity of land

Improved animal husbandry practices
- Improved herd composition
- Hay and fodder production and usage
- Land and herd investments

Increased land access and security from leases
-Improved perception of tenure
-Decreased conflicts over land

Outputs

| Mapped land parcels | Leases provided to herder groups | Project herder groups trained in project areas | Wells, seed, and other materials provided | Newspaper articles published & TV programs | Recommendations on draft pasture law, land law |

Activities

| Rangeland mapping | Introduce system of leasing | Training on various topics | Provision of seed, fencing materials, and wells | Public outreach | Legal and Regulatory Committee |

MCC Approach: M&E Plan

- MCC establishes M&E Plans for all projects, which include quarterly monitoring of key performance indicators as well as evaluations of each activity—whether performance or impact

- The M&E Plan :
    - Documents intervention activities and the theory of change (chain of events by which an intervention is expected to lead to changes in outcomes for beneficiaries)
    - Identifies key research questions, performance indicators and responsible parties; and
    - Summarizes data collection methodologies and related work plan to implement monitoring and evaluation of the intervention

- Types of M&E Plans:
    - <u>Compact M&E Plan:</u> created at Compact start and updated when there are changes in theory of change, indicators, evaluations/project implementation.
    - Final version at Compact end is a <u>Closeout M&E Plan</u>
    - <u>Post-Compact M&E Plan:</u> established at Compact end and implemented for 5 years post Compact

MCC Approach: Monitoring Indicators

- Quarterly monitoring and reporting of project indicators in Indicator Tracking Tables (ITT) which track progress on key intervention milestones, outputs and outcomes

- Includes project specific indicators and common sector indicators tracked across MCC countries

- Monitoring data sources can include national or project household surveys, business surveys, administrative data and expert opinion

- Monitoring is an effective tool when just want to see a snapshot through time of indicators and are not needing to understand the drivers of the change

- However, monitoring **only shows trends**, which may be due to changes in political or economic climate, changes in anti-corruption environment, other factors (i.e., not the project)

- Monitoring **cannot tell attribution of outcomes to the project** or which elements are key to achieving outcomes

MCC Approach: Independent Evaluations

- MCC contracts independent evaluators to design and implement evaluations around project performance and impacts, which assess whether the intervention results in expected changes and beneficiary streams

- Evaluations gather data from a variety of sources to triangulate data, including data from focus groups, key informant interviews (KIIs), household/business surveys, imagery and administrative data (land offices, banks, conflict resolution institutions, investment agencies, municipalities/districts)

- Early evaluations focused on where impact evaluation feasible and measuring effects of titling links to investment, land values and income, but MCC now evaluates all project activities and extended research questions to review land governance (legislative and institutional reforms), as well as incorporate analysis of land quality

- MCC publishes evaluations online in an Evaluation Catalogue, including evaluation designs, questionnaires, anonymized data and results reports (https://data.mcc.gov/evaluations/index.php/catalog)

- Findings are used to help improve future design and implementation of land projects, as well as to improve the base of land evidence and related assumptions made in MCC project logics and ERRs

2 Types of Evaluations: <u>performance</u> and <u>impact</u> evaluations

<u>Performance Evaluation</u>

- Measures project achievements, perceptions and implementation quality (achievement and sustainability of outputs)

- A performance evaluation *cannot show attribution* (causal impact) to an intervention

- Useful to compare changes before and after a project (pre/post)

<u>Impact Evaluation</u>

- Provides evidence that change is attributable to the intervention and able to answer fundamental questions of intervention effectiveness

- Requires a counterfactual, which estimates what would happen to beneficiaries absent the intervention

- Designs include both 1) the gold standard of Randomized Control Trials (RCT) where project treatment is selected through random assignment and 2) less rigorous methods which establish a similar control group after project treatment area is already defined (Regression Discontinuity, Propensity Score Matching, Difference in Difference)

MCC Approach: Attributable Outcomes
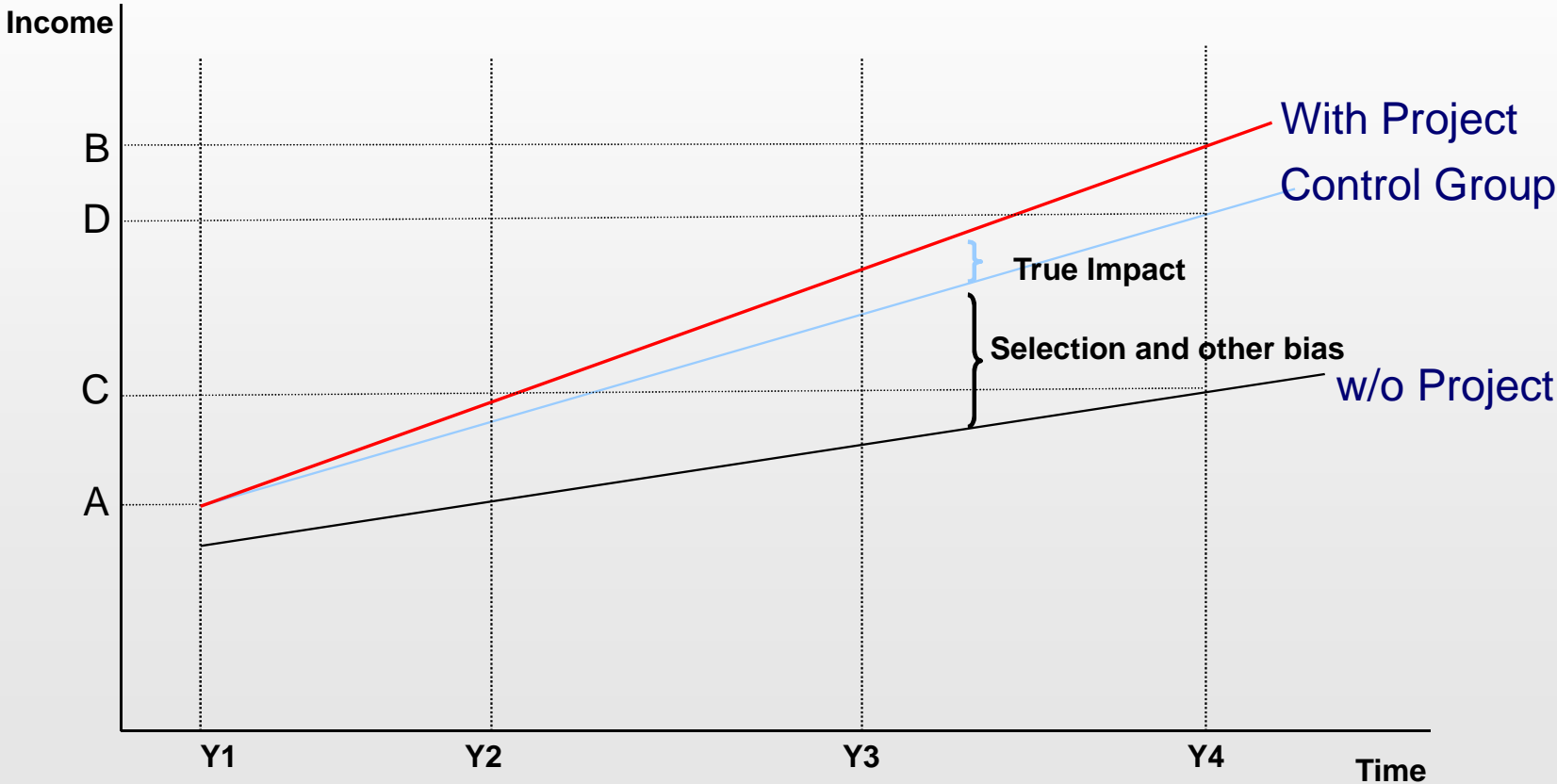
- Lack of detailed project logics linking outputs and outcomes with defined groups of beneficiaries led to one size fits all approaches with weak designs and sampling frames

- Poor ability to measure effects of strengthening land governance/systems (Mongolia, Moz & Lesotho)
  - Designs ineffective at capturing reform benefits as control areas used for land formalization evaluation were usually also treated by legislative reforms and capacity building of local land offices and systems
  - Lack of a sufficient sample from household surveys of those conducting formal land transactions
  - Initial beneficiaries of these reforms were often in wealthier planned areas—not informal settlements

- Like all MCC interventions, assumption that effects would be immediate (by end of Compact), led to insufficient time to detect effects (Burkina & Benin) and extension of evaluations post Compact

- Randomized rollout failure due to project implementation delays (Lesotho and Mozambique)

- Reliance on existing government statistical and agricultural surveys presented problems in sampling (representation/overlap with project areas), limited land project questions and created data quality concerns (Mozambique & Benin)

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- Difficulty overlapping evaluation sample areas with implementation areas (Benin, Ghana Mozambique)

- Weak local data collection firms combined with insufficient management and oversight by evaluator led to poor data quality (Benin, Burkina, Mozambique & Lesotho)

- Weak evaluator understanding of land governance environment combined with insufficient links between evaluators and implementation, meant a lack of in-depth understanding of land nuances in the design, questionnaire and related analysis, along with lack of knowledge when project control/treatment areas changed or there were changes in project assumptions or timelines (Burkina and Mongolia)

- Unforseen demand or lack of demand for title, leaving problems for evaluation power to detect effect (Ghana and Mongolia)

- Survey issues-missing questions, incorrect skip patterns, lack of clarity (Moz., Burkina, Mongolia)

- Error rates in key data, such as households report incorrect tenure status and land size (Burkina and Mongolia)

- Ensure there is a detailed project logic, including a) key outputs, interim and longer-term outcomes and expected timelines for those; b) for each activity, clear beneficiaries and distribution of benefits

- Match sample and data source to expected beneficiaries

- Fit design to logic with realistic timeline for obtaining MDE in key variables

- Consider multiple evaluation methodologies and sources

- If using official land records for sampling purposes, keep in mind error rates and conduct a field listing to verify data

- Legal and institutional reforms can still allow room for a semi-rigorous design (Mozambique)

- A lottery can be seen as creating a "fair" structure to providing land rights (Benin and Mongolia)

- When creating comparison group, ensure considering variables beyond socioeconomic--land quality

- For separate analysis of a subgroup (female/commercial/areas with likely lower tenure security) ensure sufficient sampling (Lesotho and Cabo Verde). Increasing levels of analysis has associated cost

- Consider oversampling as there are often power issues due to lack of demand for formalization, lost controls, and poor overlap between evaluation sample and households formalized

- Identify the best data source considering trade offs on cost effectiveness, data quality likely from different sources, coverage, frequency of reporting, institutional capacity, feasibility and ability to learn

- When capturing changes in land use/quality/production, transaction volumes and times, taxation, construction, land values and mortgages; non-household data, such as land records, imagery, clippings, building permits, real estate and bank data, often provide more comprehensive and less expensive data though cannot analyze in combination with detailed household data, lacks informal information and there are accuracy issues

- Land records, conflict data and building permits often provide historical records and application/approval dates to get not only volumes but history of transaction times (may need to digitize data though)

- In environments with high tenure security/few conflicts, a random sample of households might be unable to capture a sufficient sample to measure changes in transaction. Sampling from those who are less secure, could provide better insights for that subgroup of population

Lessons Learned: Data Collection

- Request parcel documentation and verify tenure, official names on document, dates and land size. For example, evaluations have found high error rates in respondent's knowledge of whether a parcel has a formal land right. Similarly, if using official records of countries with weak land administration or informal transactions, check error rates in the data through a random sample.

- Capturing correct parcel size requires resource intensive parcel mapping, use of broad category terms (small/large parcel), overlap with intervention data or government cadastral data (sample error rates), or approximation via imagery

- Ensure common agreed upon standards between implementers and evaluator to collect and share geospatial data. This will help avoid issues with whether evaluation sample and treatment areas overlap, which is a common issue, as well as provide parcel size for treatment parcels

- Vital to have key local and international land experts on board, as well as sufficient management and oversight of local data collection activities

- Cost savings and improve local capacity by using existing surveys; however, managing own data collection provides better control over sampling and questionnaire contents, as well as data quality

Lessons Learned: Survey Instruments

- Adopt common land survey modules moving forward to allow for effective questionnaires (and time saved for future survey design), as well as comparing the effectiveness of global land interventions

- Incorporate a parcel roster at the beginning of a survey, which ensures an accurate picture of all household parcels, who manages them and type of land use(s) on each parcel (Burkina)

- Triangulate household and business survey data with administrative data and Key Informant Interviews

- Incorporate modules for spouse (or women's module) and parcel managers

- Incorporate more nuanced questions to capture tenure perceptions (levels of perception and influencing factors) and shorter-term/interim outcomes

- Verify transaction time capturing (back office processing, consumer or official time)

- Incorporate tracking surveys prior to rollout of full follow-up survey when unsure of timing (Mongolia)

- Ensure informed consent statements are incorporated into questionnaires that allows for research use of non-anonymized data while protecting PII though publication of anonymized data and results

- Build reporting mechanisms into land systems for easy reporting in future

- Incorporation of performance evaluation and qualitative analysis helps understand why if "no effect" shown and whether an issue of no outputs/sustainability of outputs or the effect of the intervention

- Baseline data analysis help inform and even change assumptions behind the M&E framework, as well as inform implementation. For example, data can provide volume and characteristics of who has high/low tenure perceptions, carry out formal land transactions, productivity and more likely to invest

- Country early findings:
  - Benin: analysis found impacts on cultivation from demarcation/rural village land use plans, including significant increases in longer term investments (tree planting and perennial crops)
  - Burkina: significant decrease in perceived likelihood of significant conflicts following changes in legislation and establishment of village level land administration and conflict mediation offices
  - Lesotho: legal and instl reform led to higher mortgage volumes and demand for formal transactions
  - Mongolia: provision of long-term leases, training and wells to herder groups led to some evidence of project effects on herder behavior as measured by shifts in herd composition toward improved breed milking cows and complementary reduction in percentage of goats, reduced herd size, reduced mortality of sheeps and goats, increased likelihood to grow fodder crops and increased investment in immovable property