

# 2014 Report on Closeout ERRs

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Economic Analysis

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# MCC Context

- 5-year grants (compacts)
- Focus on ERRS:
  - Expected Congress requirement
  - Easy to compare across projects
  - 10% threshold
- Three ERRs estimated (same CBA model):
  - Investment decision time/ Enter Into Force (original ERR)
  - Compact-end (closeout ERR)
  - Modifications
- Started publishing CBA models in 2011 in MCC's external website
- This report: First MCC systematic report on ERRs

# Conclusions

- Negative changes in ERRs in a 5-year period not specifically due to compacts, projects or sectors.
- Negative accounting changes in ERRS in a 5-year period due to changes in costs and to changes in benefits (scope and scale).
- Room for improvement on program design, program logic, and sensitivity analysis during program development.

# Closeout ERRs

- Same benefits as original ERRs but different (observed) costs
- No discernable impact on specific project but additional metric on targets and risk management
- Did ERRs systematically change between EIF and closeout? Are closeout ERRs more likely to be below the 10% hurdle?
- If so, why?
- Are there efficient ways to be able to answer this question in the future?

# Coverage

After 9 pending closeout ERRs done, 75% of all funds disbursed will have a corresponding closeout ERR

Sample selection: Lower ERRs for cancelled projects and projects with no ERR planned?

| Overall Description of Data                  |               |                        |                        |
|--|---------------|------------------------|------------------------|
|  | <u>Number</u> | <u>Funds Committed</u> | <u>Funds Disbursed</u> |
| <b>Total Closed Projects</b>                 | <b>93</b>     | <b>5,053.82</b>        | <b>4,644.29</b>        |
| Projects with Closeout ERR                   | 57            | 2,901.24               | 2,827.76               |
| Projects without Closeout ERR                | 36            | 2,152.58               | 1,816.54               |
| Closeout ERR pending                         | 9             | 603.85                 | 607.65                 |
| Projects for which no ERR Will Be Calculated | 27            | 1,548.73               | 1208.89                |
| Completed, but no ERR Planned                | 15            | 712.63                 | 635.92                 |
| Cancelled Projects                           | 12            | 836.11                 | 572.96                 |

# Characteristics: All projects

Relatively low variance across categories and no specific patterns.

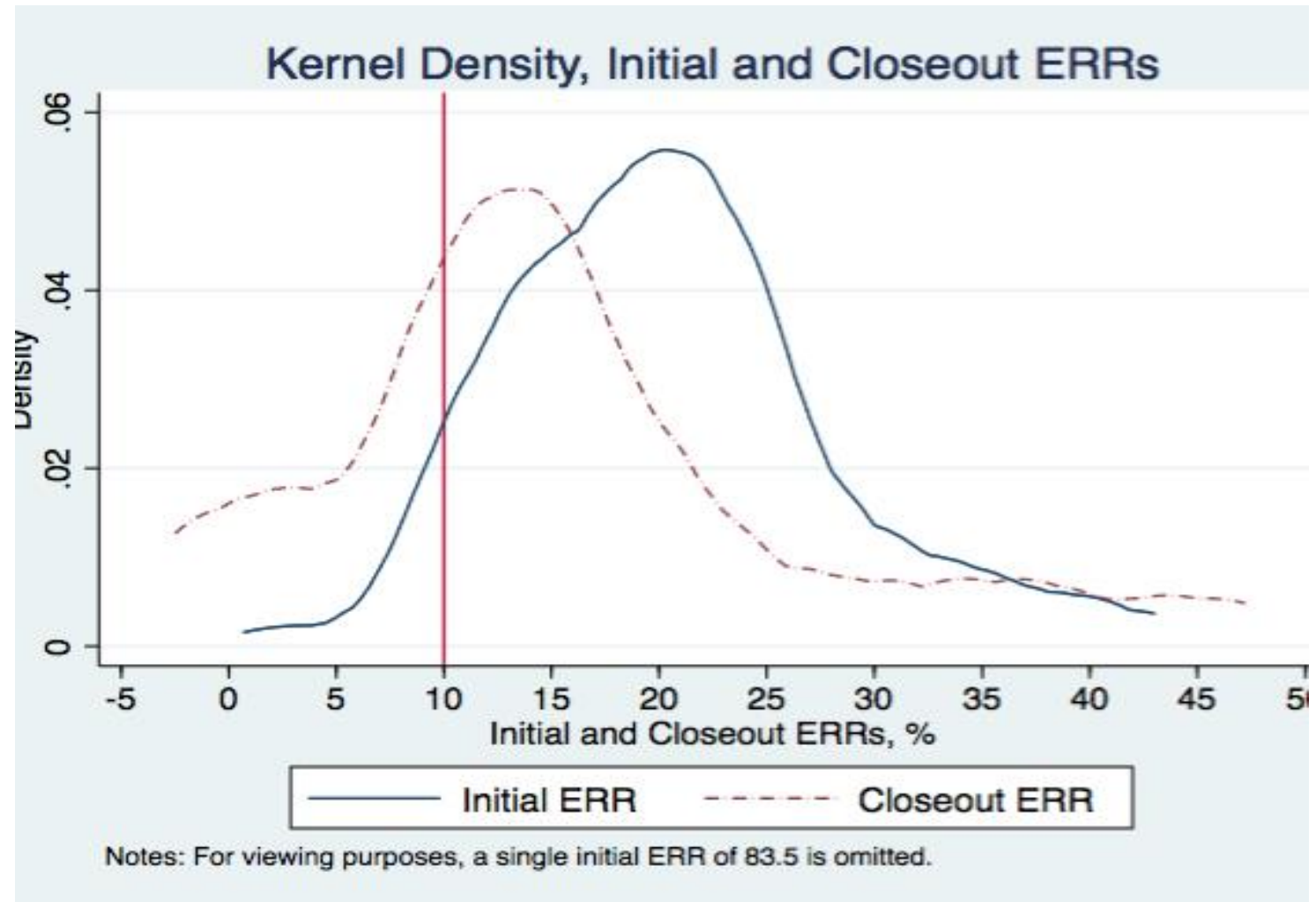
Similar results for unweighted ERRs, and after accounting for outliers.

| All Projects with Closeout Data |                       |                         |                |                         |
|---------------------------------|-----------------------|-------------------------|----------------|-------------------------|
| Sector                          | Weighted Closeout ERR | Unweighted Closeout ERR | Total Projects | Funds Disbursed (US\$M) |
| Agriculture and Irrigation      | 16.79%                | 20.02%                  | 15             | 733.65                  |
| Energy                          | 15.00%                | 13.70%                  | 4              | 102.70                  |
| Finance, Invest., Trade         | 12.84%                | 10.94%                  | 5              | 275.18                  |
| Health, Ed. & Community         | 12.93%                | 14.84%                  | 8              | 297.35                  |
| Land                            | 16.67%                | 15.30%                  | 4              | 98.13                   |
| Transport                       | 17.19%                | 15.19%                  | 9              | 936.79                  |
| WASH                            | 12.27%                | 13.89%                  | 12             | 351.97                  |
| Closeout Year                   | Weighted ERR          | Unweighted ERR          | Total Projects | Funds Disbursed (US\$M) |
| 2011                            | 12.23%                | 10.78%                  | 9              | 647.05                  |
| 2012                            | 17.30%                | 14.68%                  | 15             | 787.97                  |
| 2013                            | 15.98%                | 17.45%                  | 33             | 1360.74                 |
| Size at Closeout (US\$)         | Weighted ERR          | Unweighted ERR          | Total Projects | Funds Disbursed (US\$M) |
| < 50M                           | 16.26%                | 15.62%                  | 40             | 942.59                  |
| 50M - 100M                      | 17.07%                | 17.44%                  | 9              | 540.38                  |
| > 100M                          | 14.28%                | 13.94%                  | 8              | 1312.79                 |
| Country                         | Weighted ERR          | Unweighted ERR          | Total Projects | Funds Disbursed (US\$M) |
| Armenia                         | 12.28%                | 14.55%                  | 2              | 36.90                   |
| Benin                           | 12.84%                | 11.23%                  | 3              | 235.16                  |
| El Salvador                     | 20.25%                | 15.14%                  | 8              | 417.10                  |
| Georgia                         | 12.17%                | 7.97%                   | 3              | 309.30                  |
| Ghana                           | 13.98%                | 14.16%                  | 7              | 370.87                  |
| Lesotho                         | 9.57%                 | 9.80%                   | 4              | 257.84                  |
| Mongolia                        | 12.59%                | 13.00%                  | 7              | 207.00                  |
| Morocco                         | 20.39%                | 20.01%                  | 14             | 581.50                  |
| Mozambique                      | 15.32%                | 20.70%                  | 8              | 314.40                  |
| Vanuatu                         | 10.30%                | 10.30%                  | 1              | 65.69                   |
| <b>All Projects</b>             | <b>15.48%</b>         | <b>15.67%</b>           | <b>57</b>      | <b>2795.76</b>          |

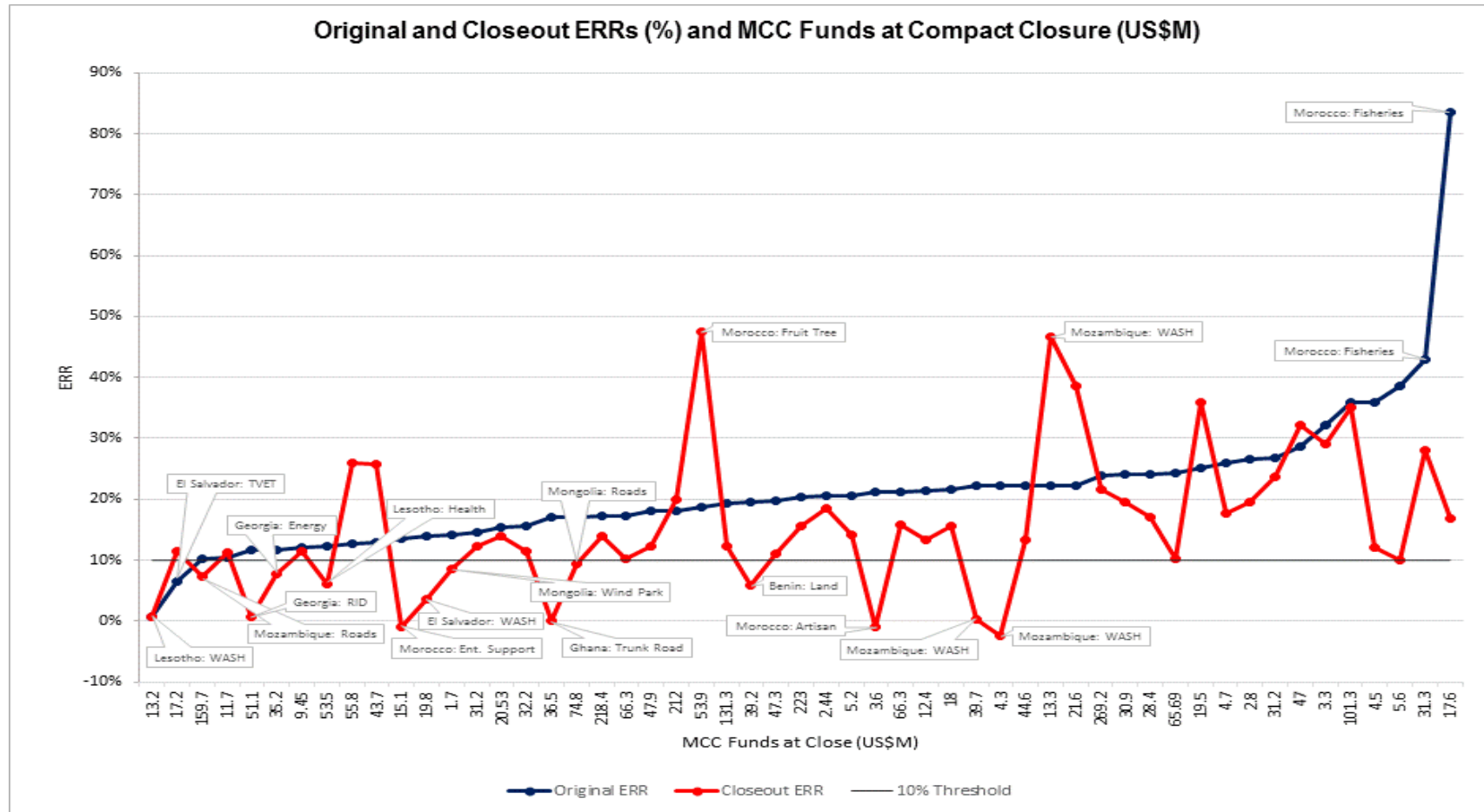
# MCC Projects' Economic Rates of Return 2005-2014

EIF and closeout ERR means not drastically different: 20% (s.d. 12.6) and 16% (s.d. 11.6)

But  $\Pr(\text{ERR} < 10\%)$  jumps from 0.04 at EIF to 0.24 at closeout



# MCC Projects' Economic Rates of Return 2005-2014





# Characteristics: Projects with ERR<10%

70% are small (<US\$50M)

At least one in every sector

One third in WASH

More than one third of funds  
in transport

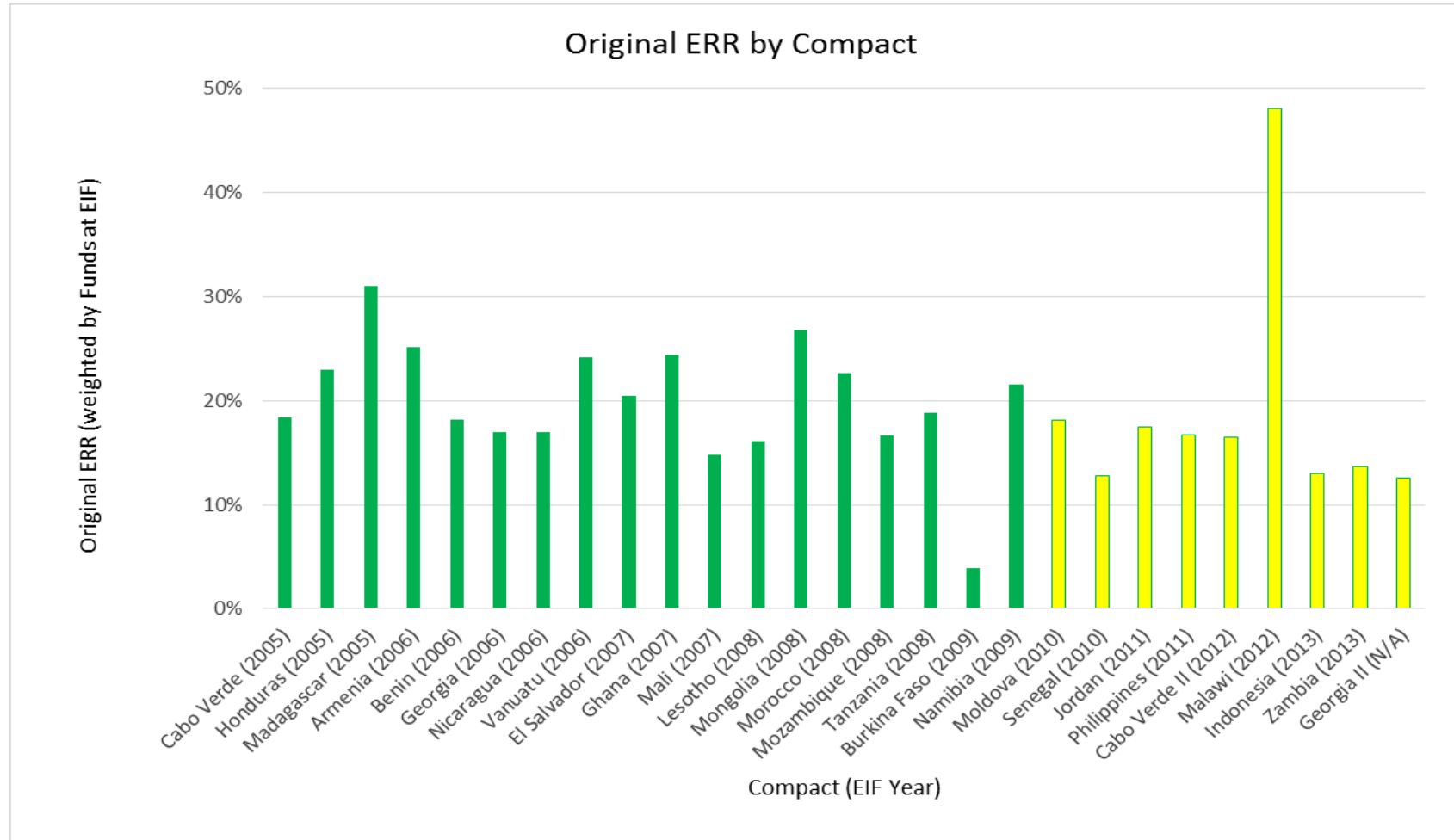
| Closed Projects with Closeout ERR below 10% Threshold |              |                |                |                         |
|---|--------------|----------------|----------------|-------------------------|
| Sector  | Weighted ERR | Unweighted ERR | Total Projects | Funds Disbursed (US\$M) |
| Agriculture and Irrigation                            | -1.00%       | -1.00%         | 1              | 3.60                    |
| Energy  | 7.77%        | 8.15%          | 2              | 37.98                   |
| Finance, Invest., Trade                               | -0.90%       | -0.90%         | 1              | 15.10                   |
| Health, Ed. & Community                               | 6.00%        | 6.00%          | 1              | 128.46                  |
| Land  | 5.80%        | 5.80%          | 1              | 39.20                   |
| Transport   | 6.87%        | 5.57%          | 3              | 229.51                  |
| WASH  | 0.88%        | 0.56%          | 5              | 151.66                  |
| Closeout Year   | Weighted ERR | Unweighted ERR | Total Projects | Funds Disbursed (US\$M) |
| 2011  | 4.02%        | 4.73%          | 3              | 134.40                  |
| 2012  | 1.34%        | 1.80%          | 2              | 53.01                   |
| 2013  | 5.68%        | 3.10%          | 9              | 418.10                  |
| Size at Closeout (US\$)                               | Weighted ERR | Unweighted ERR | Total Projects | Funds Disbursed (US\$M) |
| < 50M   | 2.70%        | 2.23%          | 10             | 220.75                  |
| 50M - 100M  | 5.34%        | 5.05%          | 2              | 128.60                  |
| > 100M  | 6.65%        | 6.65%          | 2              | 256.16                  |
| Country   | Weighted ERR | Unweighted ERR | Total Projects | Funds Disbursed (US\$M) |
| Armenia   | N/A          | N/A            | 0              | 0.00                    |
| Benin   | 5.80%        | 5.80%          | 1              | 39.20                   |
| El Salvador   | 3.60%        | 3.60%          | 1              | 19.80                   |
| Georgia   | 3.29%        | 4.20%          | 2              | 95.20                   |
| Ghana   | 0.00%        | 0.00%          | 1              | 33.21                   |
| Lesotho   | 5.06%        | 3.35%          | 2              | 156.32                  |
| Mongolia  | 9.37%        | 9.00%          | 2              | 71.38                   |
| Morocco   | -0.92%       | -0.95%         | 2              | 18.70                   |
| Mozambique  | 5.44%        | 1.70%          | 3              | 171.70                  |
| Vanuatu   | N/A          | N/A            | 0              | 0.00                    |
| <b>All Projects</b>                                   | <b>4.93%</b> | <b>3.26%</b>   | <b>14</b>      | <b>605.51</b>           |

# Changes in Benefits and Costs Between EIF and Closeout

| Major Drivers of Reduced ERRs at Closeout |                                |                |                 |                       |                  |                          |                                 |                |  |
|---|--------------------------------|----------------|-----------------|-----------------------|------------------|--------------------------|---------------------------------|----------------|--|
| Country                                   | Project                        | Primary Causes |                 |                       |                  |                          |                                 |                |  |
|   |                                | Reduced Scope  | Increased Costs | Reduced Beneficiaries | Poor Data at EIF | Low Carbon Credit Prices | Government/Third-Party Progress | Project Design | Other  |
| Benin                                     | Access to Land                 | X              | X               |                       |                  |                          |                                 |                |  |
| El Salvador                               | WASH                           | X              |                 | X                     | X                |                          |                                 |                |  |
| Georgia                                   | Regional Infrastructure Dev.   |                |                 | X                     |                  |                          |                                 | X              | Inadequate Water Supply                        |
| Georgia                                   | N/S Pipeline                   |                |                 |                       |                  | X                        | X                               |                |  |
| Ghana                                     | Farmer and Enterprise Training |                |                 |                       |                  |                          | X                               |                | Difficulty with sales and marketing            |
| Ghana                                     | Trunk Roads                    | X              | X               |                       |                  |                          |                                 |                |  |
| Lesotho                                   | Health Sector                  |                | X               |                       | X                |                          | X                               |                |  |
| Lesotho                                   | Rural Water Supply             |                |                 |                       |                  |                          |                                 | X              | Limited economic potential in target community |
| Mongolia                                  | Choir-Sainshand Road           |                | X               |                       |                  |                          |                                 |                | Lower-than-expected traffic                    |
| Mongolia                                  | Wind Park                      |                |                 |                       |                  | X                        |                                 |                | Government inaction; construction delays       |
| Morocco                                   | Enterprise Support             |                | X               |                       | X                |                          |                                 | X              |  |
| Morocco                                   | Artisan Production             |                |                 |                       |                  |                          |                                 | X              | Unable to obtain financing                     |
| Mozambique                                | Quelimane WASH                 |                | X               |                       | X                |                          |                                 |                |  |
| Mozambique                                | Roads                          | X              | X               |                       |                  |                          |                                 |                |  |
| Mozambique                                | Mocuba WASH                    | X              |                 |                       |                  |                          |                                 |                |  |

- What caused ERRs to decrease on average?
- Existing perception: Cost underestimation drove ERR
- 12 out of 26 projects did have higher costs; but ERRs decreased more in projects where costs decreased than they did when costs increased
- Not enough information at EIF? Changes to scale or scope?

# Before and now?



# Conclusions

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- Room for improvement on program design, program logic, and sensitivity analysis during program development.