RAAMP – Program to be Evaluated

Nigeria Rural Access and Agricultural Marketing Project (RAAMP): A successor of Rural Access and Mobility Project (RAMP)

- Third-generation project: access + agriculture marketing
- Second Generation: Rural Access and Mobility Project (RAMP-2) – will be completing soon (Oct. 2020)
  - Rural Access and mobility
  - 5 States
- First Generation: Rural Access and Mobility Project (RAMP)
  - Rural Access and mobility
  - 2 states
  - Completed
- Project Development Objectives
  - Improve rural access and agricultural marketing
  - Strengthening the financial and institutional base for the development, maintenance and management of rural road network
What are the components of RAAMP?

- **Improvement of Rural Access and Trading Infrastructure Component**
  - Road roads: upgrading of 1625 km of rural roads and construction of short span cross-drainage structures (culverts/bridges each)
  - Physical improvements of 65 agro-logistics centers
  - Support to supervision and consultancy costs linked civil works

- **Asset Management and Agro-Logistic Component**
  - Support for maintenance (approximately 12,000km)
  - Support to reduce post-harvest losses
  - Support for SME at agro-logistic centers
  - Support to female entrepreneurs

- **Institutional Development, Project Management and Risk Mitigation**
  - Support for institutional Development of rural transport, trading infrastructure and agro-logistics activities
  - Support for TA Consultancies. Resettlement activities, risk mitigation and resilience
Road Upgrading

- Widening and Surfacing of Existing Roads
Routine Maintenance

- Regular off-pavement & on-pavement (minor) maintenance
Backlog Maintenance

• Major on-pavement & off-pavement Maintenance

Spot Improvement

• Making roads passable almost year round with minor interventions (bridges/culvert, vulnerable sections)
Rehabilitation

- Restoration of a road improved before
Need State Road Maintenance

Poor Road Condition
TECHNICAL DETAILS

Conceptual Market Improvement Plan

- Market Management Office
- Processing / Wholesale
- Small Storage Lock Up Units
- Open Shared Market Shed
- Existing Market Stalls
- Toilets
- Waste Disposal
- Fresh Water Point
- Loading Bay
- Parking Lot
Open Sheds and Mini Storage Facilities
TECHNICAL DETAILS

Wholesale Facilities and Parking/Loading Bays
RAAMP Beneficiaries

• Beneficiaries
  ➢ 13 states of Nigeria: 7 northern and 6 southern States
  ➢ Road and market users – Rural residents in the project states
    ➢ General road users, transport operators (both freight and passenger), all type of buyers and sellers including small traders, small farmers, small and medium enterprises in the improved markets, women, children, the poor, and persons with physical disabilities.
What is the impact of the package of road interventions, agro-logistic hub improvements and other agro-logistics interventions on welfare of rural population?

1. What is the impact of employment opportunities from routine maintenance of roads on road maintenance group workers welfare?
2. What is the impact of backward linkage rural road investments on rural welfare?
3. What is the additional impact of forward linkage road and agro-logistics hub investments on rural welfare?
Theory of Change

**Interventions**
- Rural roads upgrading and cross-drainage structure construction
- Agro-logistics center improvement
- Rural road maintenance and spot improvements
- Support to agro-logistics activities
- State level road sector reforms and establishment of an asset management system

**Outputs**
- 1,625km Rural Roads Upgraded
- 1,040m Cross drainage structures constructed
- 9,100km/year of roads under Routine and 2,600km Backlog Maintained
- 5,850km of spot improved
- 65 Agro-logistic centers improved
- Good quality Agricultural logistics centers constructed

**Short-Term Outcomes**
- Improved rural access
- Improved agricultural marketing
- Strengthened financial and institutional base of rural road network

**Long-Term outcomes**
- Reduced rural poverty
- Improved household welfare
What is the impact of employment opportunities from routine maintenance of roads on road maintenance workers’ welfare?

Total sample size

- 9,000 potential applicants
  - 3 applicants per position:
    - applicants will be ranked and selected by rank.
    - (if ties: random selection)

Method: Regression Discontinuity Design

Treatment Arm
- 3000

Comparison Group
- 6000
Question 2: IE Methodology (Quasi-Experimental)

What is the impact of backward linkage for rural road investments on rural welfare?

- Total sample size
  - Prioritize roads from a census of roads (based on objective algorithm)
  - Event study design (may be combined with RDD)

- Treatment Arm
  - 520 Roads segments

- Comparison Group
  - 520 Roads
Questions 3 IE Methodology (Quasi-Experimental)

What is the additional impact of forward linkage road and agro-logistics hub investments on rural welfare?

- 94 preselected markets considered for upgrading with forward link
- 65 to be selected for the intervention
- Identification strategy
  - event study design
## Measurement Goals

Variables: Household consumption/expenditure, production, agriculture produce marketing

<table>
<thead>
<tr>
<th></th>
<th>household</th>
<th>roads</th>
<th>markets</th>
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</thead>
<tbody>
<tr>
<td>type</td>
<td>Consumption expenditures</td>
<td>Road progress and condition monitoring</td>
<td>Market progress monitoring</td>
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<tr>
<td>period</td>
<td>7 years</td>
<td>7 years</td>
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<tr>
<td>Frequency</td>
<td>3 rounds per HH (baseline, mid-point and ex-post)</td>
<td>monthly</td>
<td>monthly</td>
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<tr>
<td>sources</td>
<td>HH surveys + admin data (secondary data)</td>
<td>Monitoring data from project monitoring system</td>
<td>Monitoring data from project monitoring system</td>
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</tbody>
</table>
Challenges

- **Limited Sample Size.** Consider increased data frequency to boost statistical power, supplement designs (e.g., rdd + event study).
- **Sequencing of physical works.** Dependent of the proactivity of the states. Sequence planning is being done.
- **Data Quality.** Always a problem. Rigorous monitoring of the data quality.
- **Budget Constraints.** Limited funding from the project. Making best use of the available resources achieving value for money.
- **Low capacity at both state and Federal levels.** Building capacity on IE methods, especially at the state level.
- **Inadequate awareness by policy makers.** Active engagement with policy makers especially with the State Governors.
Timeline

Planning and design ongoing
- Methodology
- Funding application
- Approval process

Baseline data
- 07/2020
- Data analysis
- Client workshop

Implementation start
- 10/2020
- Monitoring reports
- Lessons note

Continued data collection
- 2020-2023
- Data analysis
- Client workshop
- Technical paper
- Policy note

Midterm IE Results
- 07/2023
- Client workshop
- Technical paper
- Policy note
Thank You
## Budget (To be discussed, Not presented)

| Item                                                                 | Year 1 | Source       | Year 2 | Source       | Year 3 | Source       | Year 4 | Source       | Year 5 | Source       | Year 6 | Source       | Year 7 | Source       | Total  |
|---------------------------------------------------------------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|
| IE Team: concept note preparation                                   |        |              |        | $             | IDA/AFD|              |        |              |        | $             | IDA/AFD|              |        |              |        |              |
| Baseline survey cost                                                | $1     | IDA/AFD      |        |              |        |              |        |              |        |              |        |              |        |              | $1     |
| IE Researchers: baseline survey & analysis                           |        |              |        |              |        |              |        |              |        |              |        |              |        |              |        |
| IE follow up surveys                                                | $0.30  | IDA/AFD      | $1     | IDA/AFD      | $0.3   | IDA/AFD      | $0.3   | IDA/AFD      | $0.3   | IDA/AFD      | $1     | IDA/AFD      | $3.2   |
| IE Researchers: follow up survey & analysis                          |        |              |        |              |        |              |        |              |        |              |        |              |        |
| IE Coordinator                                                      |        |              |        |              |        |              |        |              |        |              |        |              |        |
| IE Dissemination workshops                                           |        |              |        |              |        |              |        |              |        |              |        |              |        |
| IE travel                                                           |        |              |        |              |        |              |        |              |        |              |        |              |        |
| Total cost of impact evaluation                                     | $1     | IDA/AFD      | $0.30  | IDA/AFD      | $1     | IDA/AFD      | $0.3   | IDA/AFD      | $0.3   | IDA/AFD      | $1     | IDA/AFD      | $4.2   |
| Cost of intervention(s)                                             | $60    | IDA/AFD/Gov  | 62     | $68          | IDA/AFD/Gov | $70    | $82          | $90    | IDA/AFD/Gov  | $87    |              | $575   |