

# IE CONNECT FOR IMPACT

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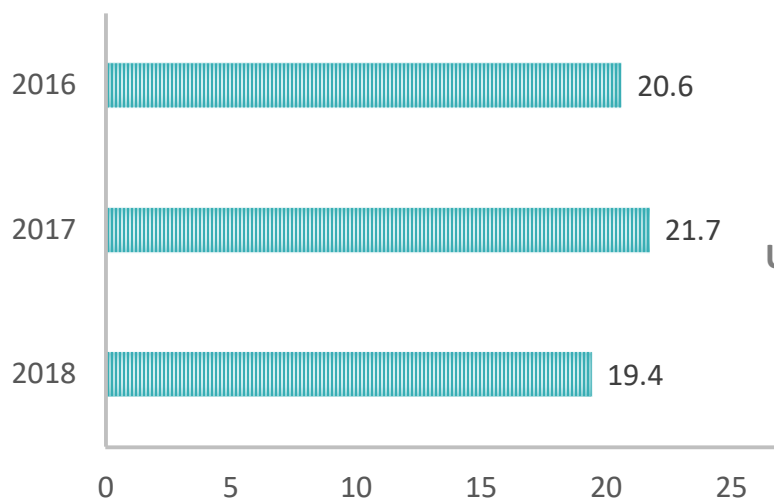


# 1. EVOLVING CONTEXT

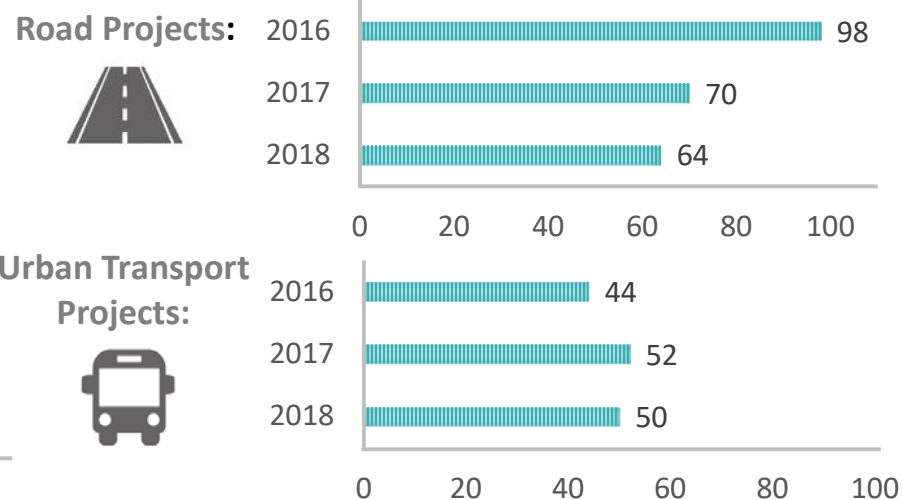


# TRANSPORT FOR DEVELOPMENT

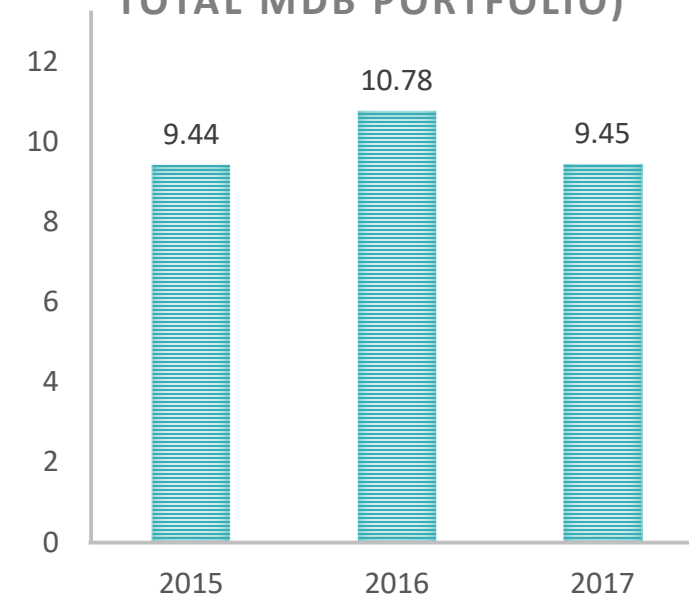
**MDBs TRANSPORT LOANS AND GRANTS (US\$ BILLION)**



**MDB TRANSPORT PROJECTS**



**TRANSPORT SHARE\* (IN TOTAL MDB PORTFOLIO)**



\* Aggregated as transport and storage

Source:

(a) and (b) Progress Report on the MDB Working Group on Sustainable Development (Jan 2019)

(c) Organization for Economic Cooperation and Development: Aid by sector and donor. Available from <https://stats.oecd.org/Index.aspx?QueryId=42232&lang=en#>

# EVIDENCE OF IMPACT - FRAGMENTED

## Early Evidence

### Economic Growth

- Banerjee et al. (2012) : 0.7% increase in GDP per capita per 10% decrease in distance from transport in China
- Donaldson (2010): 16% increase in real agricultural income due to railway construction in India.

### Economic Development

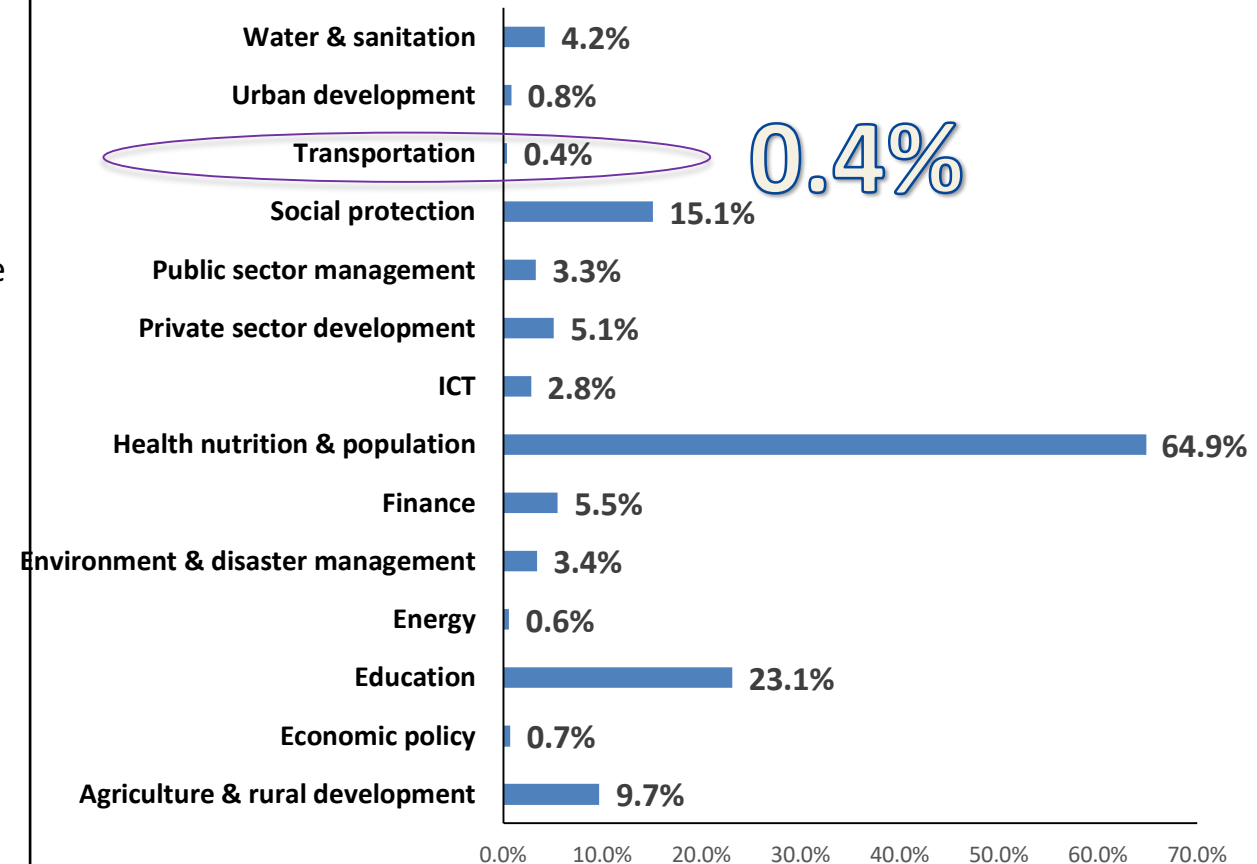
- Mu and van de Walle (2011): 17-30% increase in primary school completion due to road rehabilitation and construction in rural Vietnam.
- Muneeza et al (2019): wider economic benefits of transport corridors in the South Asia region

### Poverty Reduction

- Dercon et al. (2008): increased access to an all weather road reduced poverty by 7% and increased consumption by 16% in Ethiopia.
- Bird and Straub (2014): expansion of road network in Brazil accounted for half of GDP per capita growth and spurred a significant decrease in spatial inequality.

## Knowledge Gap

### IEs published post-2000 in IER



\* Impact Evaluation may cover more than one subject area.

# An **EVOLVING** MULTI-DIMENSIONAL CONCEPT



**Carbon Emissions**



**Air Pollution**



**Congestion**



**Road Traffic Fatalities**

# A SHIFT IN FOCUS

## SUSTAINABLE MOBILITY (as defined by:)

POLICY GOALS



### UNIVERSAL ACCESS

Connect all people, including women, and communities to economic and social opportunities.



### EFFICIENCY

Optimize predictability, reliability and cost-effectiveness of transport systems



### SAFETY

Reduce fatalities, injuries, and crashes (SDG Target 3.6)



### GREEN MOBILITY

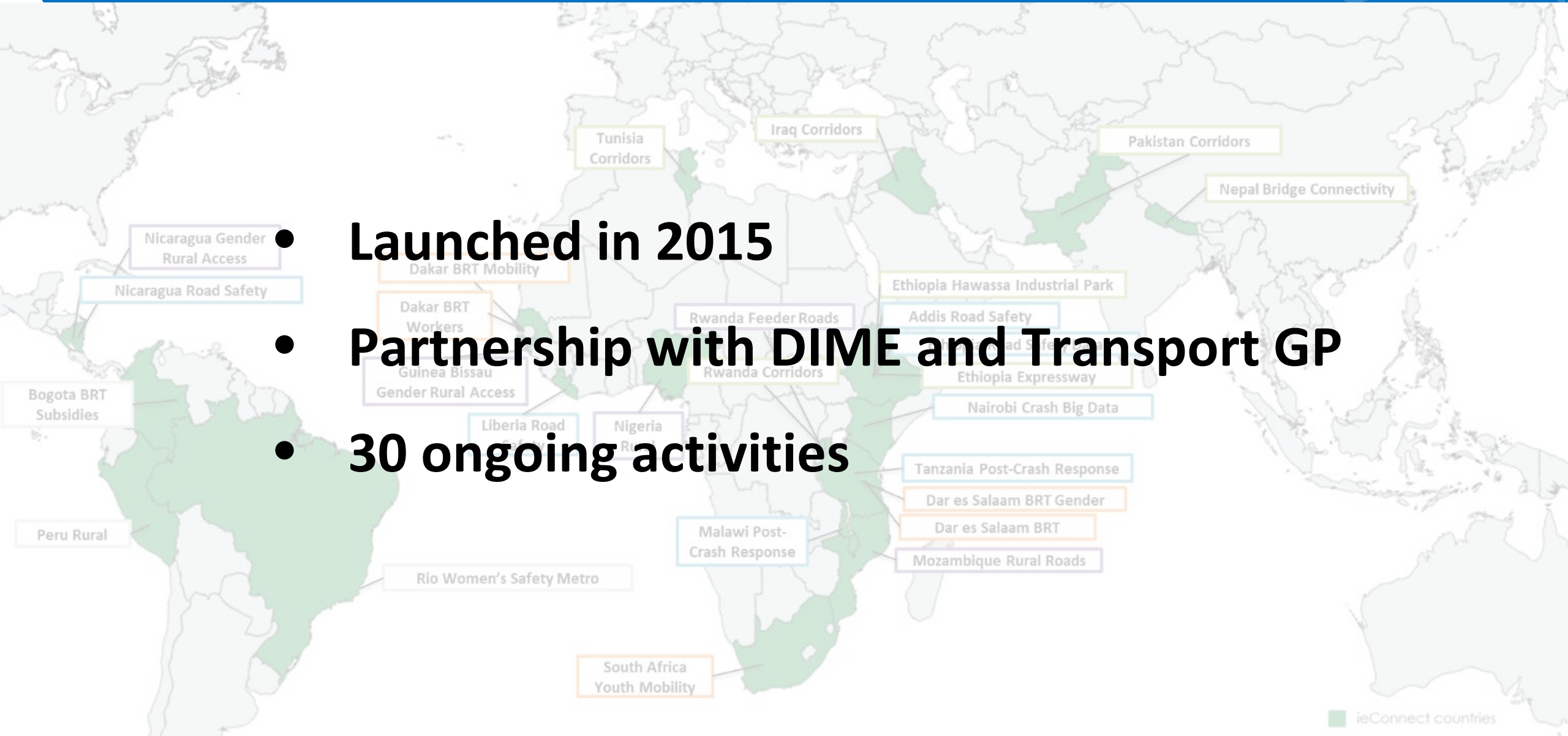
Minimize the environmental footprint of mobility (GHG emissions, noise and air pollution)



## 2. OUR RESPONSE



# IE CONNECT FOR IMPACT



- **Launched in 2015**
- **Partnership with DIME and Transport GP**
- **30 ongoing activities**



# OUR OBJECTIVES

Generate **data and evidence** on impact

Understand the **mechanisms**

Optimize global **development impact**

# OUR APPROACH

SYSTEMATIC



To **use new technologies** to build data systems



To **test policy interventions** and inform mid-course decisions



To use one project for **multiple experiments**

GP ALIGNMENT



To **select most relevant research questions**

# NEW TECHNOLOGIES TO BUILD DATA SYSTEMS

## Geospatial

[Night-Time Lights, Satellite Imagery]

Rwanda

Lake Victoria

Ethiopia Corridor

Iraq

Tunisia

Guinea-Bissau

Mozambique

Pakistan

Senegal BRT

## High-Frequency

[Market price, Smartcard, Telecom, Web Scraping]

Rwanda

Colombia Fare Subsidy

Kenya

Malawi

Rwanda/Lake Victoria

Senegal BRT

## Administrative

[Land registry, firm, labor, price, census, crashes, hospital records, EMS dispatchers]

Tanzania BRT

Senegal BRT

Rwanda

Ethiopia Urban

Ethiopia Hawassa

Ethiopia Corridor

Tunisia

Lake Victoria

Guinea Bissau

Malawi

Nicaragua Safety

Pakistan

Tanzania BRT

India

## Technologies

[Apps, CCTV, GPS Trackers, speed guns, pollution monitors]

Ethiopia/Addis

Liberia

Rio de Janeiro

Peru

Kenya

Nicaragua Safety

Senegal BRT

Tanzania BRT

South Africa Subsidy

India

## Surveys

[Electronic Data Collection]

Senegal BRT

Peru

Ethiopia Hawassa

Guinea Bissau

Nicaragua

Senegal Construction

Senegal BRT

Tanzania BRT

Nigeria

India

Pakistan

# TEST POLICY INTERVENTIONS

## Examples:

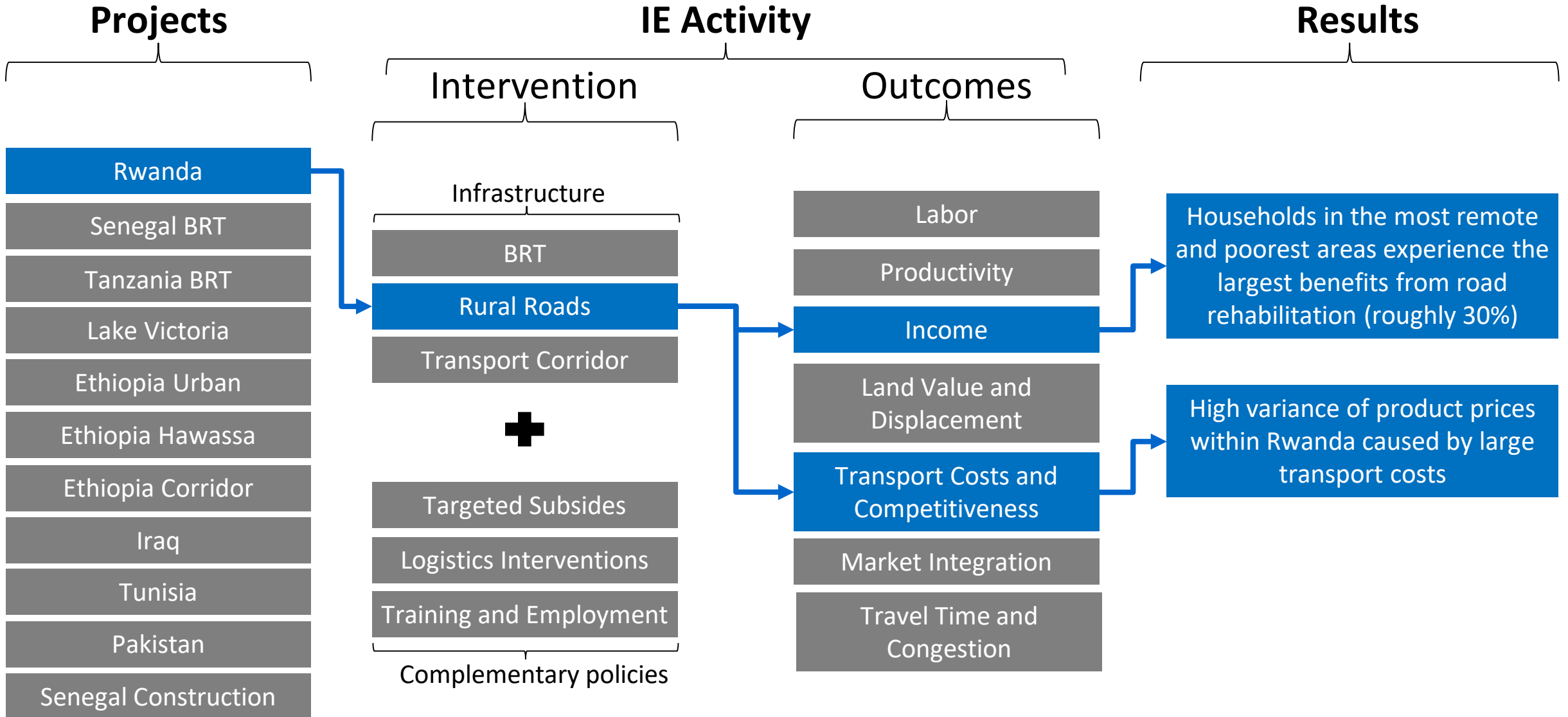
- Targeted **public transport fare subsidies** to low-income populations
- Midline survey found increases in land value along the BRT corridor. Pilot launched to provide **location based conditional cash transfers** to avoid displacement of the poorest populations.

# ONE PROJECT FOR MULTIPLE IMPACT EVALUATIONS

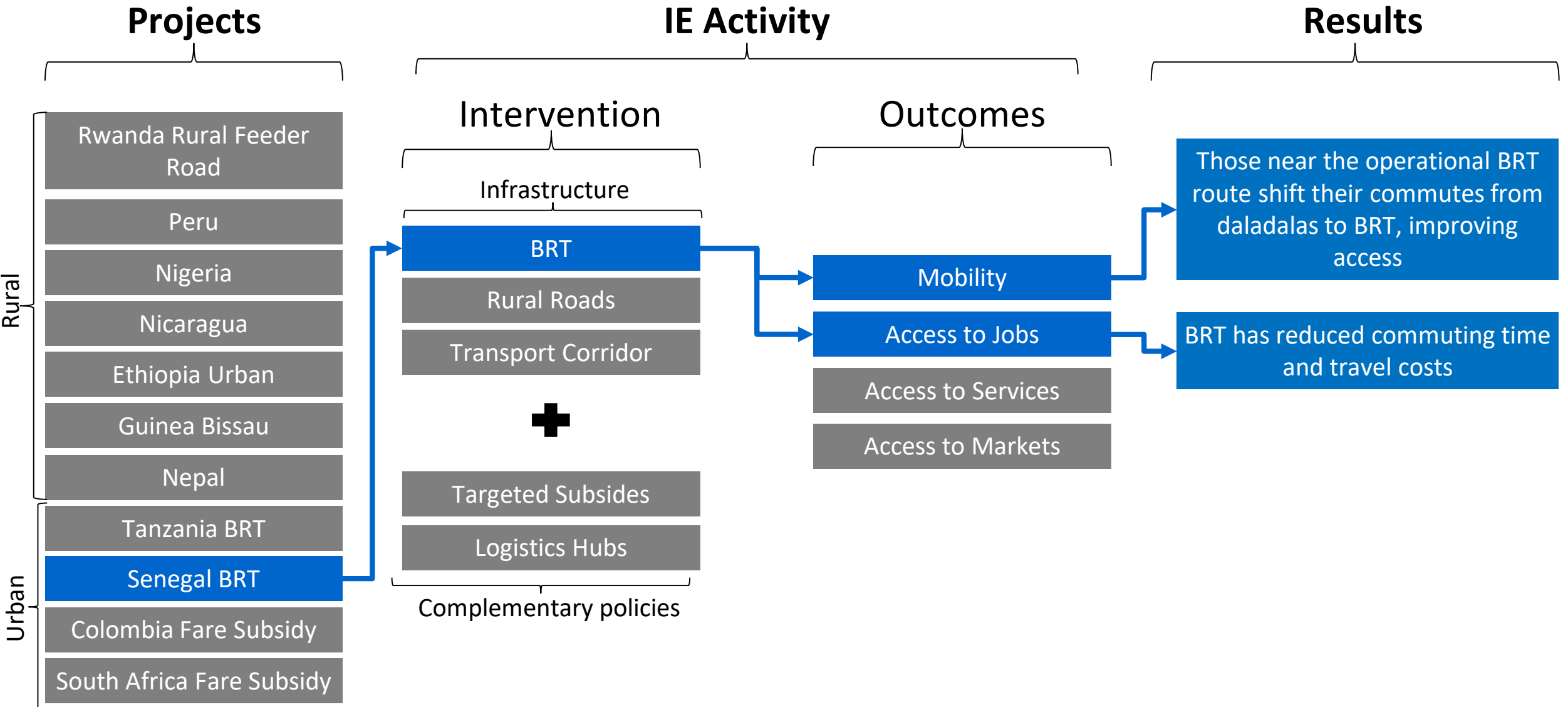
## Tanzania/Dar es Salaam BRT

- Impact of the BRT on mobility, employment, productivity, and welfare
- Impact of a targeted subsidy (fare and rent) on mobility, employment, displacement, and welfare.
- Impact of an integrated safety response system on violence against women.
- Impact of recruiting and training women bus drivers on labor outcomes and women empowerment.
- Impact of BRT on road safety.

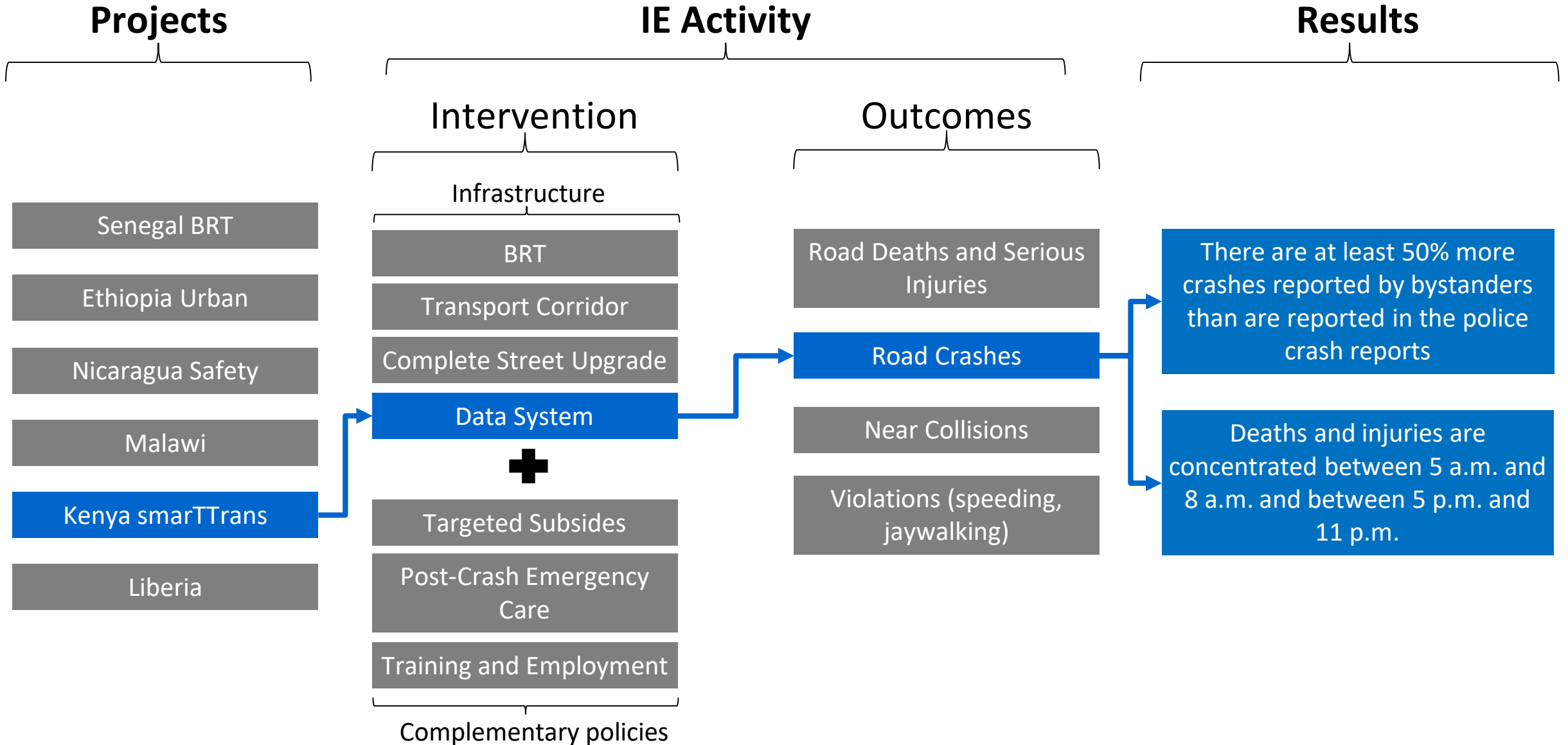
# PHASE 1: EFFICIENCY



# PHASE 1: UNIVERSAL ACCESS

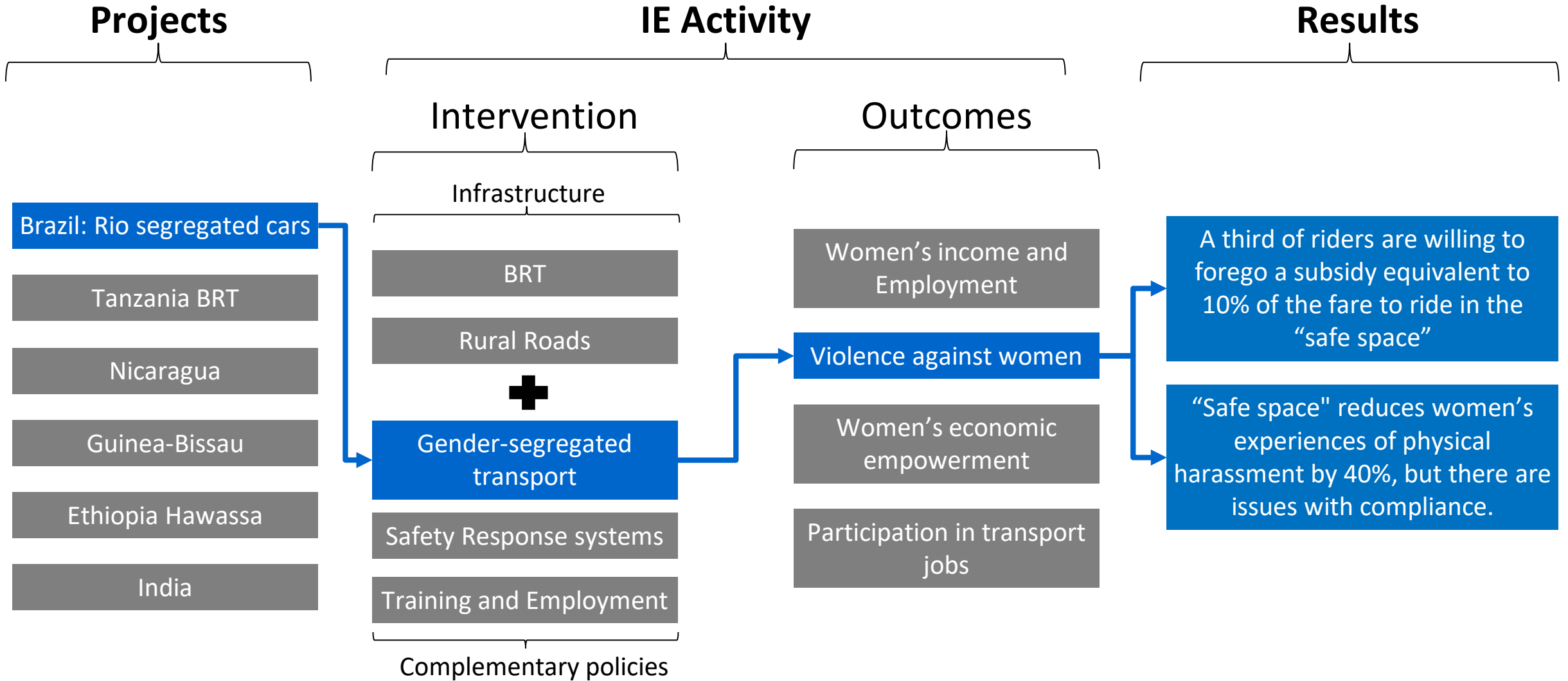


# PHASE 2: ROAD SAFETY





# PHASE 3: GENDER





# 3. WHAT NEXT?

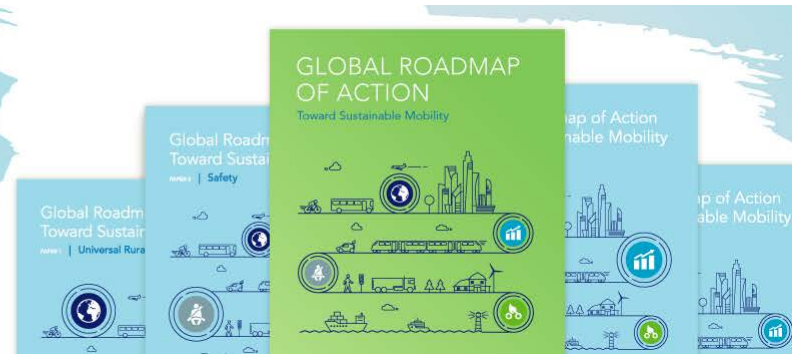


# SELECT RESEARCH QUESTIONS WITH GP PORTFOLIO

- Green mobility (air pollution, GHG emission and noise pollution)
- Gender parity in all aspects of transport
- Testing other complementary policies and investments

# TAP INTO THE CATALOGUE OF POLICY INSTRUMENTS

## GLOBAL ROADMAP OF ACTION TOWARD SUSTAINABLE MOBILITY



Proposes a coherent and integrated menu of **182 policies** to transition toward attaining the SDGs by 2030 and achieve sustainable mobility.

Access the GRA on [www.sum4all.org/GRA](http://www.sum4all.org/GRA)

## WHAT WE EXPECT FROM YOU

- »» Use your project to **think about contributing** to sustainable mobility
- »» **Stretch your mind** for impact evaluation design
- »» **Open your project** to new ideas

**THANK YOU**  
**FOR YOUR ATTENTION**

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# TEST POLICY INTERVENTIONS

## Examples:

- Program to **support agricultural productivity improvements** along rehabilitated rural road (Peru IE)
- Digital **speed sign with behavioral feedback** to reduce speeding and improve road safety
- Targeted **public transport fare subsidies** to low-income populations

## Impact Evaluation can inform mid-course decisions in the project:

For the Tanzania BRT IE, the midline survey found increases in land value along the BRT corridor, therefore, a pilot was launched to provide location based conditional cash transfers to avoid displacement of the poorest populations.

# ONE PROJECT FOR MULTIPLE IMPACT EVALUATIONS

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