



HOW **and** WHEN **RURAL ROADS** **Improve Inclusive Access:** Experience from ADB Case Studies



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Study Objectives and Focus

- Objective was to learn how to better design future rural road components to achieve inclusive access.
 - Is there an impact on the poor?
 - When does it work?
 - How does it work?
 - Deep and narrow case study approach to capture the process



Methodology.....Tools Used

No baseline data.
Used secondary
data and recall
techniques

*2 week stay in
Project &
Control
Sites*

Household Surveys

Participant observations

Traffic Analysis

Key informant interviews

PRA Tools to capture different groups



Participatory poverty classification

Reporting Framework
to triangulate information

Country workshops to validate preliminary findings

Case Study Areas in Philippines

Sorsogon Integrated Area Development Project



Project: Palale on the Bulan – Magnalles Road



Control: Bical Area

Fifth Road Improvement Project



Project: Magallon Cadre on Moises Padilla



Control: Macagahay Area

Case Study Areas in Sri Lanka

NW Province – Water Resources Dev. Project



Project: Nugannoruwa Inginimitiya Road



Control: Walahinikalla Area

Southern Province Road Improvement Project



Project: Heegoda Katuwana Road



Control: Makiliyathanne Area⁵

Case Study Areas in Indonesia

Tree Crop Smallholder Sector Project

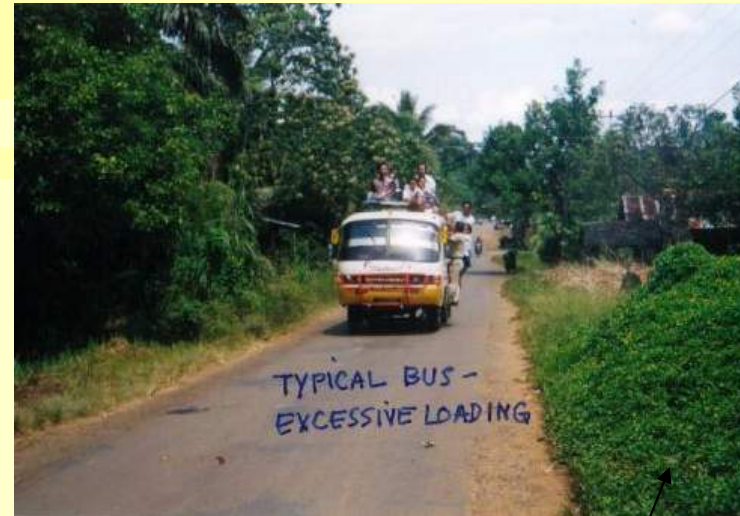


Project: Talang Panjang –Tanah Abang Rd.



Control: Talang Padang Area

Third Local Roads Project (TLRP)



Project: Giri Panggung Road



Control: Sumber Wungu Area

When ?(External and Structural Conditions are right)

External Conditions affecting the ability to graduate from poverty



- Climate and **natural resources** are key factors in agricultural production.....(land fertility, severe drought)
- Macroeconomic Context and **Terms of Trade** .. (rubber prices)
- Access to road **networks** and market centers (remote areas)
- Social structure and **concentration of assets** determine the poverty status(working for haciendas, selling to landowners)



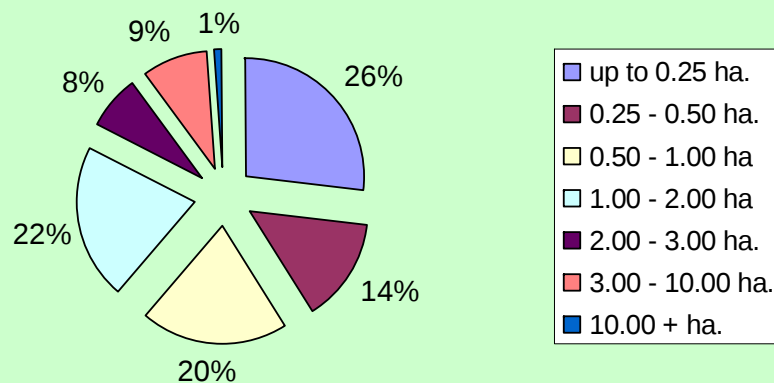
When ?

Structural conditions that affect ability to graduate from poverty

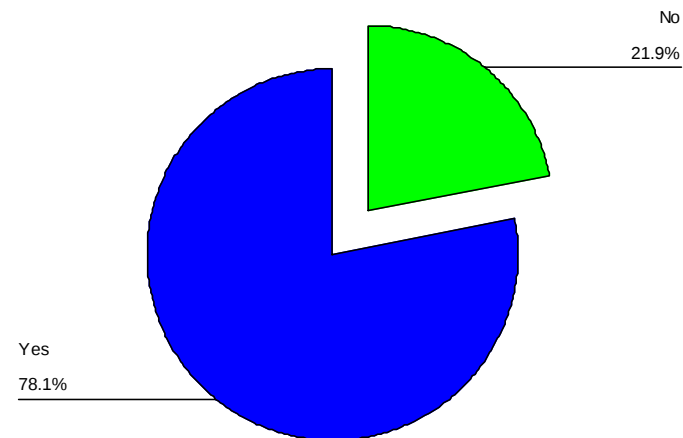
Roads provide opportunities to trade.....

1. Ability to have **access or rights over natural resources** was critical in determining household poverty status
 - Without land most productive time is spent on subsistence needs.
 - Without land or skills poor are **unlikely** to have much to **trade**.

Size of Land Holdings



Respondents Who Work as Agricultural Labourers



When ?



2. Indebtedness.....

- Many poor farmers and laborers were heavily reliant on credit extended by traders.
- Borrow money against next crop or providing future labor during peak times.
- No access to formal credit sources or requirements are too onerous.

3. Family size and Social Networks.....

- High correlation between household size and poverty
- Social networks and length of residence important as a safety net or to to build assets to move out of poverty

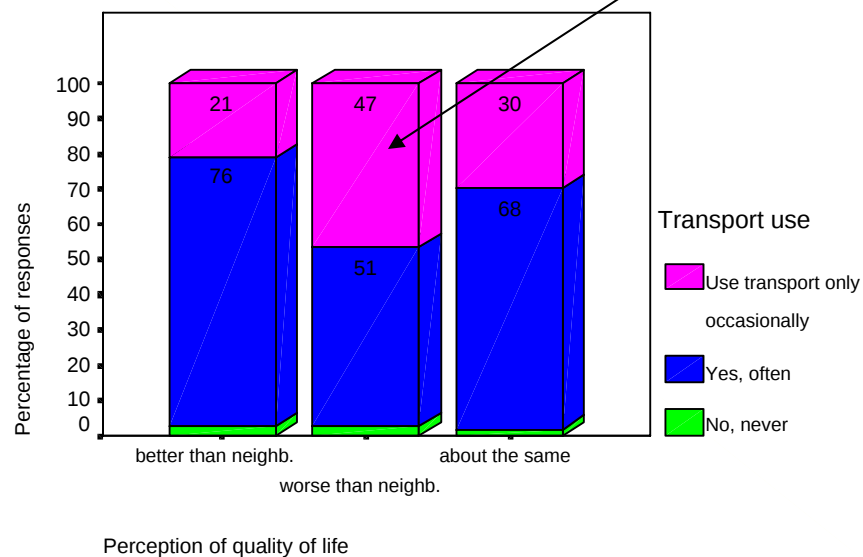
How ?

But many of the very poor still live in a “walking world”

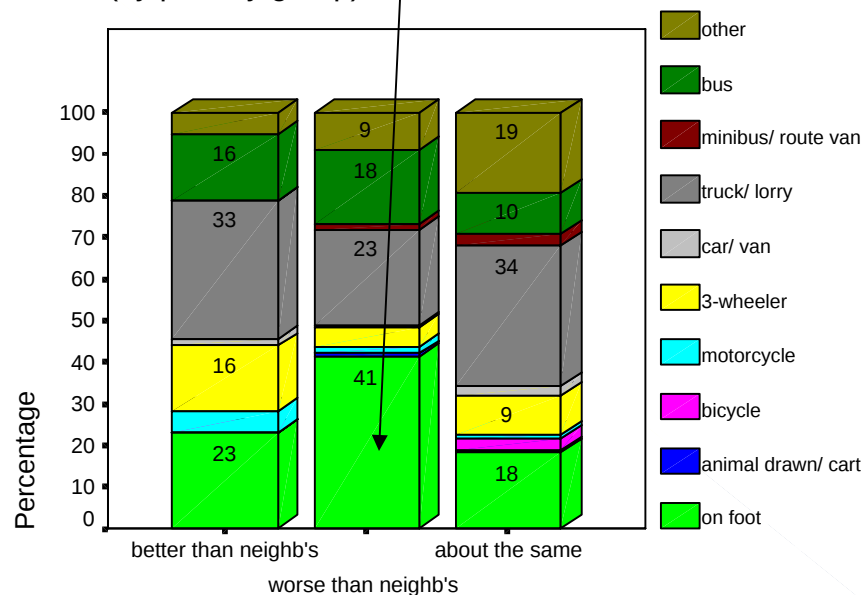


Poor walk often
and use transport
only occasionally

Frequency of Use of Transport Services
(project cases)

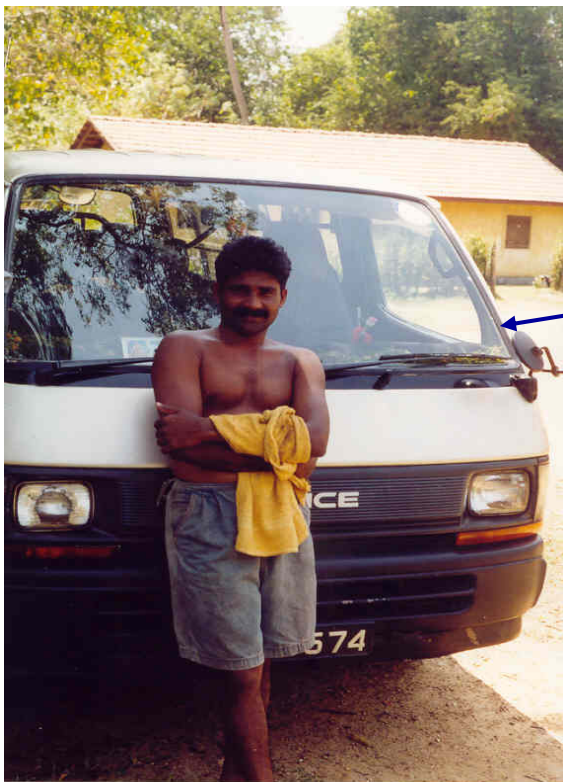


Means of Transport Used for Buying Provisions
(by poverty group)



Who benefits more?

How ?



- **Vehicle operators** are the primary beneficiaries (higher incomes, lower costs);
- **Traders and agricultural middlemen** benefit from both bad and good roads (less competition to more volume);
- Shifting patterns of transport services may be affect some **poor transport providers** beneficially or adversely.



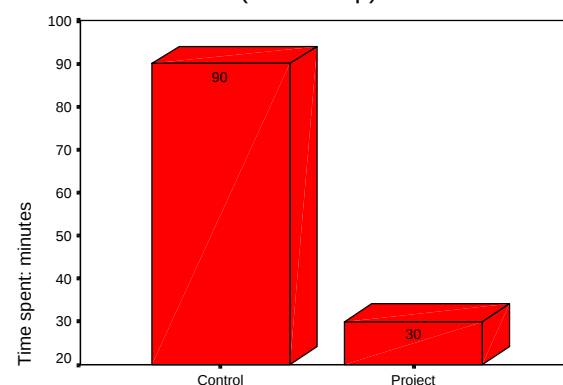
How ?

Project sites have better access to **facilities** as they are available in village with roads.and average time for **access services** is lower

Item	Share of Households (%)	
	Project Site	Control Site
Drinking Water		
Protected Well or Tap	37	35
Private Well or Tap	28	14
Piped to House	16	0
Unprotected Well	11	24
Private Rainwater Tank	4	17
Other	4	10
Sanitation		
Private Flush	5	7
Private Latrine	53	31
Public Latrine	4	1
Open Pit	20	22
Field	15	29
Other	3	10
Electricity		
Yes	28	11
No	72	89

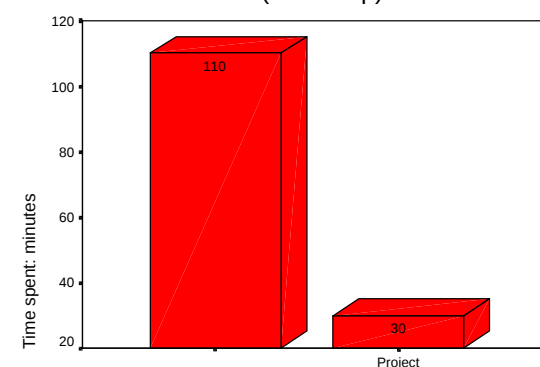
Average time Spent Accessing

Medical Care (Return trip)



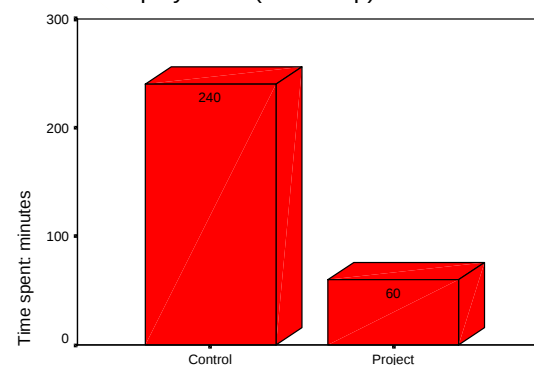
Avg. Time Spent for Travelling for

Documentation: (return trip)



Avg time Spent for Business Trip or Travel

to Employment: (return trip)



How ?

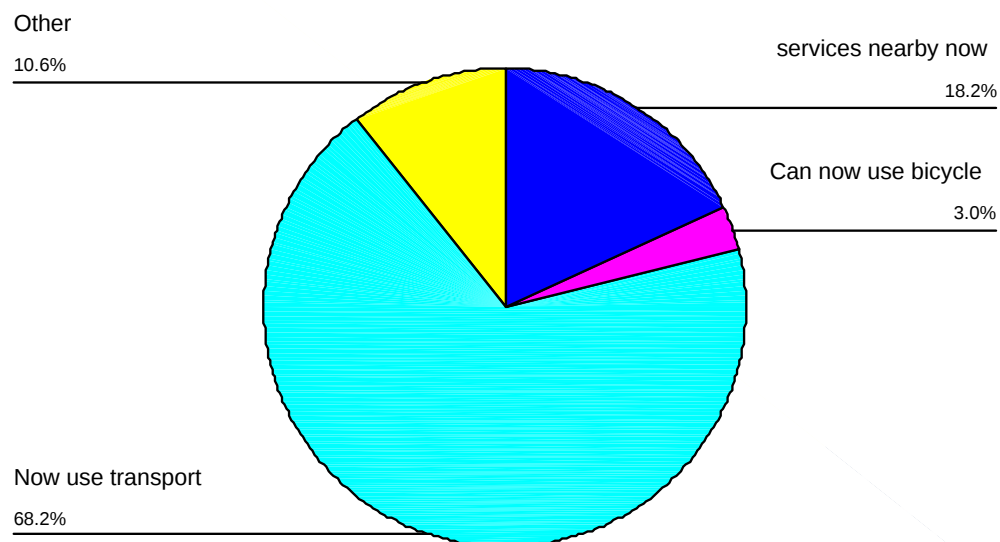
Improved access to welfare

Less time used for essential travel

Activity and travel times (min)	Project Site	Control Site
Buying Provisions	20	30
Selling Crops/Products	20	60
Going to School	30	50
Processing Agriculture Products	30	60
Visiting Family and Friends	90	180
Accessing Medical Care	30	90
Going for Employment or Business	60	240
Obtaining Official Documentation	30	110

Use transport 68%
Services nearby 18%

How Transport to Health Services Has Changed in Last 5 yrs



How ?

To improve inclusiveness...need.. more than a rural road

- Dependable transport services
- Reduction in cost of travel
- Regular road maintenance.
- Access to information
- Seed capital to start a business





How ?

Some poor have
graduated with
commercialization...

Using.....

- Skills
- Seed capital
- Information





Study Conclusions



- Basic access is a high priority for poor especially for health
- => **reduces vulnerability of poor and non poor**
- All weather access, variety of transport services
- => **important for livelihood development in project sites for those with assets**
- Poor inhabit a walking world...no opportunities to use roads
- => **need a net work of tracks paths, culverts important for essentials**
- Improved opportunities for agricultural labor
- => **only if conditions are right**



Considerations for Implementation of Road Projects

- **Labor based techniques** used on roads suitable for low traffic volumes can provide short-term **injections of cash**
- **Neglect of routine maintenance** due to political reasons –road quality cycles **discourage very poor** using road for livelihood
- **Institutional responsibility** for roads unclear in **integrated** projects
- **Community participation** as a key for long-term **sustainability**
- Analyze how **other factors for inclusiveness** are likely to follow the implementation of a road project.



Recommendations

Measures Directly Related to Transport

- Consider labor-based technology based on realistic traffic volumes
- Support improvements in intra/inter village access and foster simple modalities of transport
- Confirm periodic maintenance and sharing responsibility

Measures not directly related to transport

- Use participatory design and planning (combine technical and basic needs) to support inclusiveness
- Support poor thru a cycle of production, transport & sale because rural roads are necessary but not sufficient for inclusiveness,
- Build partnerships with those who have a track record for community development (NGOs and Bilaterals)

ADB

WHEN DO RURAL ROADS BENEFIT THE POOR AND HOW?

An In-depth Analysis Based on Case Studies

HEMAMALA HETTIGE



OPERATIONS EVALUATION DEPARTMENT
Asian Development Bank

Thank you!

www.adb.org/Evaluation