

## REFERENCES

A. S. Kumarage, J. Weerawardena, R. Piyasekera, “A Concession Model to Promote Rural Bus Services in Sri Lanka,” in 11<sup>th</sup> Conference on Competition and Ownership in Land Passenger Transport, Delft University of Technology, Netherlands, 2009.

C.K.Gannon and L,Zhi, “Poverty and Transport,” Washington, World Bank,1997.

D.Attapattu, “Transport and poverty: an overview of the discourse,” in Promoting Pro-poor Transport Policies and Action in Sri Lanka, Lanka Forum on Rural Transport Development , Colombo, 2005 ,pp.13-36.

Don S. Jayaweera, “Current transport policy and its impact on poverty reduction,” in Promoting Pro-poor Transport Policies and Action in Sri Lanka, Lanka Forum on Rural Transport Development , Colombo, 2005 ,pp.36-57.

F.Shenggen, P.Hazell, and Sukhadeo Thorat, “Linkage between Government Spending, Growth and Poverty in Rural India,” 1999.



University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
www.lib.mru.ac.lk

G. C. Goeverden , P. Rietveld ,J. Koelemeijer and P. Peeters, “European Transport,” in Subsidies in public transport, Delft University of Technology, 2006, pp.5-25.

H.Binswanger ,et al .1993. How Infrastructure and Financial Institutions affect Agricultural Output and Investment in India, *Development Economics*. Vol. 44, pp. 337-366.

J.M Sahabandu, “Intermediate Public Transport in Rural Sri Lanka,” in Fourth annual session of the Lanka Forum on Rural Transport Development , Colombo, 2002.

L.Tilakarathna, “Impact of Transport on Migration (out and in) in Rural Communities and its Diverse Effects on Rural Poverty,” in Promoting Pro-poor Transport Policies and Action in Sri Lanka, Lanka Forum on Rural Transport Development , Colombo, 2005 , pp.69-85.

M. Witkiss, J. L. Hine and S. D. Ellis, “The provision of rural transport services: an agenda for reform, ” TRL Limited, 2001.

MacDonald, Mott and Mulley, Corrine (2007). *A New Approach to Rural Public Transport*, Commission for Integrated Transport [On line]. Available: <http://www.cfit.gov.uk/docs/2008/rpt/index.htm>

Ministry of Transport, National Transport Policy, Colombo, 2009.

National Transport Commission, Payments of Subsidies for Unprofitable Rural Routes, Colombo, 2000.

Sri Lanka Transport Board, Report of the Second Committee on Uneconomic Bus Routes, Colombo, 1987.



www.lib.mrt.ac.lk

W.Owen, Transportation and World development, New York, Johns Hopkins University Press, 1987.

World Bank, Infrastructure for Development: World Development Report. Washington D.C: World Bank, 1994.

Z.Paul , Rural Transport Programme: Cycle Trailers in Sri Lanka, IT Transport Limited, U.K, 1990.

APPENDICES –A Sample Questionnaire for the villagers (to get family details)

Household information

- (1) Years of settlement in the village?.....  
 (2) Number of members in your family ? .....
- (3) In your family, number of Males ( ), Females ( ), School Children ( ), Employees ( ), Unemployed ( )
- (4) Do your family has a vehicle? No ....., Yes .....then type of vehicle?.....
- (1) Do you have school children in your family ? Yes ..... No ..... If Yes  
 (2) Details of mode of transport to attend to school.



University of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations  
 www.lib.mrt.ac.lk

| Before Starting Gamisariya Project |  | After Starting Gamisariya Project |  | Using of Gamisariya Bus Service for this trip |  | If use Gamisariya the number of trips |  | If use Gamisariya bus service why use the service? Because of |  |
|------------------------------------|--|-----------------------------------|--|---|--|---------------------------------------|--|---|--|
| walk                               |  | walk                              |  | Use Gamisariya Bus Service                    |  | Increase                              |  | Comfort   |  |
| Three wheel                        |  | Three wheel                       |  |   |  |                                       |  | Safety  |  |
| Bicycle                            |  | Bicycle                           |  |   |  |                                       |  | Cost Saving   |  |
| Lorry                              |  | Lorry                             |  | Not Use Gamisariya Bus Service                |  | Decrease                              |  | Time Saving   |  |
| Car/Van                            |  | Car/Van                           |  |   |  |                                       |  | Other ...   |  |
| Other                              |  | Other                             |  |   |  |                                       |  | .....   |  |
|                                    |  |                                   |  |   |  | No Impact                             |  |   |  |

(3) Details of Mode of transport you and your family members use to go to see relations/Entertainment activities

| Before Starting Gamisariya Project |  | After Starting Gamisariya Project |  | Using of Gamisariya Bus Service for this trip | If use Gamisariya the number of trips | If use Gamisariya bus service why use the service? Because of |
|------------------------------------|--|-----------------------------------|--|---|---------------------------------------|---|
| walk                               |  | walk                              |  | Use Gamisariya Bus Service                    | Increase                              | Comfort   |
| Three wheel                        |  | Three wheel                       |  |   |                                       | Safety  |
| Bicycle                            |  | Bicycle                           |  |   |                                       | Cost Saving   |
| Lorry                              |  | Lorry                             |  | Not Use Gamisariya Bus Service                | Decrease                              | Time Saving   |
| Car/Van                            |  | Car/Van                           |  |   |                                       | Other ...   |
| Other                              |  | Other                             |  |   |                                       | .....   |
|                                    |  |                                   |  |   | No Impact                             |   |



University of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations  
www.lib.mrt.ac.lk

(4) Details of mode of transport you and your family use to visit religious/cultural events

| Before Starting Gamisariya Project |  | After Starting Gamisariya Project |  | Using of Gamisariya Bus Service for this trip | If use Gamisariya the number of trips | If use Gamisariya bus service why use the service? Because of |
|------------------------------------|--|-----------------------------------|--|---|---------------------------------------|---|
| walk                               |  | walk                              |  | Use Gamisariya Bus Service                    | Increase                              | Comfort   |
| Three wheel                        |  | Three wheel                       |  |   |                                       | Safety  |
| Bicycle                            |  | Bicycle                           |  |   |                                       | Cost Saving   |
| Lorry                              |  | Lorry                             |  | Not Use Gamisariya Bus Service                | Decrease                              | Time Saving   |
| Car/Van                            |  | Car/Van                           |  |   |                                       | Other ...   |
| Other                              |  | Other                             |  |   |                                       | .....   |
|                                    |  |                                   |  |   | No Impact                             |   |

(5) After G.S service are there any member in your family who joined outside employment?

yes

No

if "yes"

Number of Males jointed outside employment

Number of Females jointed outside employment

(6) Details of mode of transport to go to employment?

| Before Starting Gamisariya Project |  | After Starting Gamisariya Project |  | Using of Gamisariya Bus Service for this trip |  | If use Gamisariya the number of trips |  | If use Gamisariya bus service why use the service? Because of |  |
|------------------------------------|--|-----------------------------------|--|---|--|---------------------------------------|--|---|--|
| walk                               |  | walk                              |  | Use Gamisariya Bus Service                    |  | Increase                              |  | Comfort   |  |
| Three wheel                        |  | Three wheel                       |  |   |  |                                       |  | Safety  |  |
| Bicycle                            |  | Bicycle                           |  | Not Use Gamisariya Bus Service                |  | Decrease                              |  | Cost Saving   |  |
| Lorry                              |  | Lorry                             |  |   |  |                                       |  | Time Saving   |  |
| Car/Van                            |  | Car/Van                           |  |   |  |                                       |  | Other ...   |  |
| Other                              |  | Other                             |  |   |  | No Impact                             |  | .....   |  |

(7) Have you or your family member started an industry / business after implementing Gamisariya Bus Service to the village?

|     |    |
|-----|----|
| yes | No |
|-----|----|

if yes , what type of industry / business have started?

.....  
 .....

(8) Details of mode of transport to go to groceries/Market/weekly Market?

| Before Starting Gamisariya Project |  | After Starting Gamisariya Project |  | Using of Gamisariya Bus Service for this trip |  | If use Gamisariya the number of trips |  | If use Gamisariya bus service why use the service? Because of |  |
|------------------------------------|--|-----------------------------------|--|---|--|---------------------------------------|--|---|--|
| walk                               |  | walk                              |  | Use Gamisariya Bus Service                    |  | Increase                              |  | Comfort   |  |
| Three wheel                        |  | Three wheel                       |  |   |  |                                       |  | Safety  |  |
| Bicycle                            |  | Bicycle                           |  |   |  |                                       |  | Cost Saving   |  |
| Lorry                              |  | Lorry                             |  | Not Use Gamisariya Bus Service                |  | Decrease                              |  | Time Saving   |  |
| Car/Van                            |  | Car/Van                           |  |   |  |                                       |  | Other ...   |  |
| Other                              |  | Other                             |  |   |  |                                       |  | .....   |  |
|                                    |  |                                   |  |   |  | No Impact                             |  |   |  |

9) Details of Using Gamisariya Bus Service for other trips? .....



University of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations

www.lib.mrt.ac.lk

(10) Do you use Gamisariya Bus Service to transport production items?

yes

No

If "Yes"

Details of products for which Gamisariya Bus Service is used for transportation (vegetables/Fruits/Spices/others)

| Production Items | Mode of transport before start G.S | Travel Time after implement G.S |  | Production quantity after G.S |  | Cost of transport after G.S |  | Profit level after G.S |  |
|------------------|------------------------------------|---------------------------------|--|-------------------------------|--|-----------------------------|--|------------------------|--|
|                  |                                    |                                 |  |                               |  |                             |  |                        |  |
|                  |                                    | increased                       |  | increased                     |  | increased                   |  | increased              |  |
|                  |                                    | Decreased                       |  | decreased                     |  | decreased                   |  | decreased              |  |
|                  |                                    | No impact                       |  | No impact                     |  | No impact                   |  | No impact              |  |

APPENDICES –B Sample Questionnaire for the operators

- 1 Route No.
- 2 Service
- 3 Covering villagers
- 4 Covering DS Divisions
- 5 Route length
- 6 Un served portion
- 7 Full Bus Fare Rs.
- 8 No.of trips per day
- 9 Avg.No.of persons per trip
- 10 Avg. revenue per day
- 11 Number of not operating dates per month
- 12 Do you transport goods? yes/No  
if yes  
What type of goods you transport? .....
- 13 Your ideas/suggestions to improve this service  
.....



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
e-theses@lib.moratuwa.lk

APPENDICES –C Calculating of Bus Operating Cost for Rural Areas

**Rural Routes Bus Operating Cost per KM - 2010**

| Operational Cost            |                        | Rs          |
|-----------------------------|------------------------|-------------|
| 1                           | Fuel Cost ( Diesel)    | 20.00       |
| 2                           | Crew Cost              | 13.50       |
| 3                           | Service and Lubricants | 3.11        |
| 4                           | Tires and Tubes        | 7.00        |
| 5                           | Repairs                | 5.20        |
| 6                           | Daily Overheads        | 0.50        |
| 7                           | Monthly Overheads      | 3.20        |
| 8                           | Annual Overheads       | 0.40        |
| 9                           | Depreciation of Bus    | 4.30        |
| 10                          | Financing of Bus       | 0.80        |
| 11                          | Provision for risk     | <u>0.40</u> |
| Total operating Cost per Km |                        | 58.41       |



University of Moratuwa, Sri Lanka.  
 Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)