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# PUBLIC TRANSPORTATION DISADVANTAGE IN ISLAMABAD & RAWALPINDI: PRELIMINARY RESULTS FROM FIELD SURVEYS 2013

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# BACKGROUND & OBJECTIVES

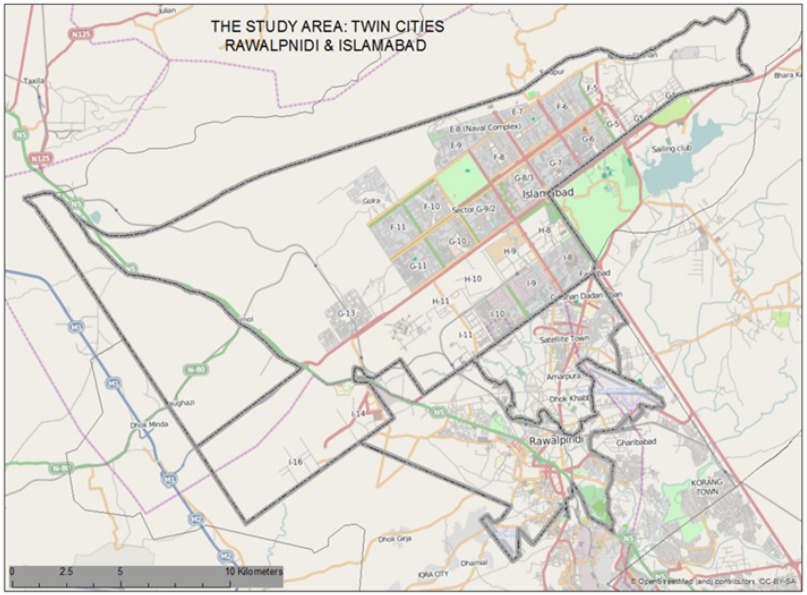
- Improving access is a major goal of town planning
- Public Transport is important for accessing non local services - ~ 60% urban population in Pakistan depends on public transport
- Transport affects the success of social policy: work in the UK, US, Australia, etc. Accessibility Planning, DRT, Bus Passes etc.
- This paper presents preliminary results on quantification of the transportation disadvantage (Availability, Affordability, Quality ) in Greater Islamabad Rawalpindi Area (GIRA)

# LITERATURE HIGHLIGHTS

- Previous important studies in Greater Islamabad Rawalpindi Area (GIRA)
  - Access to public transport (Scandia Consult 1993, NTRC 2005, 2006)
  - Quality issues (The Urban Unit 2006 & RDA's 1993.1994, various news / TV reports)
  - Affordability issues (Haidar & Badami, 2005)
- Needs fresh evidence, and intercity comparisons

# STUDY AREA

- Islamabad Rawalpindi cities form a major metropolitan area
- A unique history of interdependence - pre 1960 and afterwards
- Spatial growth patterns converge & diverge
- The 3 cities concept : DHA/BAHRIA as separate city (REIP project 2008)




| City | Population 2013 | | Area | | Residential density |
|---|---|---|---|---|---|
| | persons | % | Sq. km | % | persons/sqkm |
| **Islamabad** | **723051** | **39%** | **251.69** | **91%** | **2873** |
| developed | 588620 | 81% | 101.42 | 40% | 5804 |
| squatters | 55683 | 8% | 1.41 | 1% | 39491 |
| developing | 20985 | 3% | 32.57 | 13% | 644 |
| undeveloped | 57763 | 8% | 116.29 | 46% | 497 |
| **Rawalpindi** | **1108949** | **61%** | **26.39** | **9%** | **42022** |
| **GIRATS Urban** | **1832000** | **100%** | **278.08** | **100%** | **6588** |

# DATA & METHODS

Data

- Primary data:
  - Identification of stop locations and transport route (GPS Field Survey)
- Secondary data:
  - Public transport fare tables From Regional Transport Authorities (RTAs)
  - Public transport vehicle models from Rawalpindi RTA*
  - Population Census data 1998 at UC/Sector level – (PBS, 1998)
  - Household income and Expenditure Surveys (PBS,1996 , 2008, 2013)

METHODS

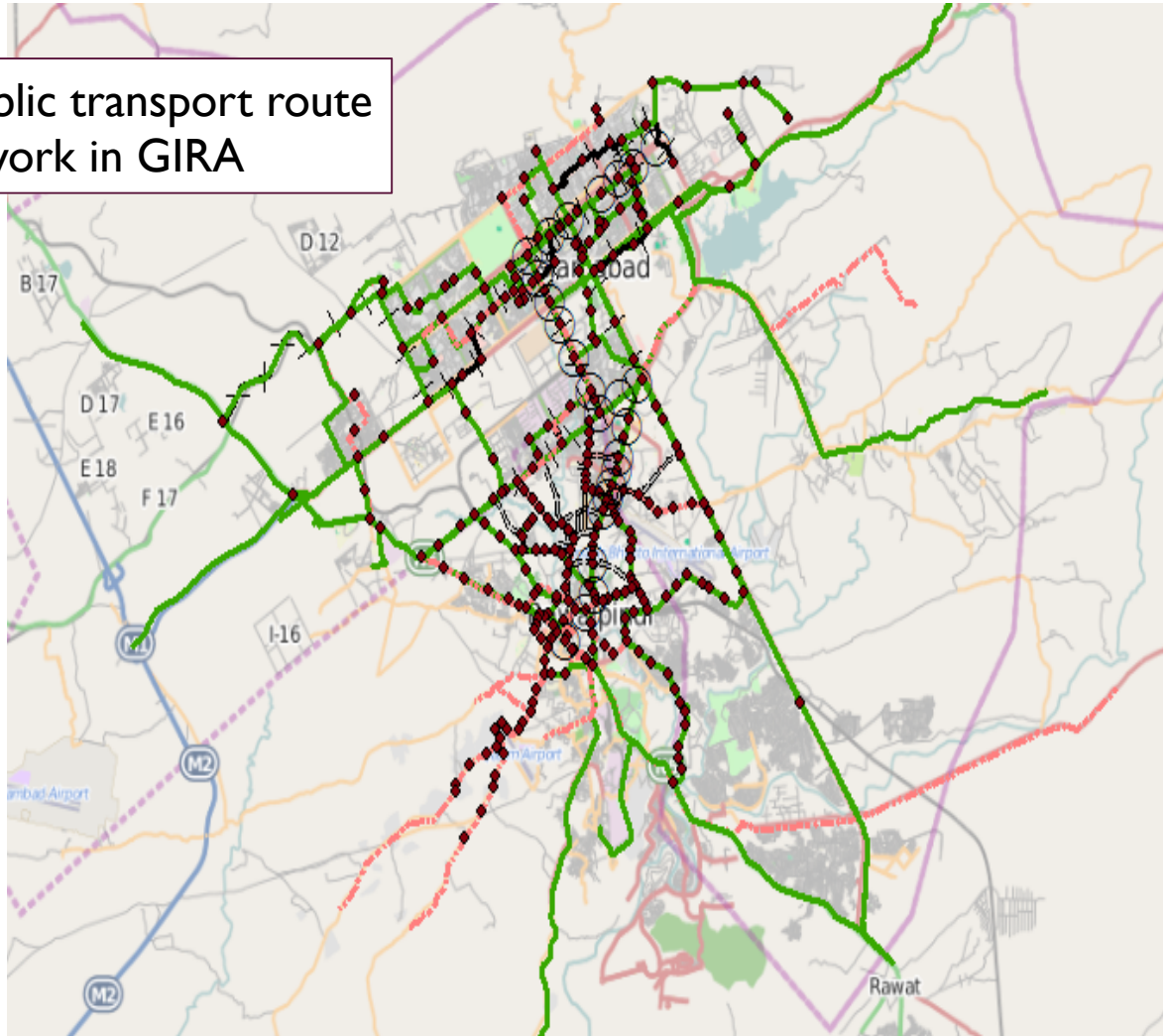
- Population projections
- GIS database
- Buffer Analysis



Note:"Islamabad RTA data is not computerized and is not summarized since 2009" (IRTA Staff)

# RESULTS & DISCUSSION: FUNCTIONAL ROUTES

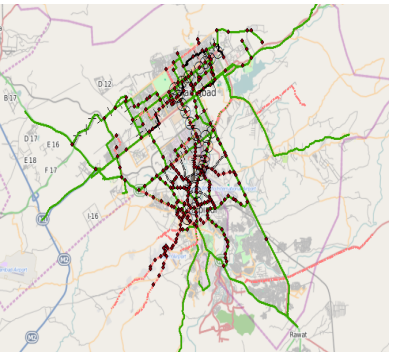
Existing public transport route network in GIRA

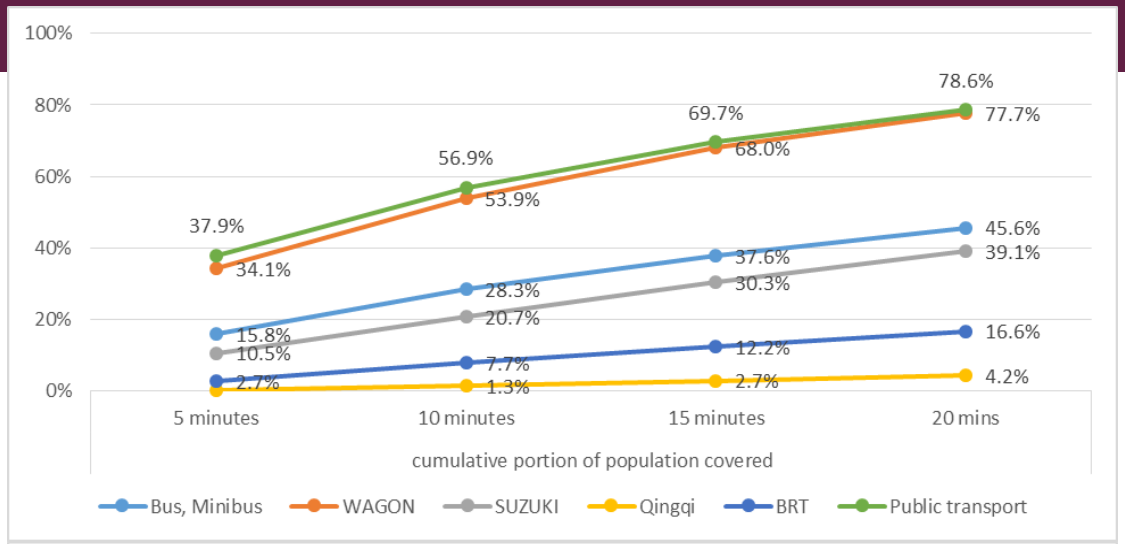


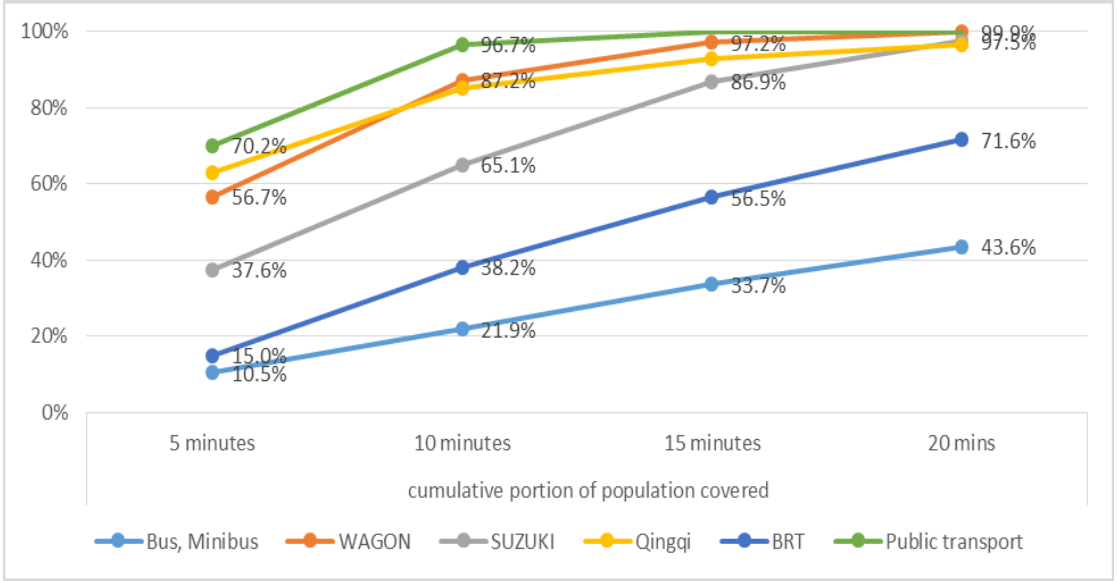
# RESULTS & DISCUSSION: FUNCTIONAL ROUTES

| No. of Public transport routes in GIRA (2013) | Total | Active | Inactive |
|---|---|---|---|
| Rawalpindi * | 43 | 18 (42%) | 25 |
| Islamabad ** | 45 | 18 (40%) | 27 |
| GIRA | 88 | 36 (41%) | 52 |
| Source (Dec 2013): * Rawalpindi RTA ** Islamabad Traffic Police | | | |

# RESULTS & DISCUSSION: PT COVERAGE





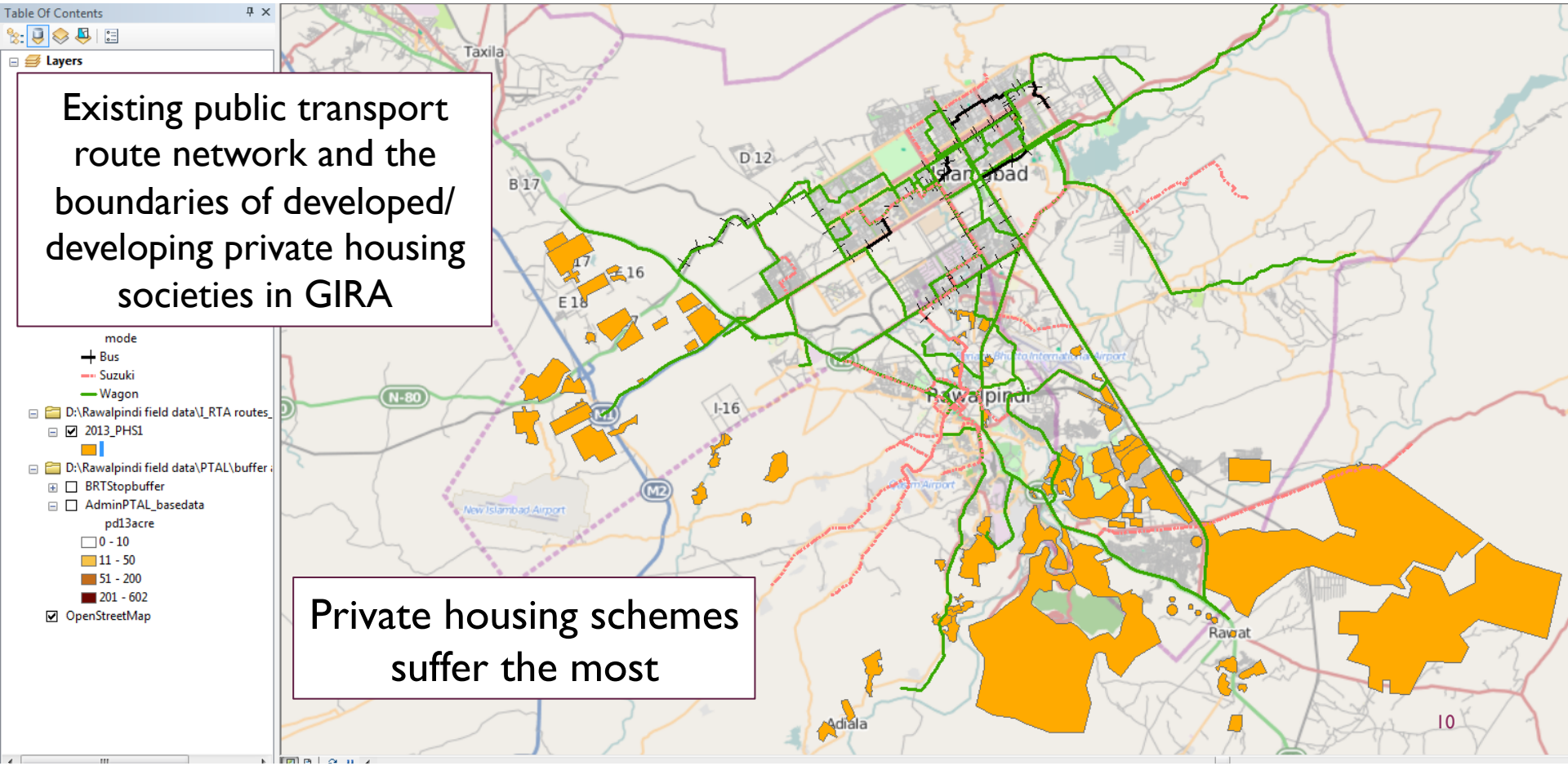

Cumulative portion of population covered by each mode of public transport in year 2013 Islamabad;

Top: Islamabad

Below: Rawalpindi

Note: 5 minutes walk = 400 meter radius

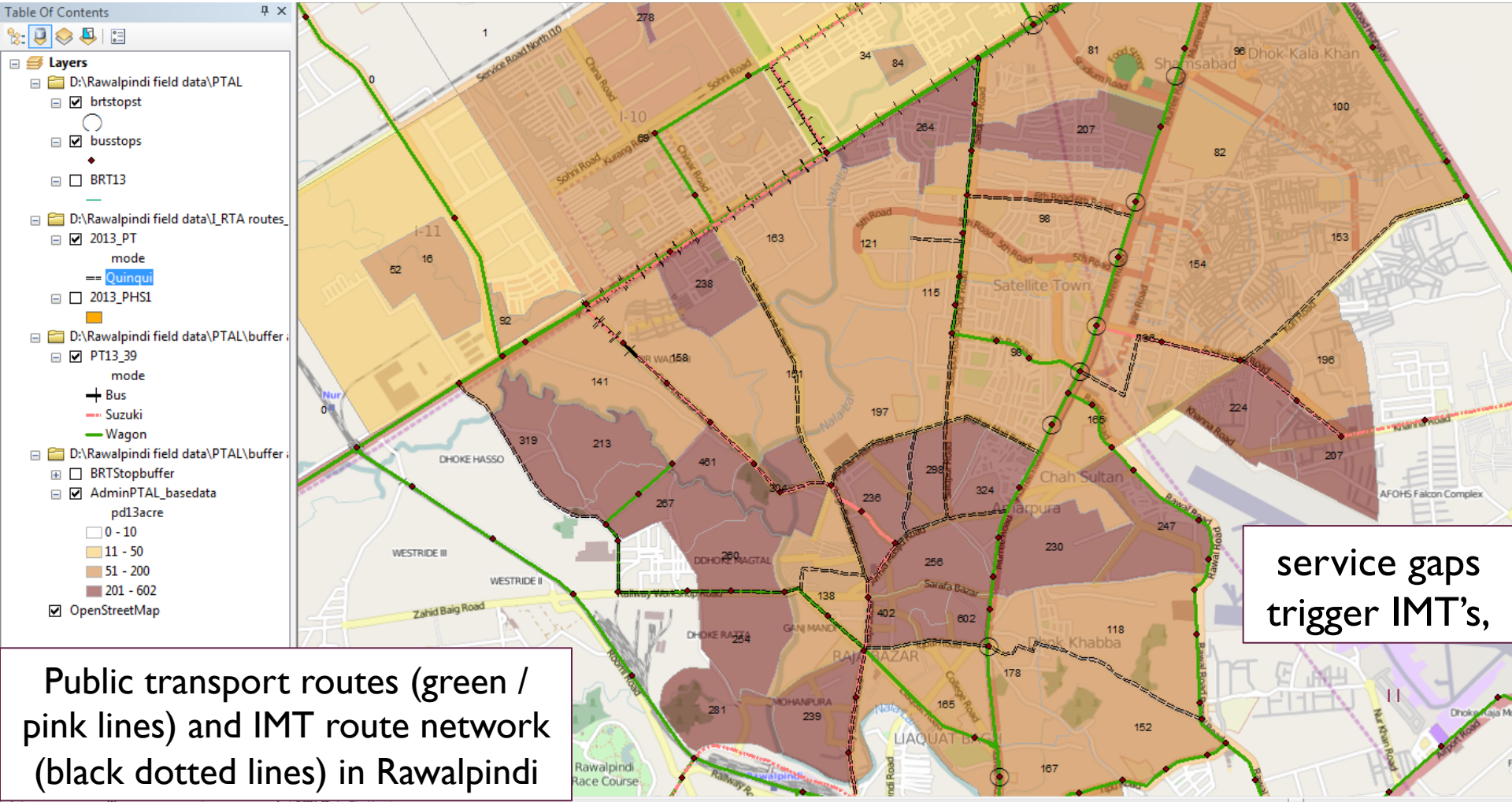
# RESULTS & DISCUSSION : PT AVAILABILITY




Existing public transport route network and the boundaries of developed/ developing private housing societies in GIRA

Private housing schemes suffer the most

# RESULTS & DISCUSSION : PT SERVICE GAPS



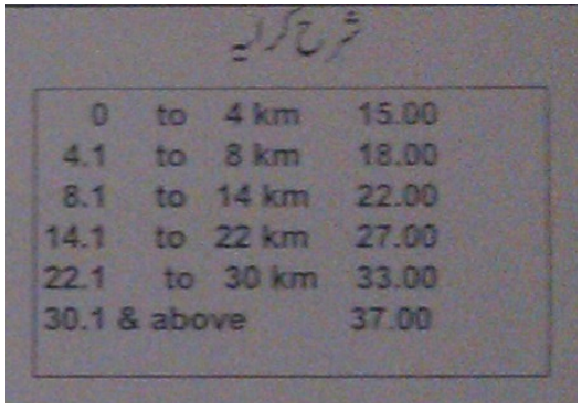

Public transport routes (green / pink lines) and IMT route network (black dotted lines) in Rawalpindi

service gaps trigger IMT's,

# RESULTS & DISCUSSION : AFFORDABILITY

From their **real monthly wages**, the poor may spent up to …

- 7.7 percent for minimum distance commute
- 13.4% for median distance commute and
- up to 19 percent for a maximum distance commute




**GIRA public transport fare system, December 2013**

| *Estimated expenditure* | **Minimum fare = 15 Rs.** | **Median fare = 26 Rs.** | **Maximum fare = 37 Rs.** |
|---|---|---|---|
| | **Max. Distance= 4km (shortest distance traveler)** | **Max. Distance= (14-22 km) (Rawalpindi to Islamabad traveler)** | **Max. Distance= 30 km + (Full route traveler)** |
| **Daily - for 1 round trip** | **30** | **52** | **74** |
| **Monthly - for 25 round trips** | **750** | **1300** | **1850** |

**Source: Calculations based on RTA fare tables as of December 2013**

# RESULTS & DISCUSSION : PT QUALITY

- Level of service in Rawalpindi has been previously measured as C,D or E., along **the main roads**.
- 26% fleet is 2+ decades old; other 33% is 1-2 decades old
- "Two standards … one service" - newer fleet on main routes, and older on the rest!
- Lack of seating for women, overcharging, not completing routes, transporter behavior, congestion, heat…
- Aspiration for better service is historically significant. CDA, NTRC, RDA studies (1990s,2000s), recent BRT feasibility study (2013)

# CONCLUSIONS & RECOMMENDATIONS

- **What is needed?**
  - A multilevel & clear transport policy with:
    - Quantifiable goals on quality and availability
    - Cost issues will prevail: better to give both options; costlier and cheaper
    - Modern tools to achieve goals;  Route permits may be a way to enforce transport policy
  - Enhanced role of Town Planning authorities
    - Because town planning affects and is effected by public transport system; hence public transport system needs input from town planning
    - Because currently RTAs have limited capacity in transport management
    - and town planning institutions have limited control over public transport that effects their efficiency

# CONCLUSIONS & RECOMMENDATIONS

- **What can be the potential role of town planning? Some thoughts…**
  - Rethink / institutionalize the role of public transport system for success of urban management policies
    - Rethinking components of urban transport system (e.g . e.g. accessibility standards, role of IMTs) from urban management perspective,
    - Evaluate the impact of public transport system on city management and institutionalize their mitigation
    - Evaluate the changes needed in public transport system for desired goals of city management and communicate them
    - Ensure public transport supply in PHS through master planning and PHS land use plans
  - Town planning's model of gradual change and institutionalization can be a role model for reforms in public transport system

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# Thank you.