

## URBAN FRAGMENTATION: RELATION OF THE LAND USED AND THE DISCONTINUATION OF TRANSPORT

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engaging communities and citizens for sustainable development

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## INTRODUCTION



- Analysis of disorganized growing in the suburbs areas in the city that are in risk.
- The urban fragmentation in Quito - Ecuador.

## URBAN FRAGMENTATION

Urban fragmentation is the result of the addition of various factors of spatial discontinuity that is closely associated with networks:

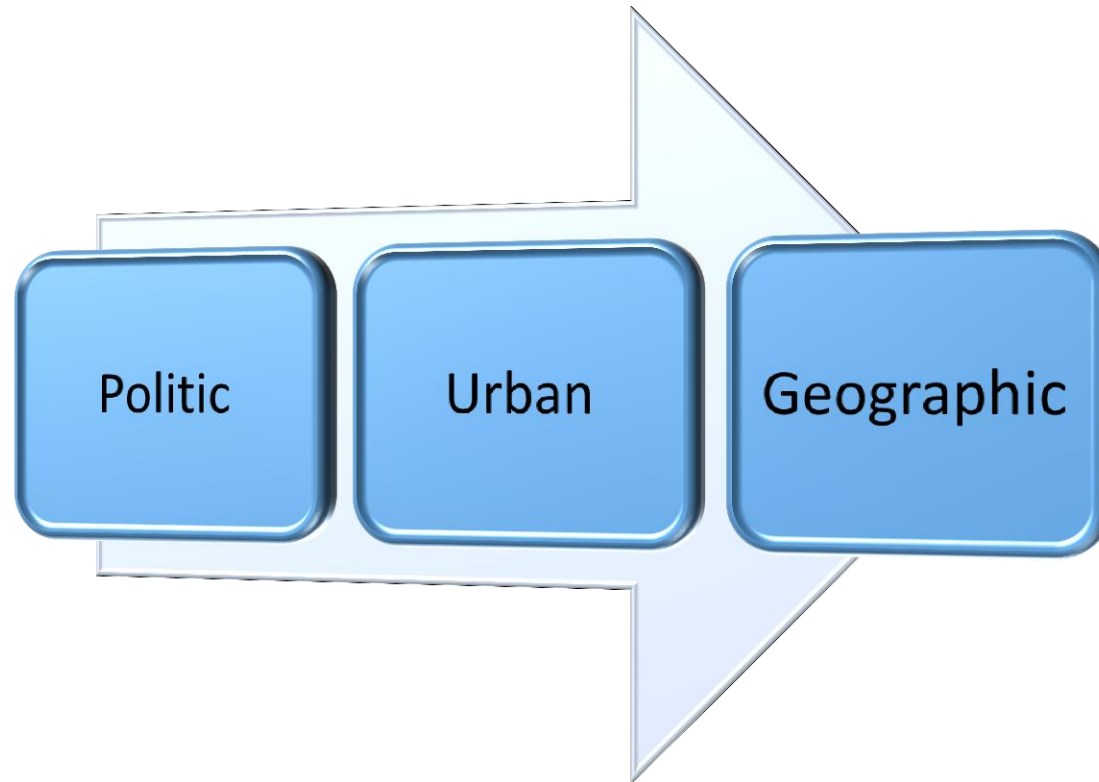


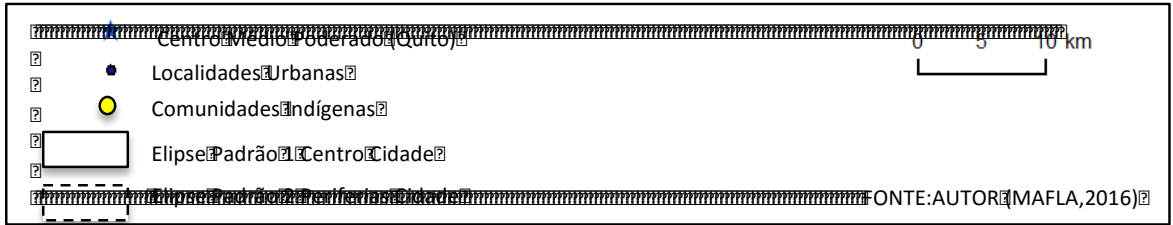
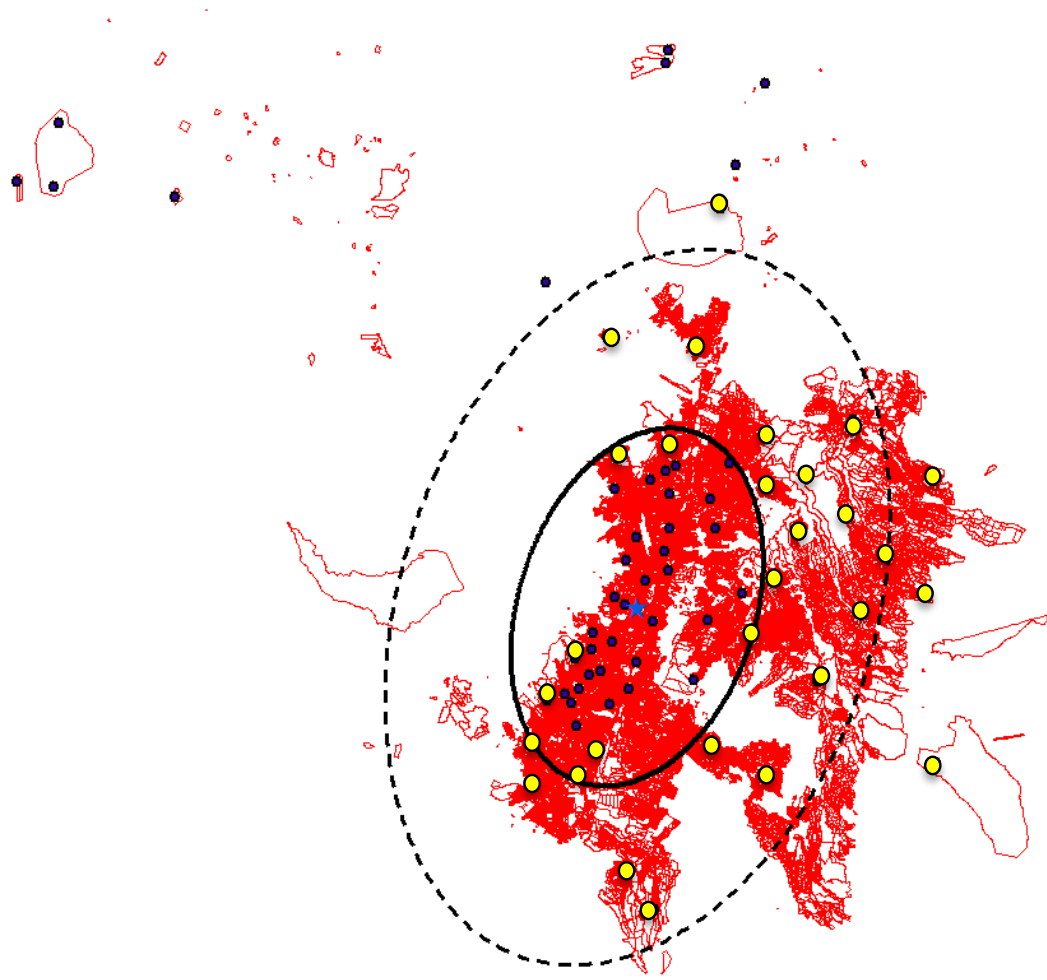
**TRANSPORTATION**



**TECHNOLOGY**

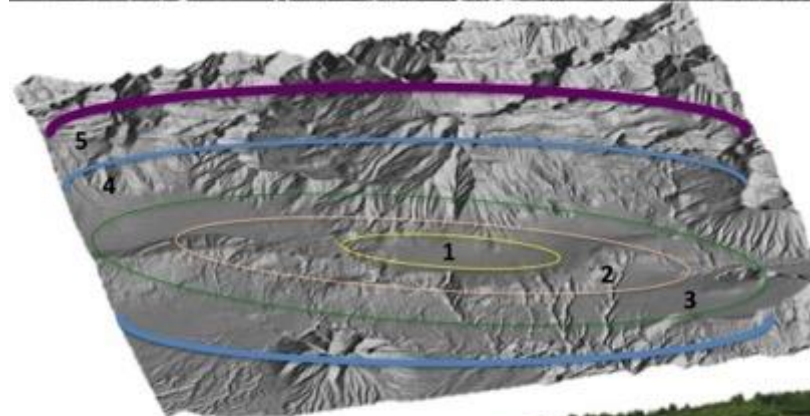
- The result of urban **fragmentation** is the enlargement of the city without urban and geographic planning.
- **Fragmentation** is because discontinuity such as:



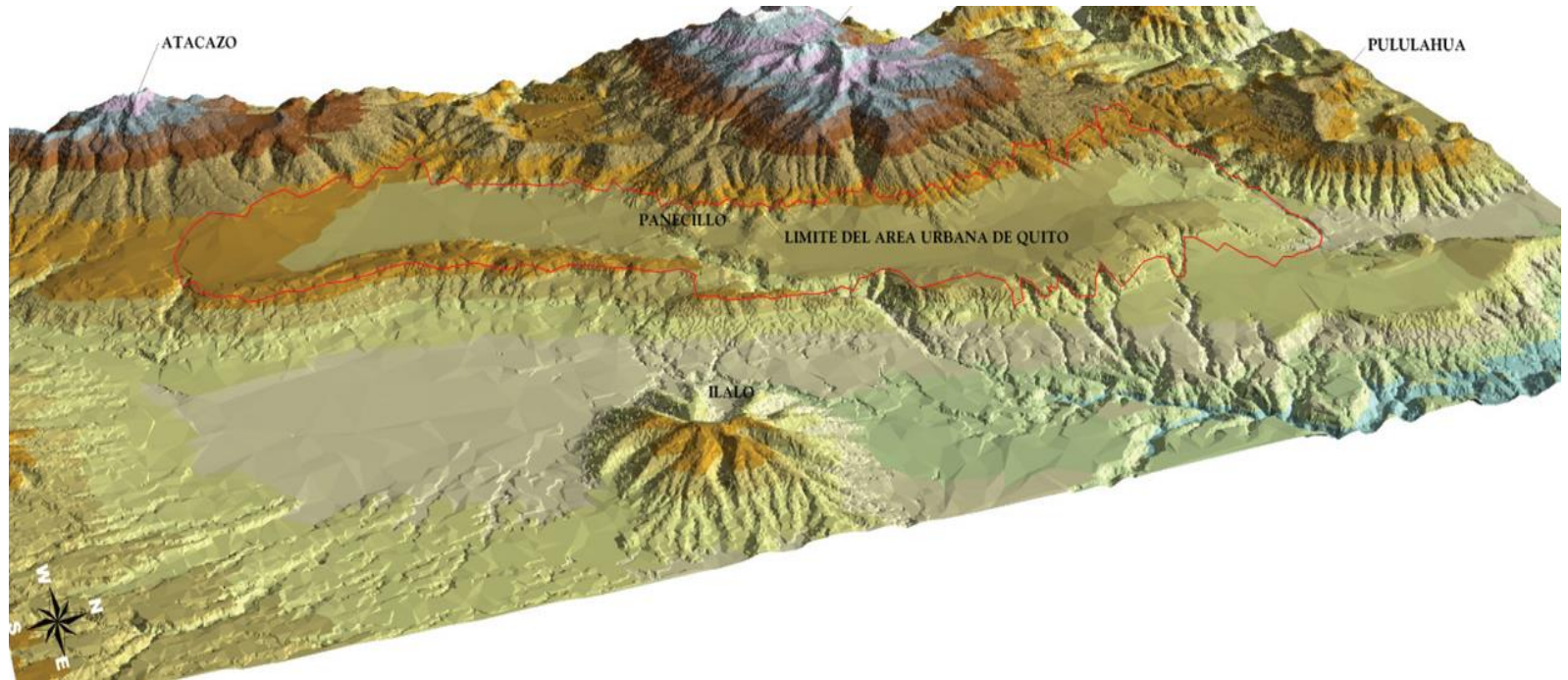


## MATERIAL AND METHODS:

- These have alterations in their city structure that means demographic changes including the time and space of displacement.



## MATERIAL AND METHODS:



# MATERIAL AND METHODS:





## MATERIAL AND METHODS:

- Quito's suburban areas.



## MATERIAL AND METHODS:

- Our study, many survey forms were taken to layperson living in Quito's suburban areas.
- In that inquiry, we evaluated:

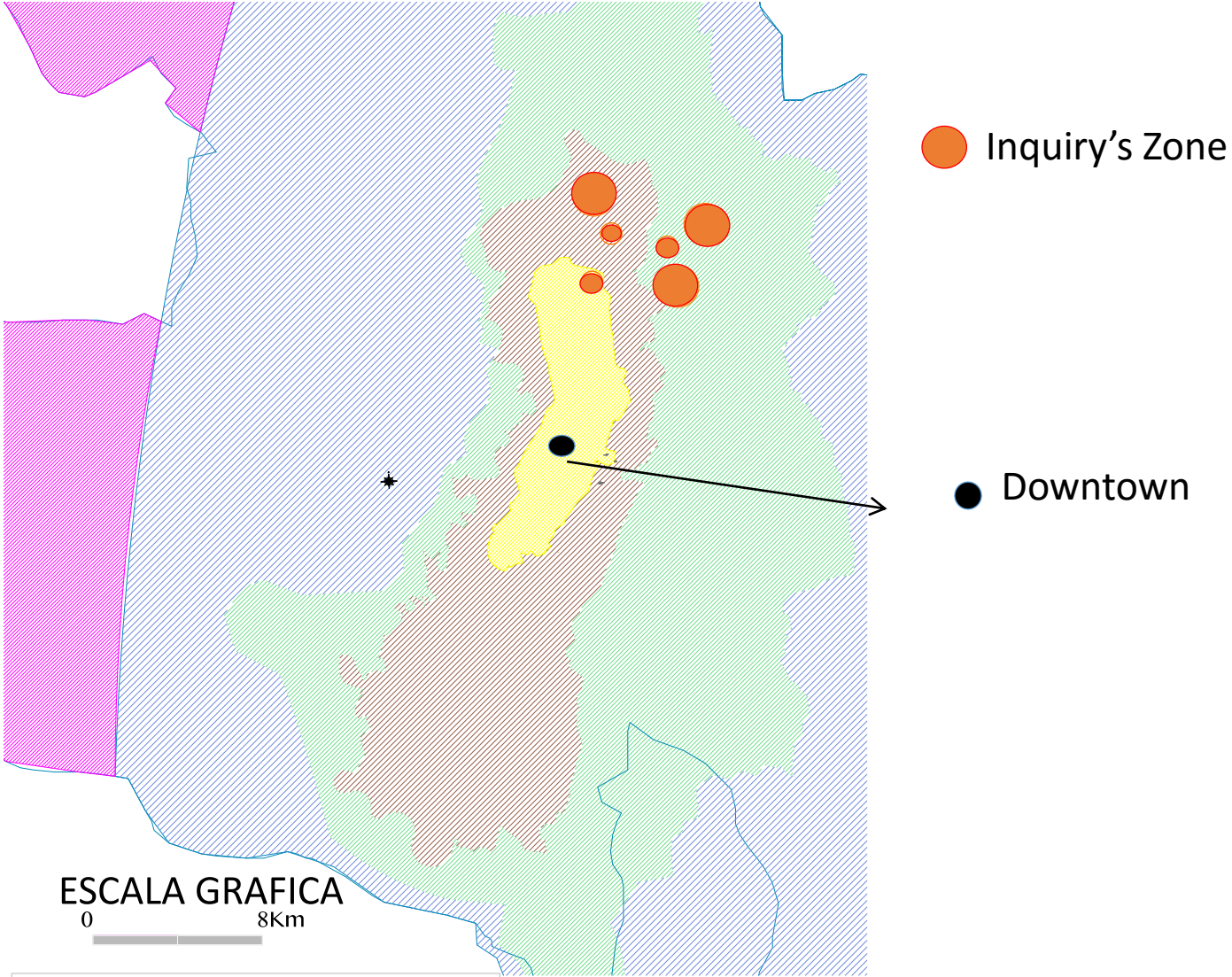


the people satisfaction



their moving time

# MATERIAL AND METHODS:



ESCALA GRAFICA

0 8Km

RADIOS DE INFLUENCIA EN LAS ZONAS DE INQUERITO

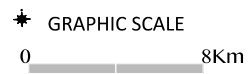
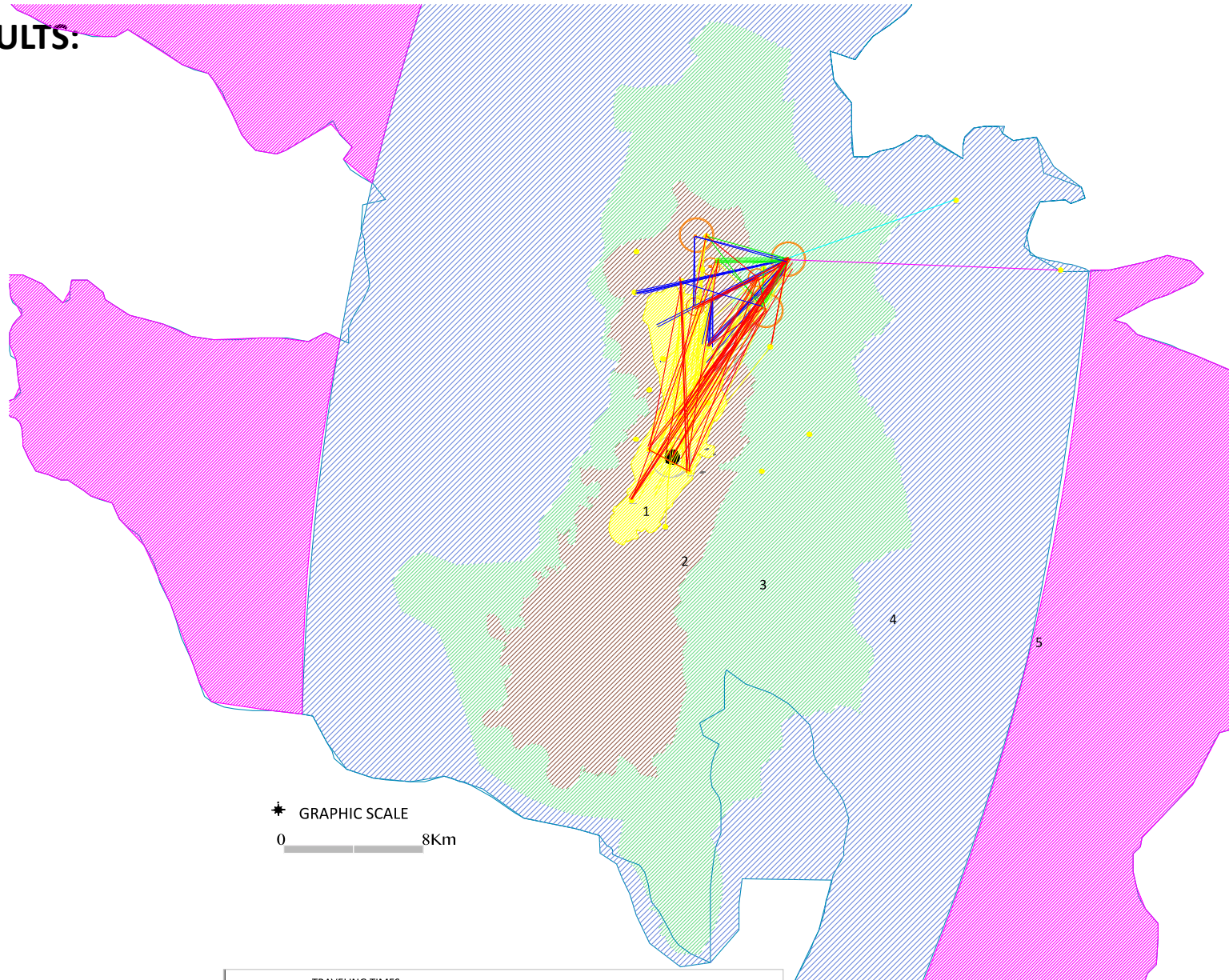
RADIOS DE INFLUENCIA 1km



RADIOS DE INFLUENCIA 500 m



# RESULTS:



DESTINATION	TRAVELING TIMES		INQUIRY'S ZONE
ZONE 1	217	<span style="color: red;">—</span>	RATIOS INFLUENCE 1Km <span style="color: orange;">○</span>
ZONE 2	36	<span style="color: blue;">—</span>	RATIOS INFLUENCE 500 m <span style="color: orange;">○</span>
ZONE 3	35	<span style="color: green;">—</span>	
ZONE 4	1	<span style="color: cyan;">—</span>	
ZONE 5	1	<span style="color: magenta;">—</span>	
TOTAL	290		

## RESULTS:

- The maps and surveys demonstrated the great trip level to downtown from suburban areas, the reasons are many for example:

- ① Work
- ② Business
- ③ Study
- ④ City's services



## RESULTS:

The principal cause of these results is because there is an *urban fragmentation* and there is **NOT** a good infrastructure in the suburban areas that includes city's services.

Good **infrastructure??**



RESULTS:

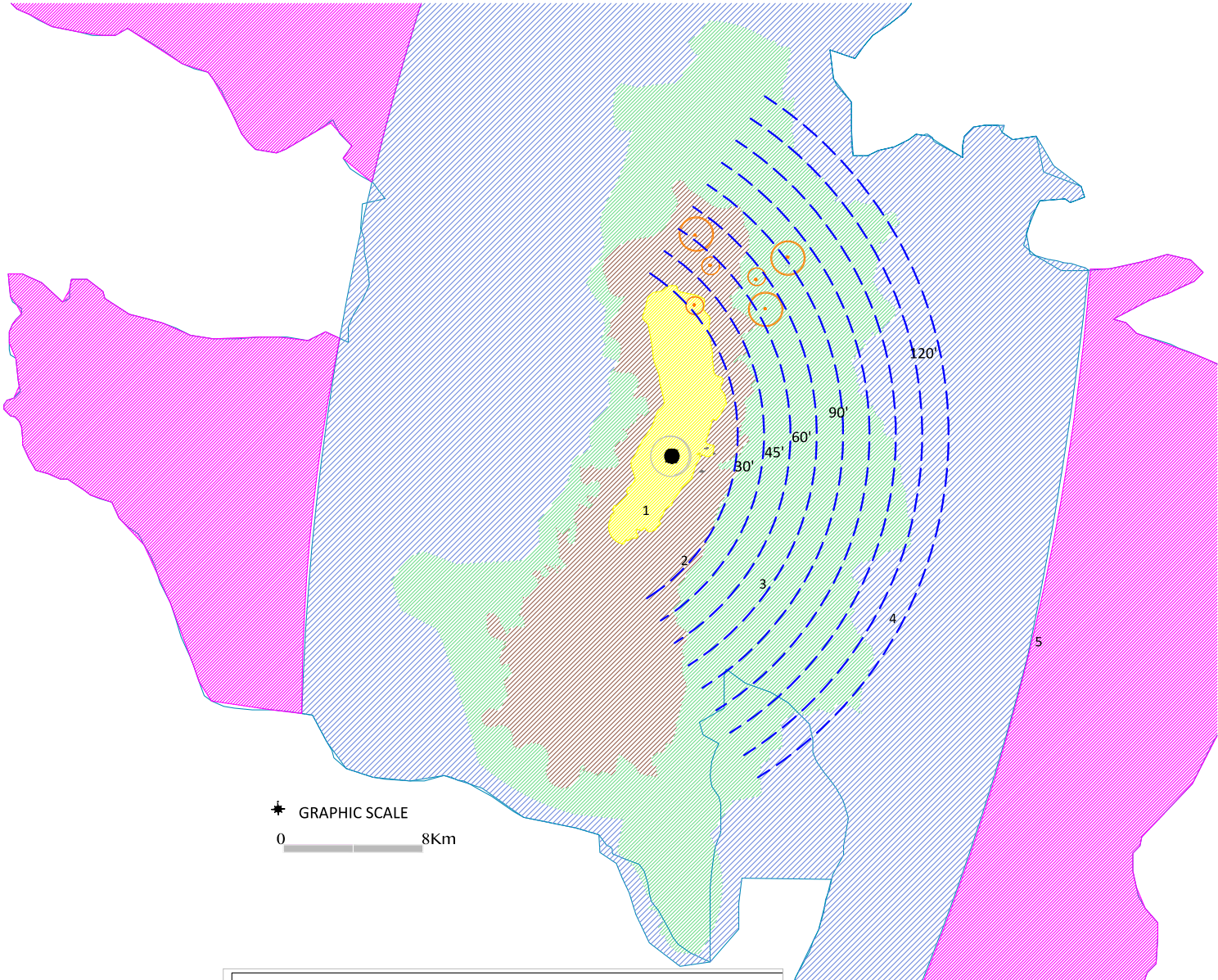
poor distribution??







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# RESULTS:



★ GRAPHIC SCALE  
0 8Km

BUS TIME TRAVEL		INQUIRY'S ZONE	
TIME ZONES		RATIOS INFLUENCE 1Km	
REFERENCE POINT		RATIOS INFLUENCE 500 m	



## RESULTS:

The results showed that in the city are many factors that includes insecurity, unfair distribution of resources, infrastructure, and poor distribution of basic services.

## Insecurity



## RESULTS:

Demonstrates that displacement time to downtown from these areas is over 60 – 90 minutes, and the farthest areas it takes more than **120 minutes** demonstrated in table .

### TIME TRAVEL

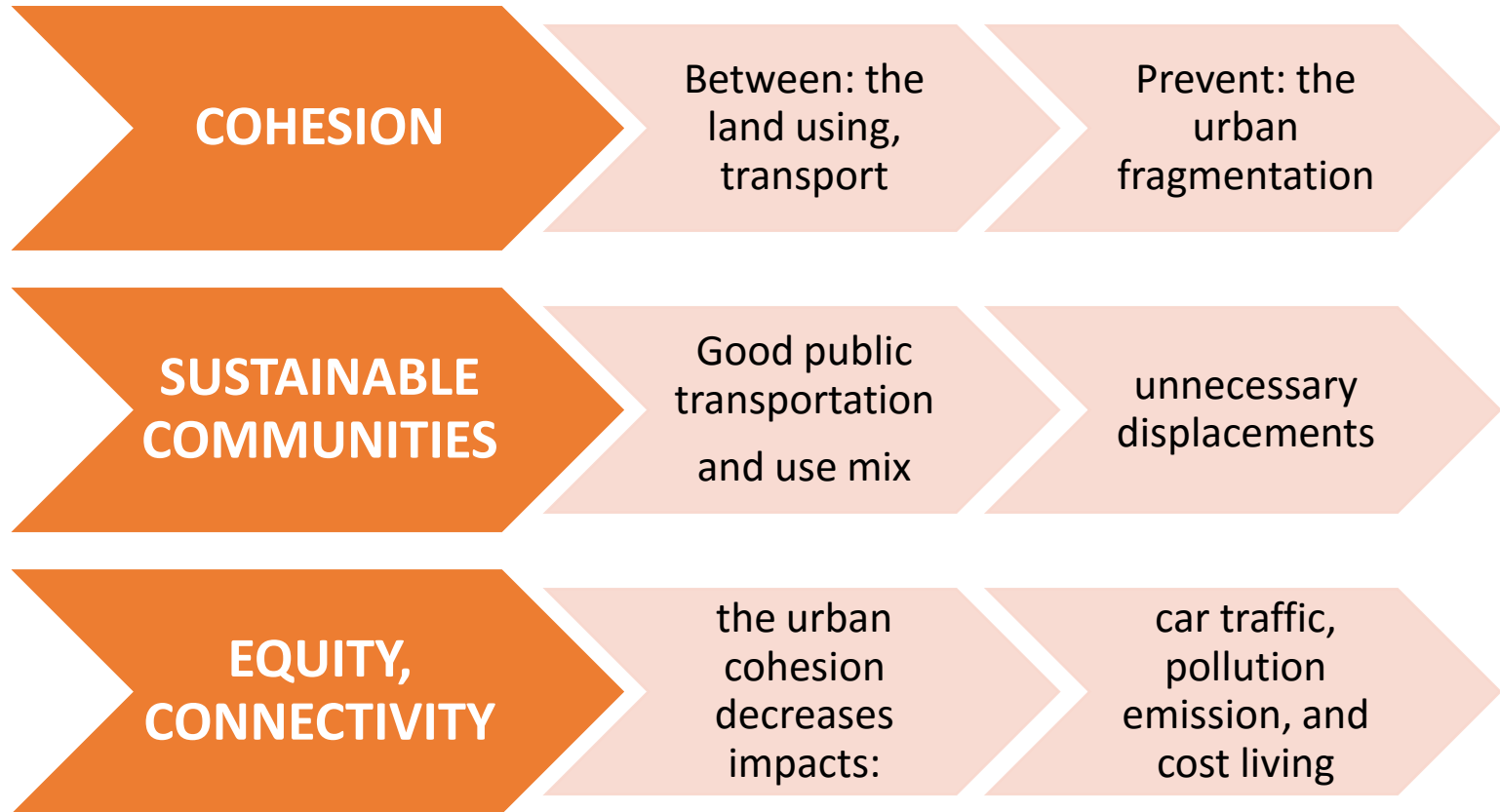
VEHICLE	30 minutes	30'to45'	45'to60'	60'to90'	>90 minutes	INQUENCY
<b>BUS</b>	16	35	57	40	10	158
<b>TROLEBUS</b>	9	11	23	4		47
<b>CAR</b>	12	19	24	3	4	62
<b>VAN</b>	2	3	11	3		19
<b>TAXI</b>	2		2			4
<b>TOTAL</b>	<b>41</b>	<b>68</b>	<b>117</b>	<b>50</b>	<b>14</b>	<b>290</b>

RESULTS:

**70%** of people go to downtown



## CONCLUSSIONS:



# CONCLUSIONS:



DIAGRAM ONE: COMPONENTS OF SUSTAINABLE COMMUNITIES



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# Thank You

In this life happens a lot, but not my bus!

