



Graduation project Nablus transit city

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- First stage:

Current situation of Nablus city and its importance



The importance of Nablus city on the National level

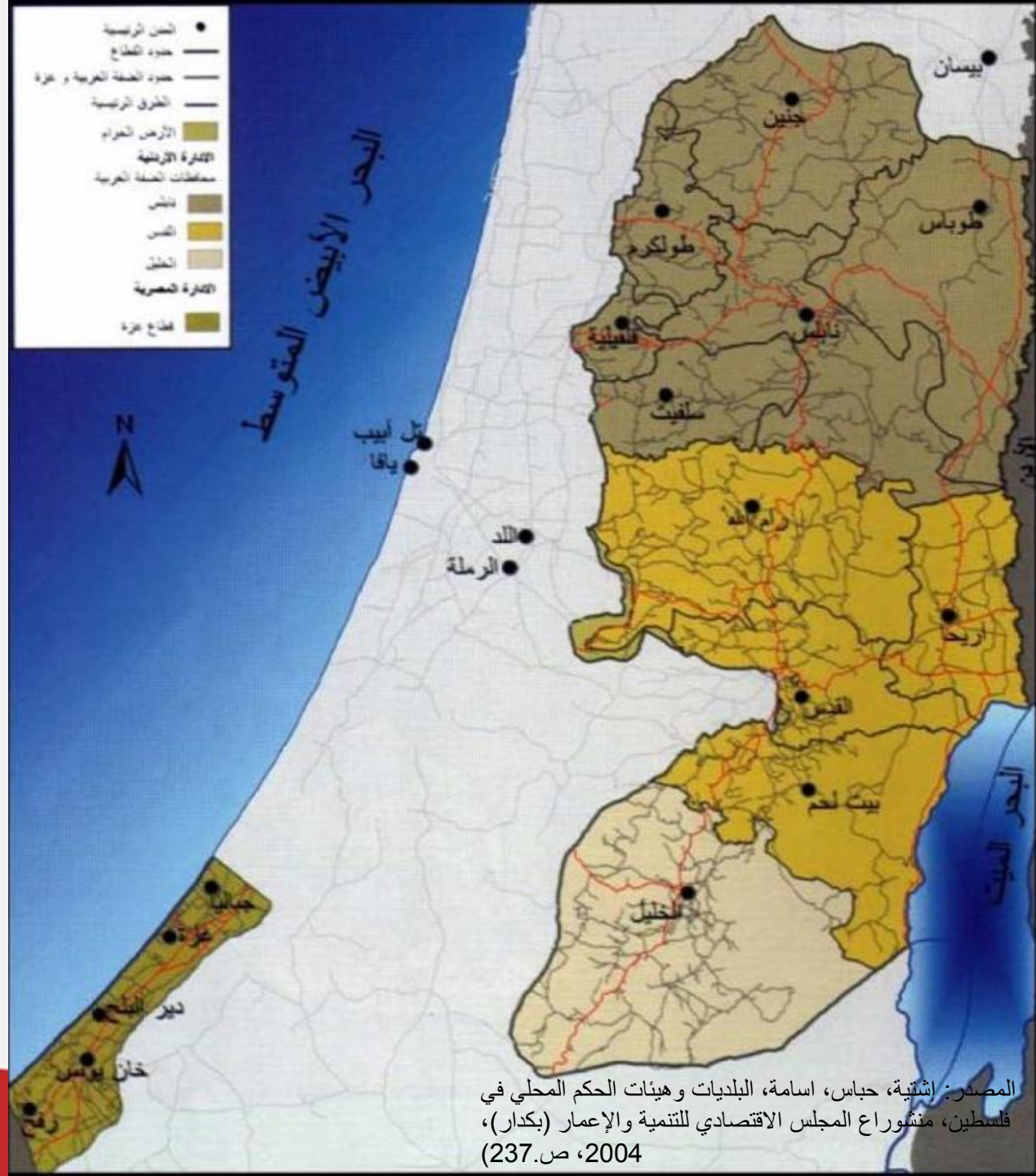


The city boundaries during the British governance period .

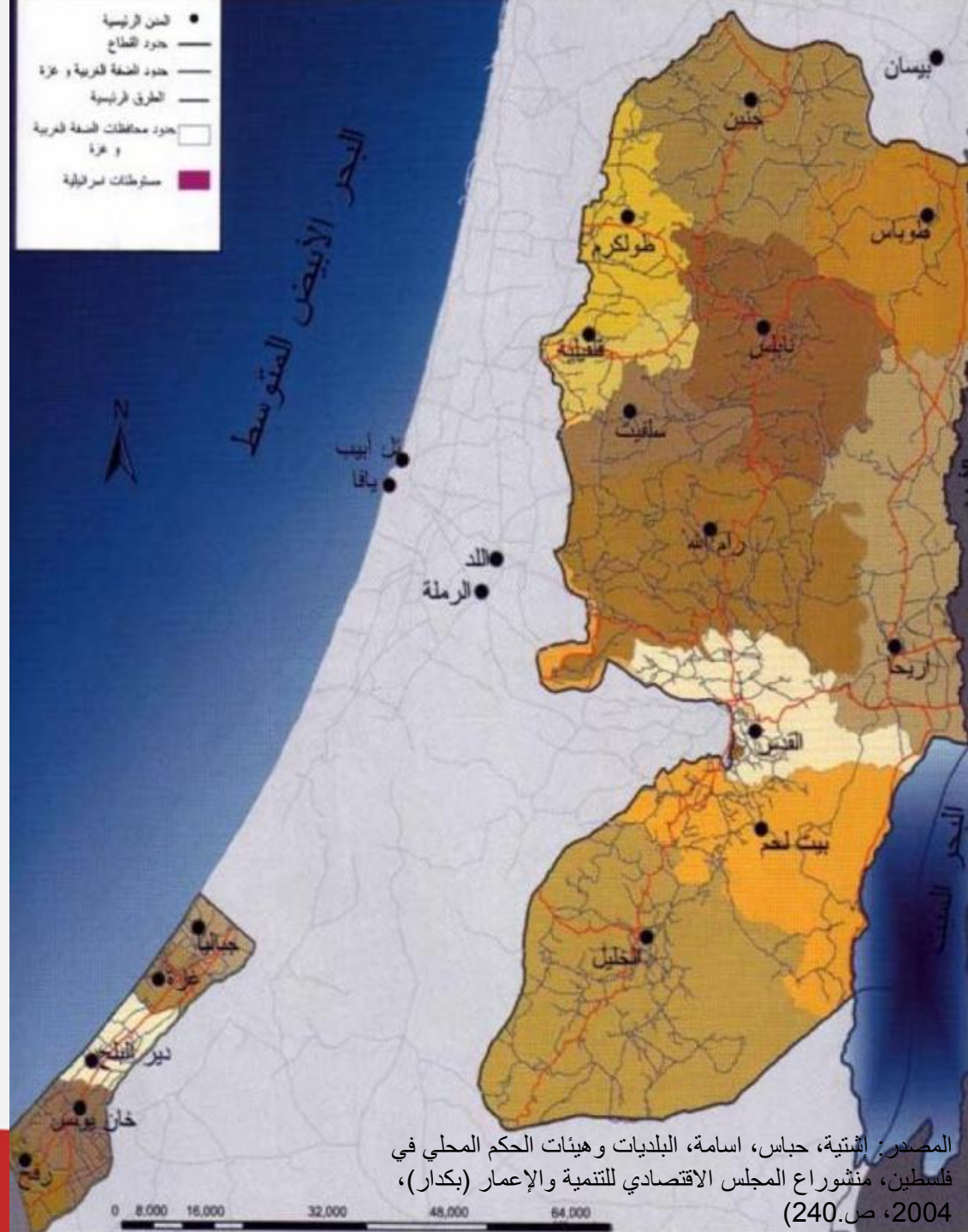


المصدر: إشتية، حباس، اسامة، البلديات وهيئات الحكم المحلي في فلسطين، منشوراع المجلس الاقتصادي للتنمية والإعمار (بكدار)، 2004، ص.234

The city boundaries during the Jordanian governance period



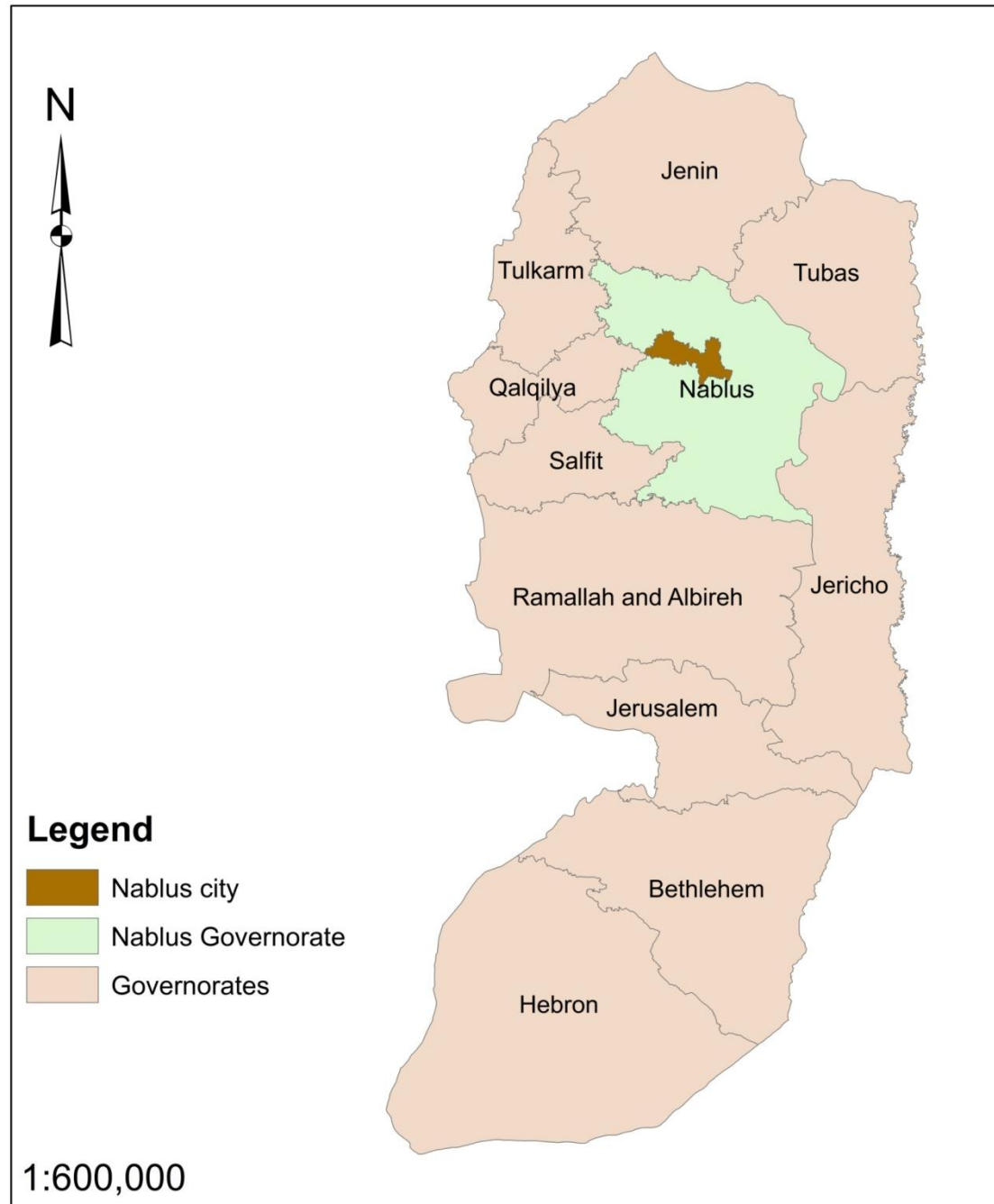
A cartoon-style illustration of a yellow car with a blue bumper and wheels, stopped at a traffic light. The traffic light is grey and has three circular lights: the top one is red, the middle one is yellow, and the bottom one is green. The car is positioned in front of the traffic light, and the background is a solid red color.



Nablus governorate location
according to other West
Bank governorates.
The center of the northern
part.



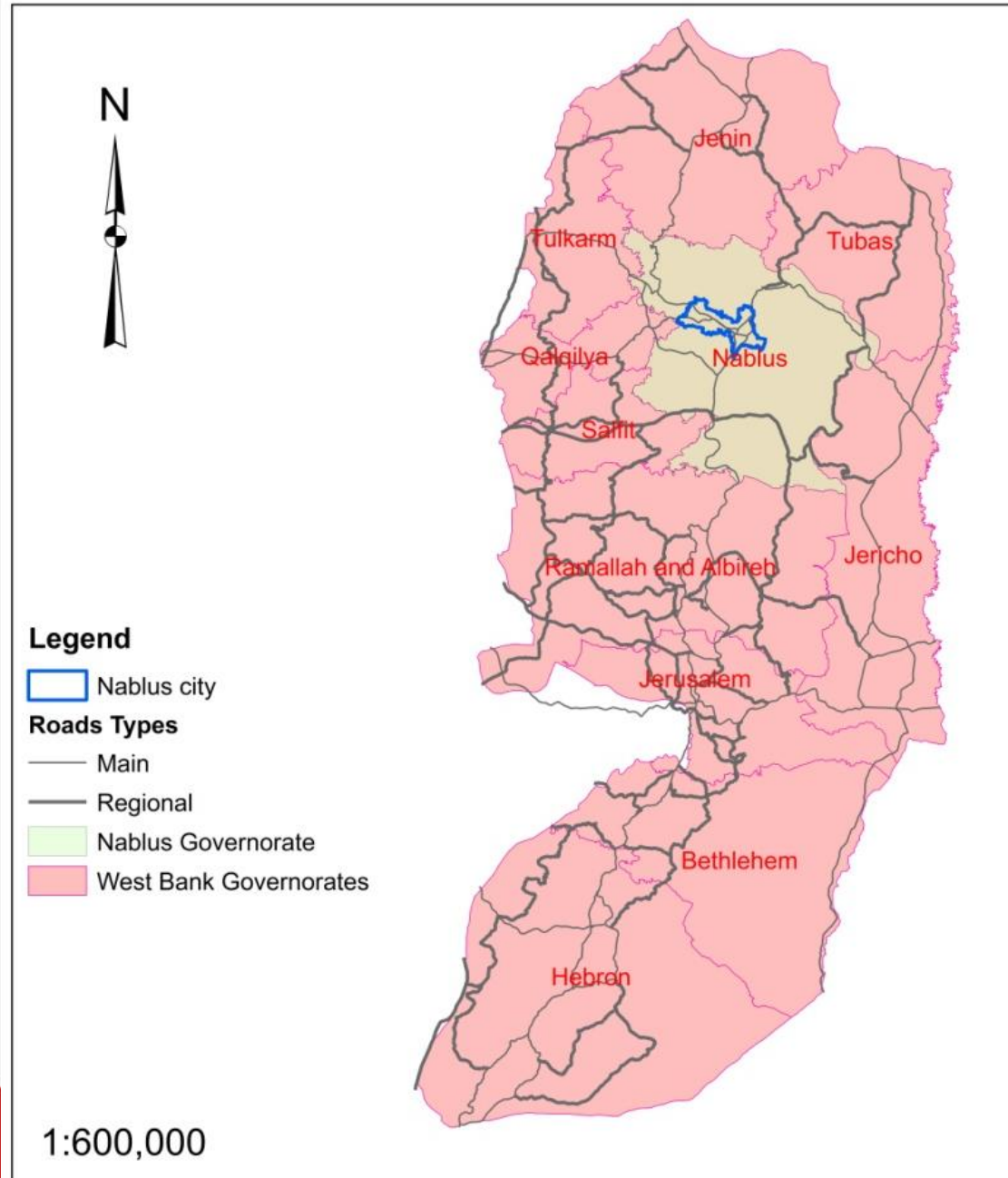
West Bank governorates



No regional roads connect Nablus city with its surrounding. In comparison to other main cities "Ramallah with many regional roads" main roads are the serving roads which by future can not be enough.

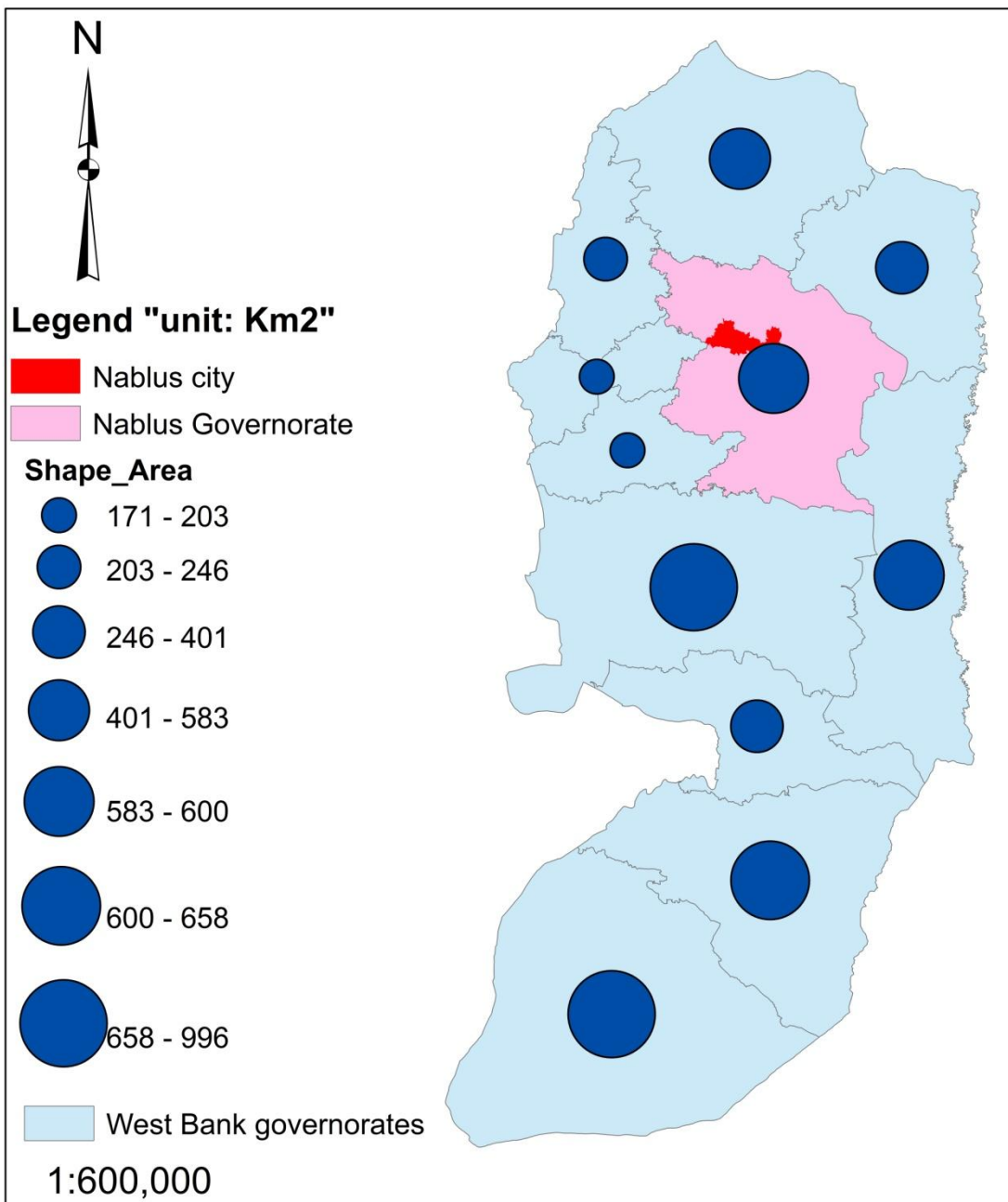
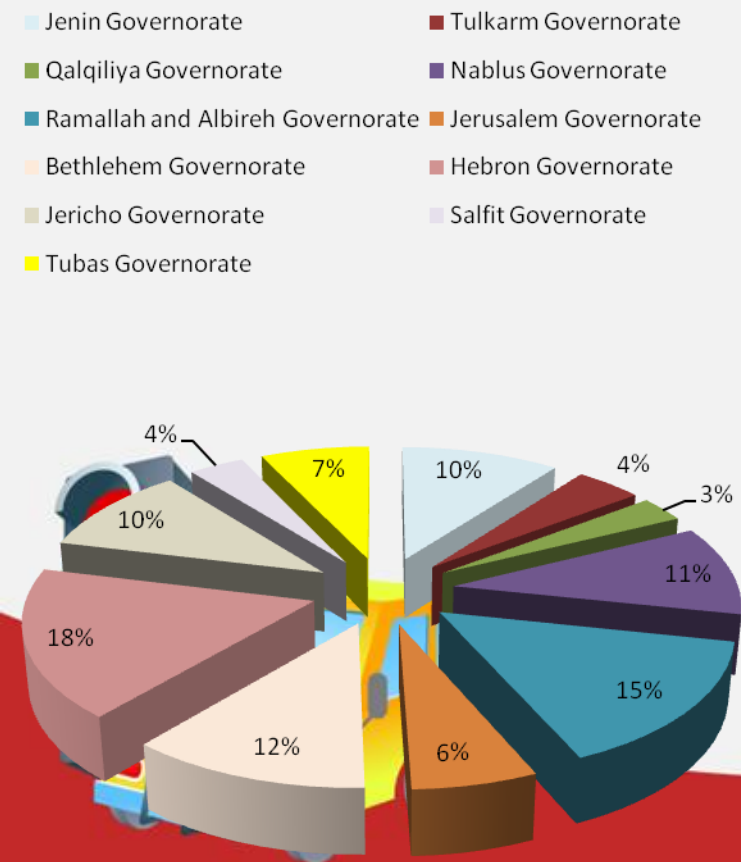


West Bank governorates connected by main and regional roads " Nablus governorate location"



Nablus governorate is the
FOURTH largest governorate
in area.

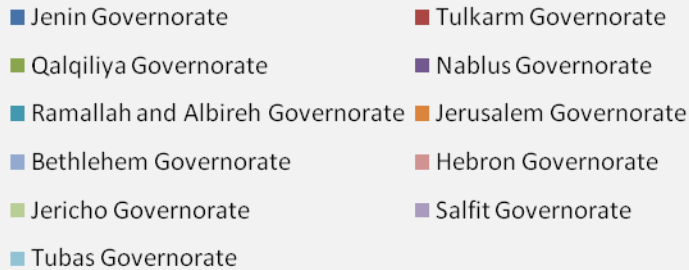
Nablus governorate area in comparison to
other west bank governorates



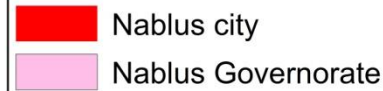
Nablus governorate population "2015" in comparison to other west bank governorates

Nablus governorate is the **THIRD** largest governorate in population.

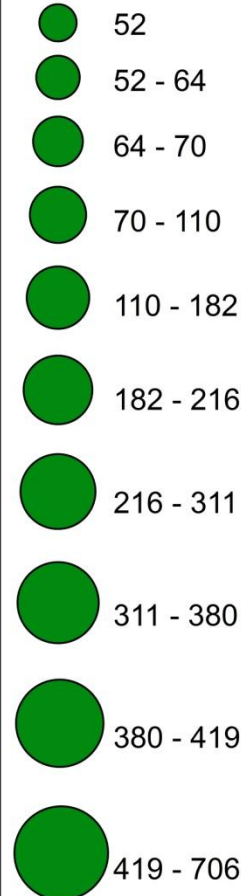
population



Legend "thousand"

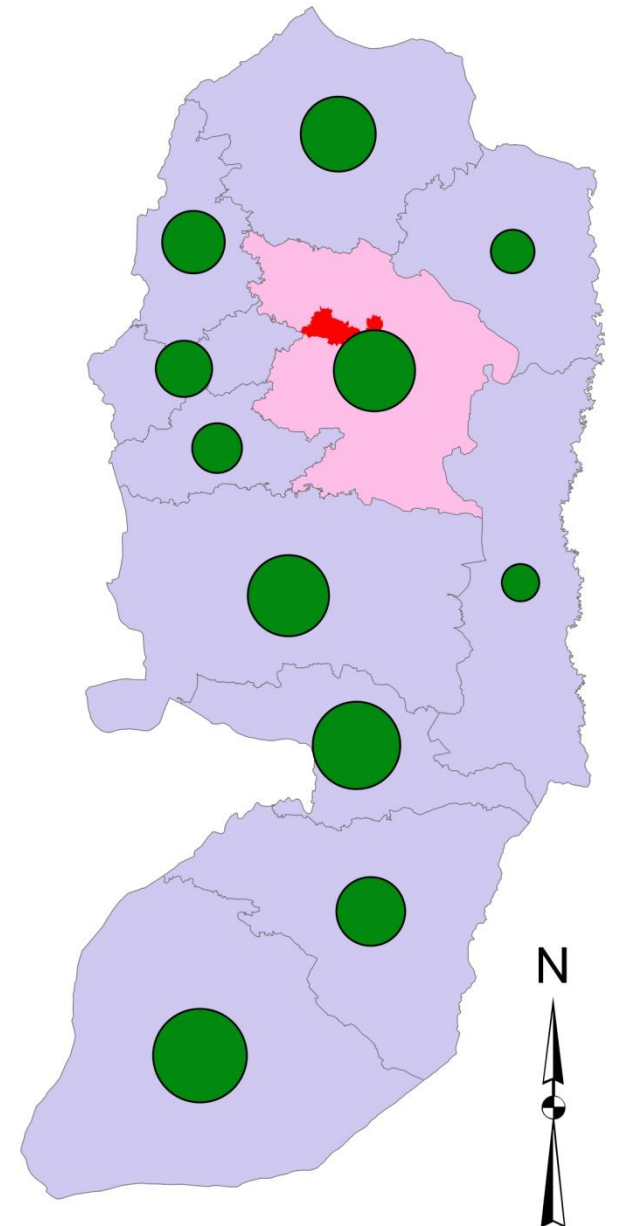


population2015



West Bank governorates

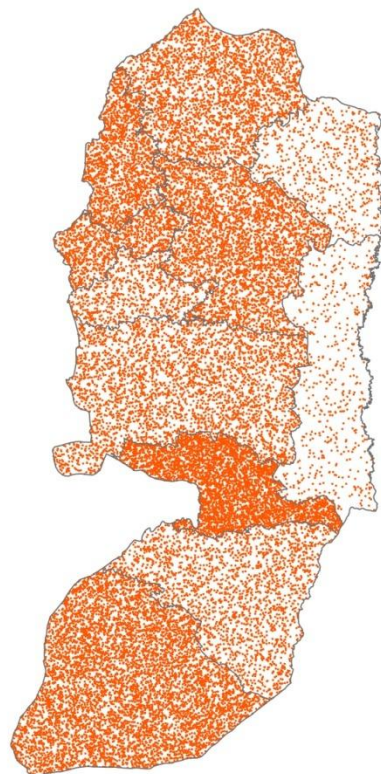
1:600,000




Nablus governorate density in comparison to other west bank governorates


Nablus governorate is the FIFTH largest governorate in density.

Nablus governorate density in comparison to other west bank governorates

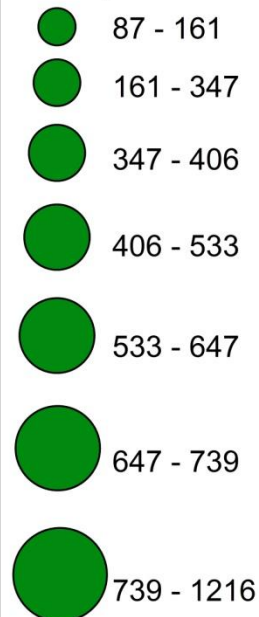


Legend "Person/Km2"

 Nablus city

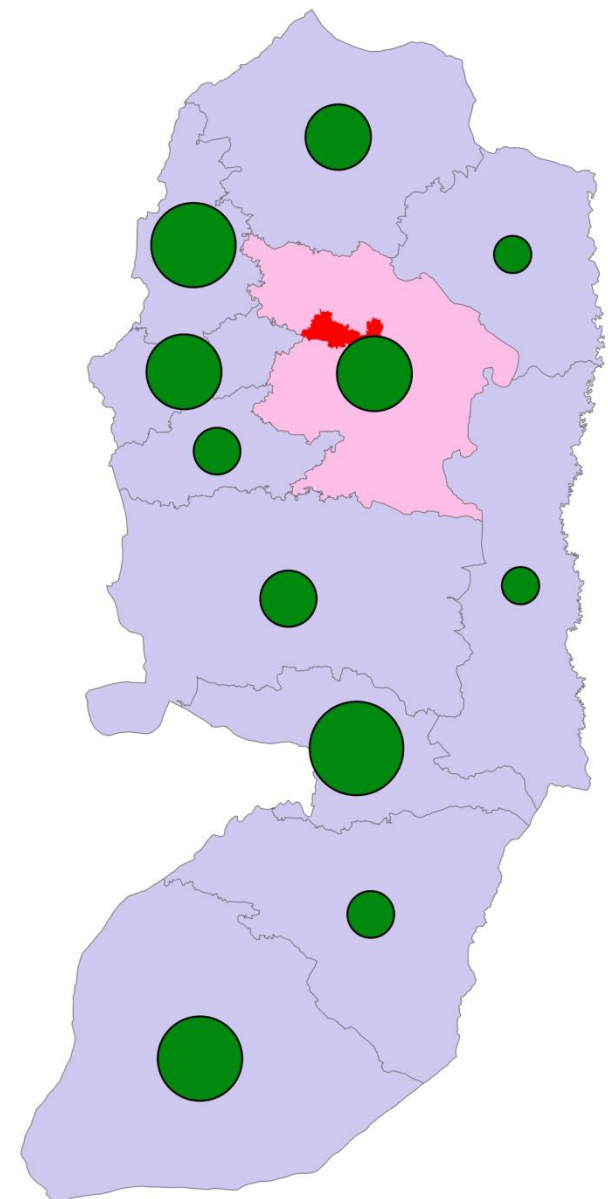
 Nablus Governorate

density



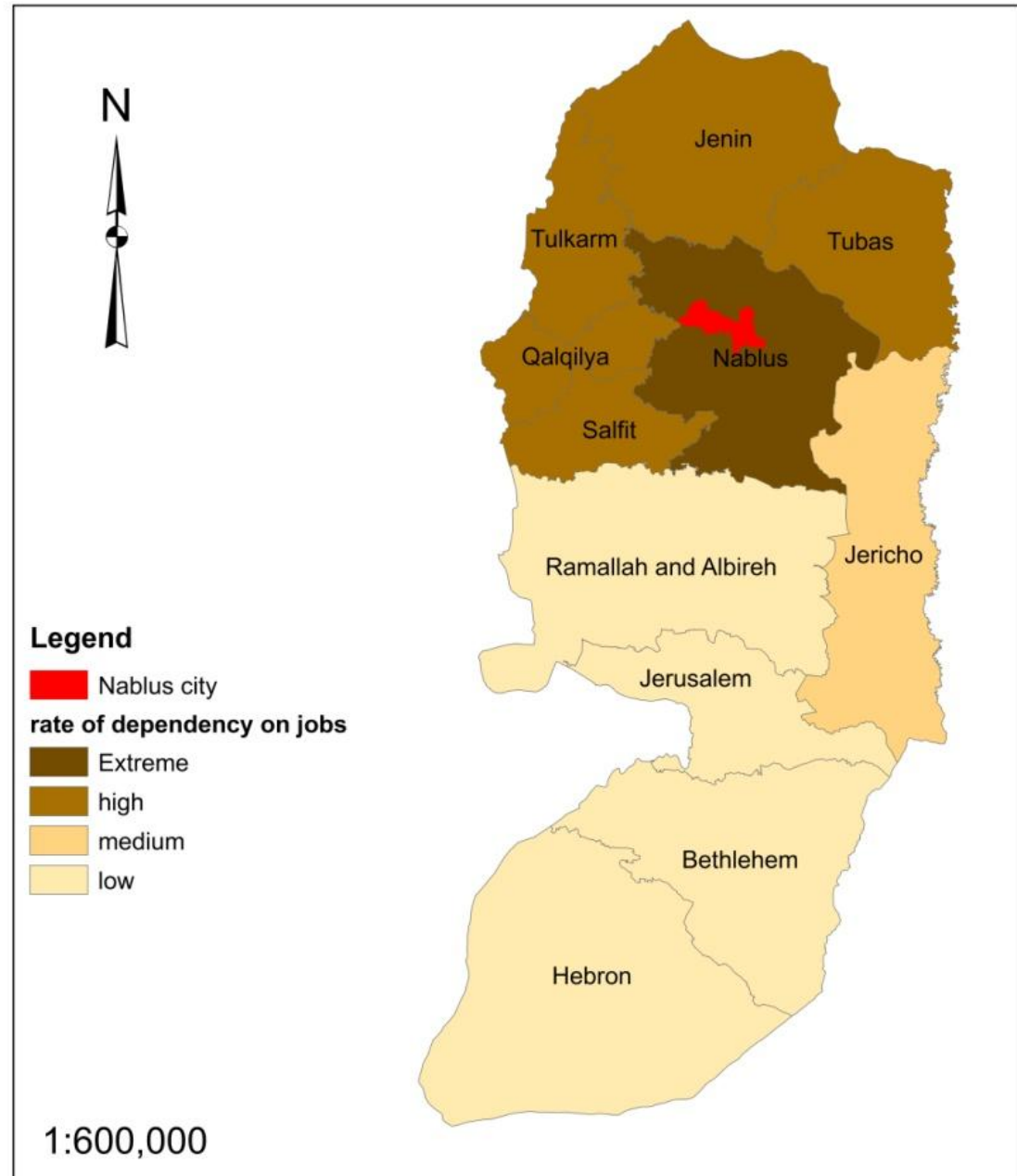
 West Bank governorates

1:600,000



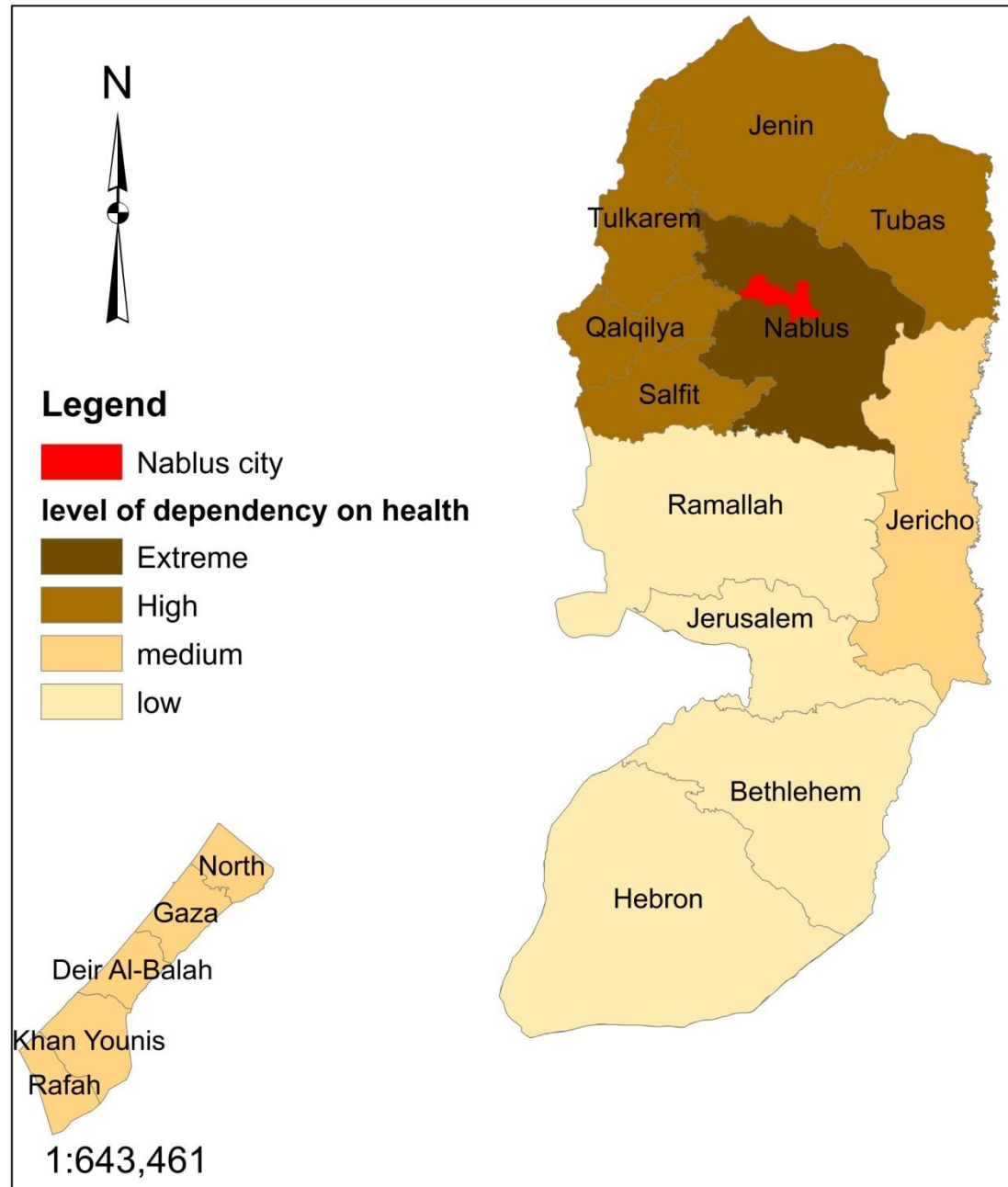
Governorates classification according to their dependency on Nablus city jobs

Nablus governorate is one of the main governorates in providing jobs for other governorates “especially in the city”. Qalqilyah, Tulkarem, Jenin, Salfit, and Tubas, depend heavily on Nablus jobs. Main attractive jobs are: An-Najah University, Hijjawi college, Paltel, and many other companies.



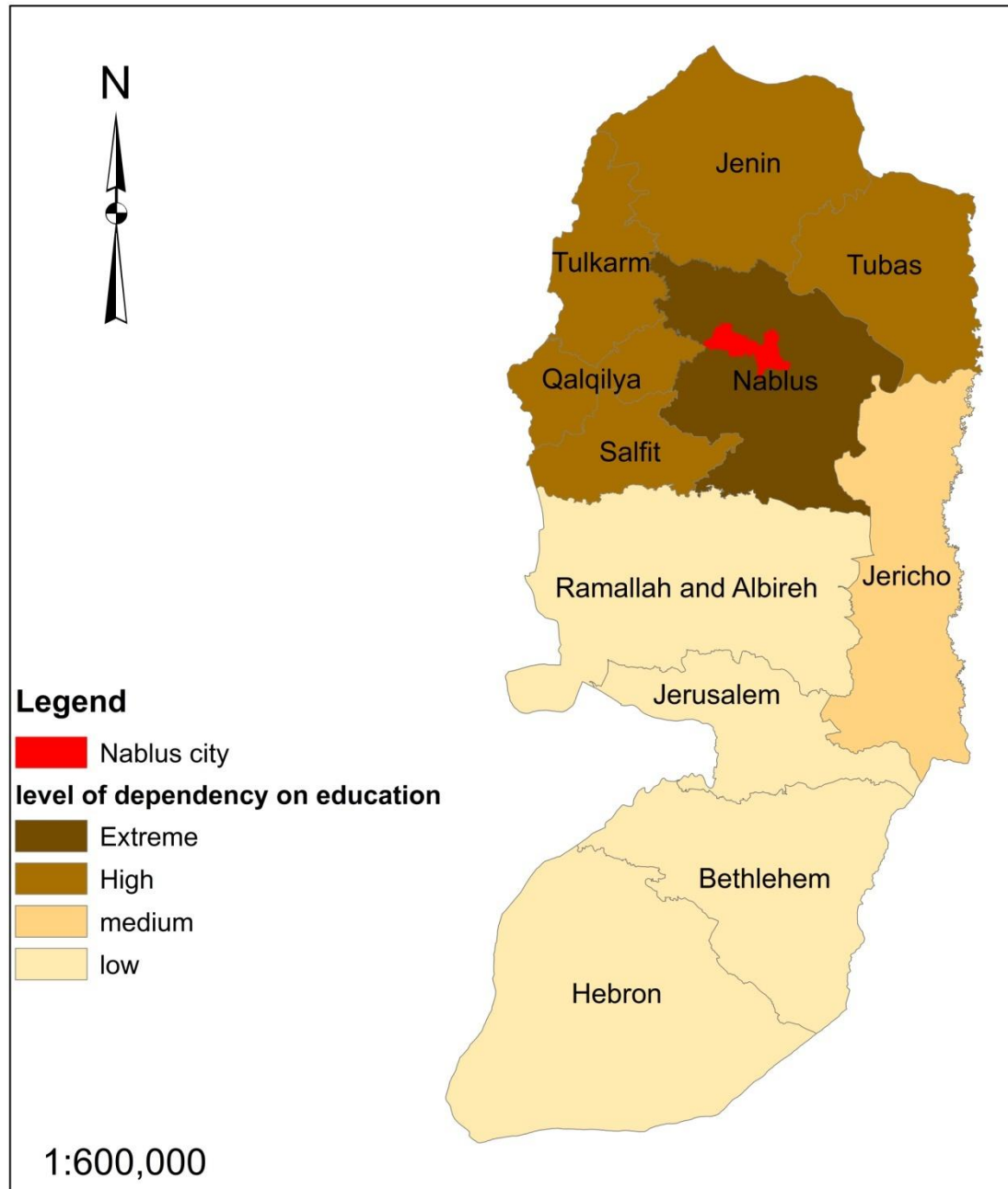
Governorates classification according to their dependency on Nablus city health services "Hospitals"

Nablus governorate is one of the main governorates in providing health services for other governorates since there are many governmental hospitals. Qalqilyah, Tulkarem, Jenin, Salfit, and Tubas, depend heavily on Nablus city. Main hospitals are: Rafidia hospital, and An-Najah University hospital.



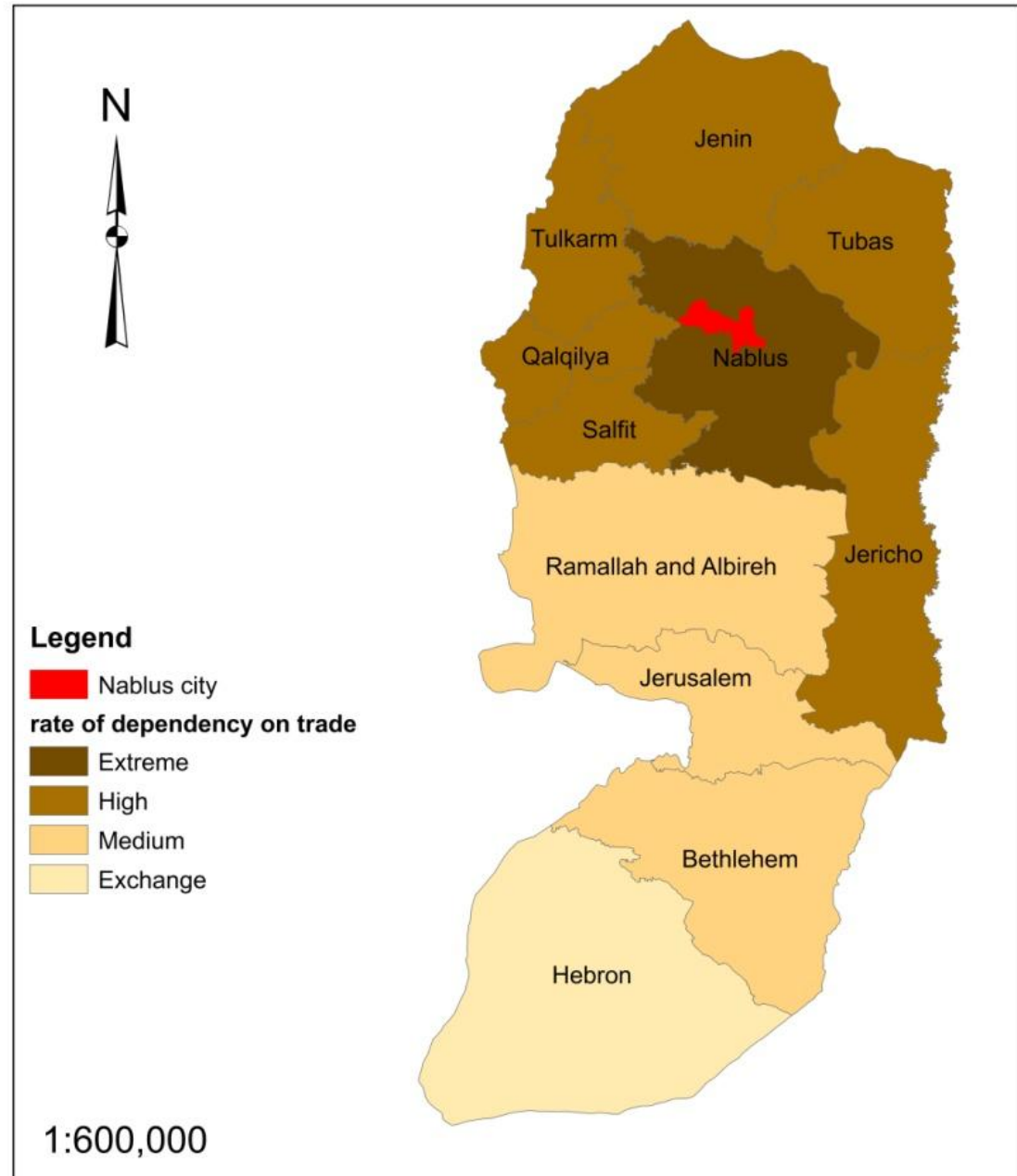
Governorates classification according to their dependency on Nablus city Education "Universities and Colleges"

Nablus governorate is one of the main governorates in providing education services for other governorates since there are the two campuses of An-Najah National University "new and old campuses" and Hisham Hijjawi college. Qalqilyah, Tulkarem, Jenin, Salfit, and Tubas, depend heavily on Nablus city.



Governorates classification according to their dependency on Nablus city trade

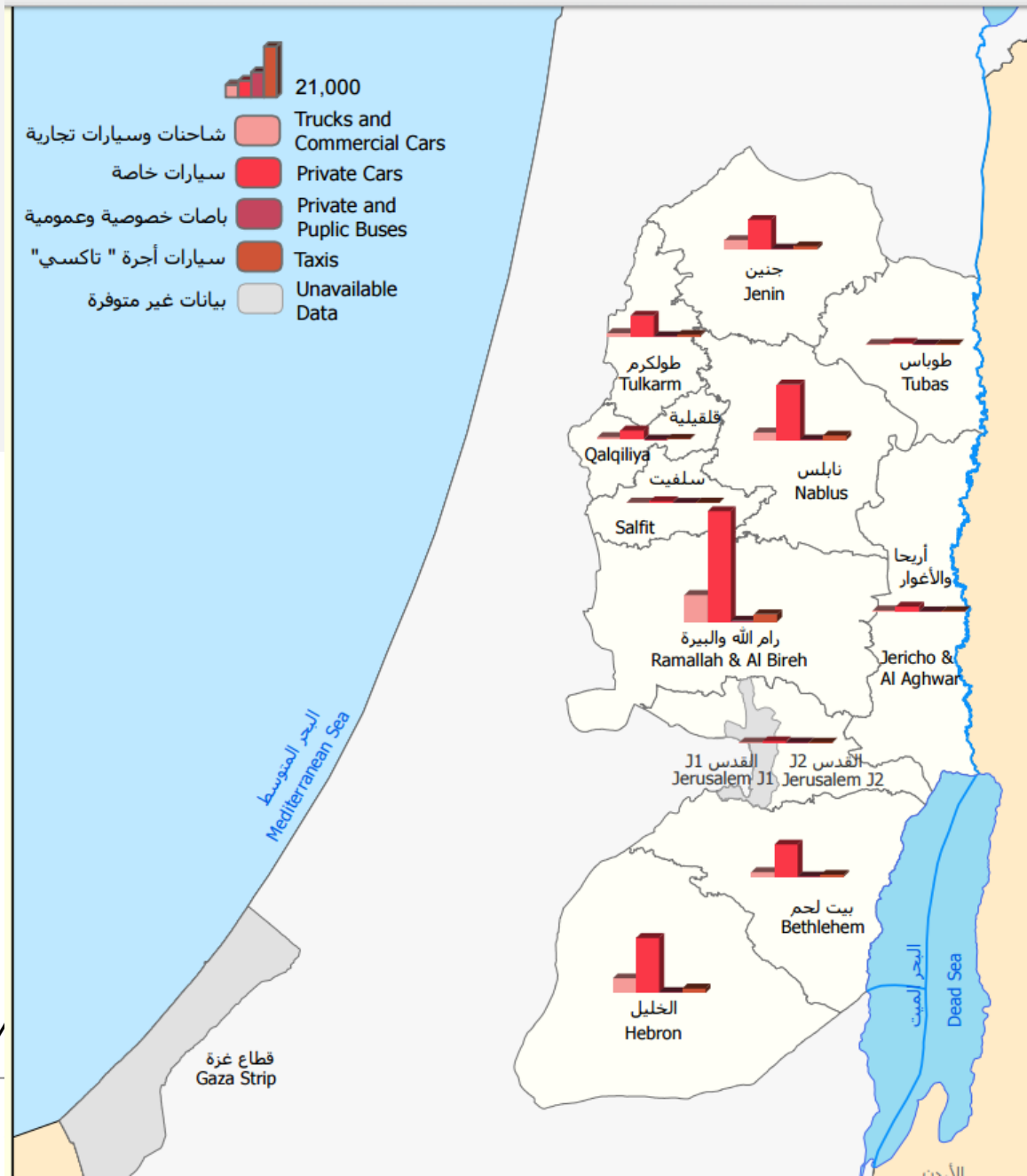
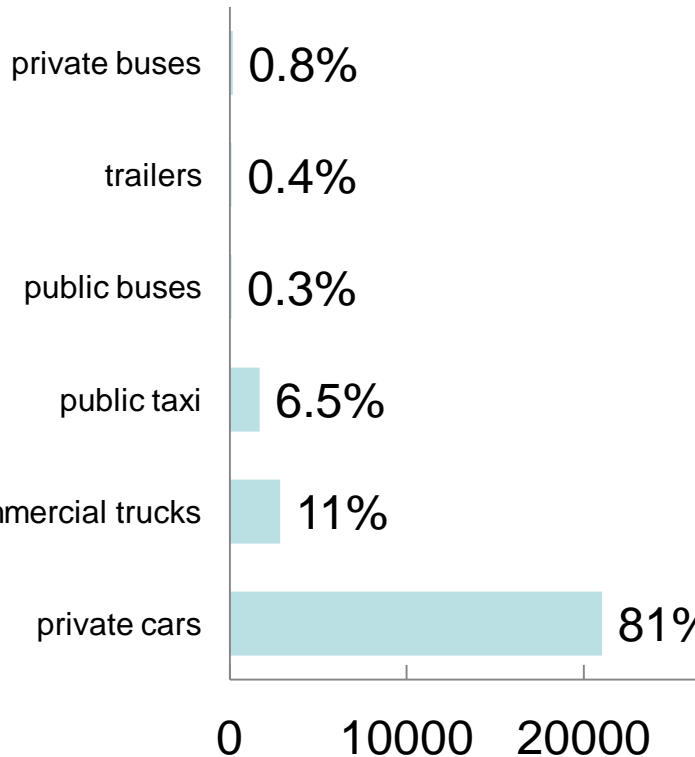
Nablus governorate is one of the main governorates in providing trade facilities for other governorates.



Licensed road vehicles in Palestine by governorate and type of vehicle, 2014

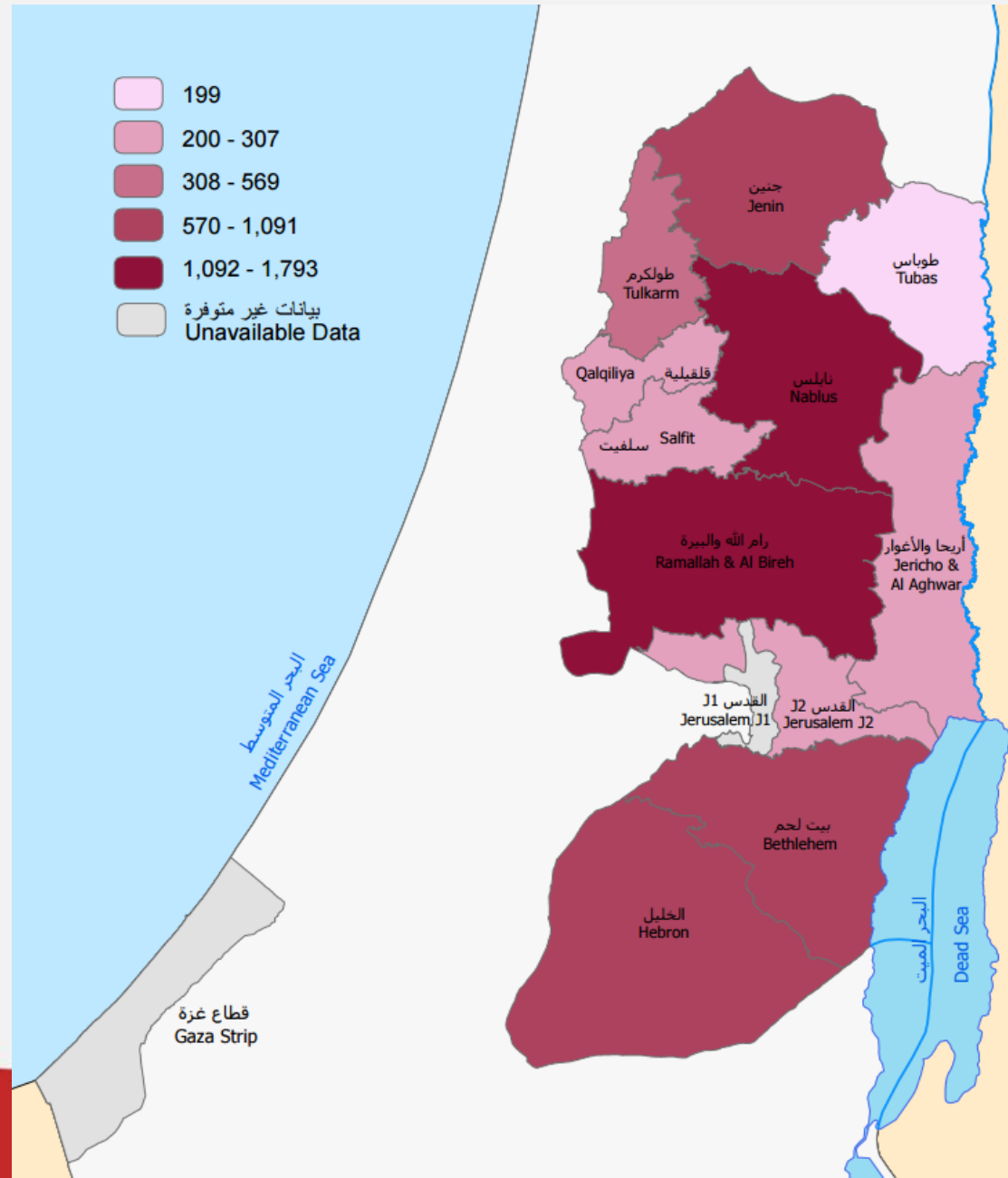
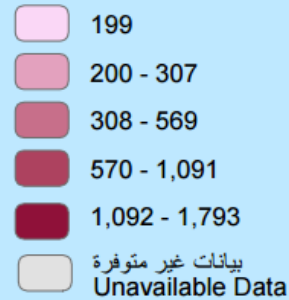
Nablus governorate is in the second place in the number of vehicles after Ramallah. Private cars have the highest percentage with 81%.

Palestinian central bureau of statistics 2014



Number of registered road traffic accidents in Palestine by governorate, 2014

Both Nablus and Ramallah governorates have the highest counts of accidents in the West Bank.



The importance of Nablus city on the Regional level



Cities that have spatial interaction with Nablus city "connected directly to Nablus city by main ro regional roads"



Legend

 Nablus city

 cities

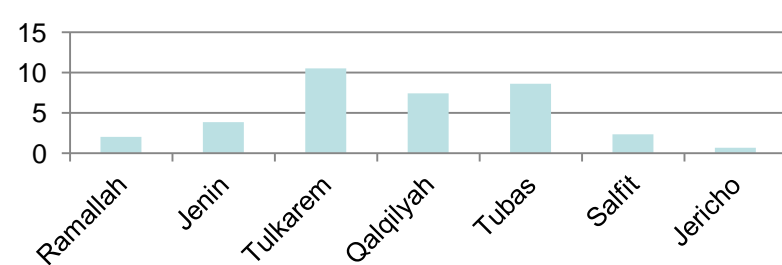
Roads Types

 Main

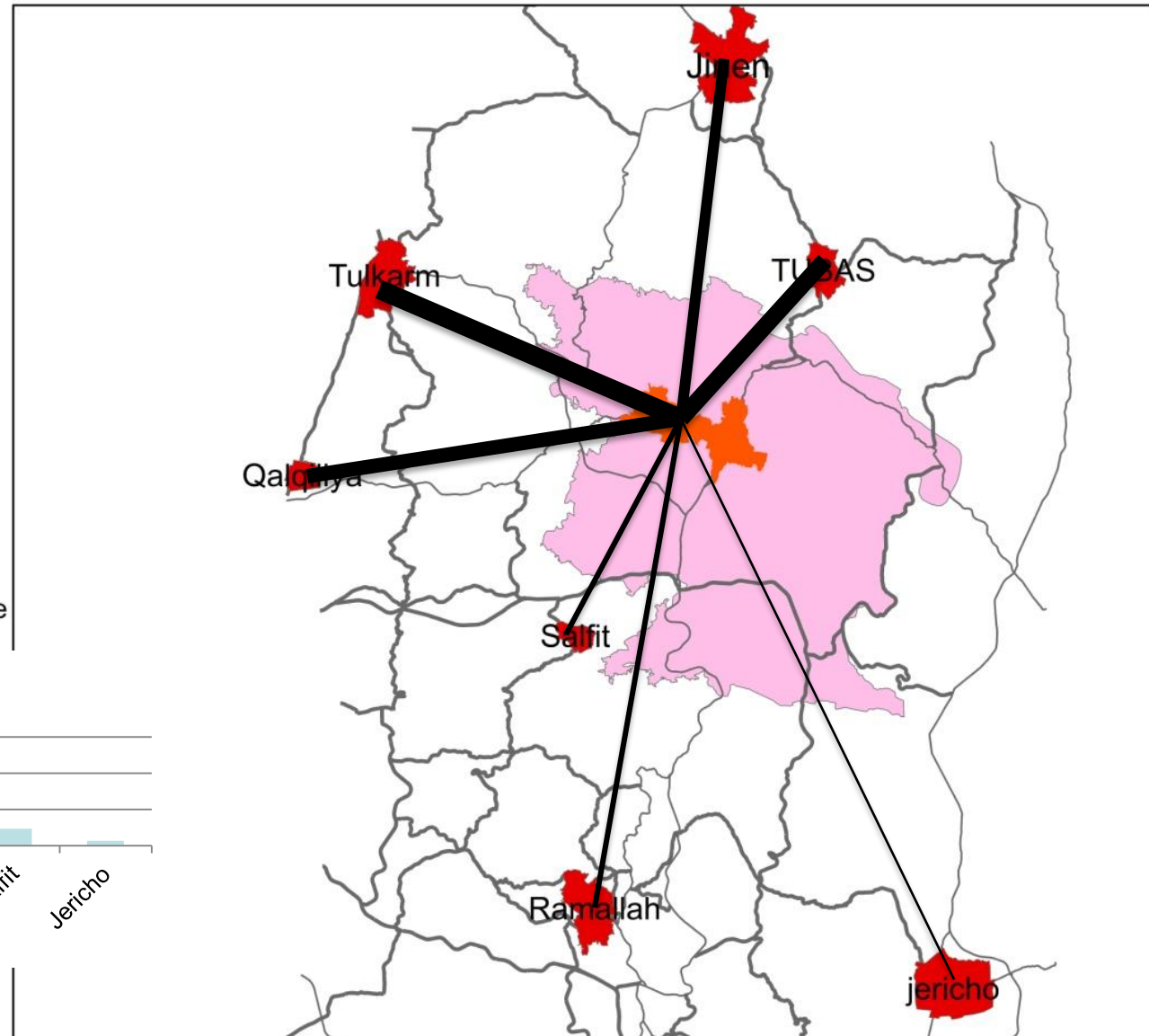
 Regional

 Nablus Governorate

Spatial interaction



1:400,000






Legend

 cities

Roads Types

 Main


 Regional

 Nablus city

 West Bank Governorates

 Qalqilyah - Jeet

 Jeet - Nablus


 Nablus - Tubas - Jenin

 Nablus - Za`tara

 Jeet - Huwara

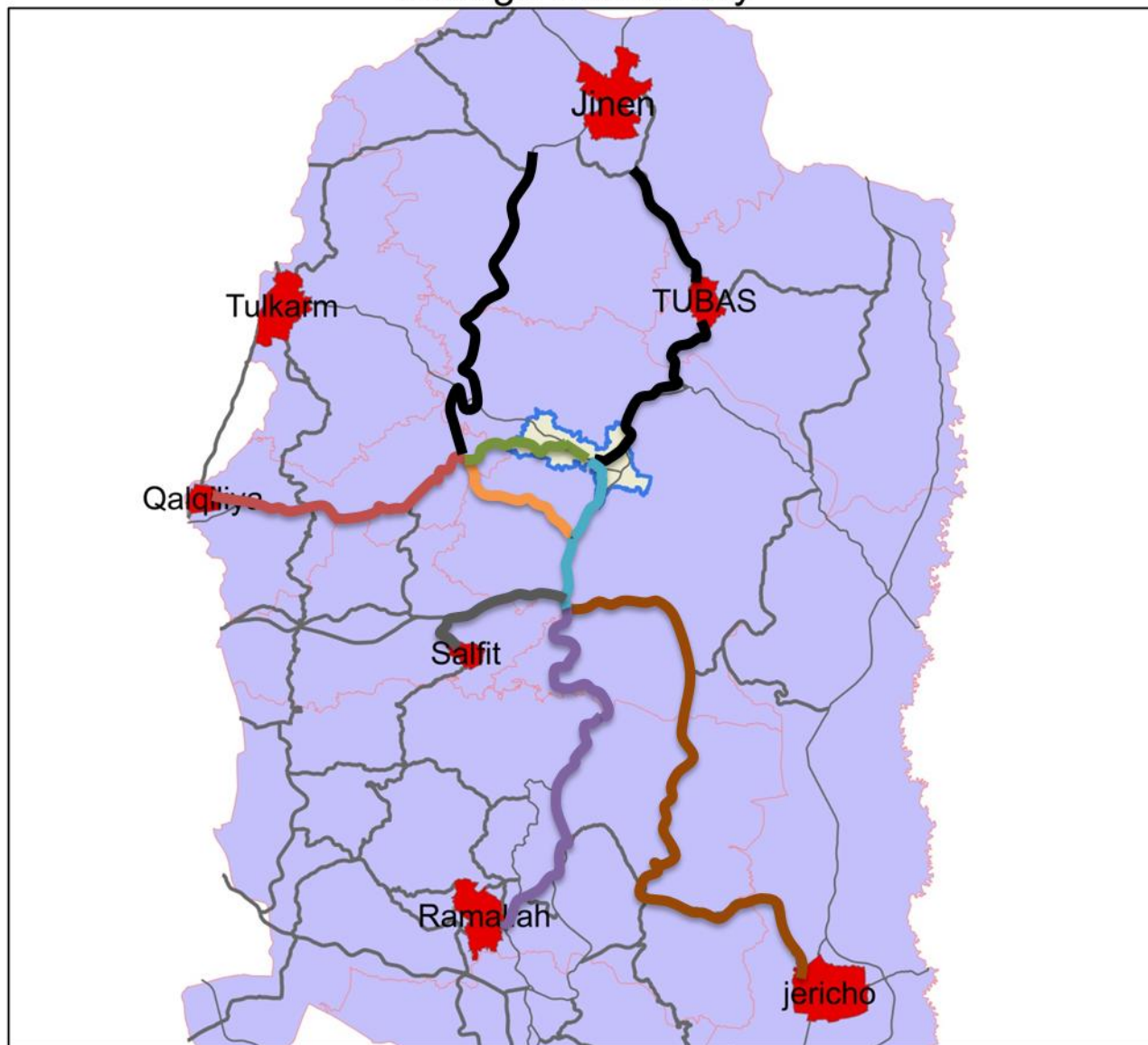
 Za`tara - Jericho

 Za`tara - Ramallah

 Za`tara - Salfit

1:417,006

Roads that connect cities by passing through Nablus city



Roads that connect cities by passing through Nablus city



Legend



cities

Roads Types



Main



Regional



Nablus city



West Bank Governorates

Tulkarem – Deir sharaf

Deir sharaf - Nablus

Nablus – Tubas - Jenin

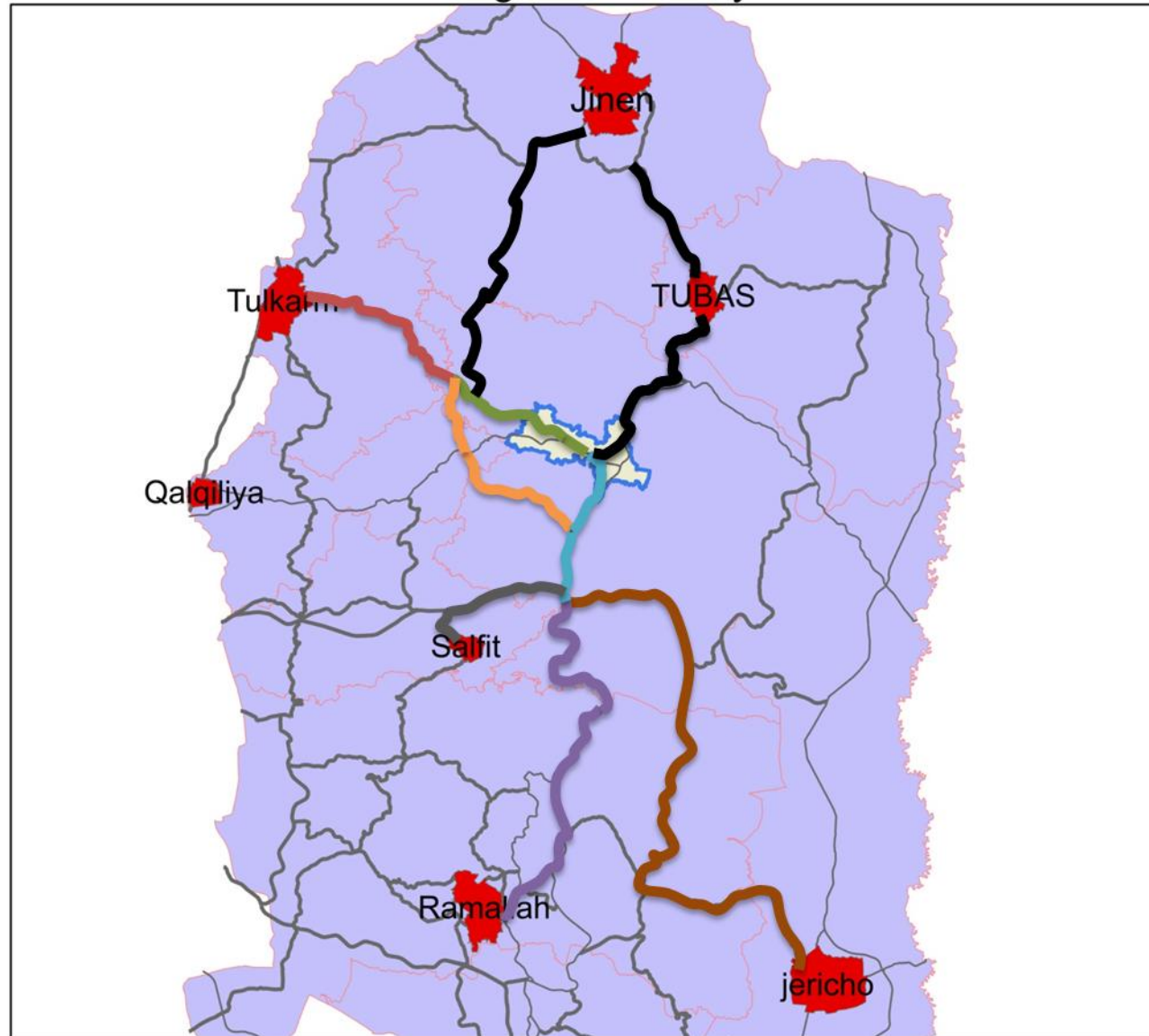
Nablus – Za`tara

Quseen - Huwara

Za`tara - Jericho

Za`tara - Ramallah

1:417,006

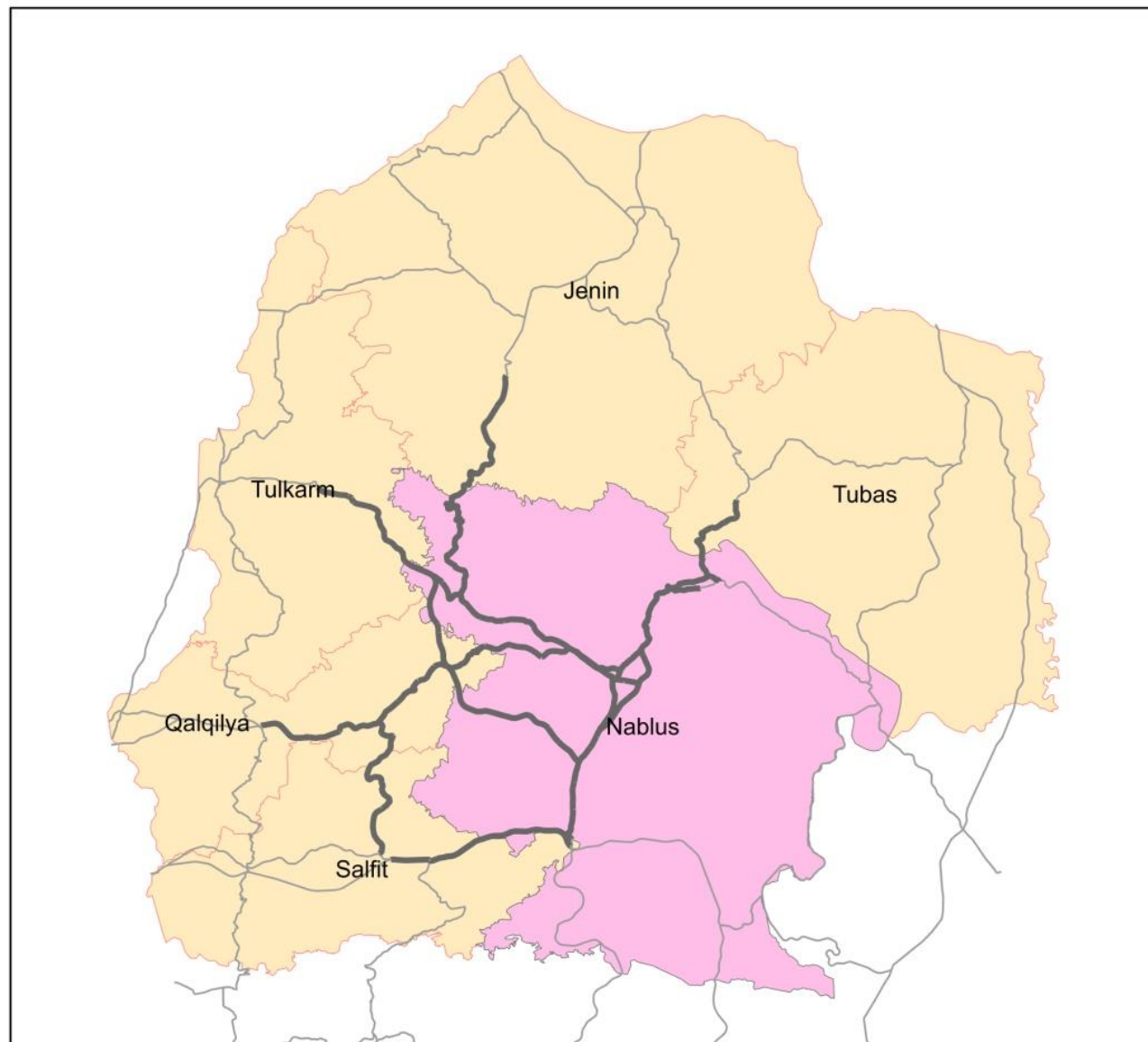


Connection roads in Northern region of West Bank



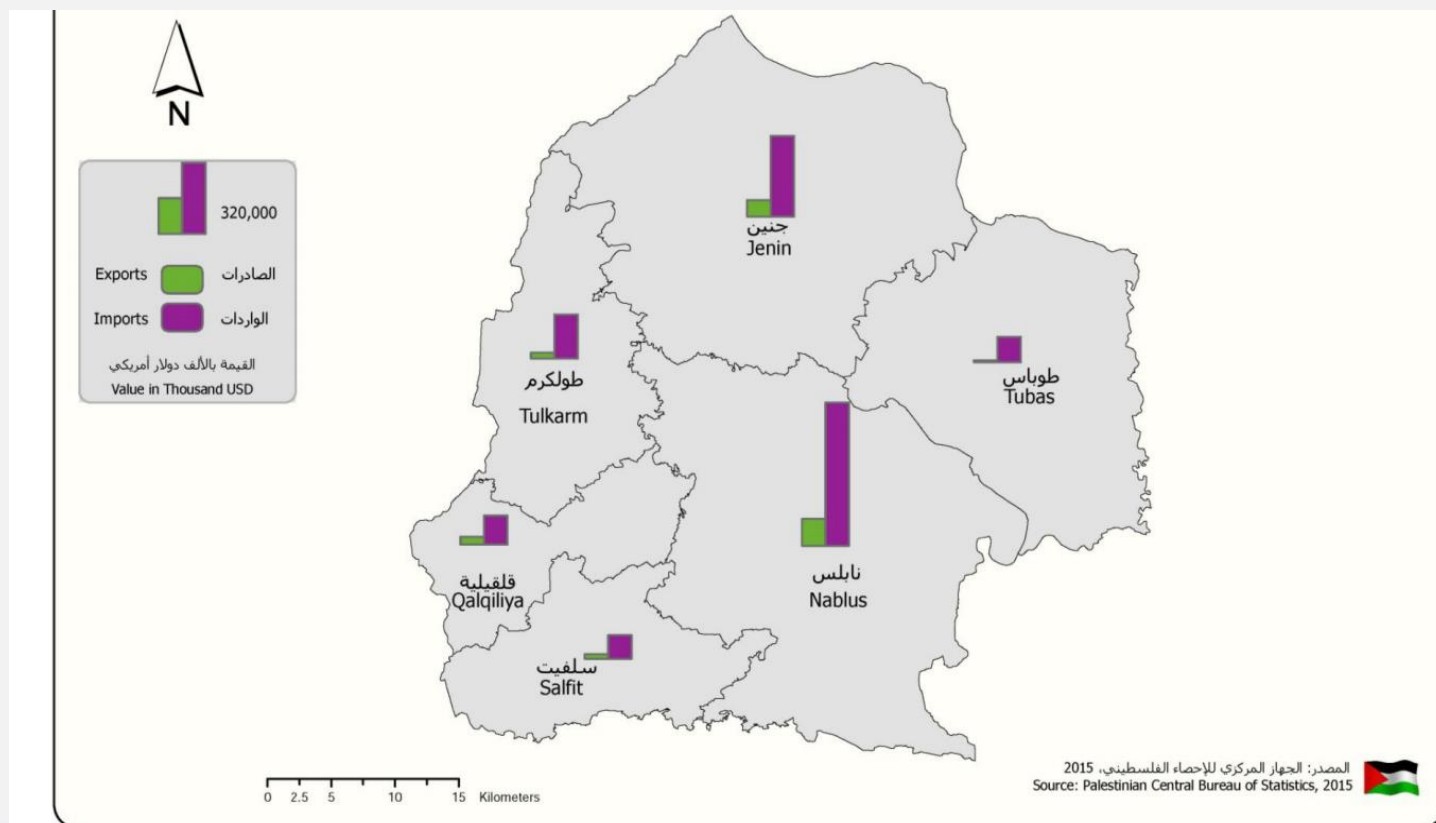
Legend

- Roads
- Root roads
- Nablus Governorate
- Northern governorates



1:342,205

Value of registered exports and imports in the West Bank northern governorets, 2013





The importance of Nablus city on the Sub-Regional level






Communities that are connected to Nablus city " by PUBLIC TRANSPORTATION"

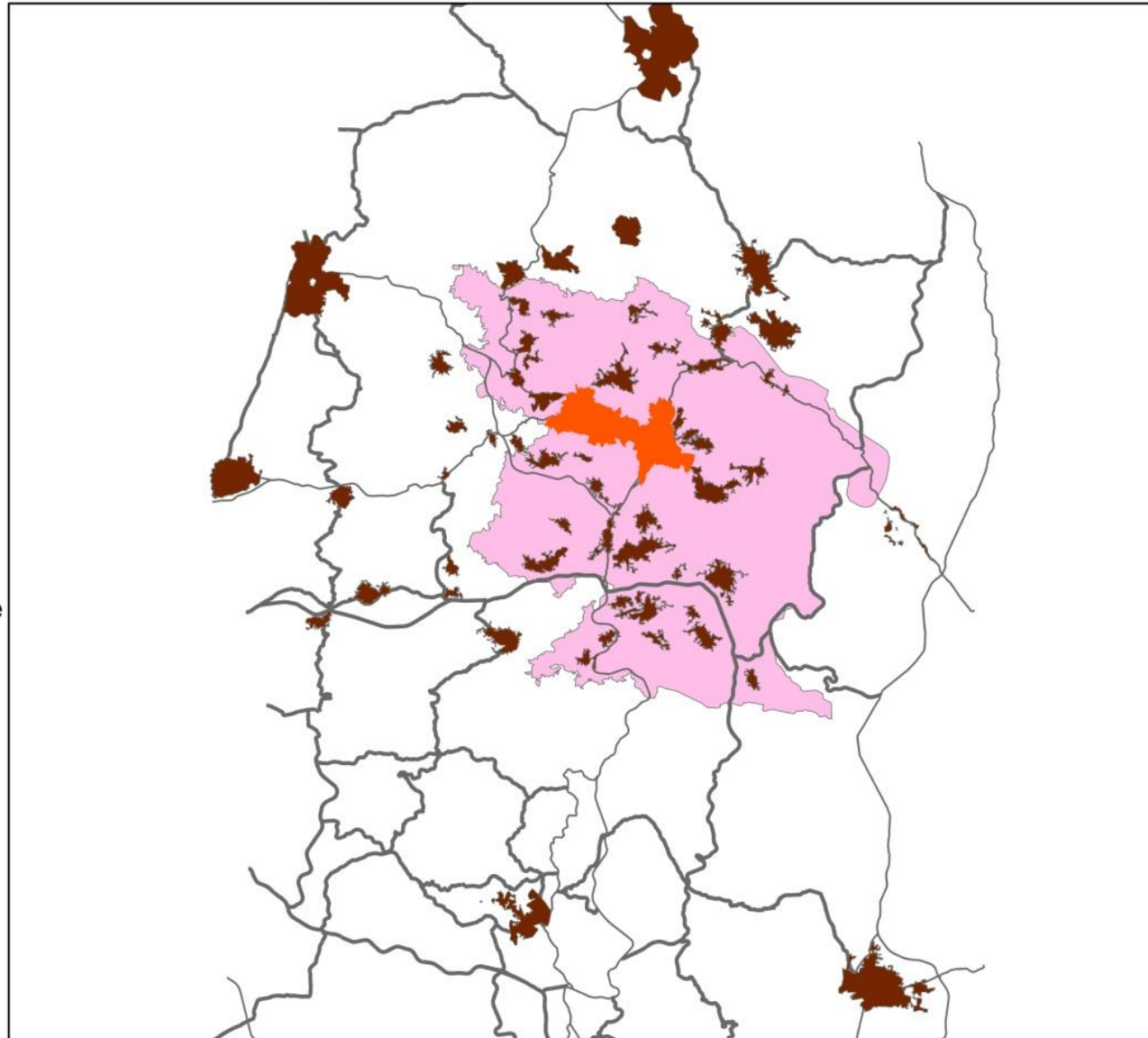


Legend

-  communities
-  Nablus city

Roads Types

-  Main
-  Regional
-  Nablus Governorate



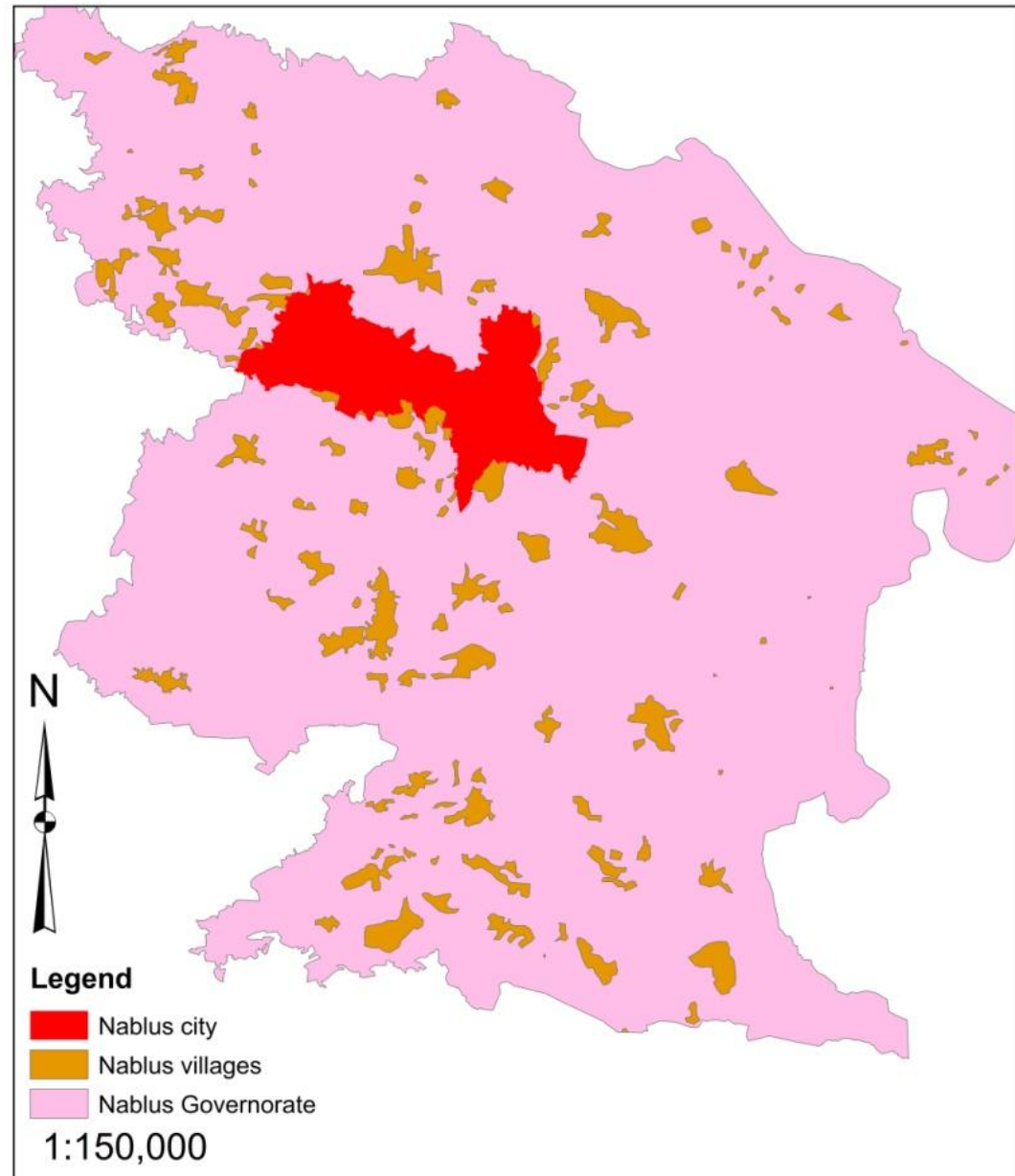
1:400,000



Nablus city is located in the north eastern part of the governorate. It is surrounded by many communities, such as: Beit Iba, Sarra, Roujeeb, etc. the distances between it and the governorate communities vary according to communities locations.



Nablus city location inside Nablus governorate
"its location between the governorate villages"

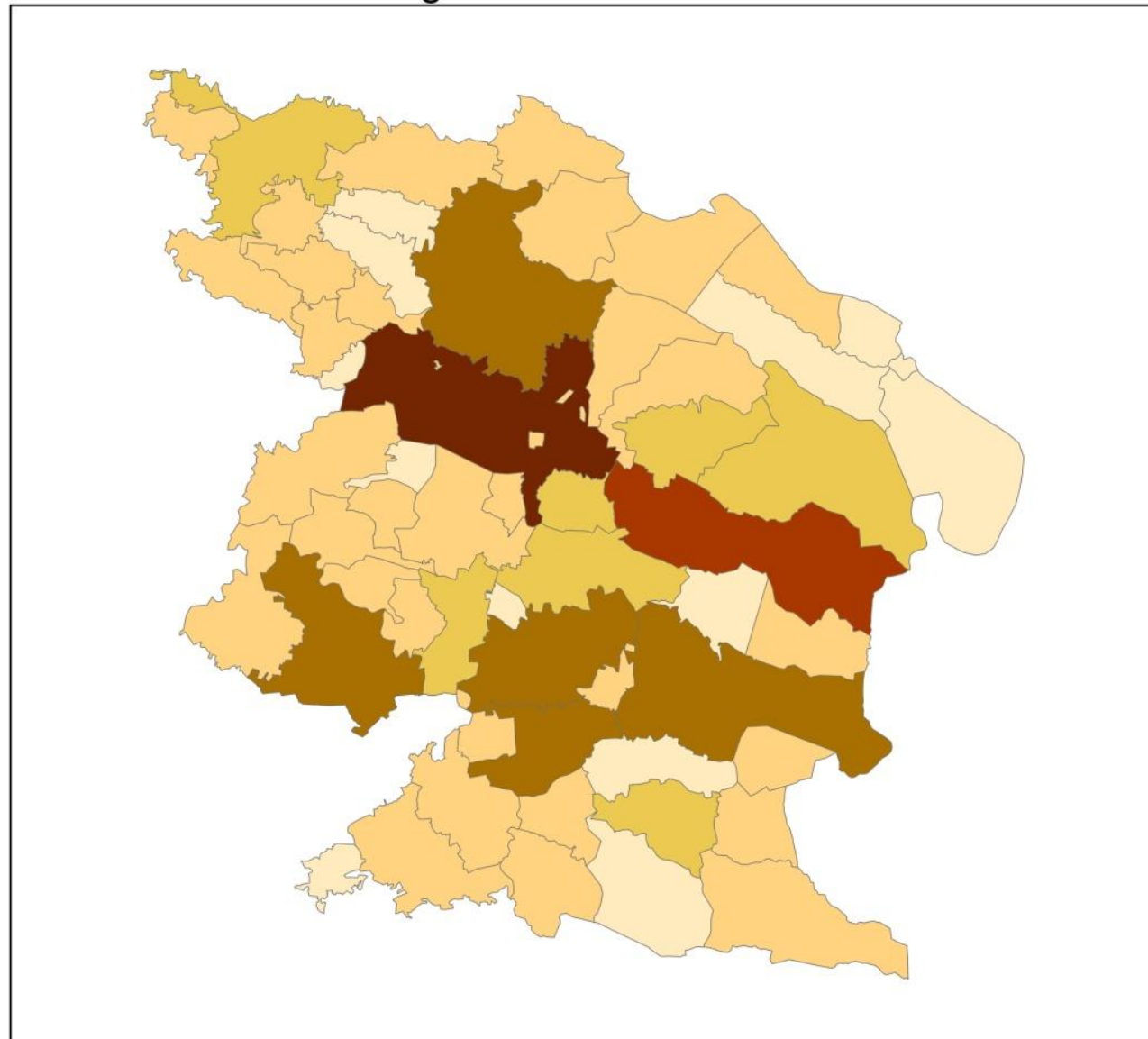
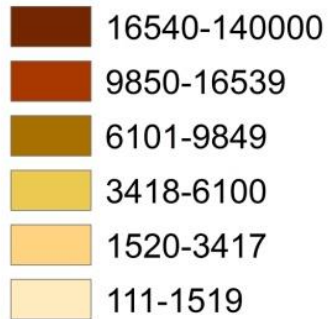


Population and boundaries of Nablus governorate communities



Legend

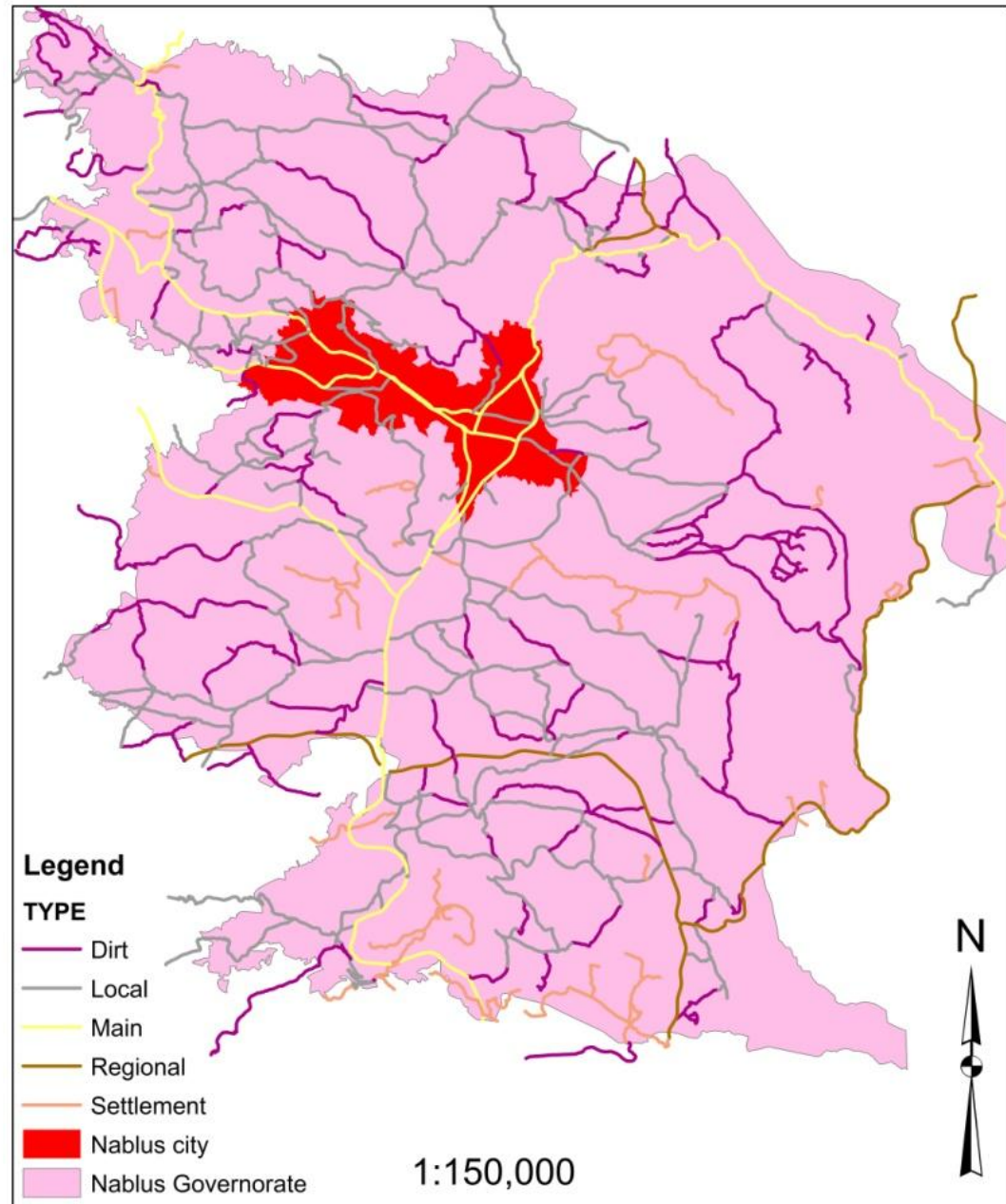
Population



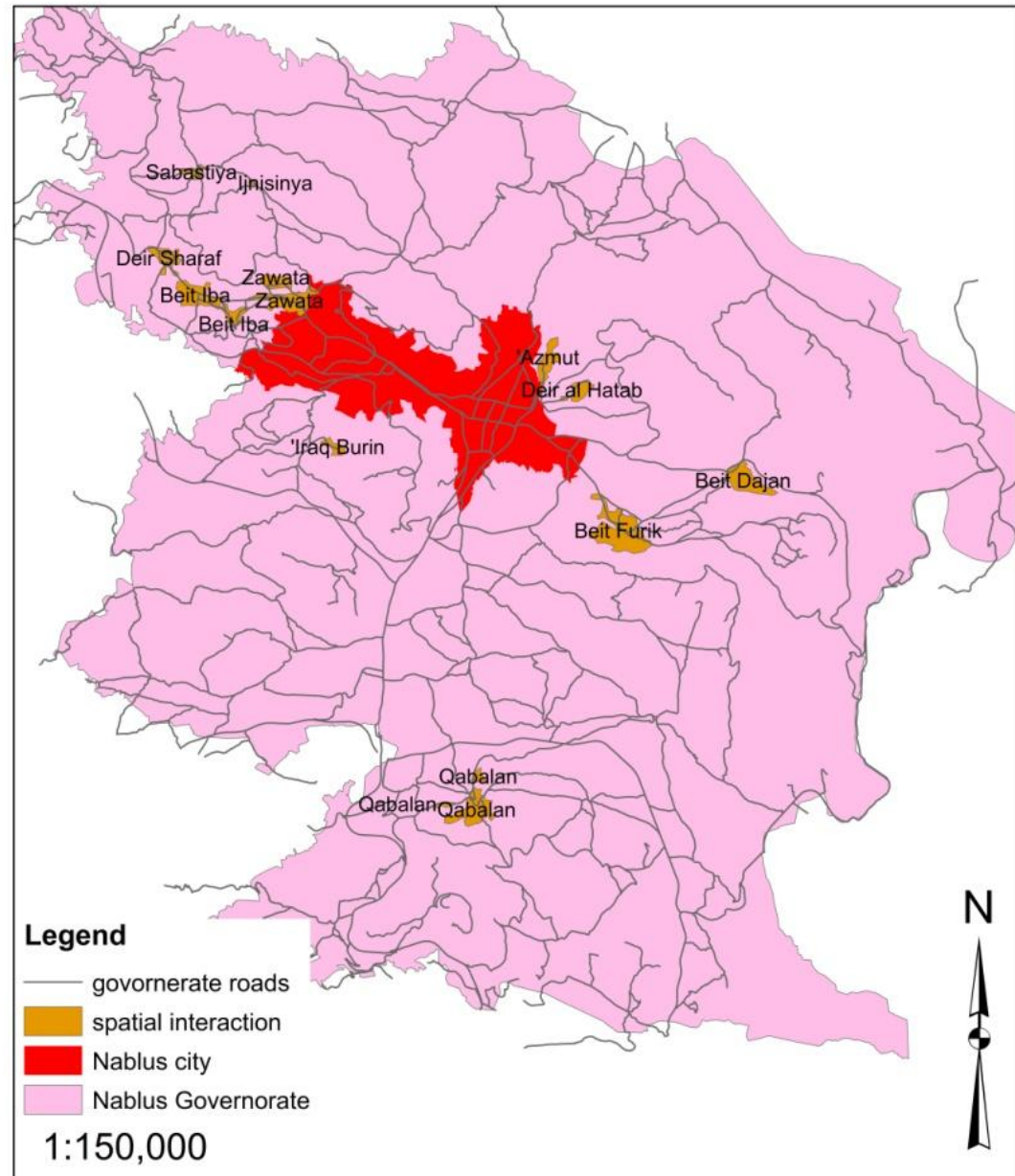
1:200,000



Nablus governorate roads
"roads that connect Nablus governorate communities"



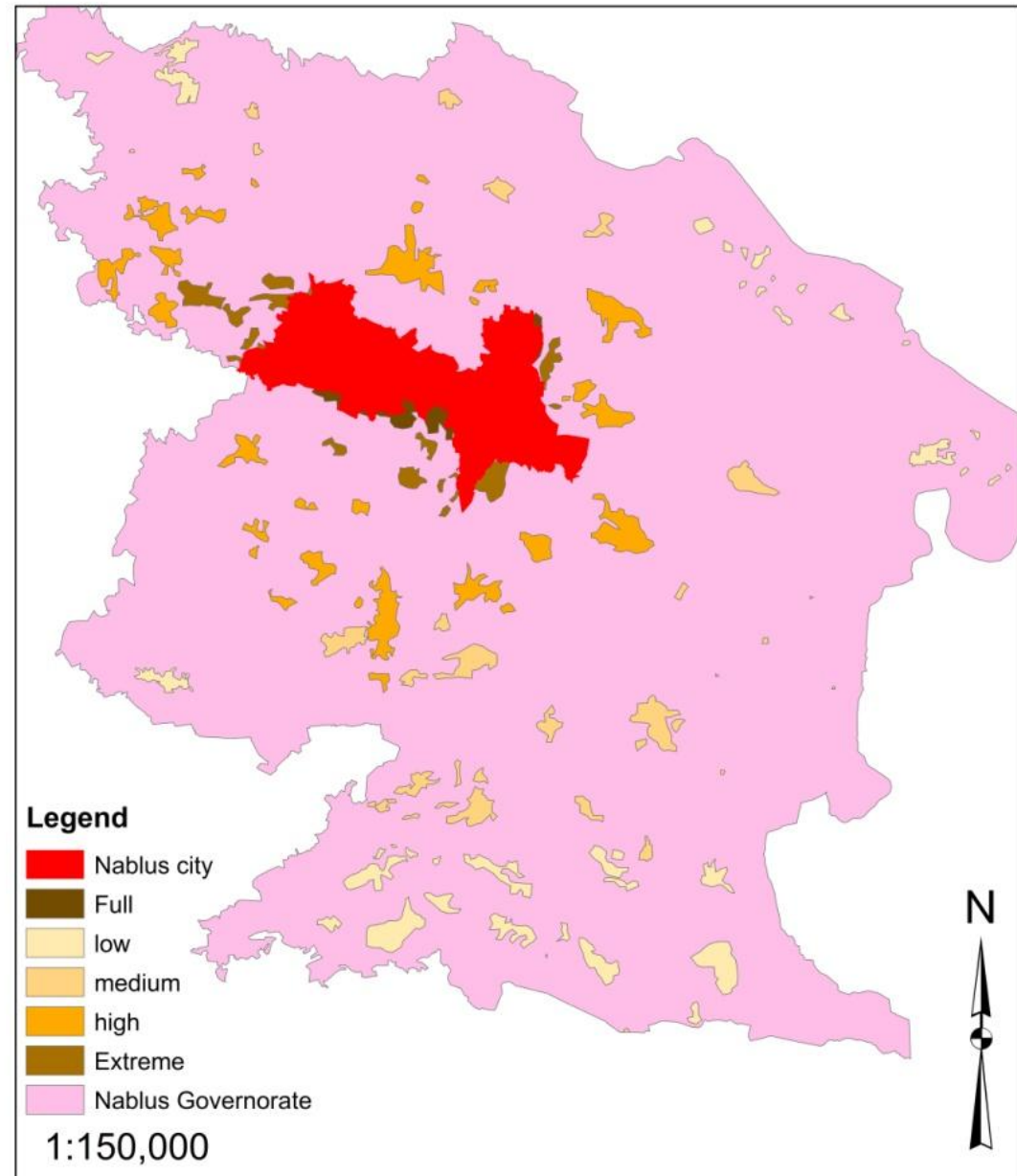
Communities that have high spatial interaction with Nablus city



The spatial interaction and the community dependency on Nablus city decrease as the distance between them increases.



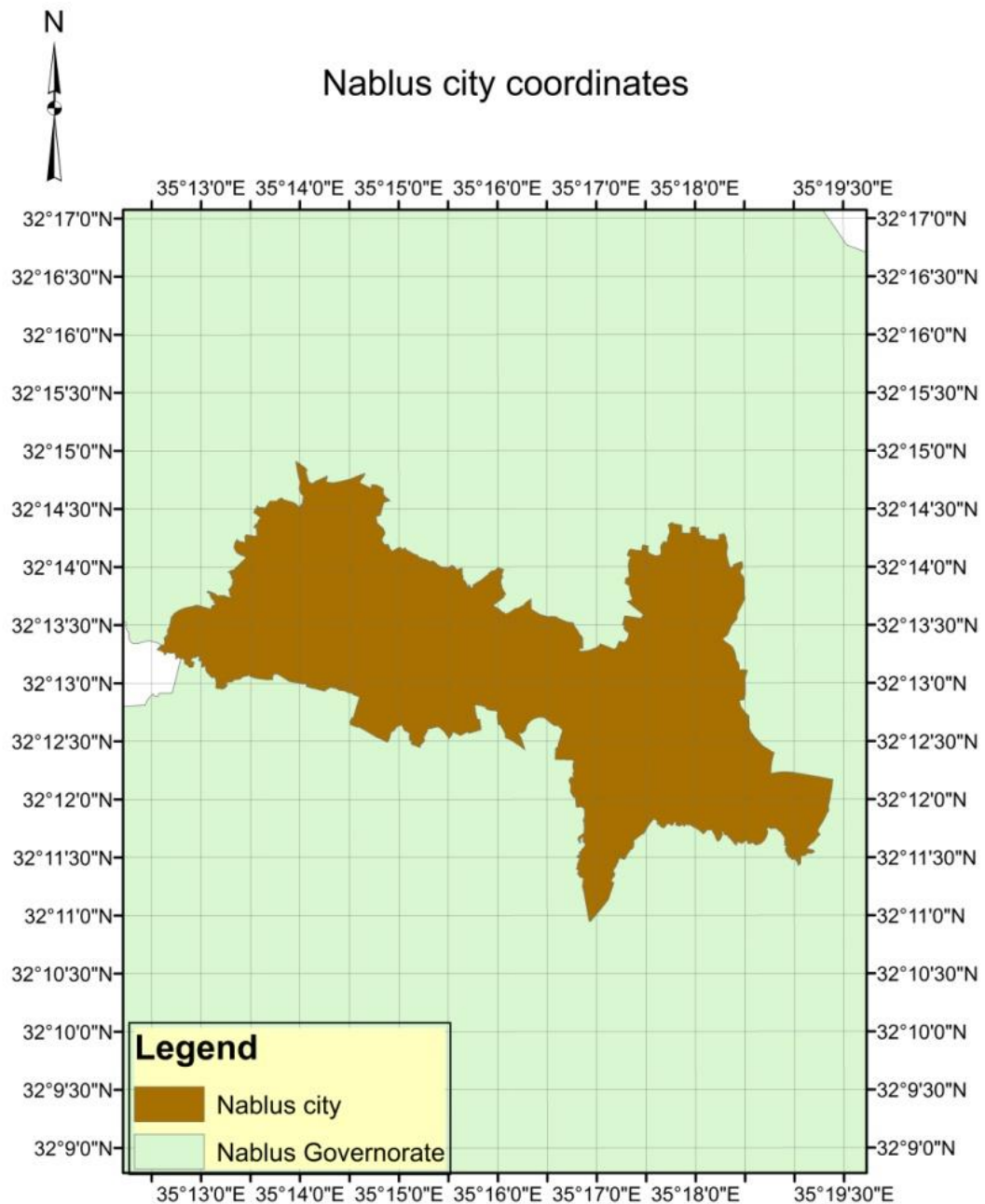
Level of the governorate communities dependency on Nablus city services



The importance of Nablus city on the Local level

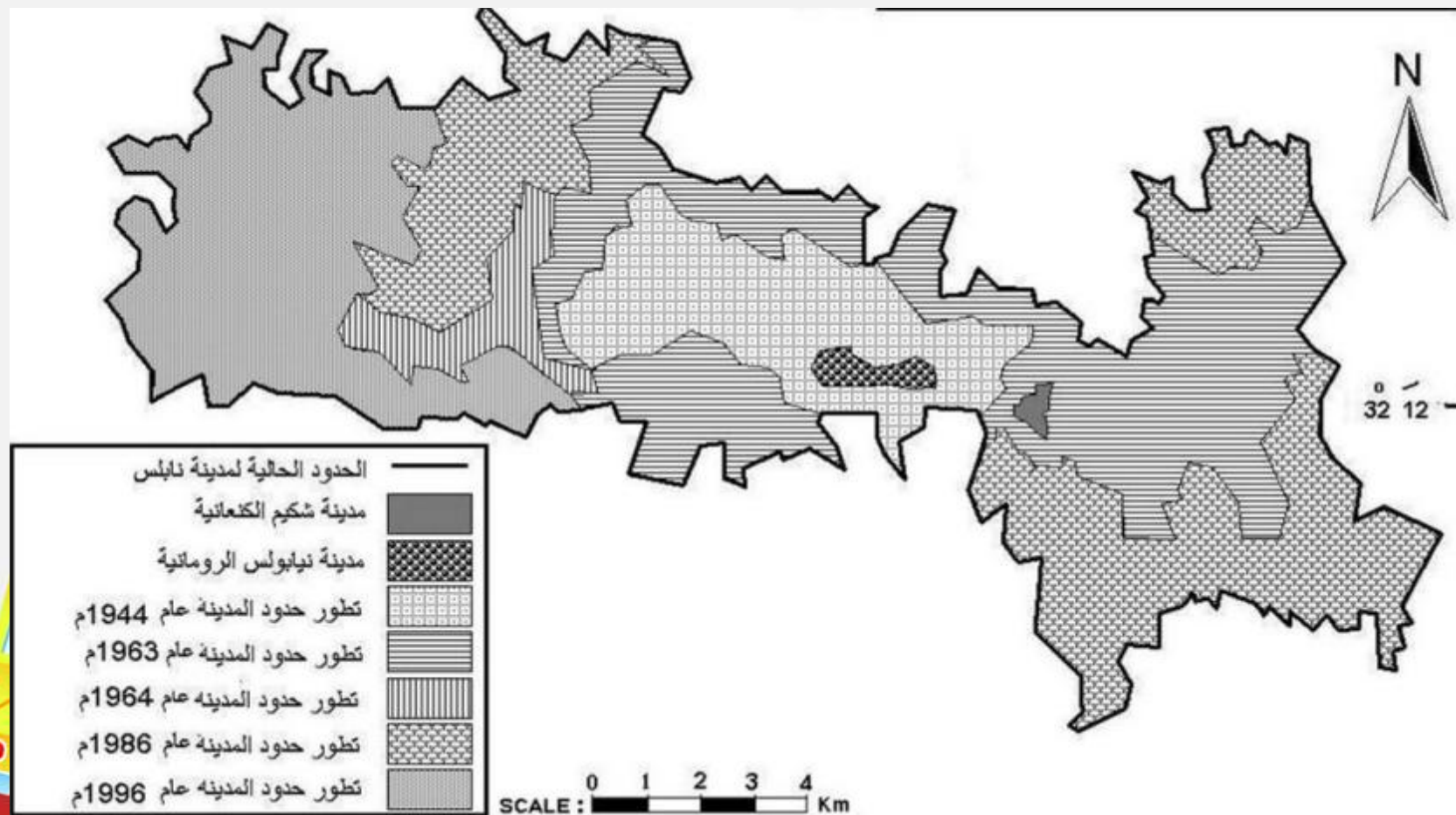


Nablus city coordinates
are:
32.2203° N, 35.2789° E

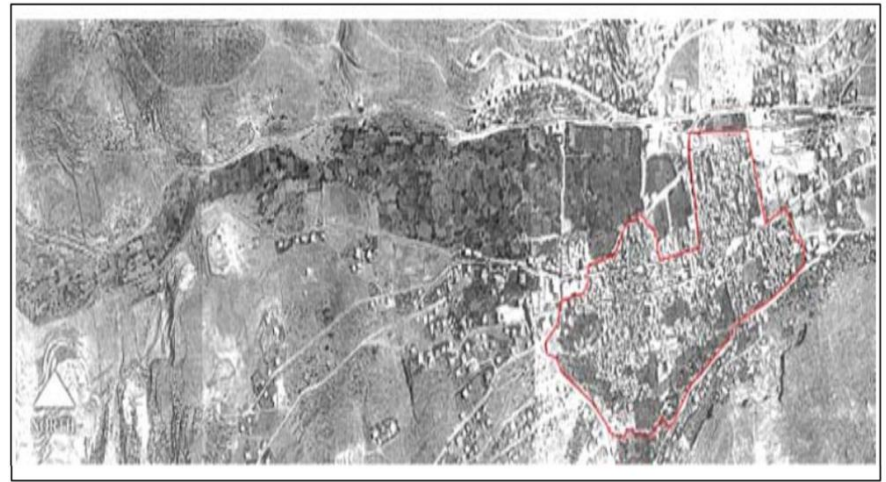


1:76,410

Historical expansion of the city of Nablus. “ Nablus municipality”



Nablus city expansion
during the years



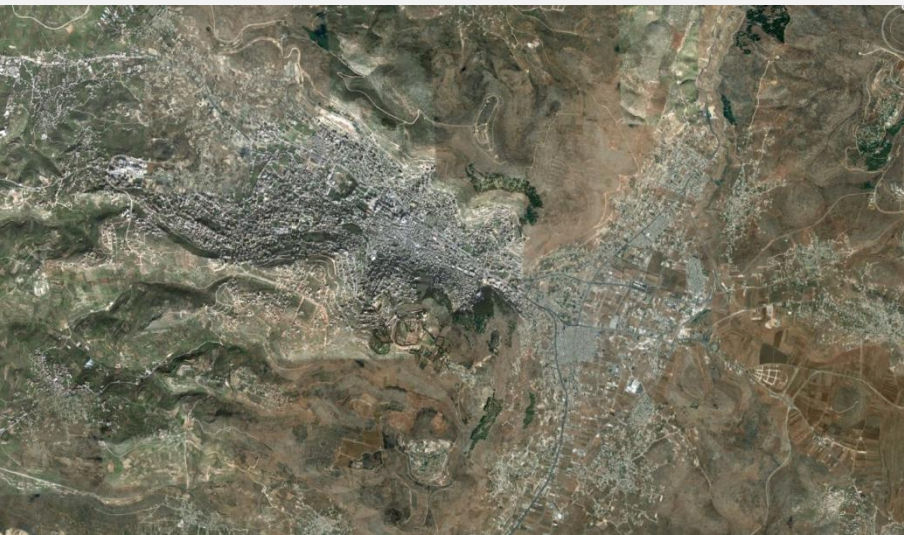
Nablus 1944
Atlas of Palestine "Arij"



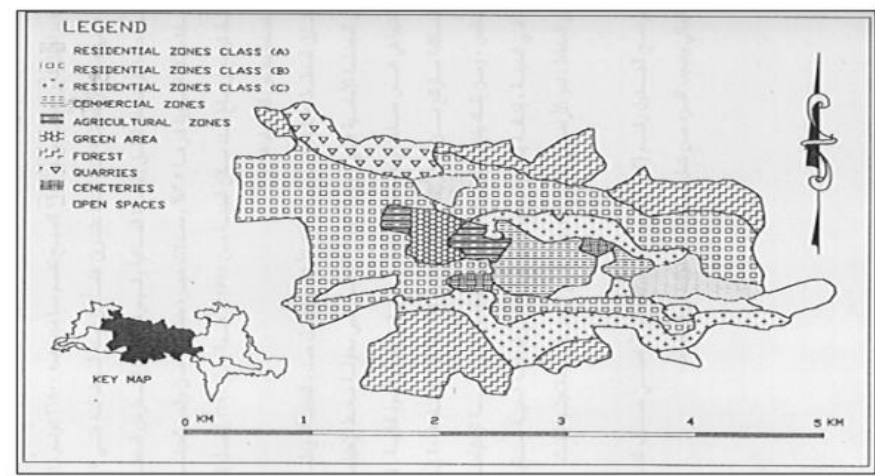
Nablus 1997
Atlas of Palestine "Arij"



Nablus 2016
Google map



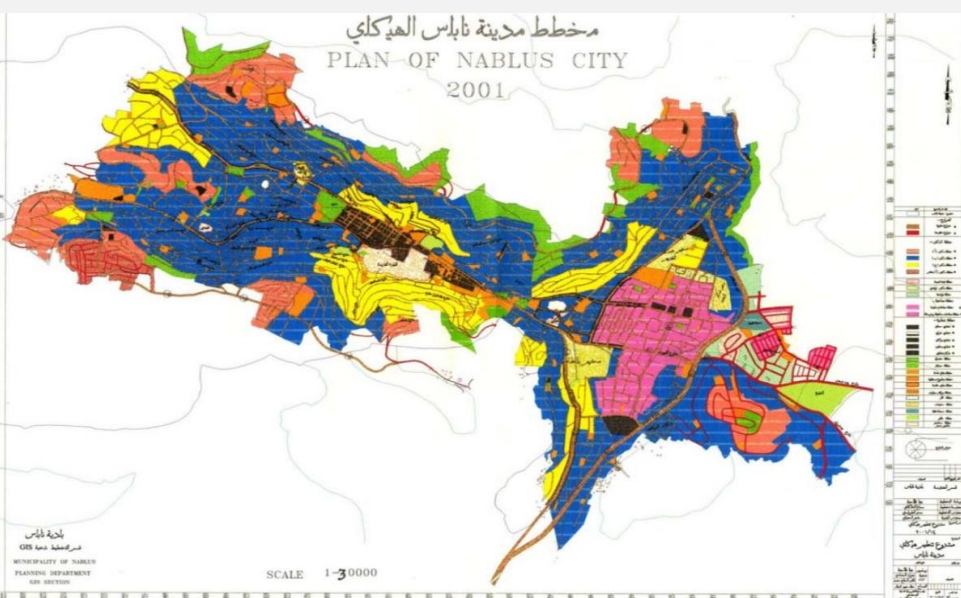
Master plan 1961



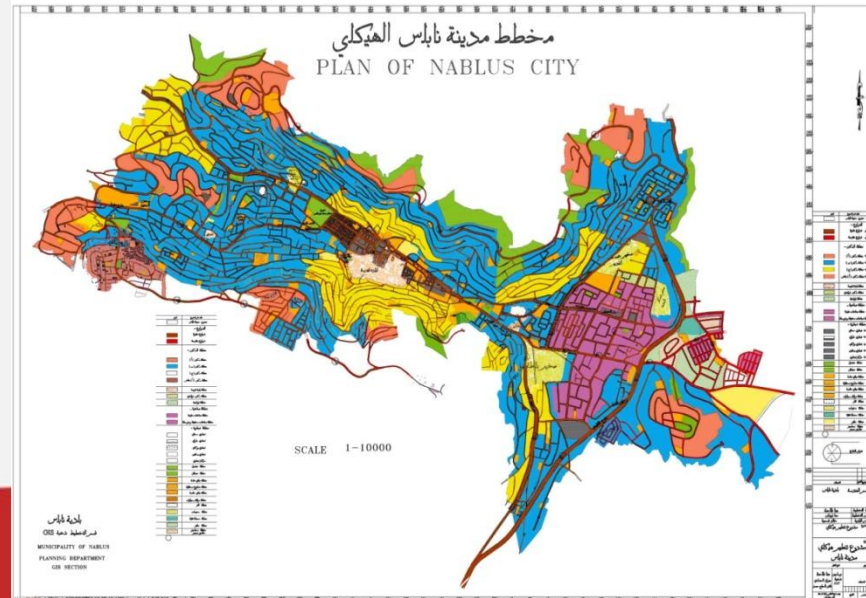
Master plan 1995



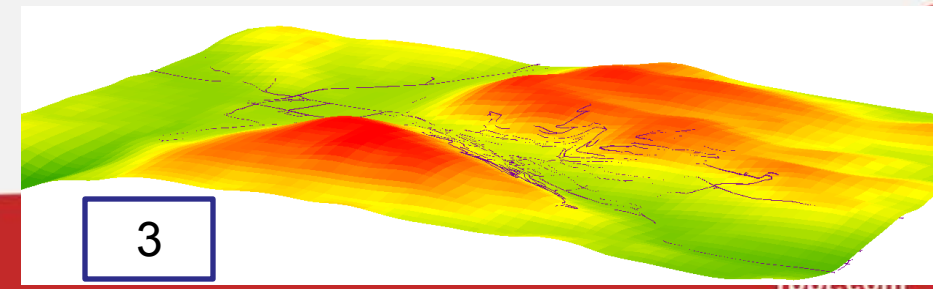
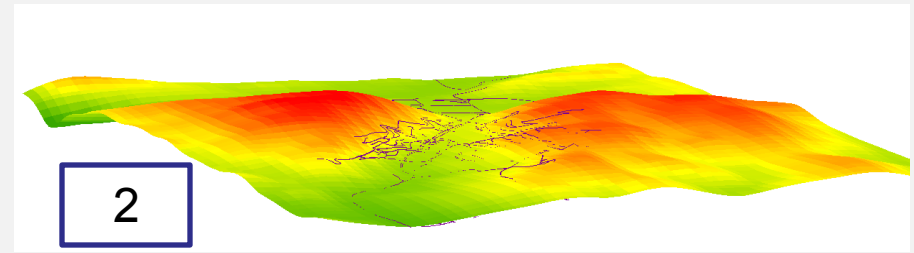
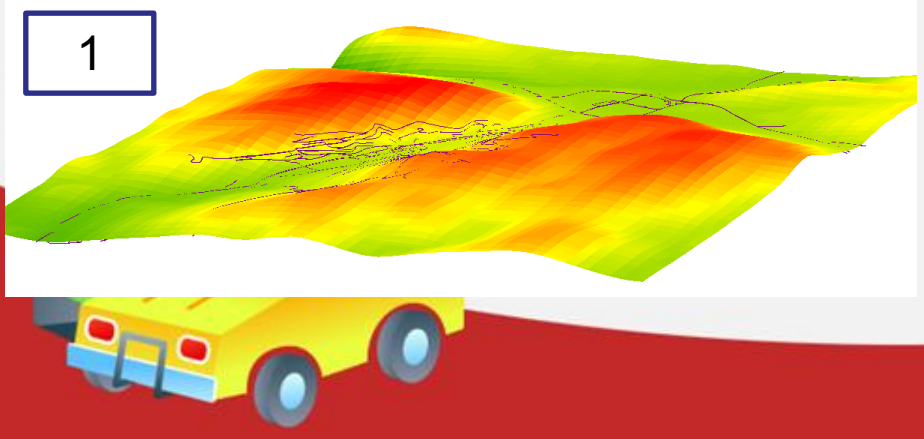
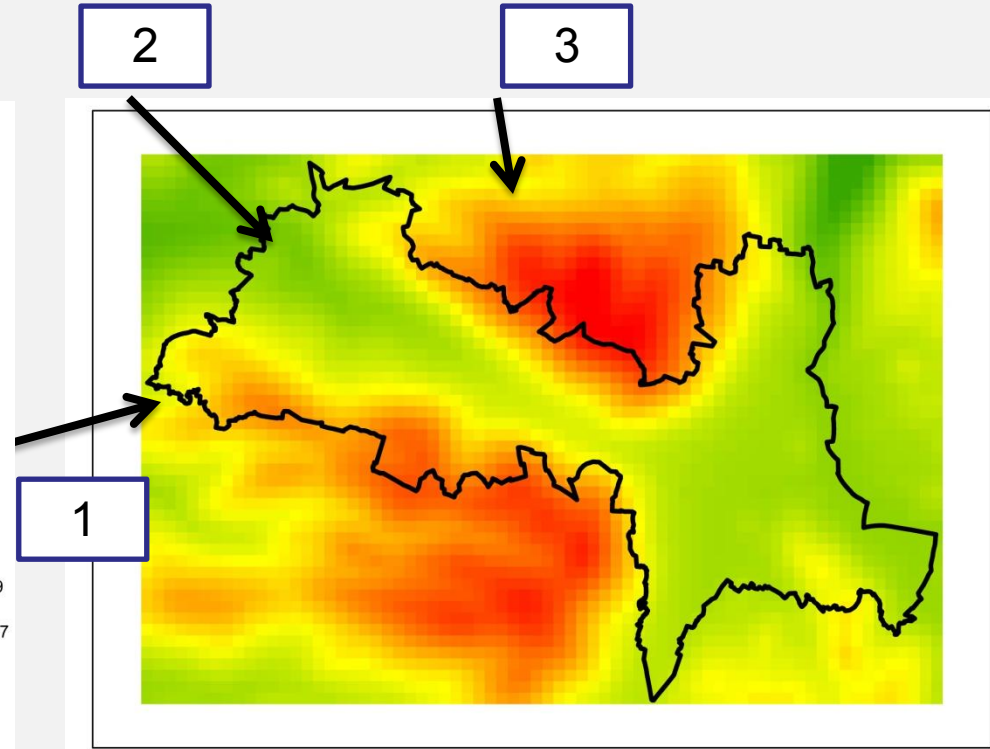
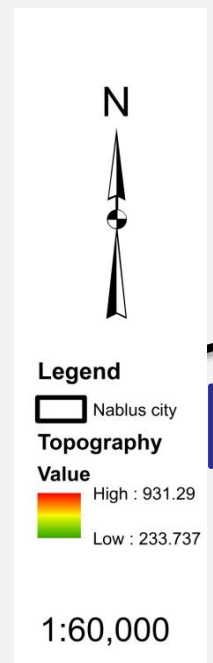
Master plan 2001



Master plan 2011



Nablus city Topography

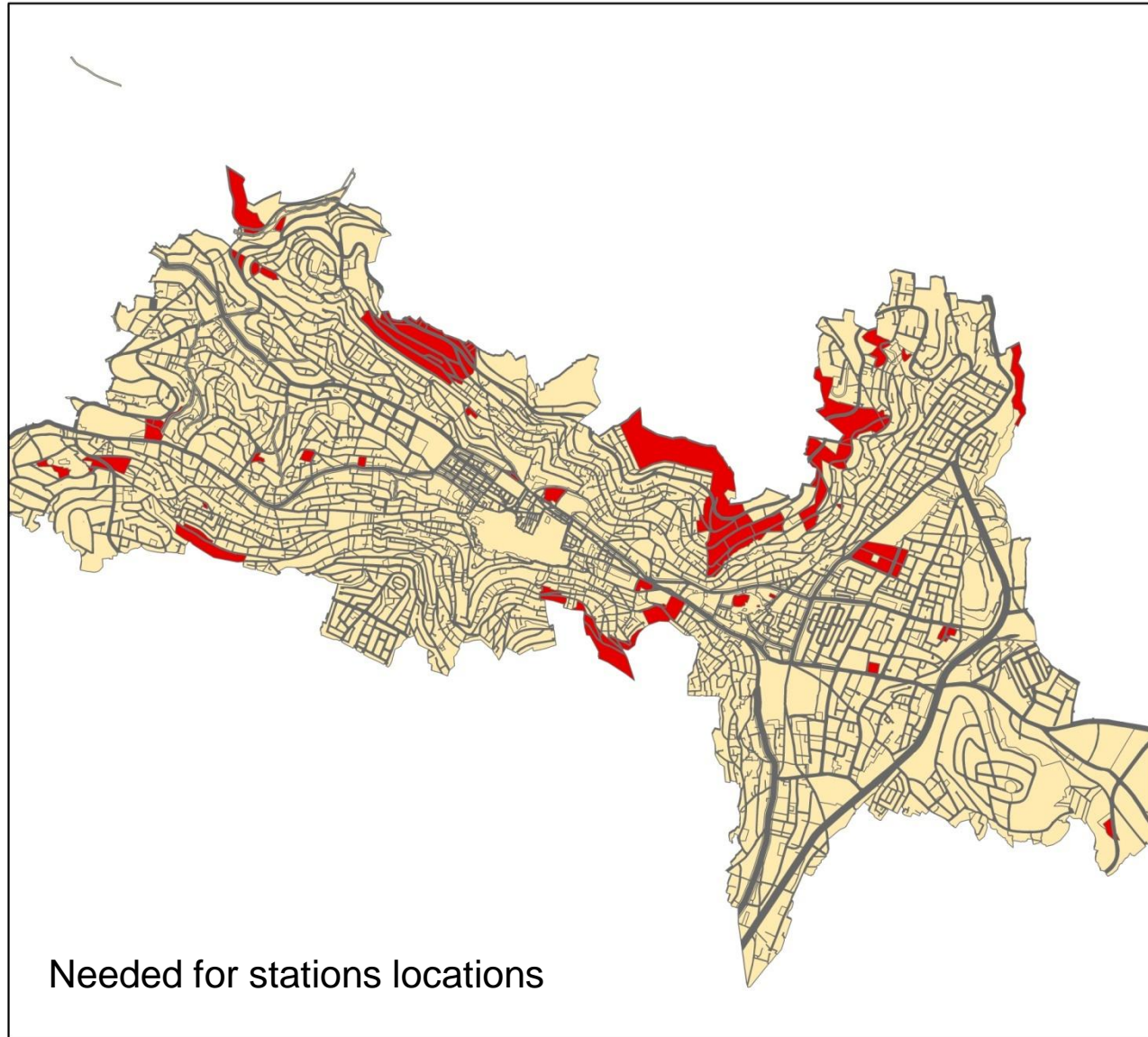


State lands locations in Nablus city



Legend

-  Nablus city
-  State Land
-  Roads



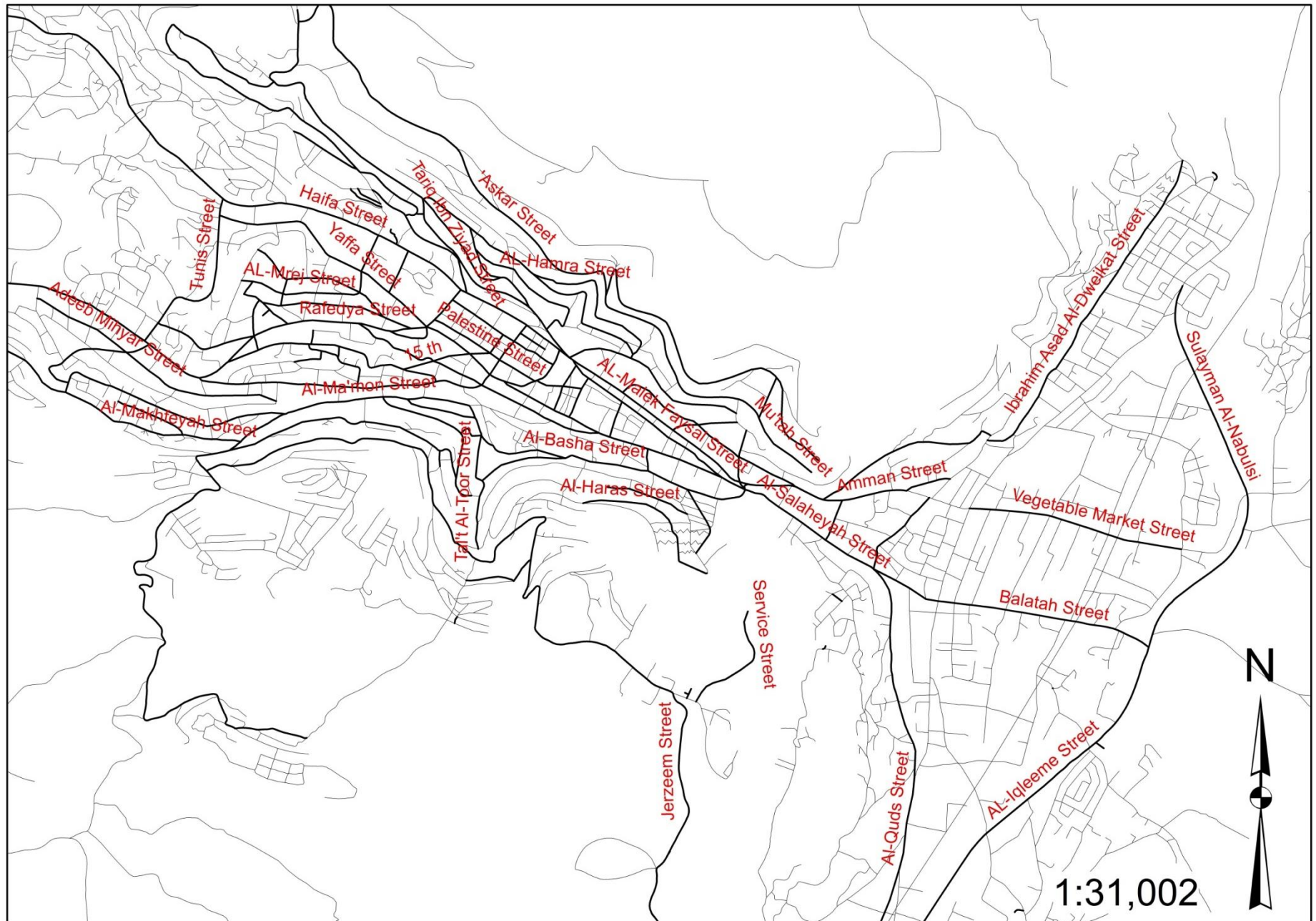
1:50,000



Roads Diagnosis



Roads names



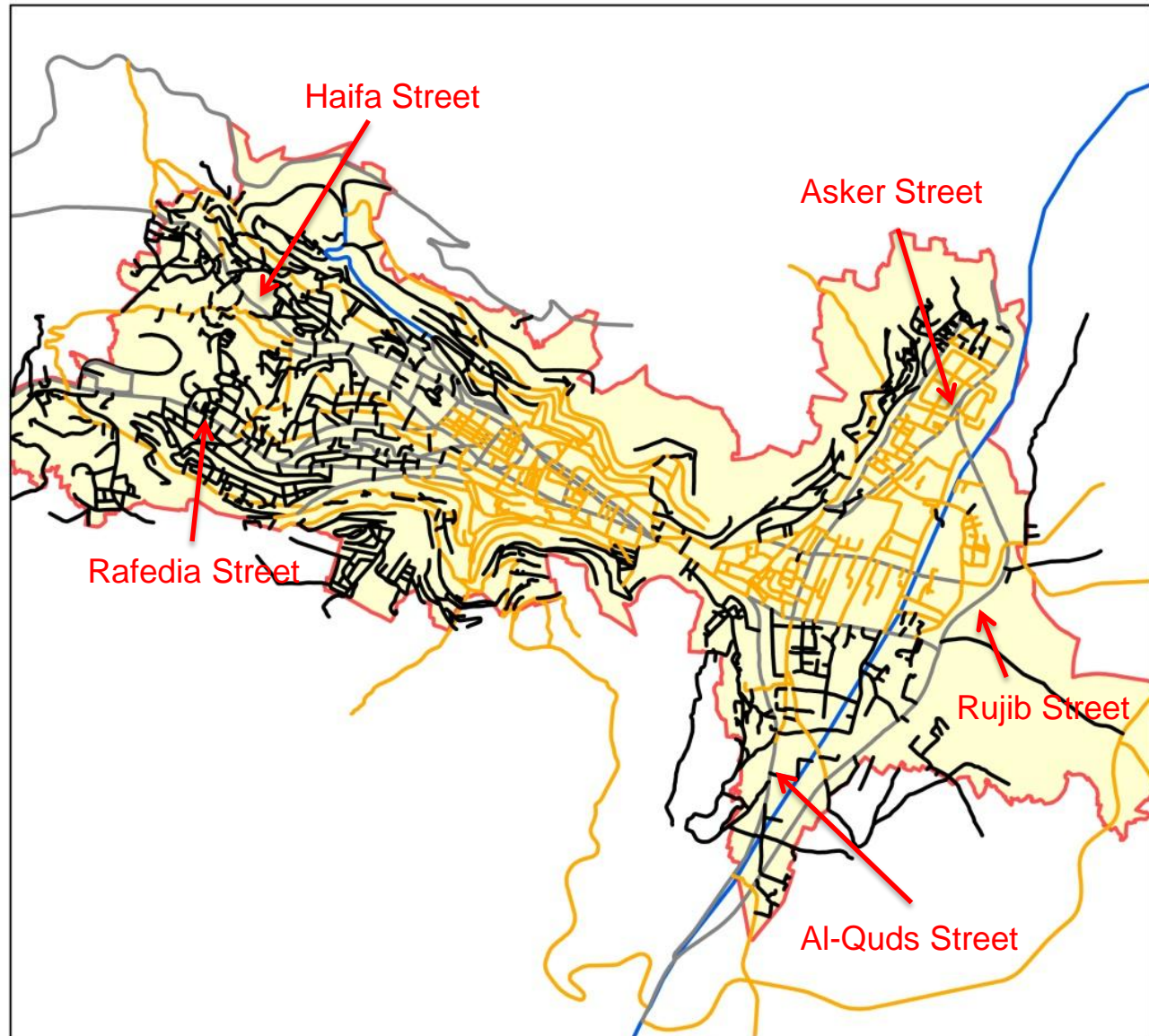
Type of Nablus city streets



Legend

TYPE

-  primary
-  residential
-  secondary
-  tertiary
-  Nablus city




1:50,000



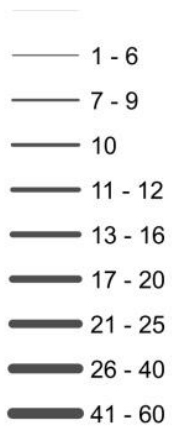
Internal roads width in Nablus city



Legend

 Nablus city

roads width "meter"



1:30,000












Internal roads width in Nablus city



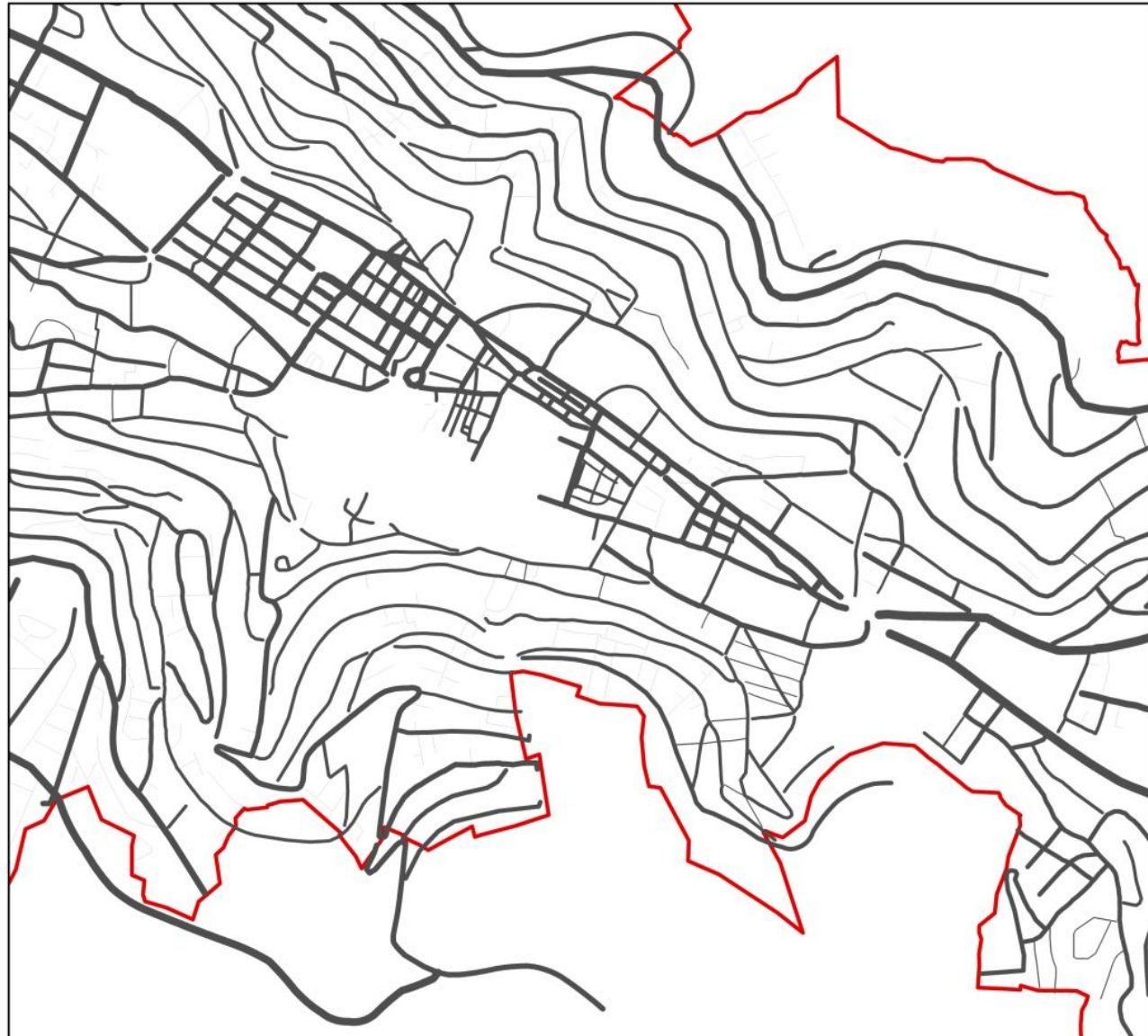
Legend

 Nablus city

roads width "meter"

-  1 - 6
-  7 - 9
-  10
-  11 - 12
-  13 - 16
-  17 - 20
-  21 - 25
-  26 - 40
-  41 - 60

1:15,353












Internal roads width in Nablus city



Legend

 Nablus city

roads width "meter"

-  1 - 6
-  7 - 9
-  10
-  11 - 12
-  13 - 16
-  17 - 20
-  21 - 25
-  26 - 40
-  41 - 60

1:20,000



Length of Nablus city streets in meters

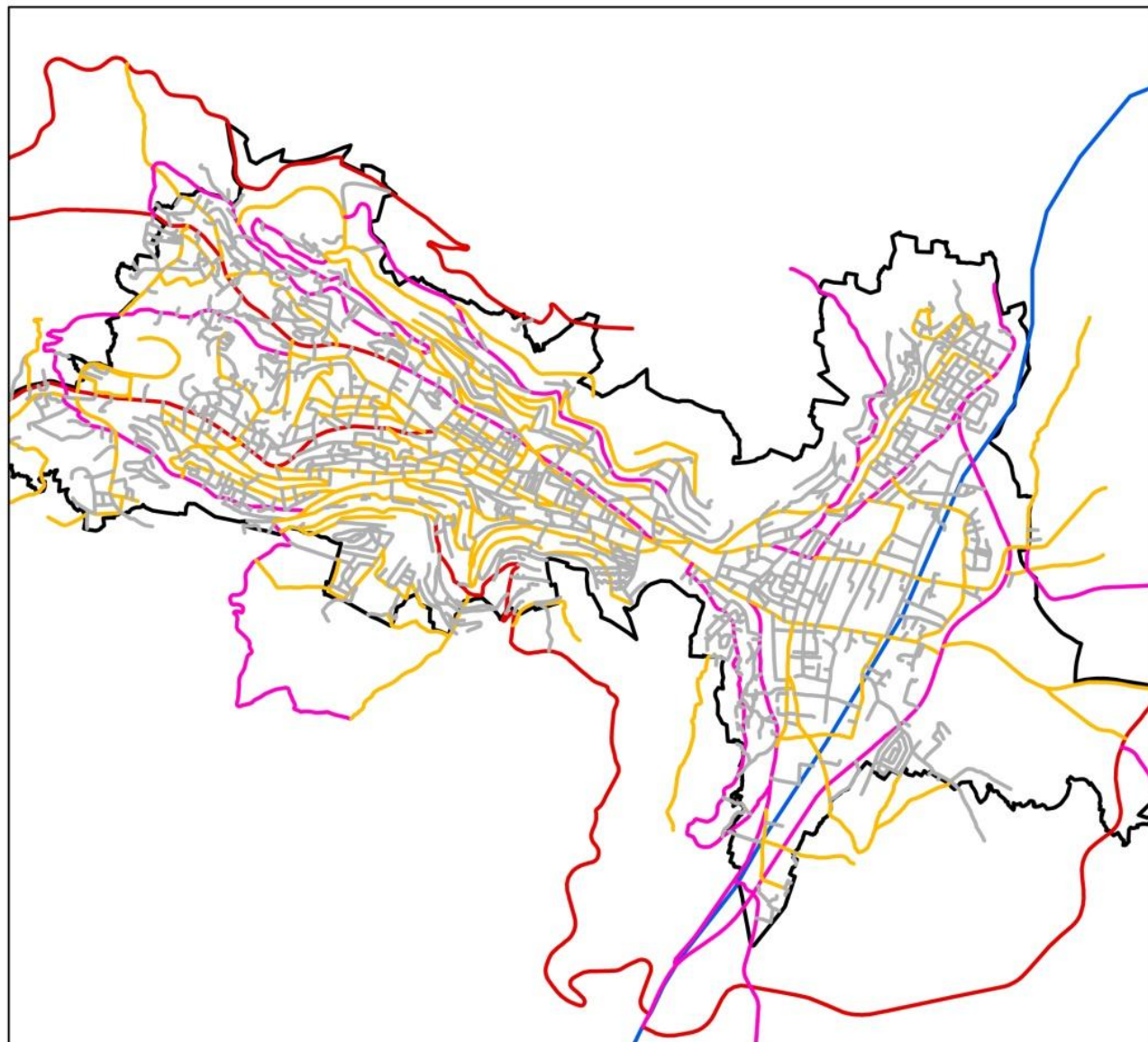


Legend

Shape_Leng

- 0.03 - 693
- 693 - 2227
- 2227 - 4347
- 4347 - 13009
- 13009 - 29514
- Nablus city

1:50,000



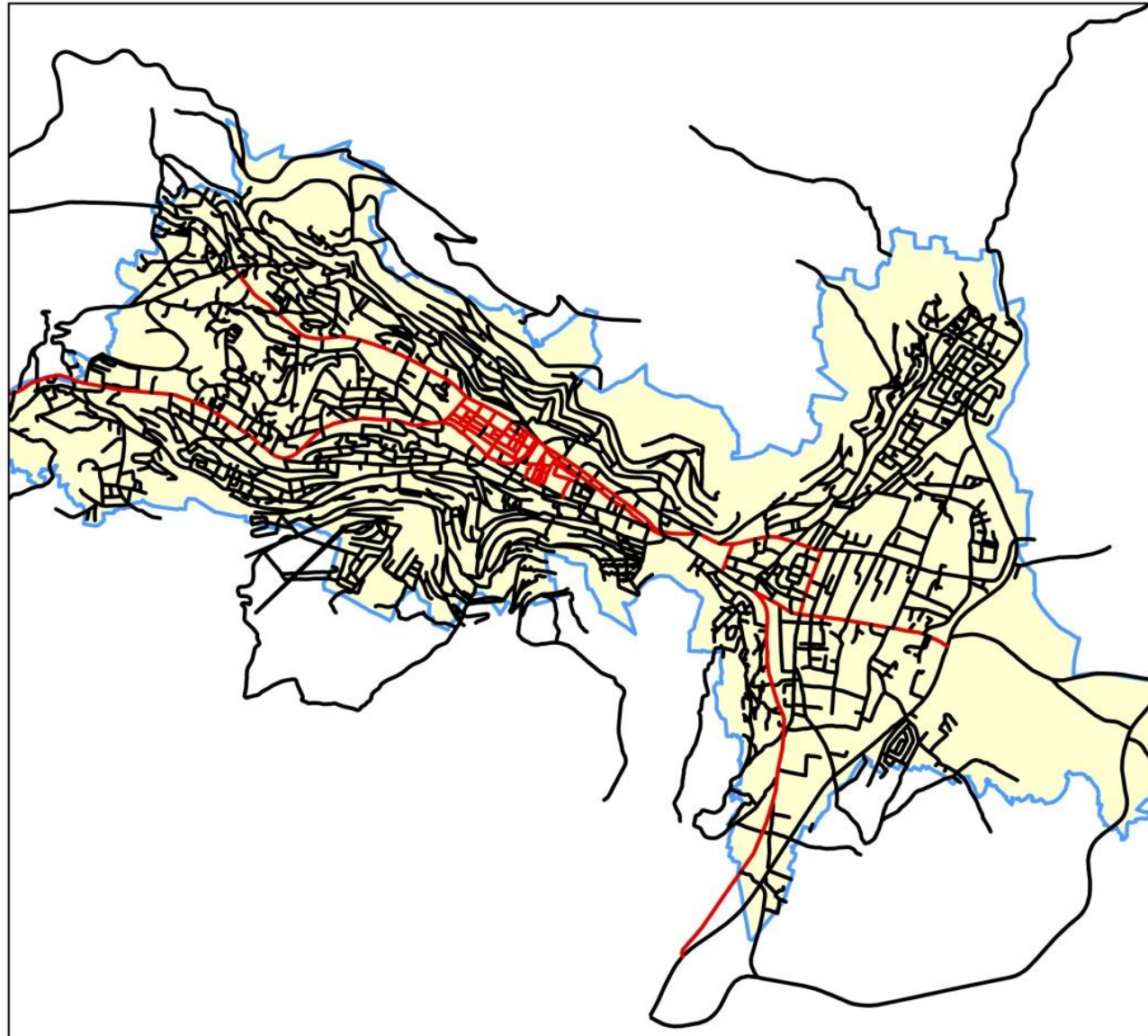
Commercial streets in Nablus city



Legend

use

- not commercial
- commercial
- ▭ Nablus city



1:50,000



Maximun capacity on Nablus city streets "VPH"

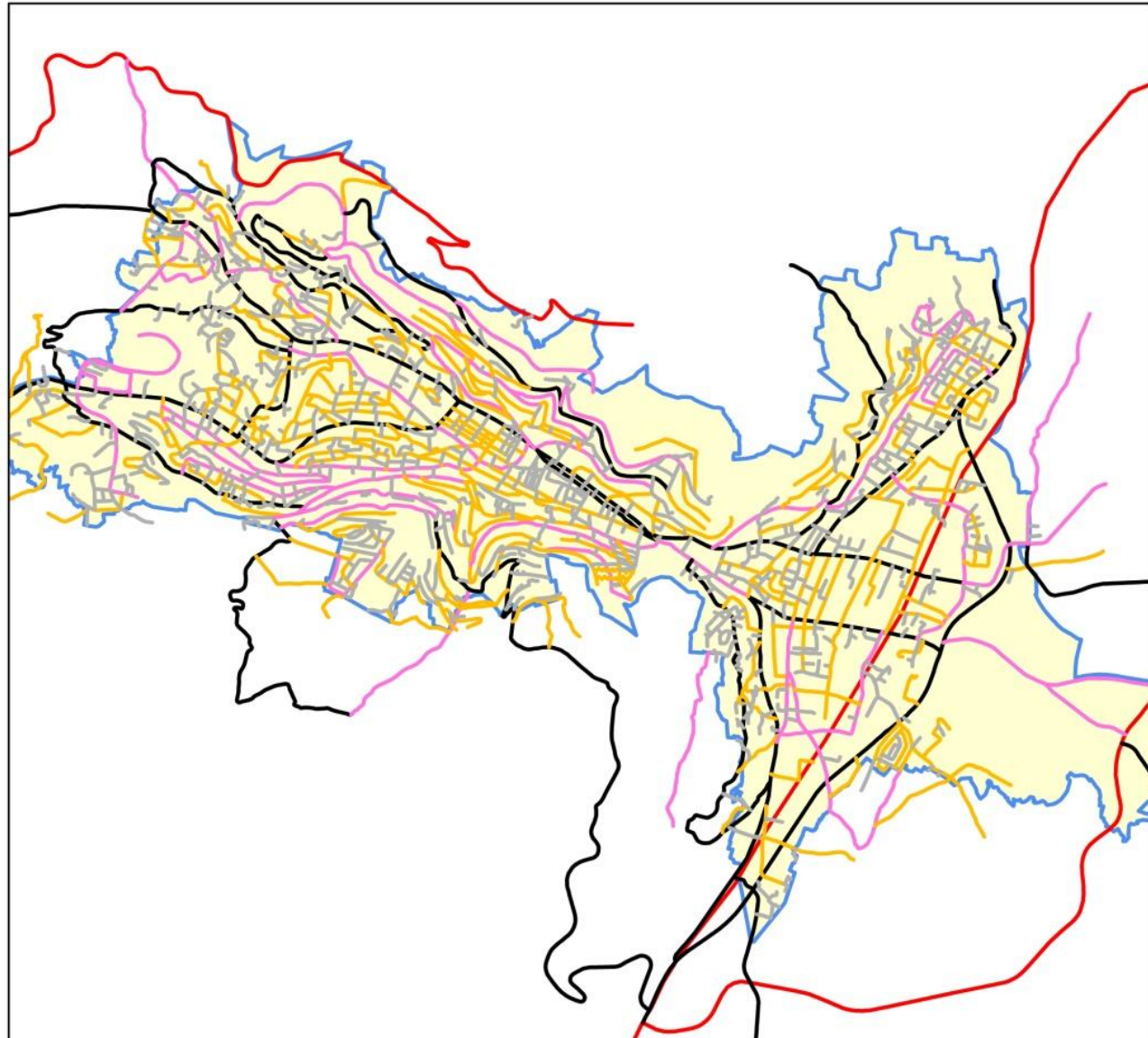


Legend

capacity

- 0 - 229
- 229 - 674
- 674 - 1484
- 1484 - 5448
- 5448 - 19676
- Nablus city

1:50,000



Roads speed



Legend

maxspeed "km/hr"

— 50

— 20

— 30

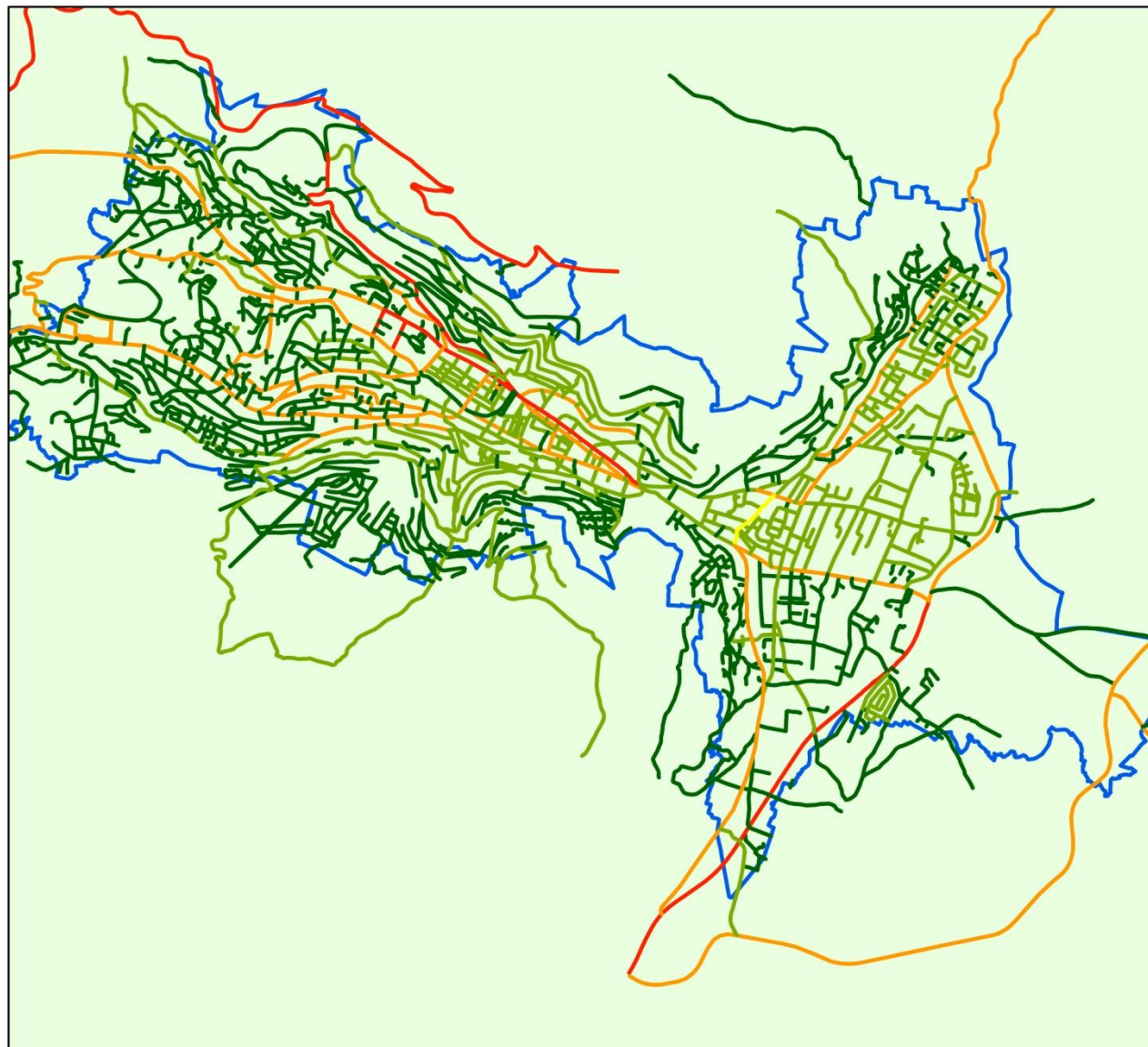
— 40

— 60

▭ Nablus city

▭ Nablus Governorate

1:50,000



Services that attract people from outside the city of Nablus



Legend



Al Quds Open University



College: Hishan HaJawi



Old Najah Campus



New Najah Campus



Paltel



Hospital

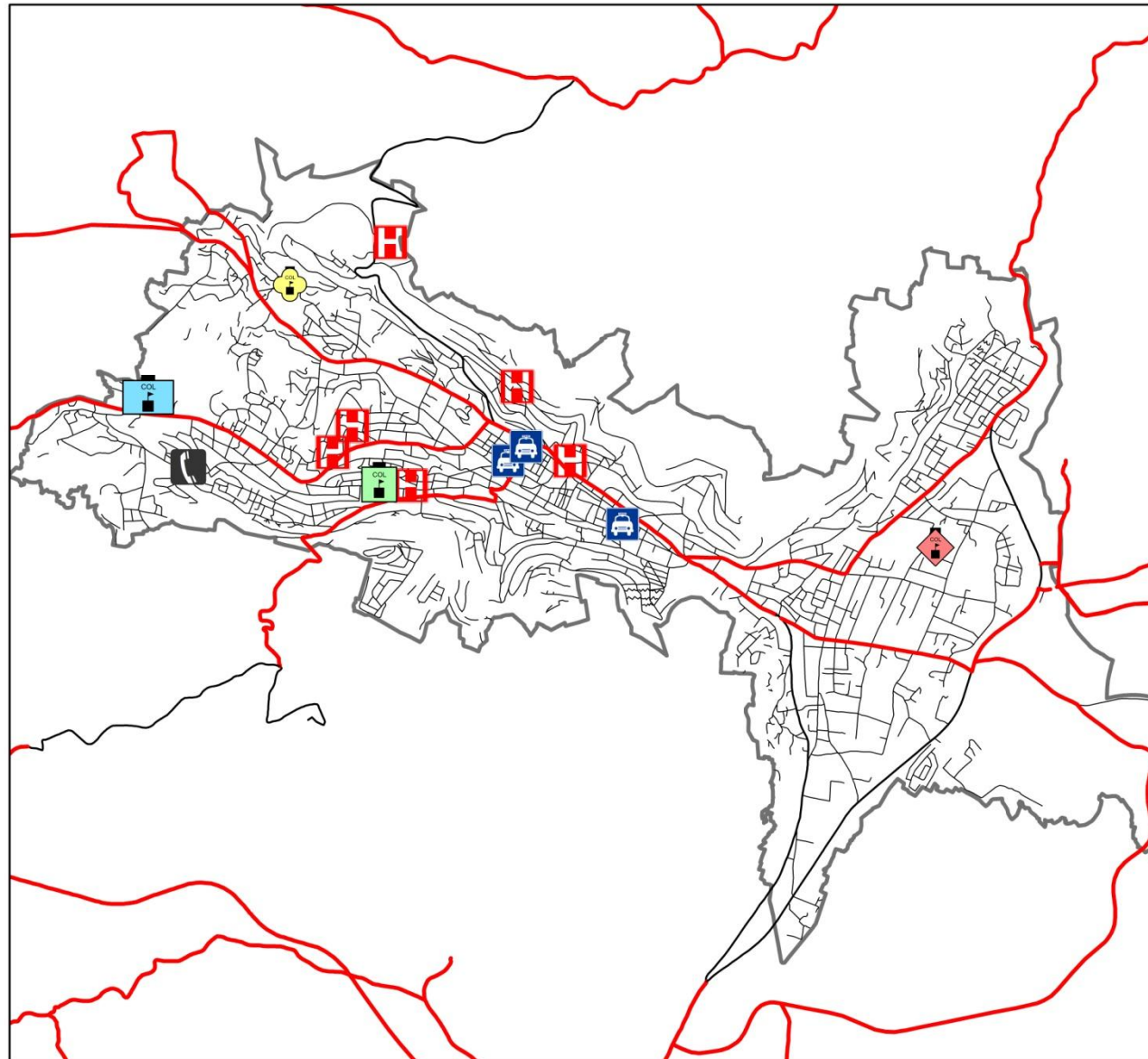


Terminals location

— roads cant be widened

▭ Nablus city

— streets







1:50,000

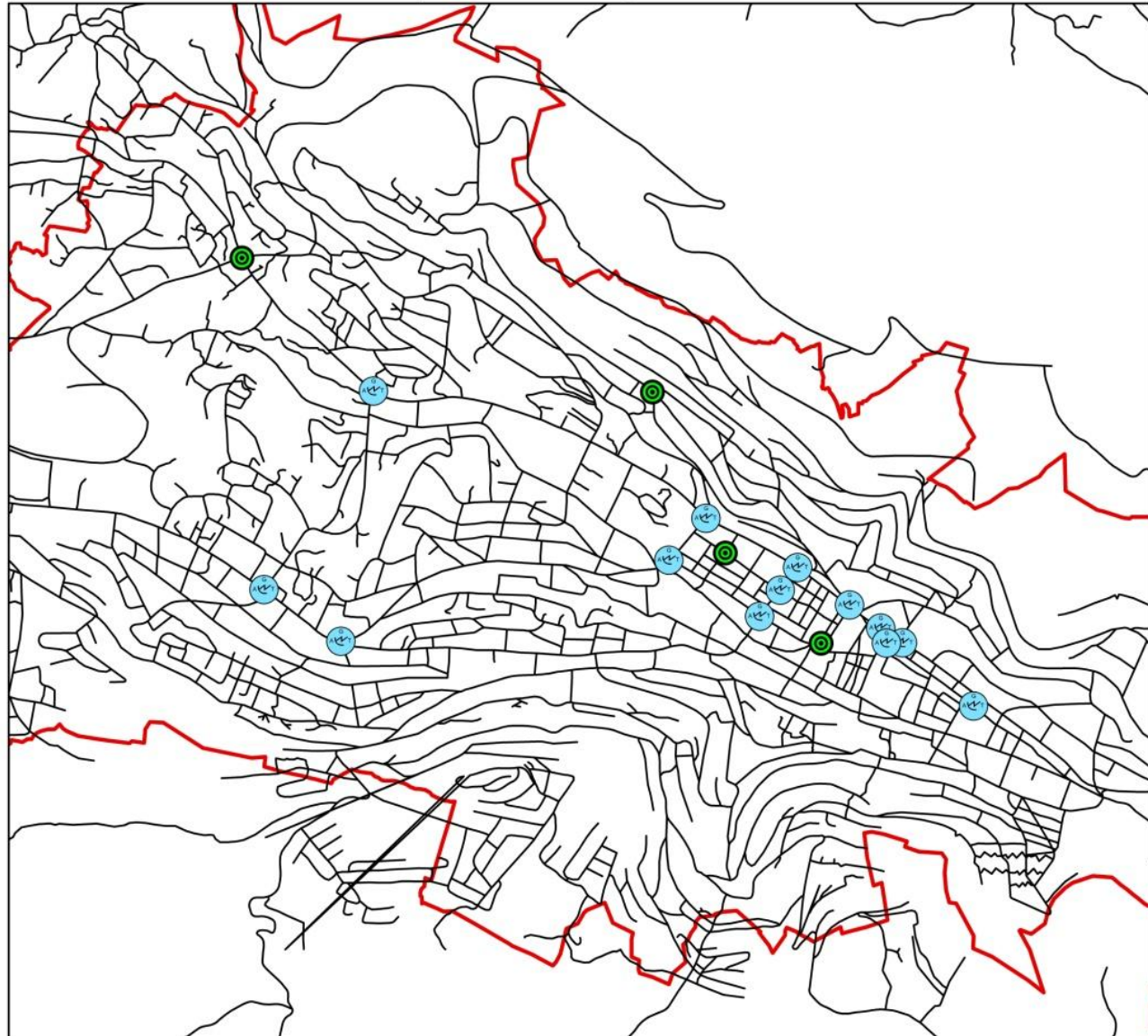


Roundabouts and traffic signals locations on Nablus city streets "Speed Decelerators"



Legend

-  Nablus city
-  traffic signals
-  roundabout
-  Roads



1:25,000



Main roads for trucks



Legend

- roads
- main roads for trucks
- Nablus city



1:40,000

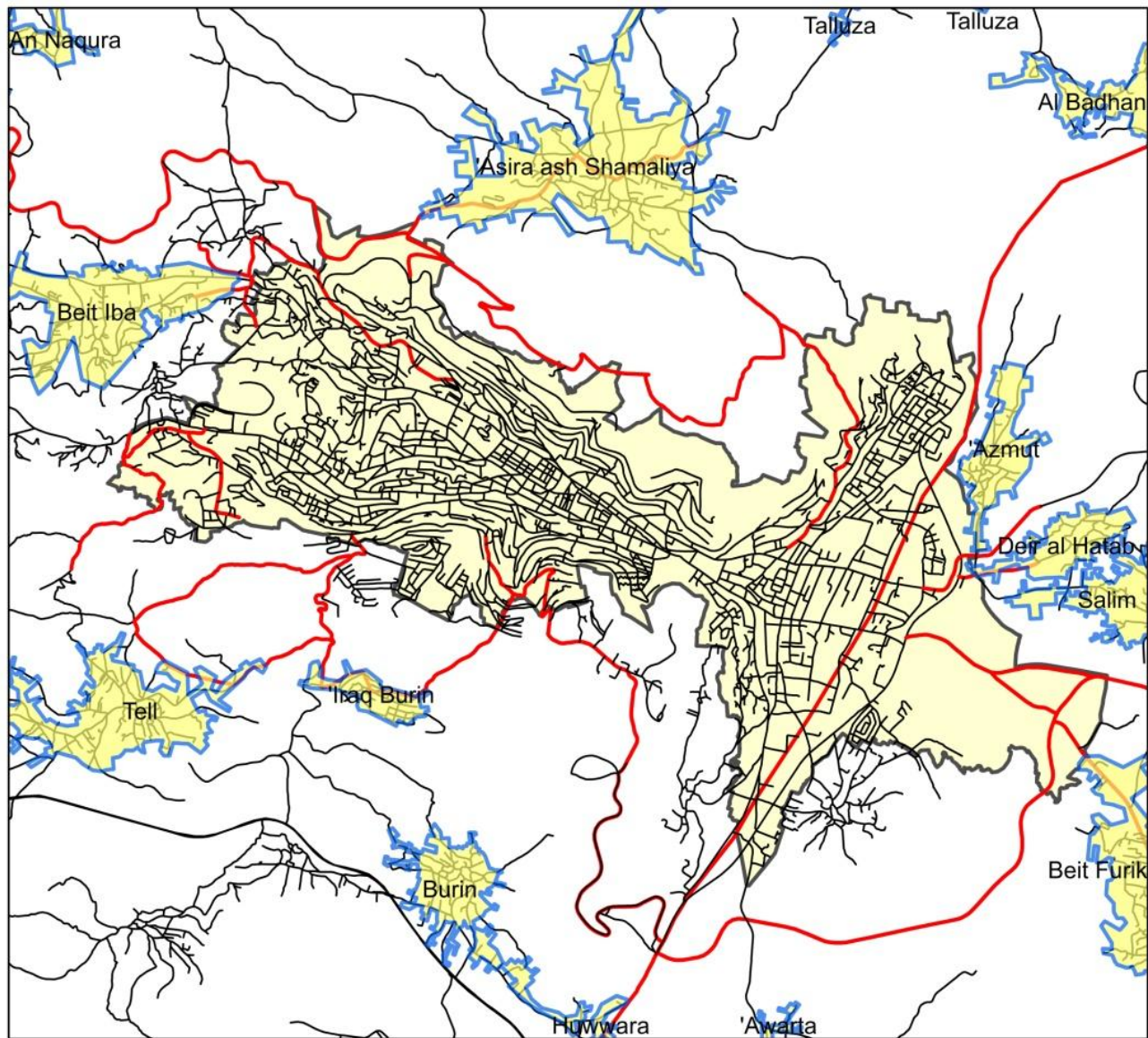


Roads used for entrances closure cases



Legend

-  communities
-  roads
-  detours
-  Nablus city



1:60,000



Roads served by service vehicles

N



Legend

Streets

number of service vehicles

- 0
- 26
- 28
- 35
- 40
- 58
- 88
- 101
- 123
- 177
- 229
- 235



1:40,000



Public transportation movements analysis



The start point for roads that connect Nablus with other communities



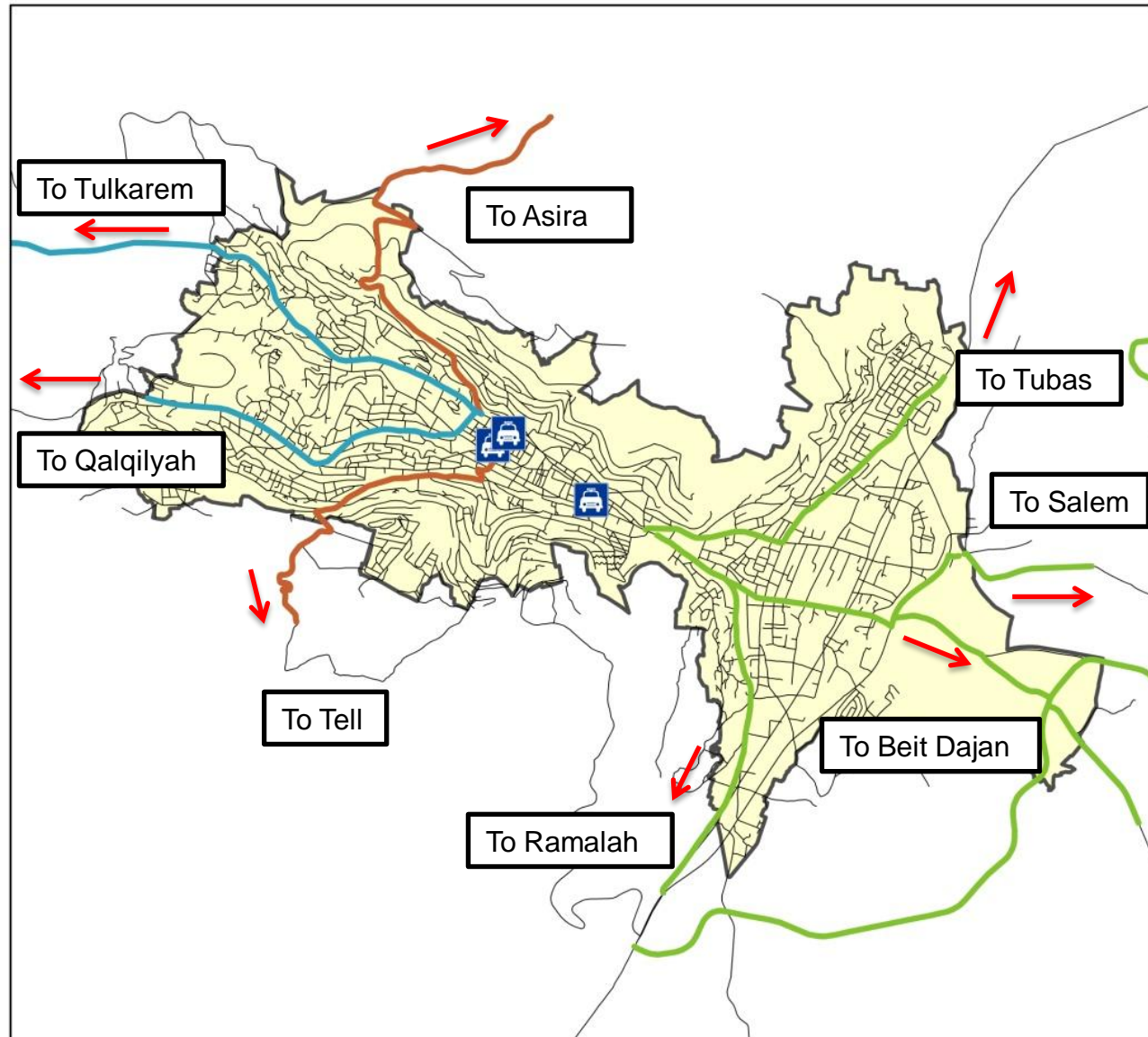
Legend



Terminals

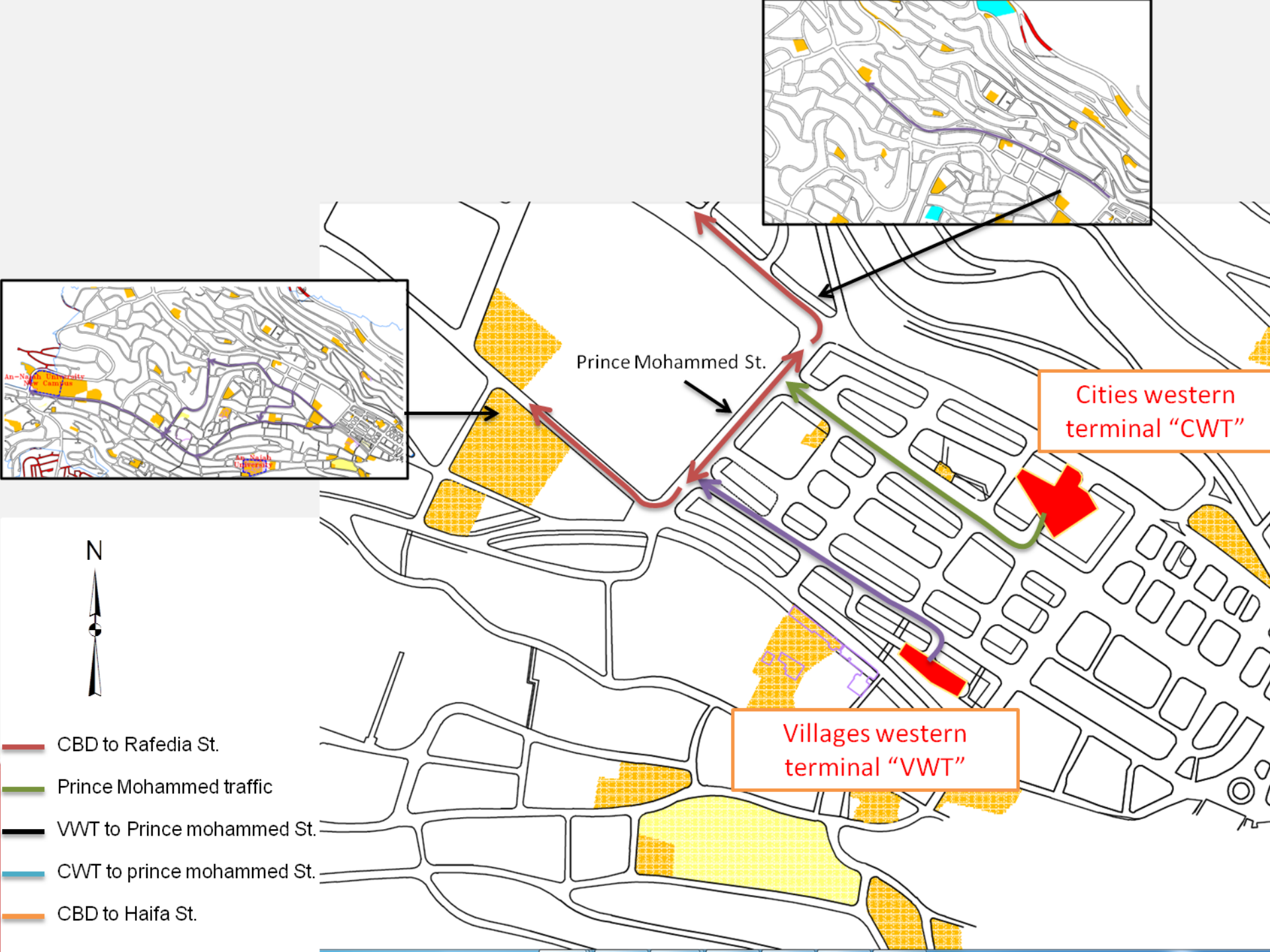
From

- Western cities terminal
- Eastern terminal
- Western villages terminal
- roads
- Nablus city



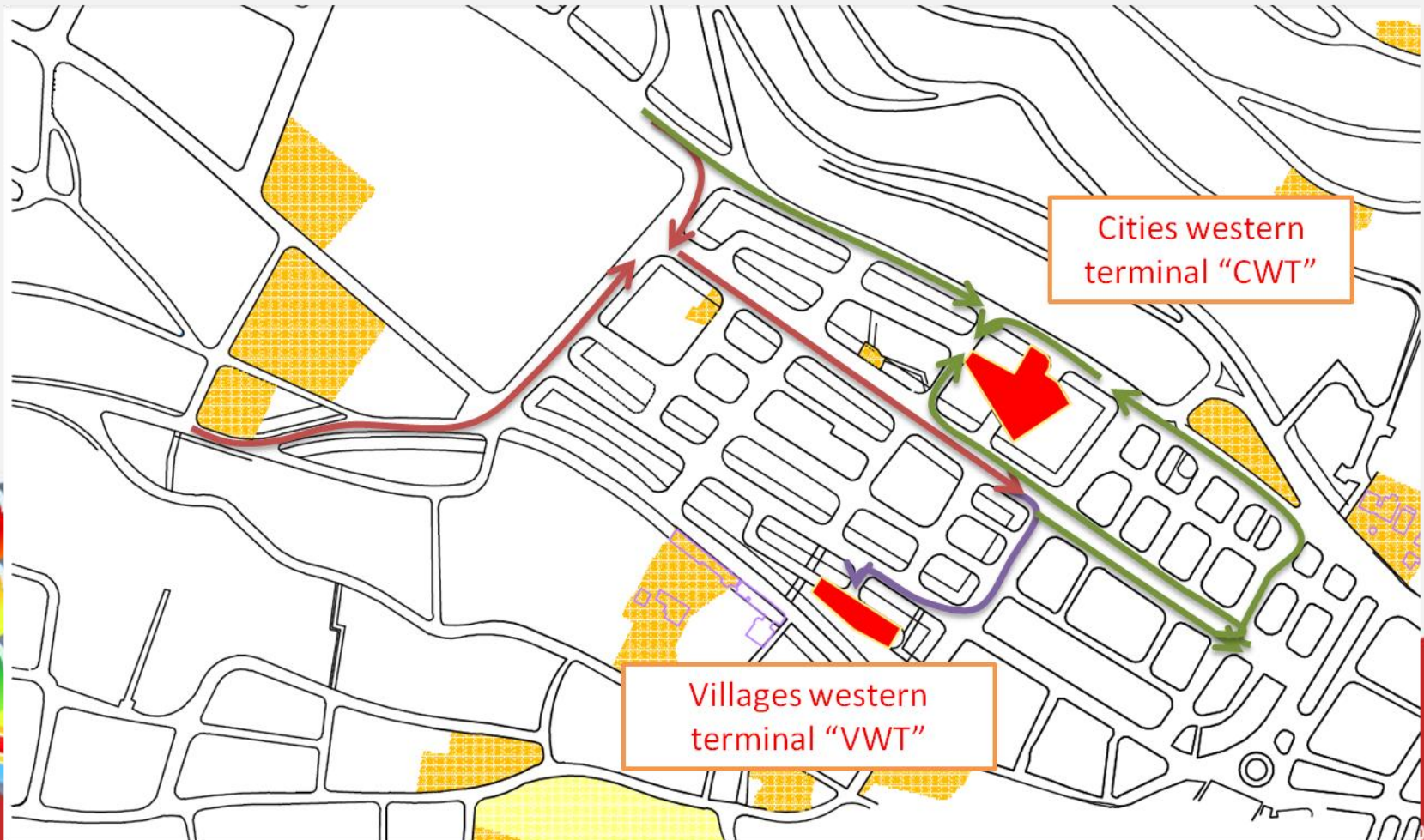
1:57,924







-  Toward CWT & VWT
-  Toward CWT
-  Toward VWT



N

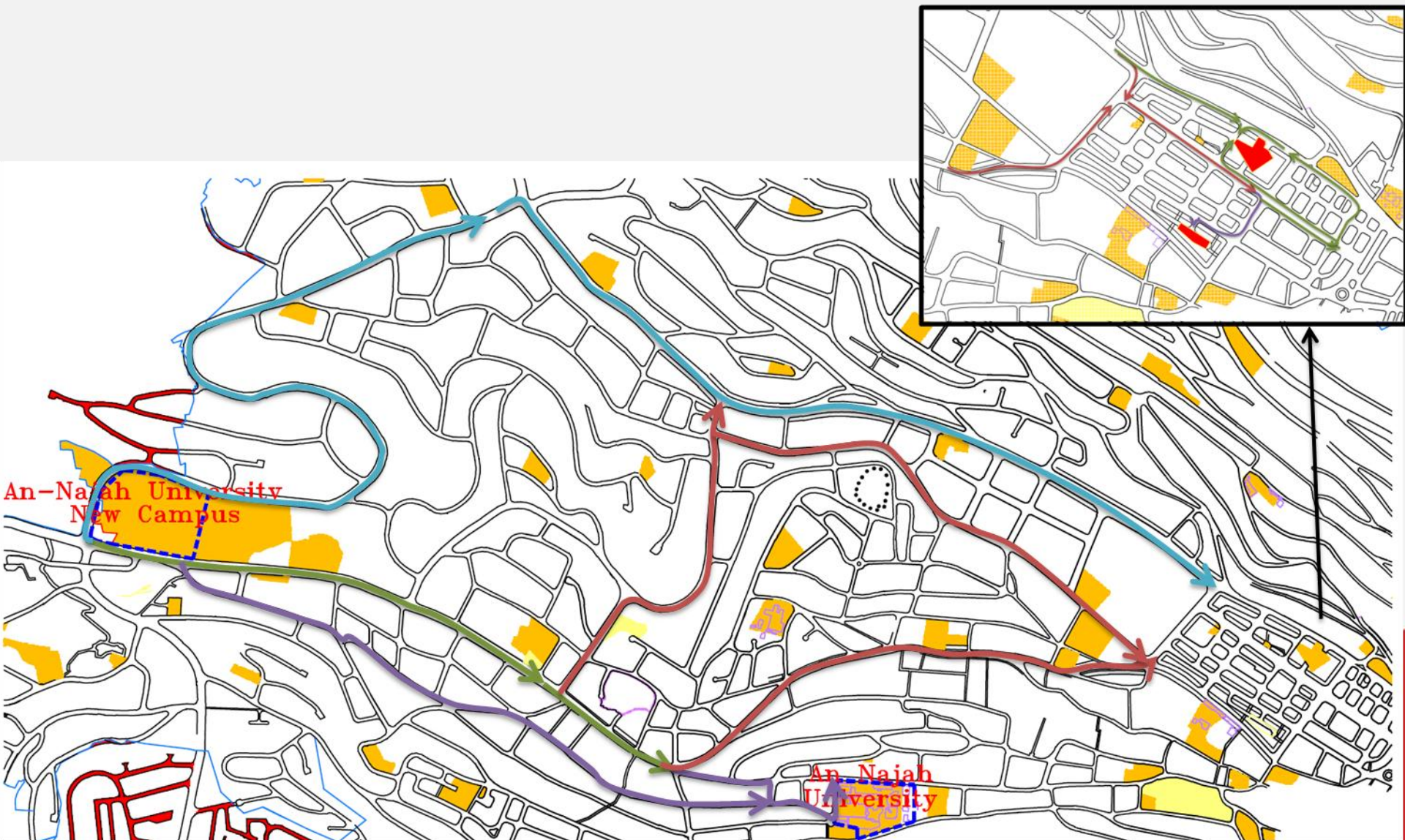


Rafedia - CBD

New campus – CBD or old campus

Rafedia – CBD “Buses”

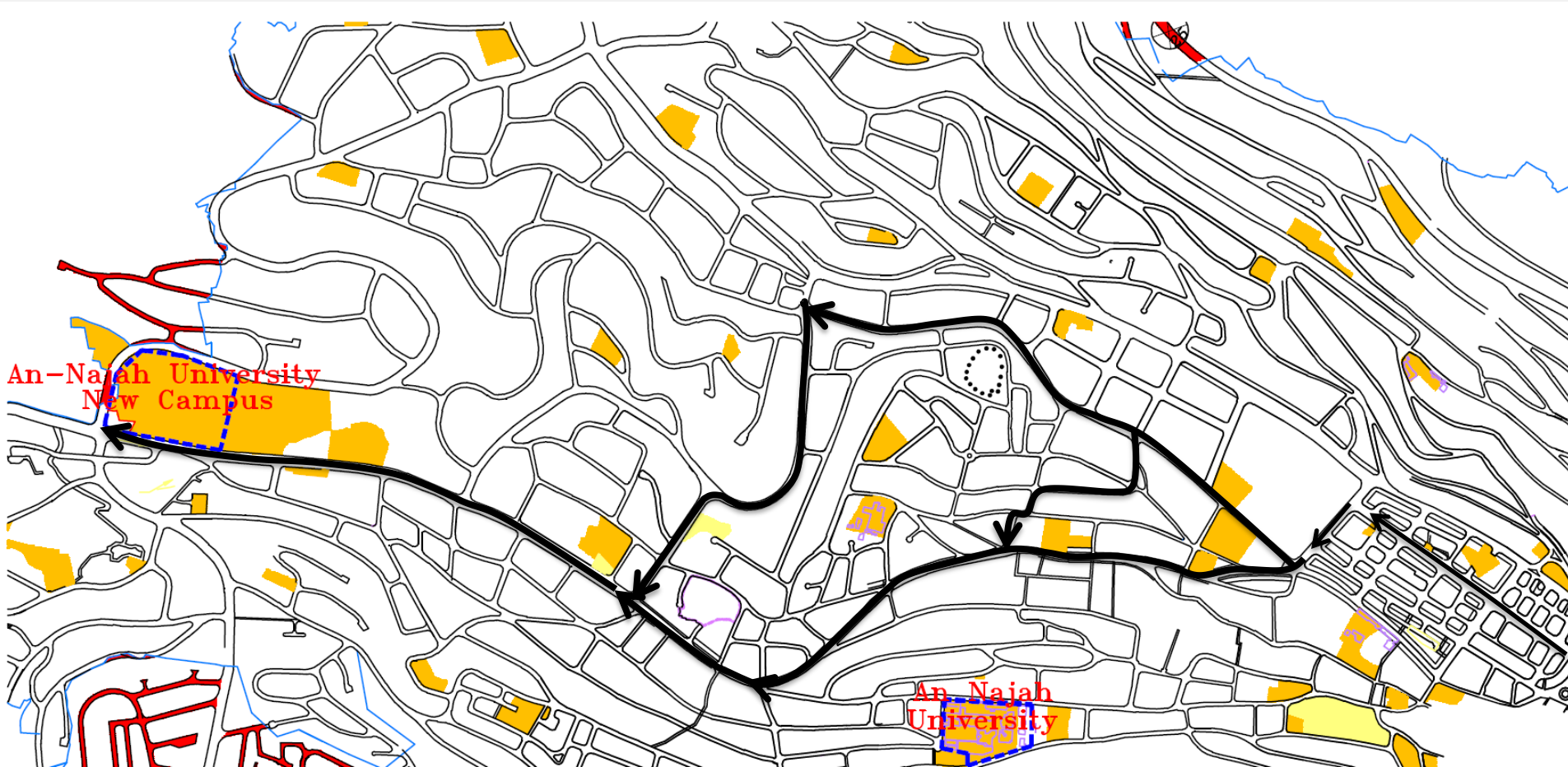
New campus – old campus



N



— CBD to West area
movement

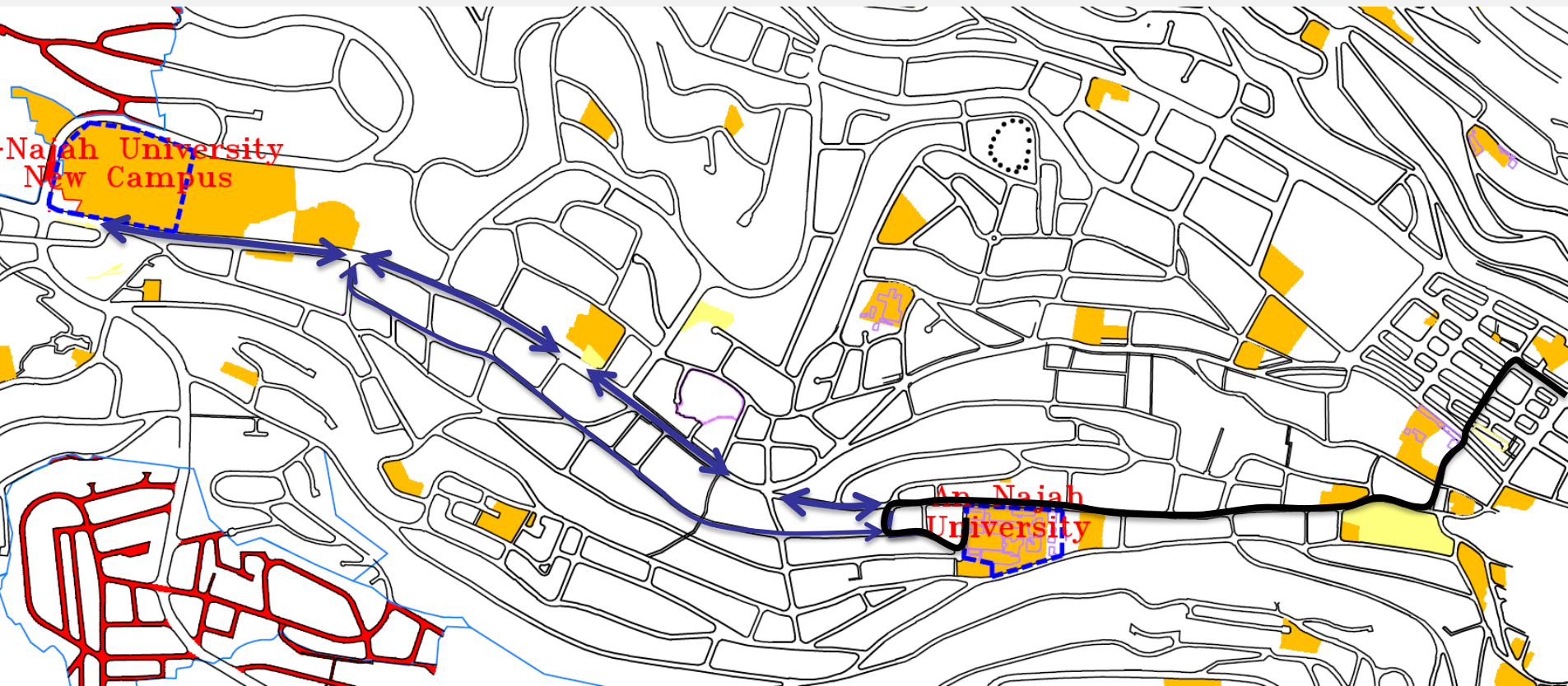


N



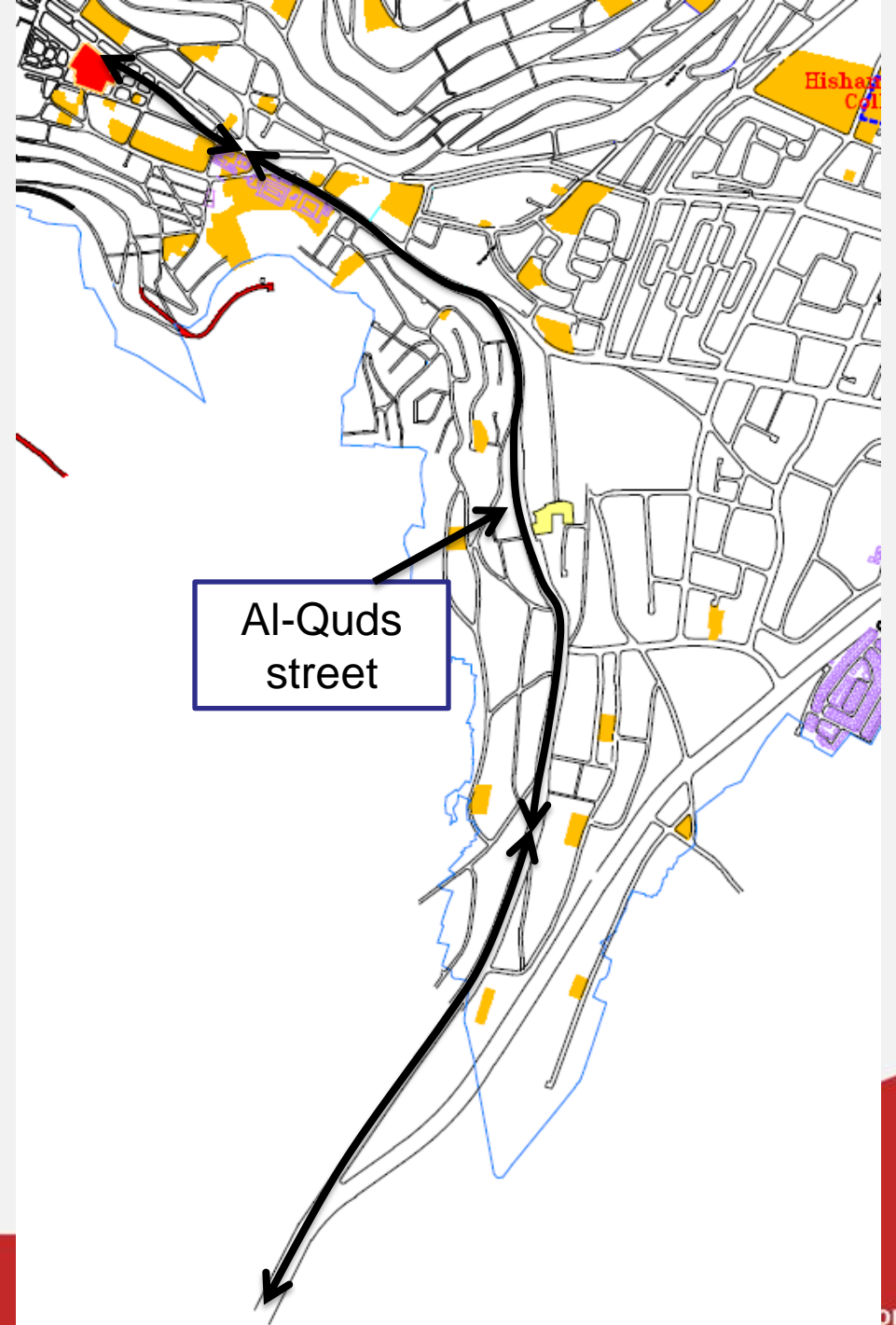
Between An-Najah campuses

Between old campus and CBD



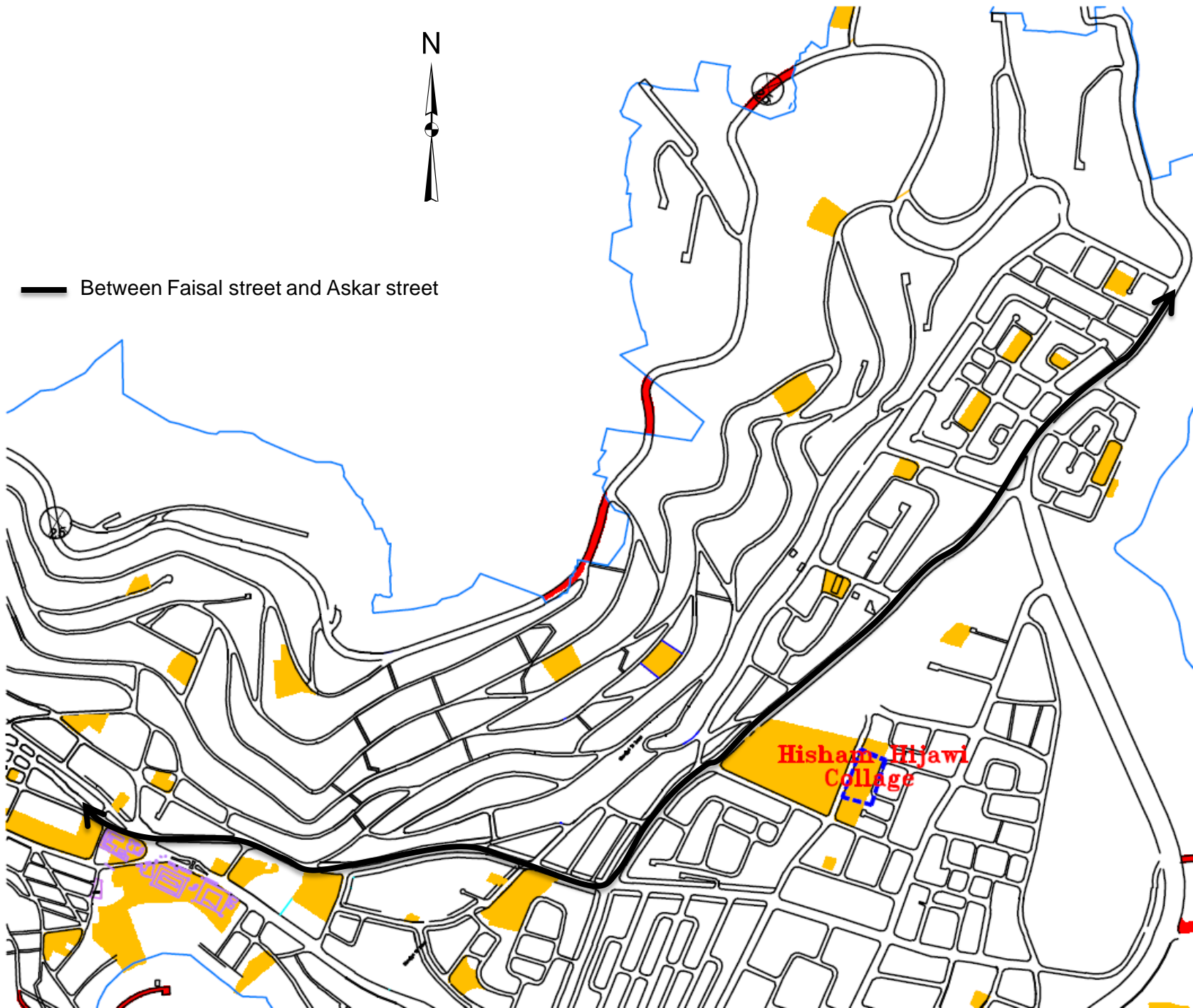


Between Faisal street and Al-Quds street





Between Faisal street and Askar street

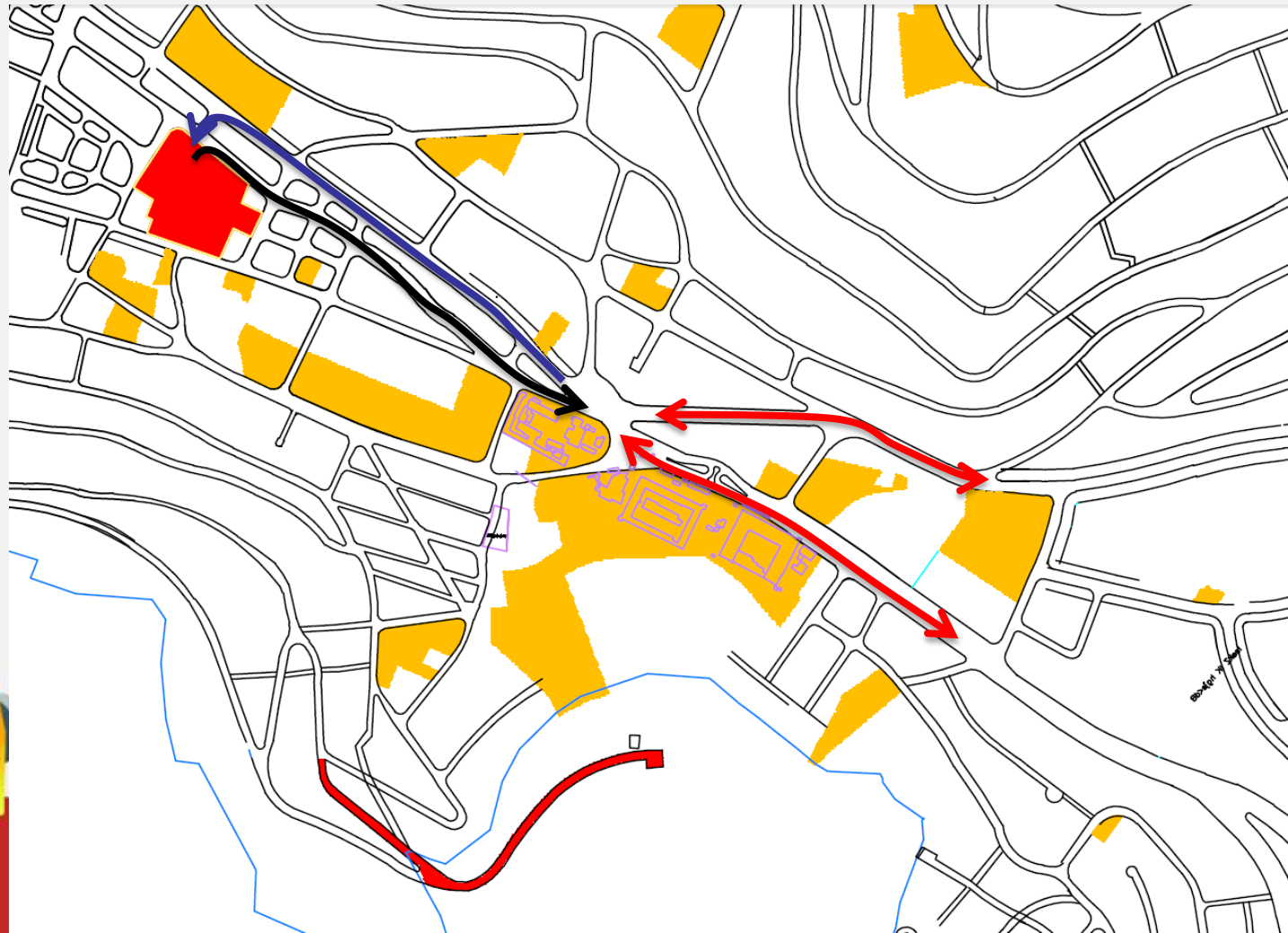




— To and from eastern villages and cities

— To eastern terminal

— From eastern terminal



Main roads classification according to traffic volume



Legend

volume

1

2

3

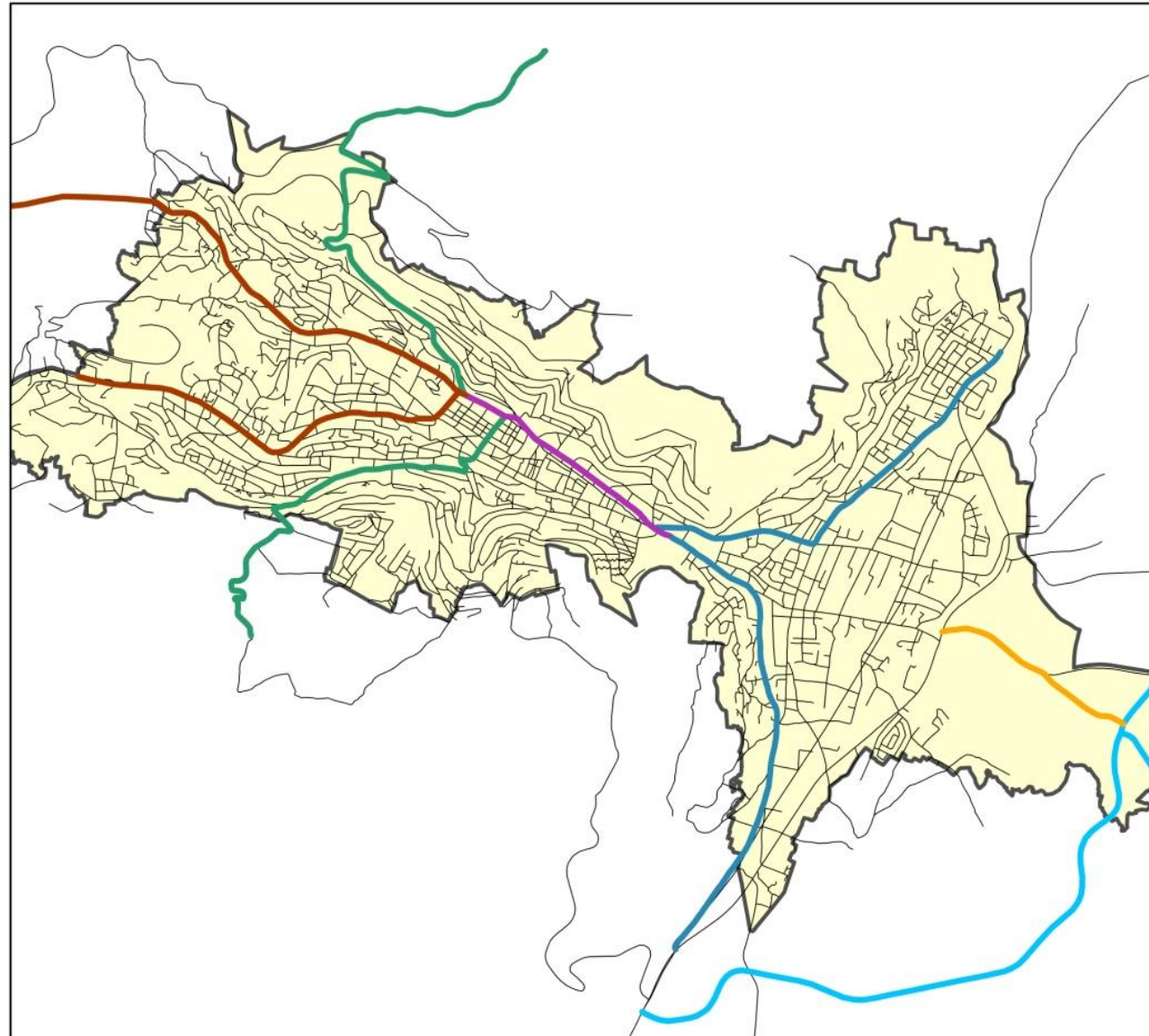
4

5

6

— roads

▬ Nablus city



1:50,000

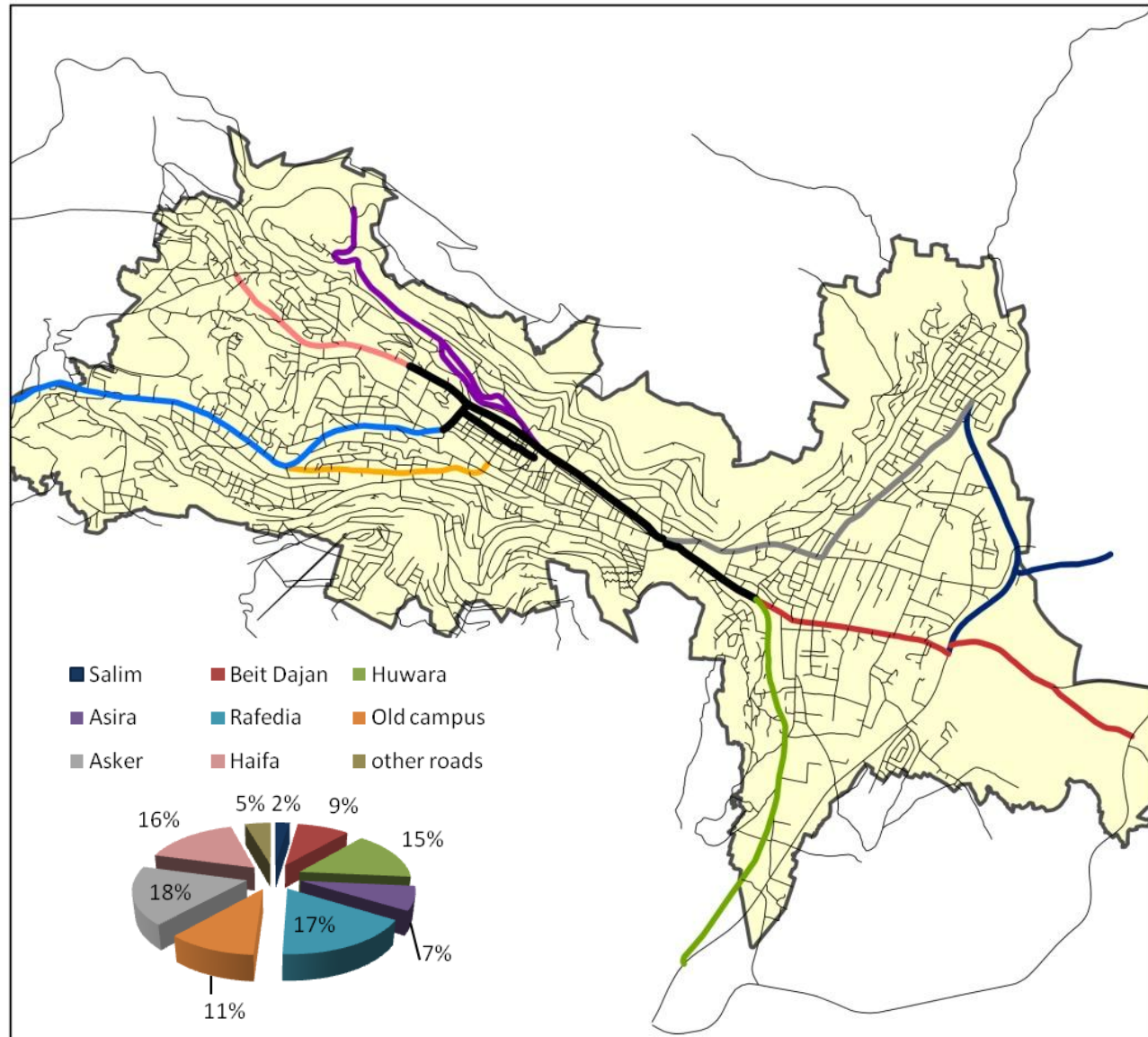


Public transportation Percentages on Main Roads



Legend

- roads
- 11%
- 15%
- 16%
- 17%
- 18%
- 2%
- 7%
- 9%
- Maximum
- Nablus city



1:50,000



Main roads that have high traffic volume



Legend

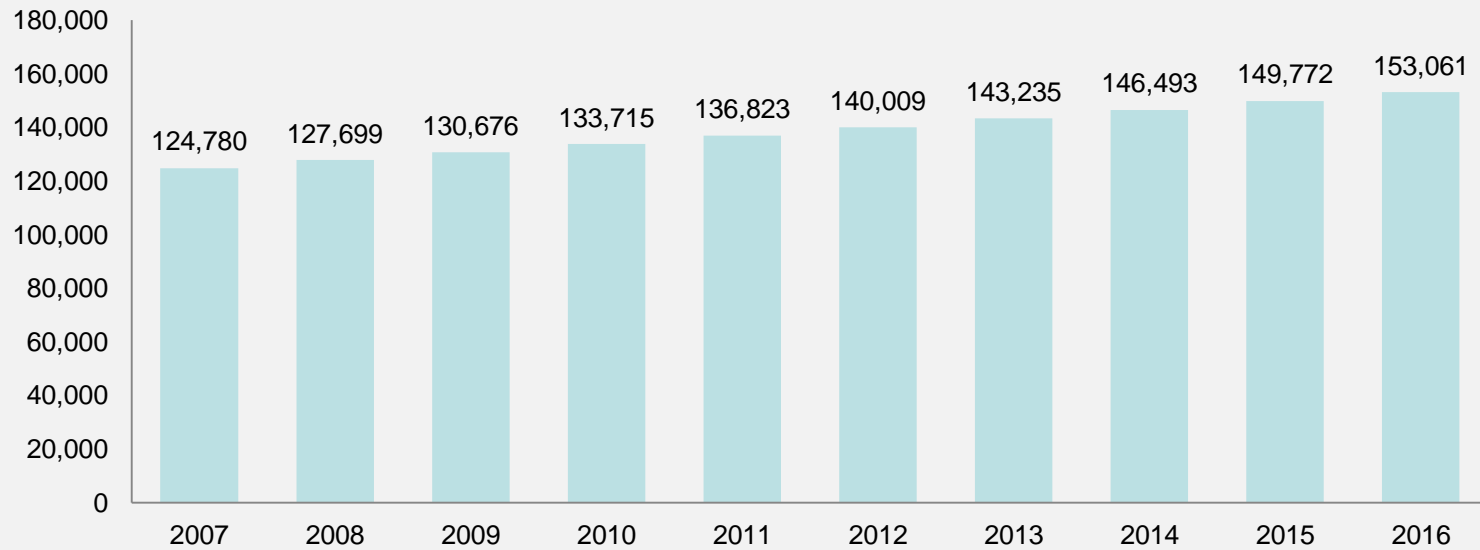
- roads
- very high traffic
- ▭ Nablus city



1:40,000

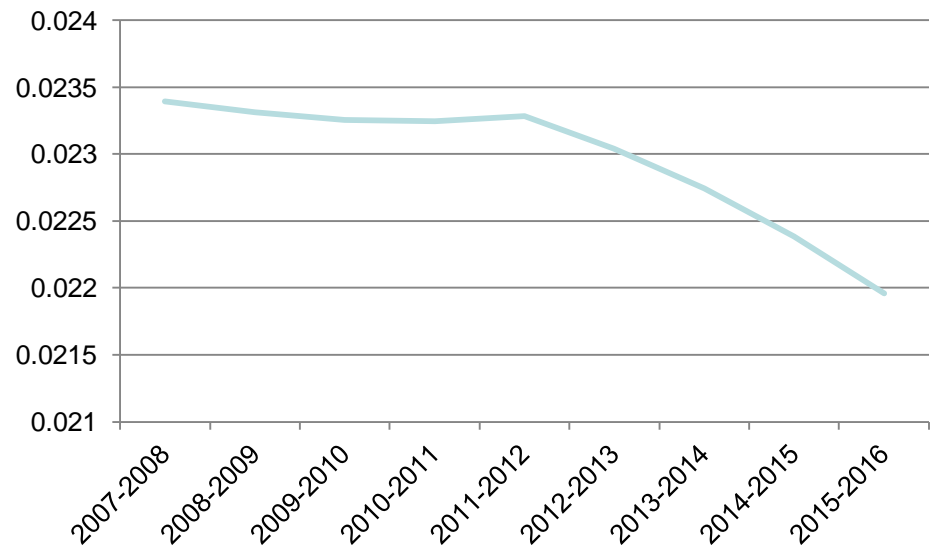


Population studies



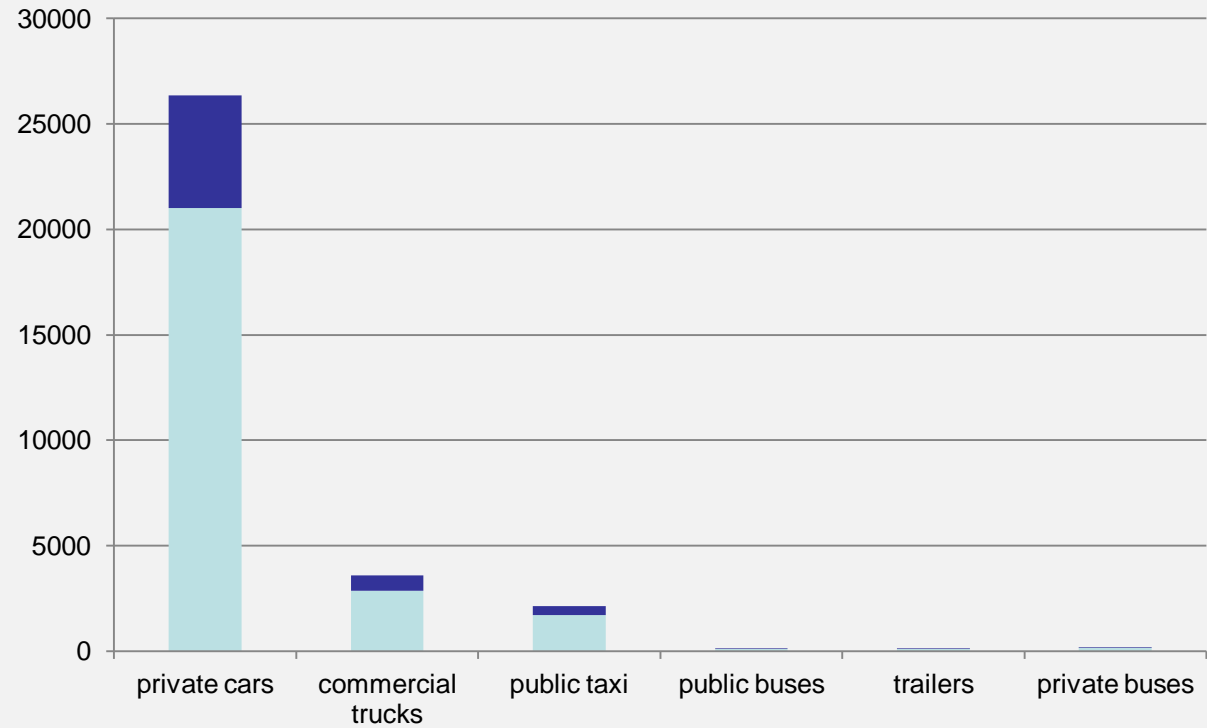
Nablus city population

Population growth rate



Expected city population in 2026 : 186,673

Expected counts of
vehicles in 2026 in
Nablus Governorate



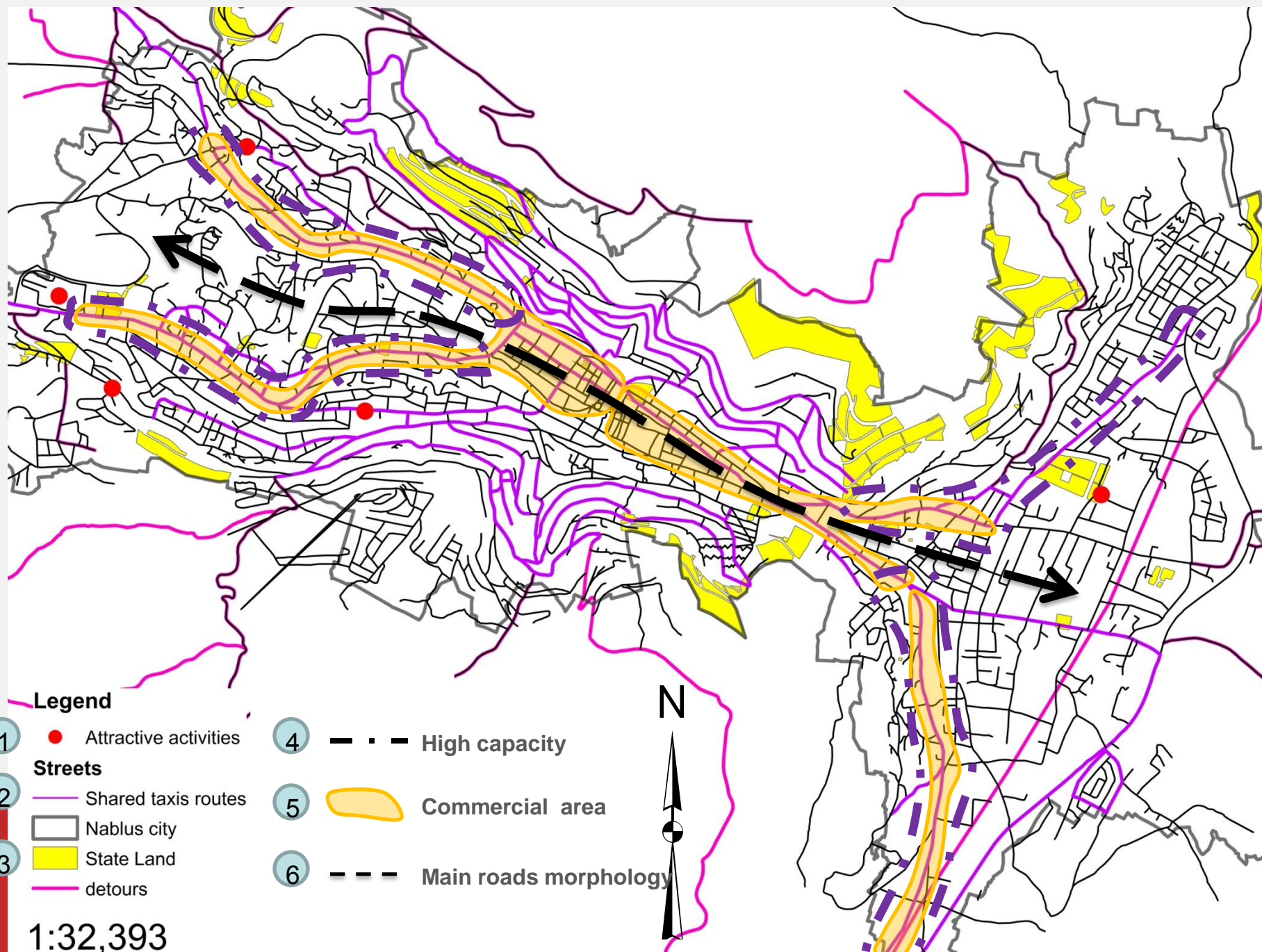
- Second stage:
Analysis and vision statement



Strength

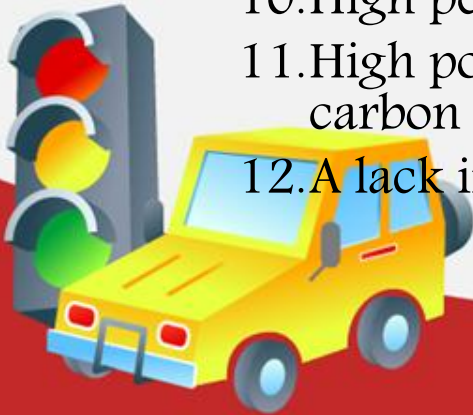
1. The location of some attractive services on main roads and the ability to be reached by different roads
2. The availability of shared taxis in the main areas of the city
3. The availability of state lands in some areas
4. High capacity for some streets
5. Commercial uses lie on main roads “Rafedia and Haifa streets”
6. Main roads lie along the city from east to west “availability of main roads nearly in all parts of the city”
7. All the city parts are served by roads
8. The availability of detour roads

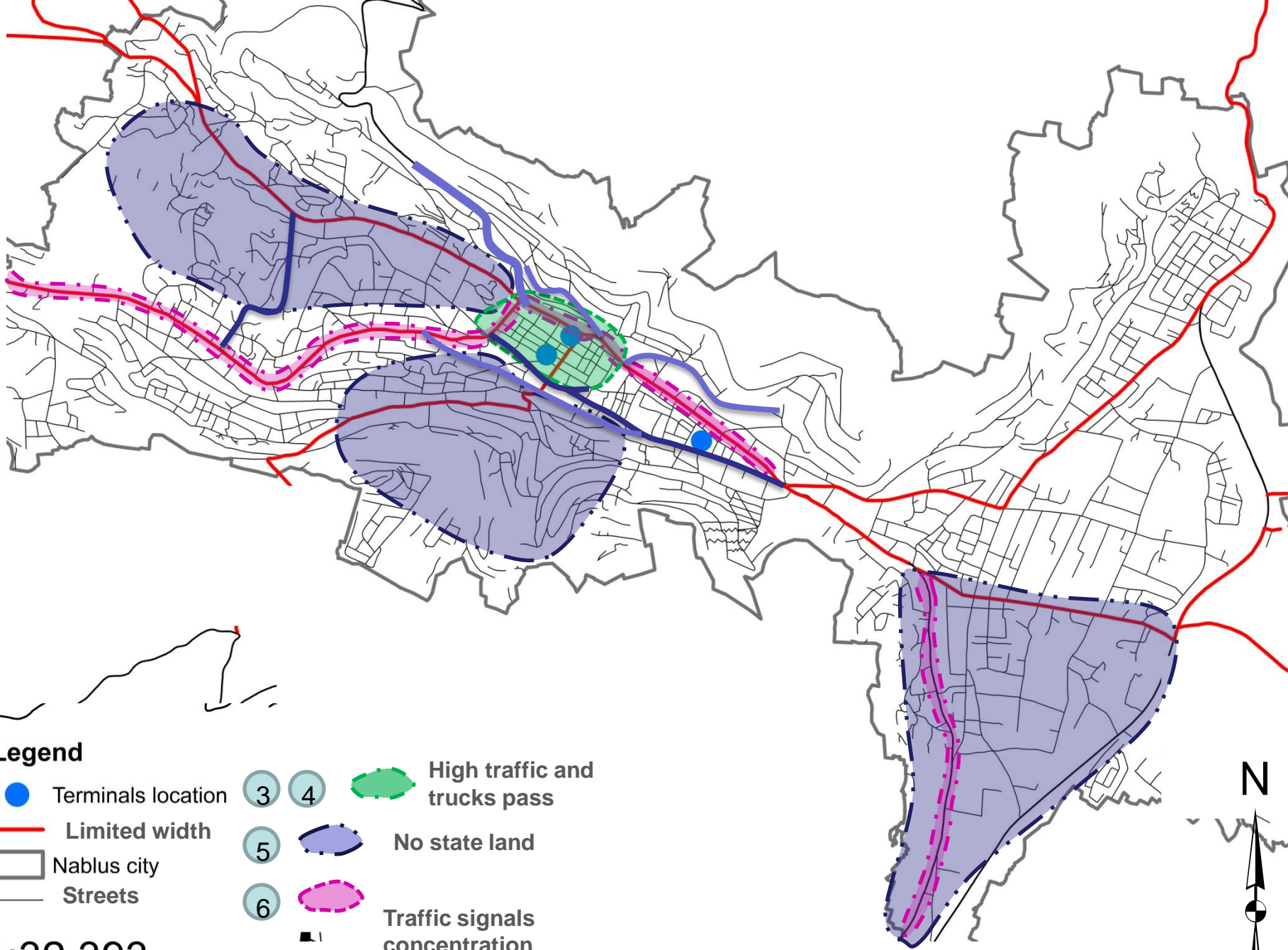




Weaknesses

1. The location of terminals inside the CBD
2. Main and secondary streets are **NARROW** and cant be widened
3. High traffic “very long delay periods” on Faisal street and some main streets
4. Trucks pass through the CBD
5. The absence of state lands in some areas
6. The concentration of traffic signals in the CBD
7. The use of some secondary “residential roads” as pass by roads
8. The absence of speed calming on residential roads
9. No public transportation available in the city
10. High percentage of private vehicles on Nablus roads “81%”
11. High pollution in the CBD and some residential areas “ high carbon emission”
12. A lack in greenery on streets “aesthetic views”





Legend

- 1 ● Terminals location
- 2 — Limited width
- 3 - - - High traffic and trucks pass
- 4 - - - No state land
- 5 - - - Traffic signals concentration
- 6 — Residential roads used as by pass
- 7 — roads used as by pass for shared

1:32,393

N



Main Goals

Economic Benefits	Social Benefits	Environmental Benefits
Reduced development and service costs	Improved transportation options and choices	Green space
Consumer transportation cost savings	Community cohesion	Reduced air pollution
Increased costs to provide public services	Increased physical activity and health	Reduced resource consumption
More efficient transportation	Congestion reduction	Reduced water pollution
		Reduced “heat Island” effect



Main needs

Equity: Connecting all residents to opportunities such as good jobs, transportation choices, safe and stable housing, a range of parks and natural areas, and vibrant open spaces.

Stewardship: Using resources prudently to help ensure the region's financial, social and environmental sustainability now and for future generations.

Integration: Aligning and coordinating policies, plans, resources, and actions.

Accountability: Identifying appropriate indicators and measuring outcomes to evaluate the effectiveness of goals and policies

Residential Diversity, Mix of Commercial, Usable Open Space, Complete Streets, and Intermodal Connectivity



Strengths

Weaknesses

Issues

1. A need for traffic calming in residential areas

2. Low accessibility levels

3. Air and noise pollution on main roads

4. A shortage in parking

5. The diversity in vehicles classification on each route

6. A need for alternative roads for regional services

7. High traffic congestion on main connecting roads

8. Streets landscaping needs

9. The unsuitable terminals locations

10. City topography transportation issues

11. The absence of public transportation

12. Car dependency

13. Safety requirements

Vision statement

A prosperous sustainable model for developing a transit oriented city



What does the vision mean!!

Prosperous	<ul style="list-style-type: none">• Energizing the Commercial Core, A Comprehensive Retail Strategy, Clean and Safe
interconnected	<ul style="list-style-type: none">• accessible neighborhoods by using multilevel stations
Walkable city	<ul style="list-style-type: none">• Building On Transit, Bicycle City, Park The Car Once
Diverse City	<ul style="list-style-type: none">• Downtown Living, A Family-Friendly Place, Embracing Adjacent Neighborhoods
Distinctive city	<ul style="list-style-type: none">• CULTIVATING A MOSAIC OF URBAN DISTRICTS
Green city	<ul style="list-style-type: none">• Sustainable Use of Resources



Transit oriented Nablus

Dependency on transit

Connected
zones

Multimodal
transit

Pedestrian friendly

Auto-free
zones

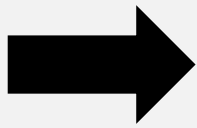
Pedestrian
streets

Parking

Off and on
street
parking

Terminals
and stations





Dependency on transit

Connected
zones

Multimodal
transit

Reduce Auto
Dependency

- Integrated, balanced transportation system
- Expanded mobility options

Promote
Transit Usage

- Transit access to major destinations
- Integrate transit network

Reduce
Conflicts
Between
Modes

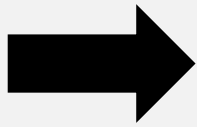
- Safety
- Equitable allocation of street space

Enhance
Links

- Connected neighborhood
- Multiple route choices

Support
multimodal
access

- hierarchy of access
- parking facilities



Parking



Off and on
street
parking

Terminals
and
stations

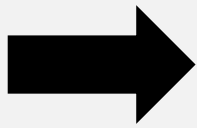


Manage
Parking
Facilities



- Less traffic
- More parking options





Pedestrian friendly



Auto-free
zones

Pedestrian
streets



Introduce
Bike Friendly
Streets

Encourage
livable
communities

Make Nablus
Walkable
Circulation



- Connected bike network
- Safe facilities



- Safe, convenient, and comfortable place to walk
- Walking the mode of choice for short trips

