Palestine International Aerotropolis

66





INTODUCTION.

PROJECT JUSTIFICATIONS



Site selection



Site analysis



State with Airport

Airports have a bigger effect on economic development by moving people as opposed to cargo.

Shape business location and urban development

They are among the largest investments a city and region make.



Most important hubs in the world.

Create Economies Of Scale By Pooling Demand For Destinations And Regular Flights.

Job creation, creating quality employment opportunities.



Driving Economic Recovery Aviation's Global Impacts





Presentation

Awesome

Yasser Arafat International Airport

NOW...







Gaza airstrip



Gaza Airstrip

NOW...

neg tax red and

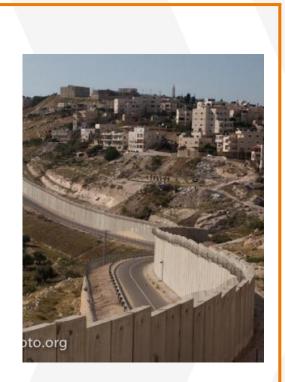




The closed entrance to Qalandya Airport in 2010, with a police jeep guarding



MOVEMENT RESTRICTIONS



The Separation Barrier and the "seam zone

• MOVEMENT RESTRICTIONS



The Separation Barrier and the "seam zone



CHEAKPOINT

MOVEMENT RESTRICTIONS



The Separation Barrier and the "seam zone









MOVEMENT RESTRICTIONS



The Separation Barrier and the "seam zone



CHEAKPOINT

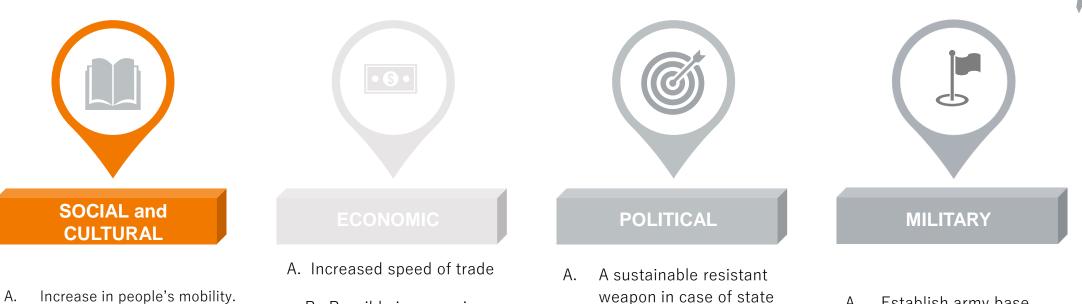


Closed road



bridges

Project Justifications



- Education opportunities Β.
- Faster & possibly more C. communication with the West.
- Promote local culture to D. visitors.

- B. Possible increase in amount of imports &
- C. Passenger transportation

exports.

- D. Commencement of tourism industry
 - E. Increase in local employment opportunities

- weakness and war.
- Β. Unblocking Israel occupation siege on boundary of Palestine.
- C. Eliminate hard travel through bridges and Israeli security inspections.

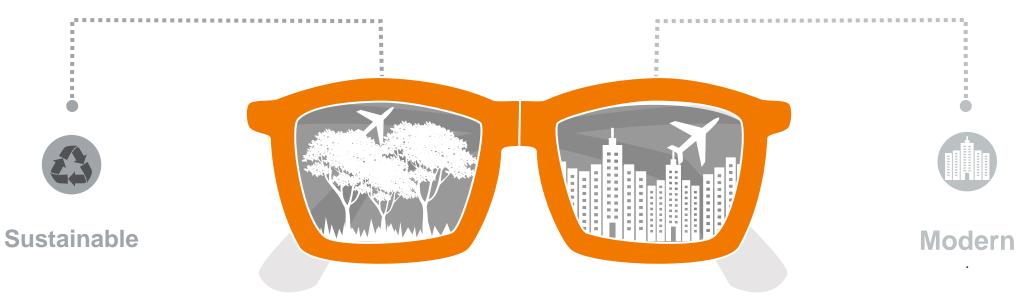
Α. Establish army base

Main reason

freedom of movement and access for Palestinians

Airport city

The Airport City' concept acknowledges the notion that large airports take the characteristics of a real city.





COCEPT OF AEROTROPOLIS & AIRPORT



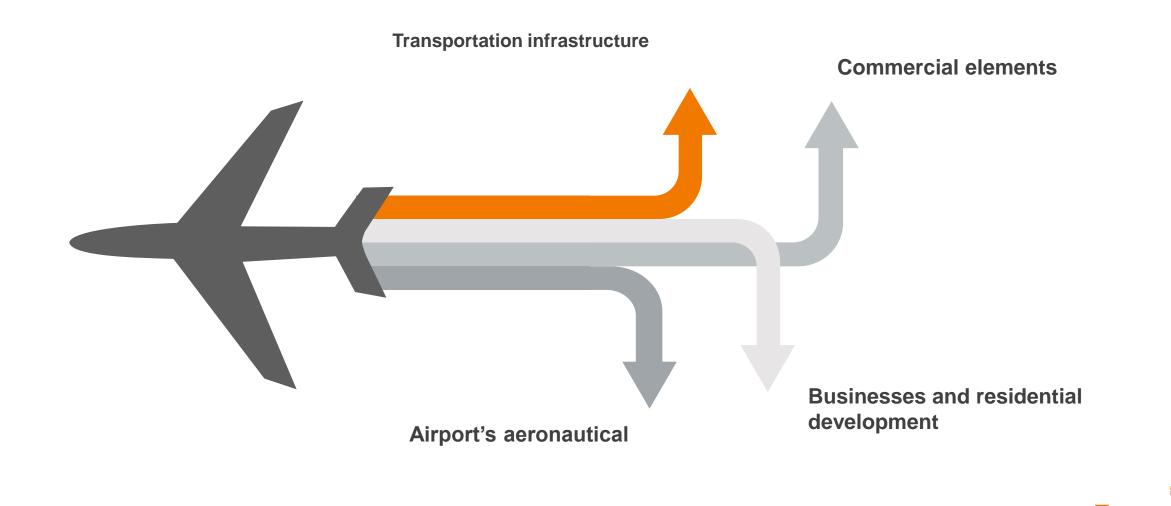
. It consists of an airport's aeronautical, logistics and commercial elements, and it connects transportation infrastructure with clusters of aviationoriented businesses and residential developments that continually feed off each other and their proximity to the airport.

aerotropolis is a metropolitan subregion whose infrastructure, land use and economy are centered on an airport



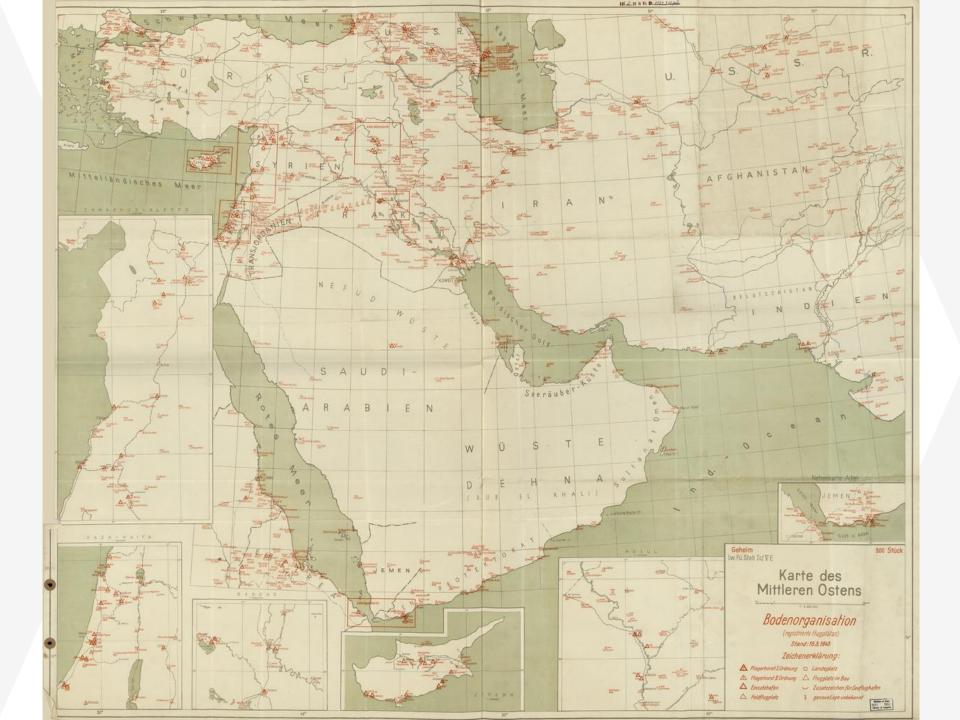


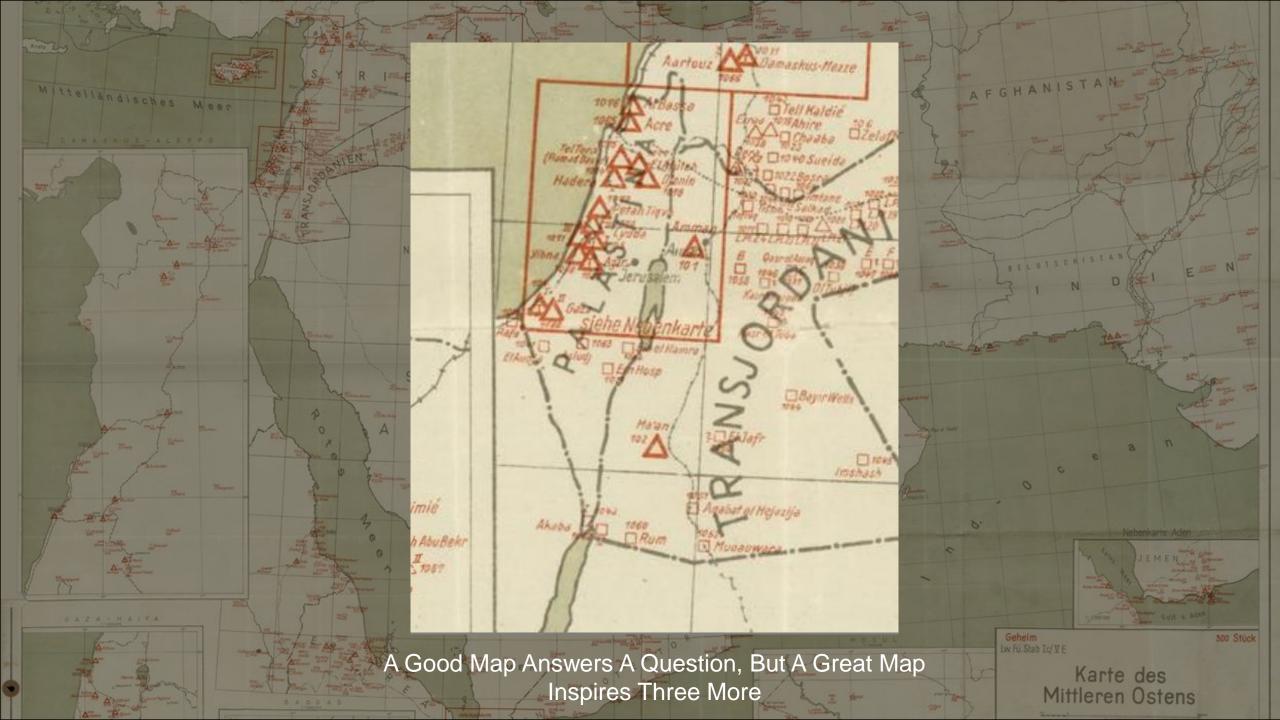




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Airport history in Palestine

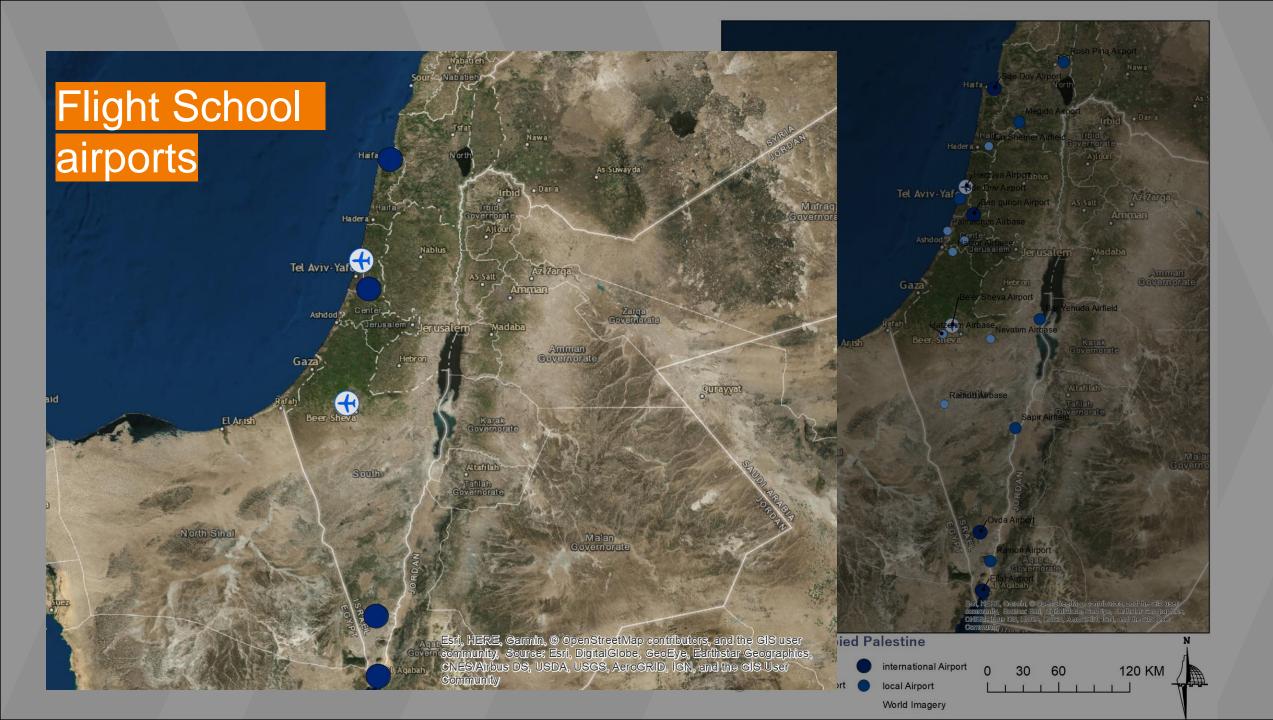








World Imagery





World Imagery



World Imagery

Suggested airport in state of Palestine

Airport in Palestine

Air Transport Additional Options - National Transport Master Plan

Ben Gurion Airport

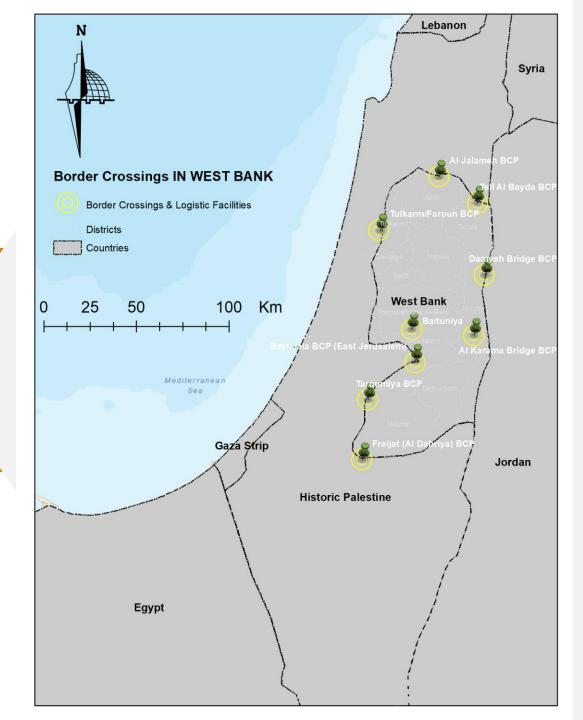
World Imagery

 Kilometers

 0 1020
 40
 60
 80
 100
 120
 140
 160



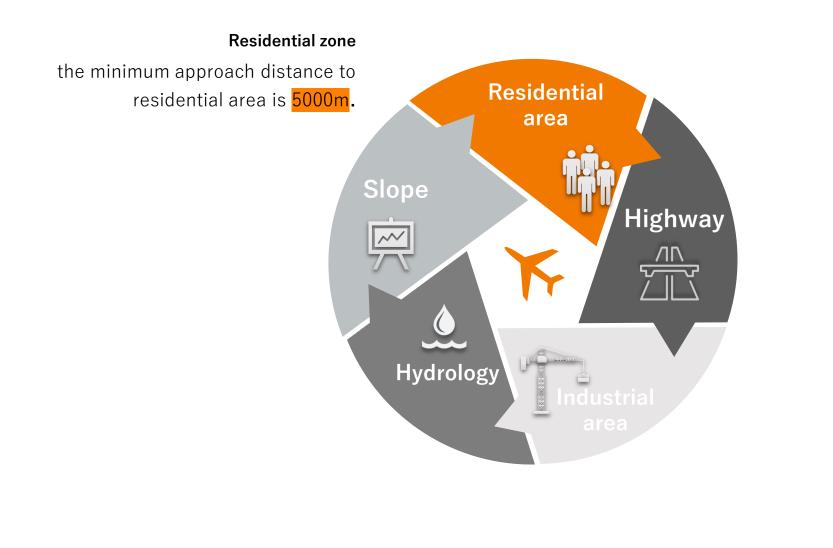
Border on WB



Site selection

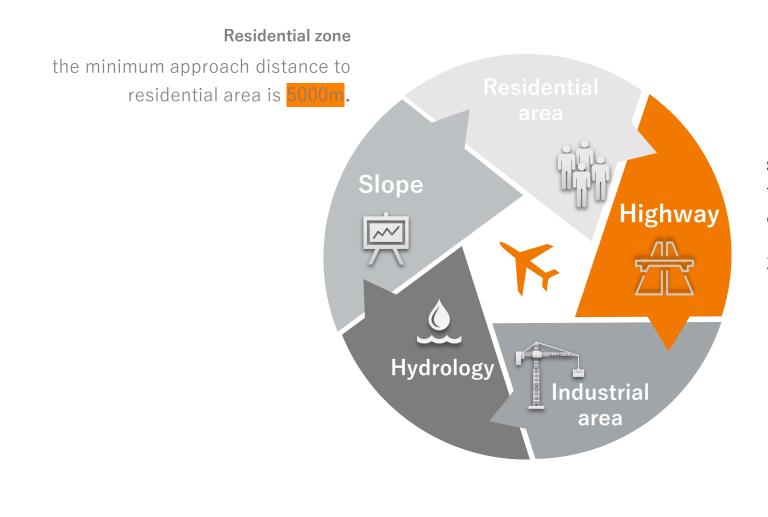


Site selection criteria





Site selection criteria

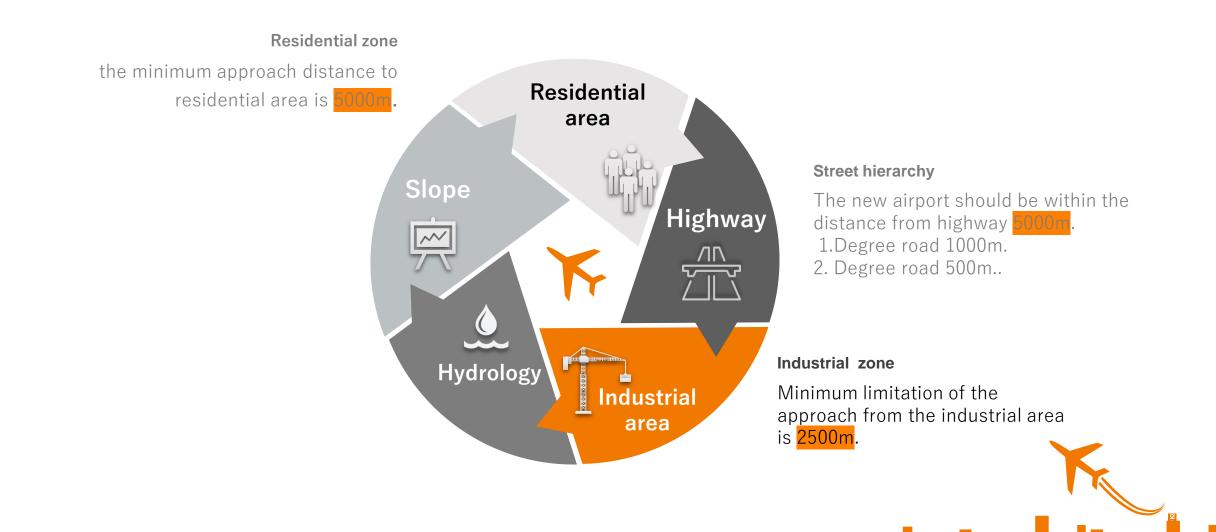


Street hierarchy

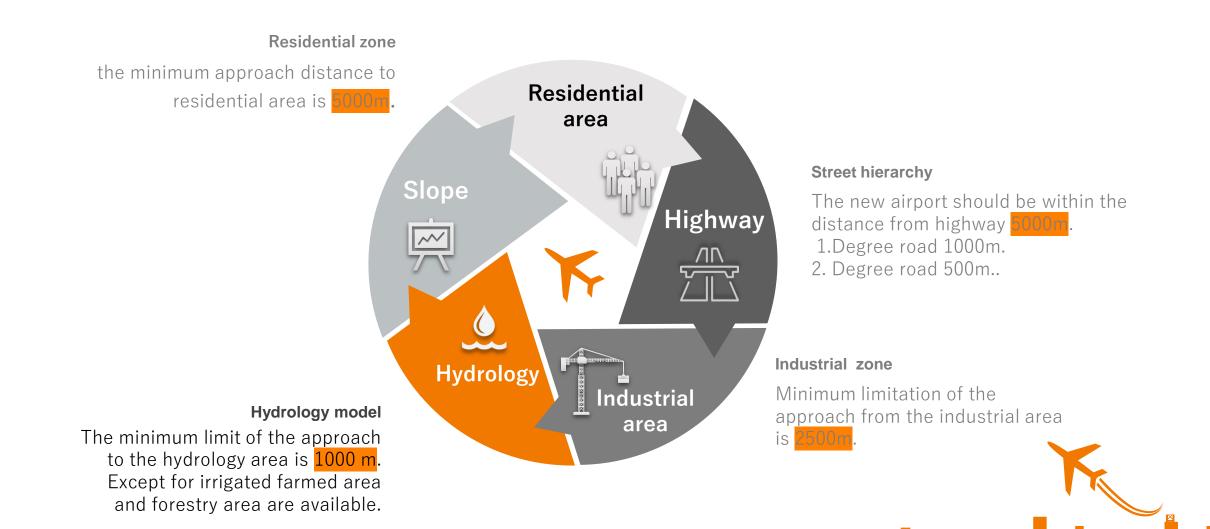
The new airport should be within the distance from highway 5000m. 1.Degree road 1000m. 2. Degree road 500m.



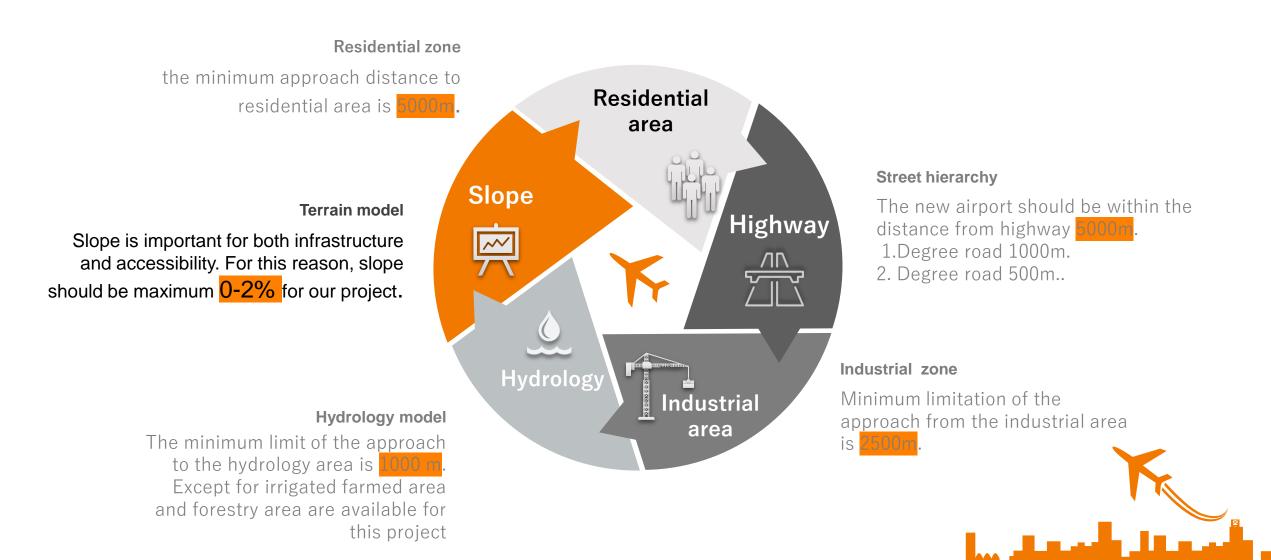
Site selection criteria



Site selection criteria



Site selection criteria



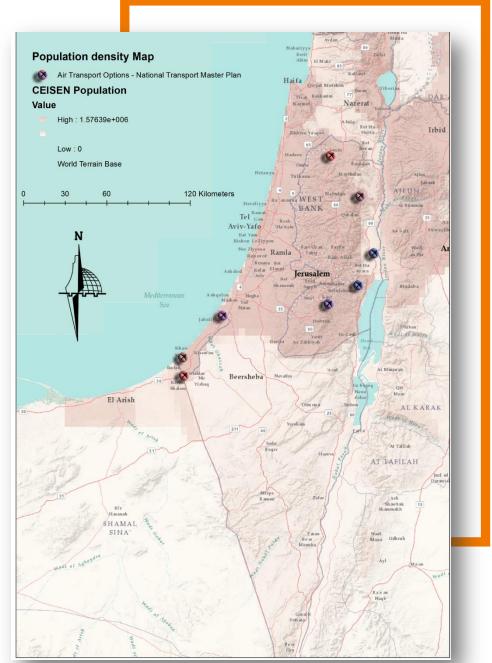


Aircraft and airport noise are complex subject matters which have been studied for decades and are still the focus of many research efforts today.

"



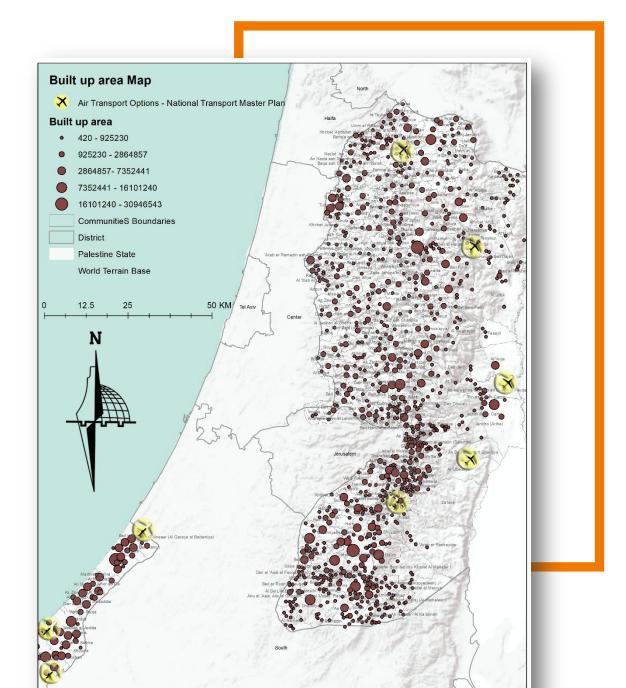




Built up area

66

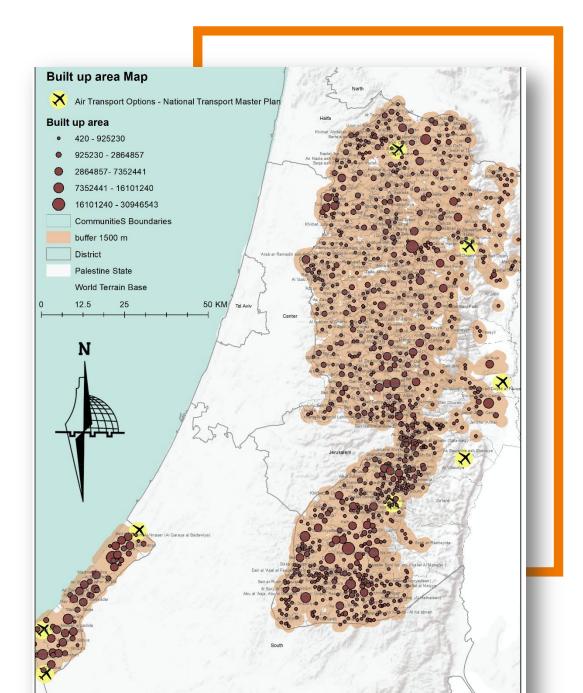
The built up area layer map shows the distribution of the population in the West Bank and Gaza in 2017.



Built up area

66

The built up area layer map with buffer 2500m .





Airport has something similar, where part of the construction includes an overpass for aircraft over a major highway!.

"

Street analysis

5000 M

Maximum to highway

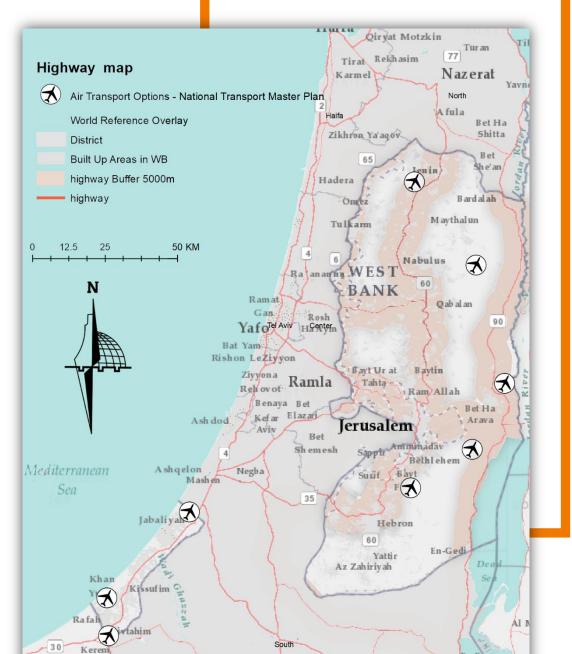


STREET ANALYSIS

66

5000 m











Airport has something similar, where part of the construction includes an overpass for aircraft over a major highway!.

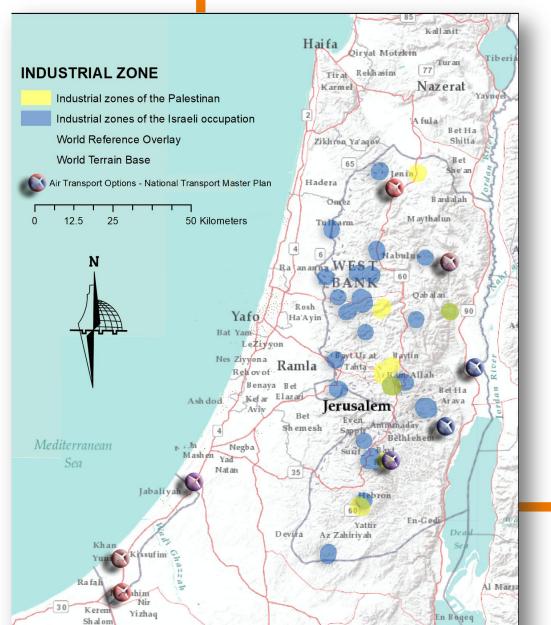
"



Industrial area analysis

2500 M

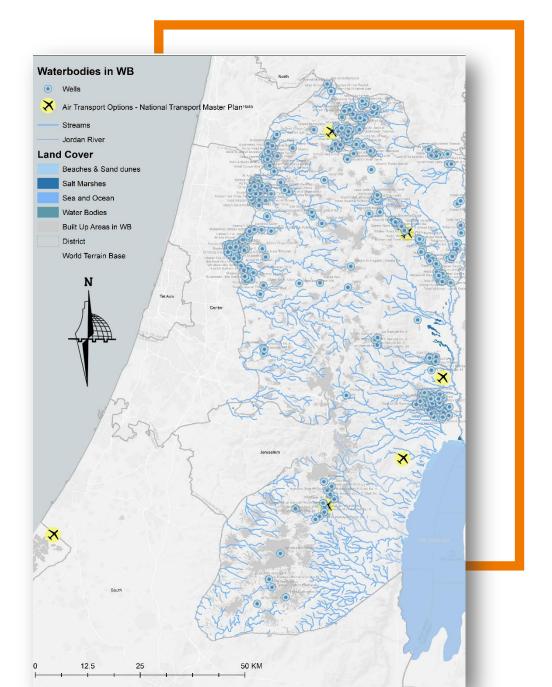
66





Waterbodies Analysis

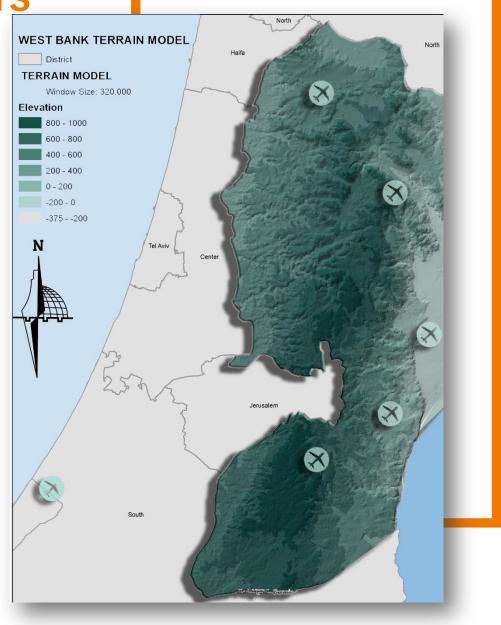
1000 M





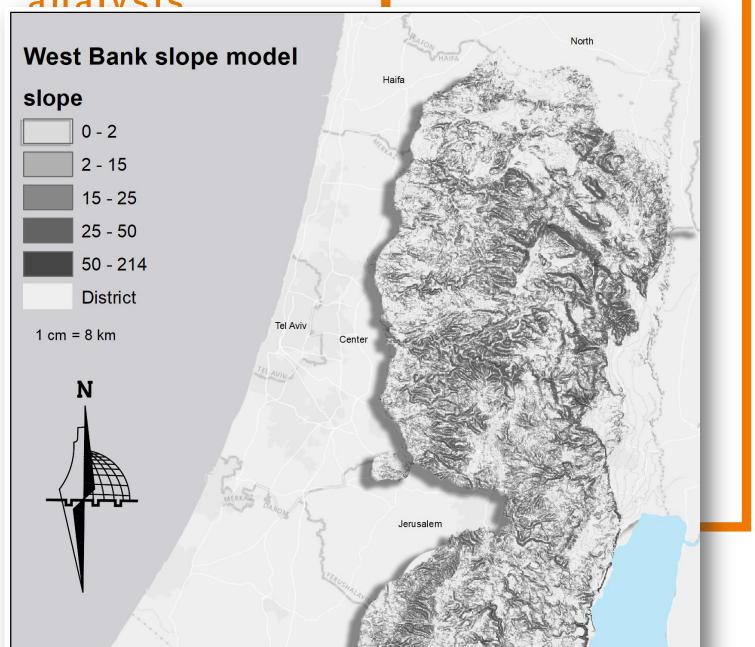
Topography analysis

200 – 3000 m



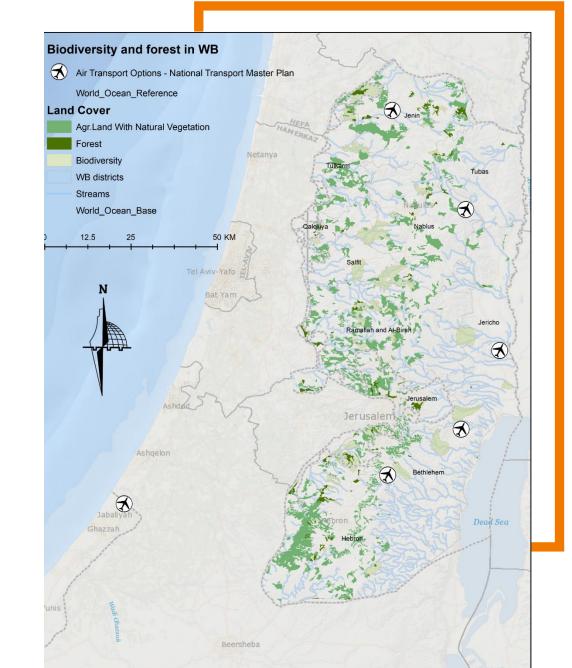
Topography analysis

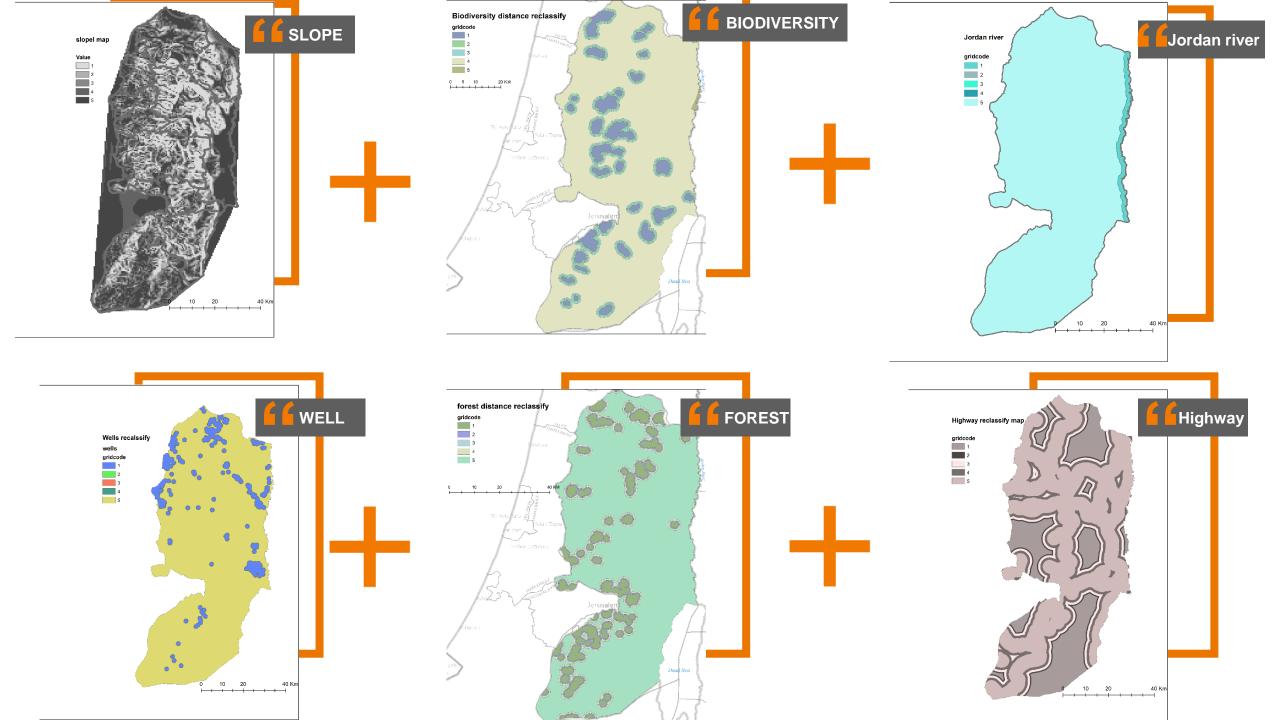
66

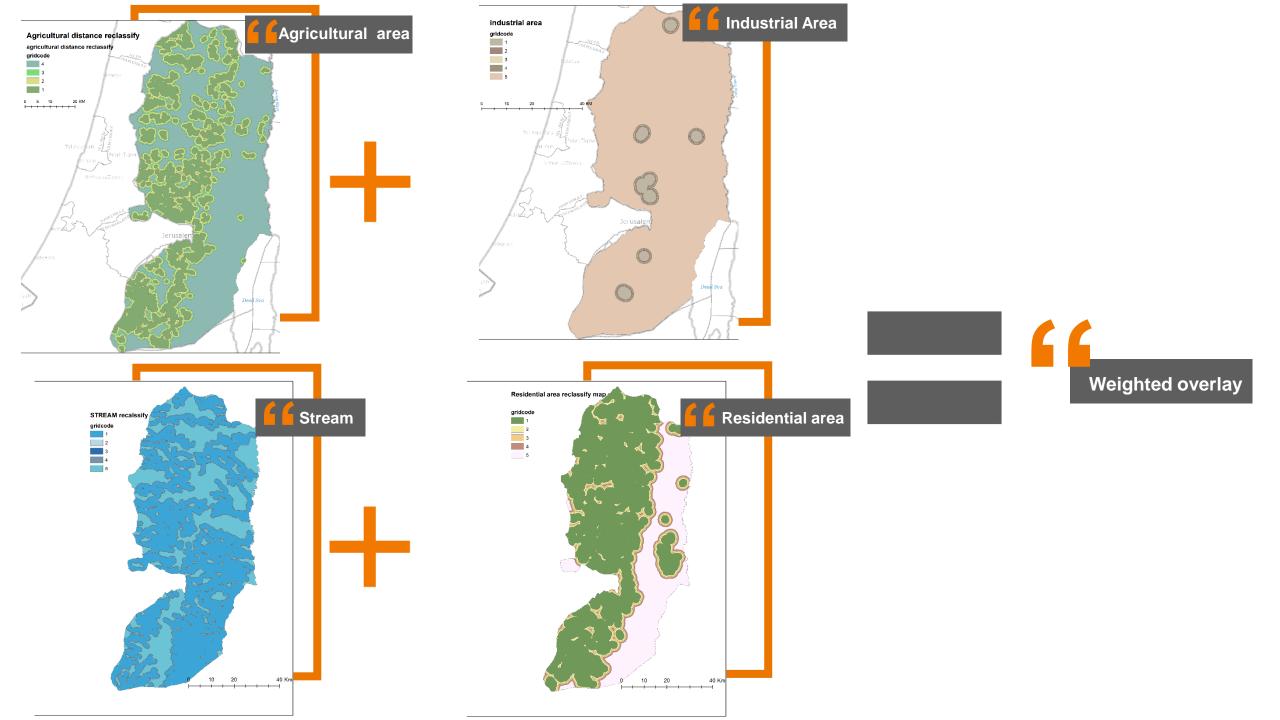


Biodiversity analysis

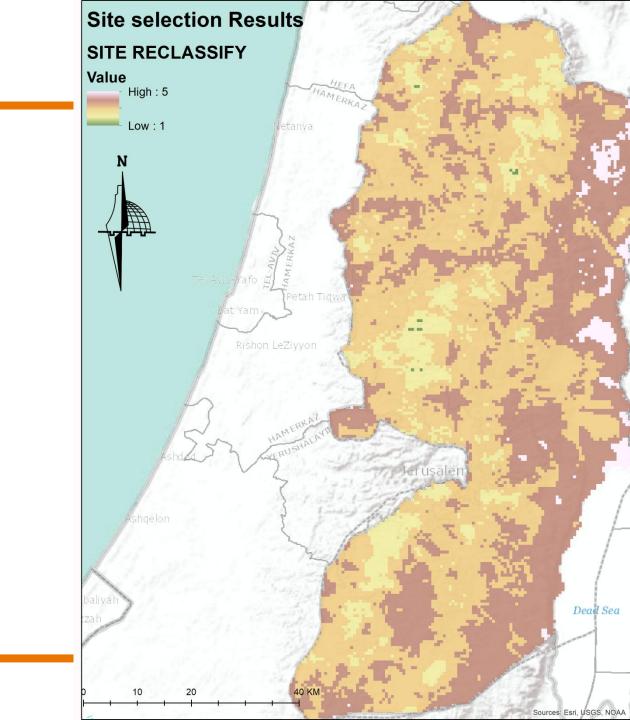










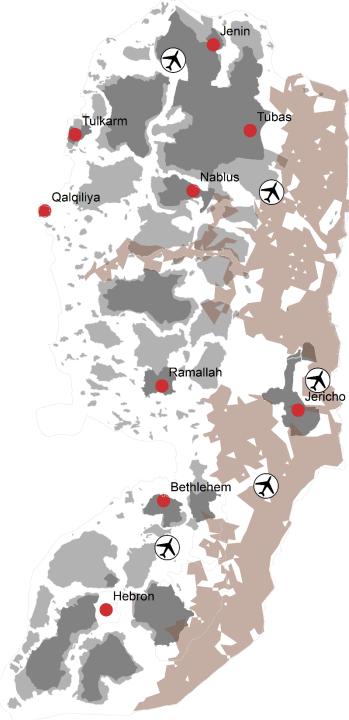


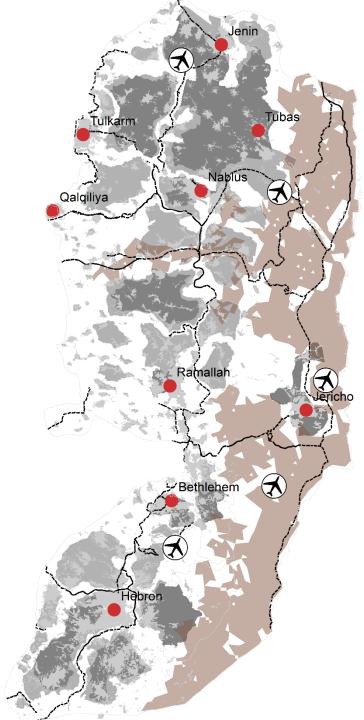
We not looking for airport as a product

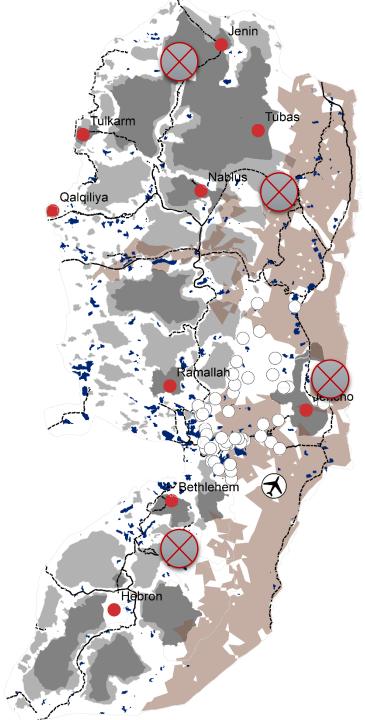














Geopolitical reason

- Located in area C
- Separate gathering settlement

Social reason

- Serve Bedouin communities.

Locational suitability

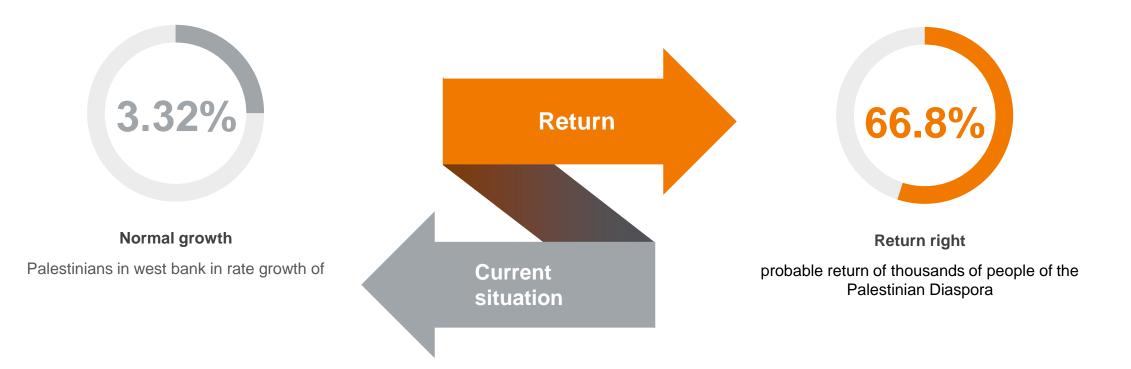
- In the middle of Westbank
- Availability of area for expansion

Accessibility

- Accessible area
- Near form most major cities

Population Growth:

several scenarios were initially considered,



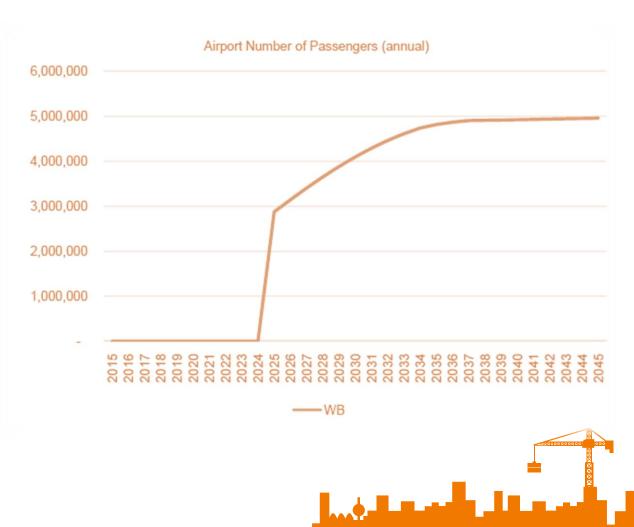
Al Zaytouna Center for Studies and Consultations, 21/3/2017



Aviation Forecasts in West Bank

West Bank and Annual Aviation Passenger Volume





Aviation Forecasts in West Bank and gaza strip

West Bank and Annual Aviation Passenger Volume





Airport in the West Bank - designed to 5.0 MPPA.

Runway Length	<mark>4,500m</mark>
Runway Type	4F
Ter inal Facility (one floor)	45,000m
Apron	<mark>150,000sqm</mark>
Total Airport Site	2.60sqKm
Capacity (Initial)	5.0Mppa (million pax per year)





Military airbase of Palestine State



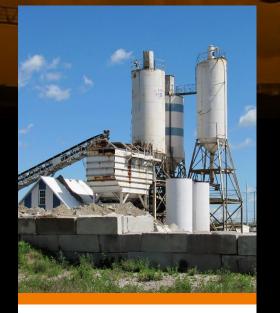
Civic education



Open areas, nature based recreation areas, protected areas.



Aviation operational areas, terminal and aviation support areas



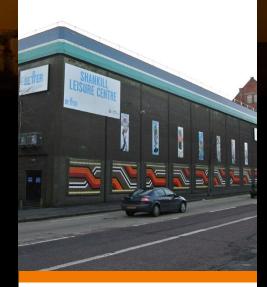
Mixed use commercial and industrial



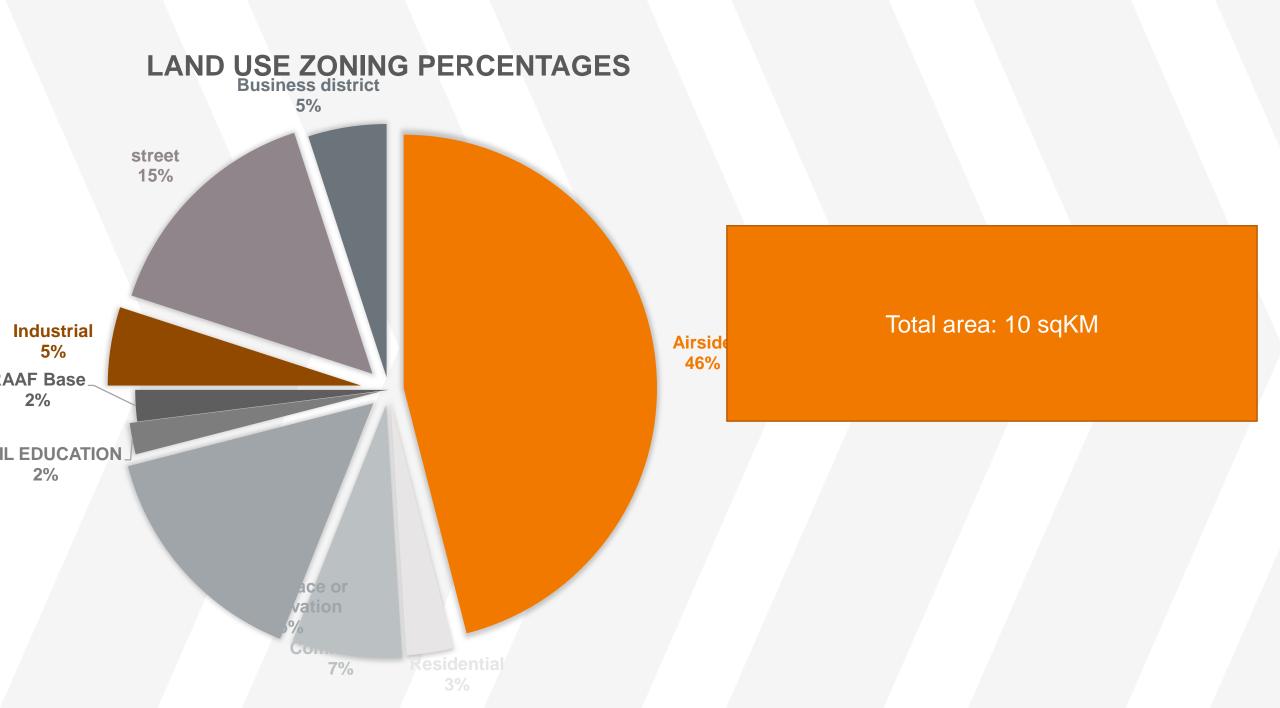
Predominant use is housing



Business district



Retail, business, community, leisure, entertainment, recreation, hotels, conference facilities, shopping centers



Site Analysis

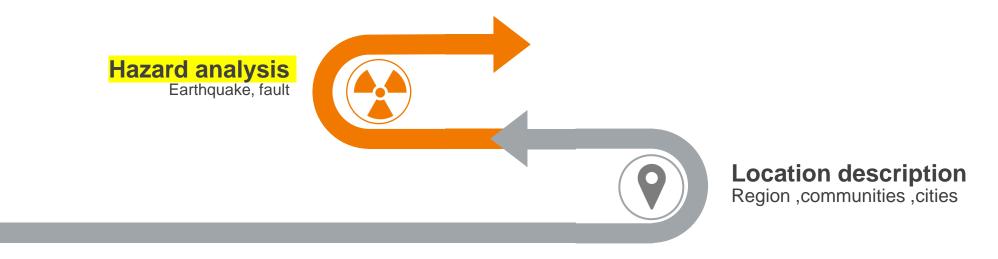




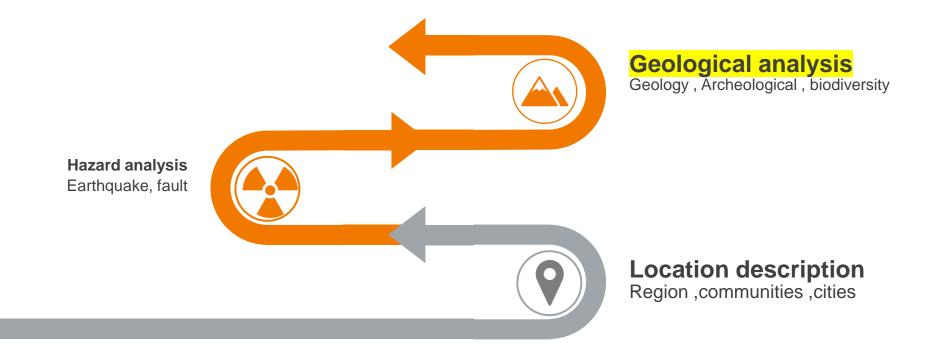


Location description Region ,communities ,cities

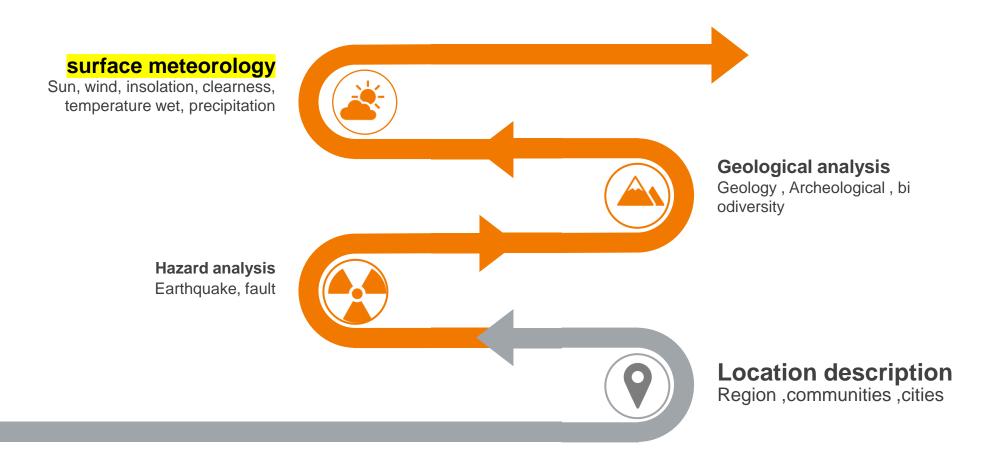




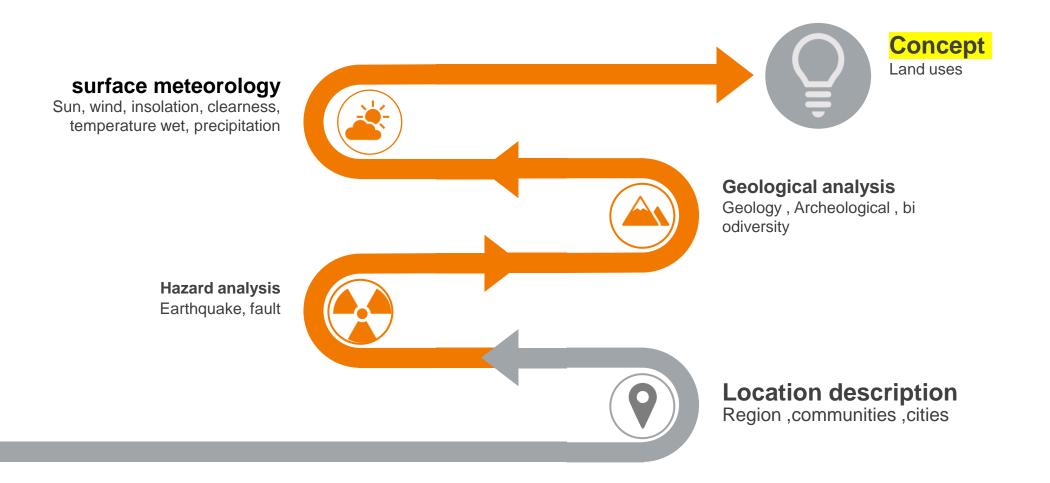




Site Analysis

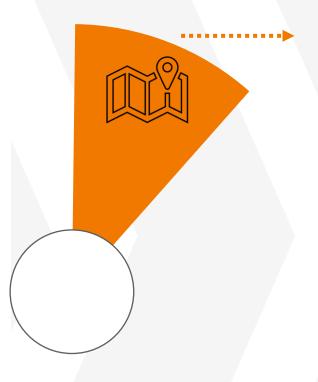


Site Analysis



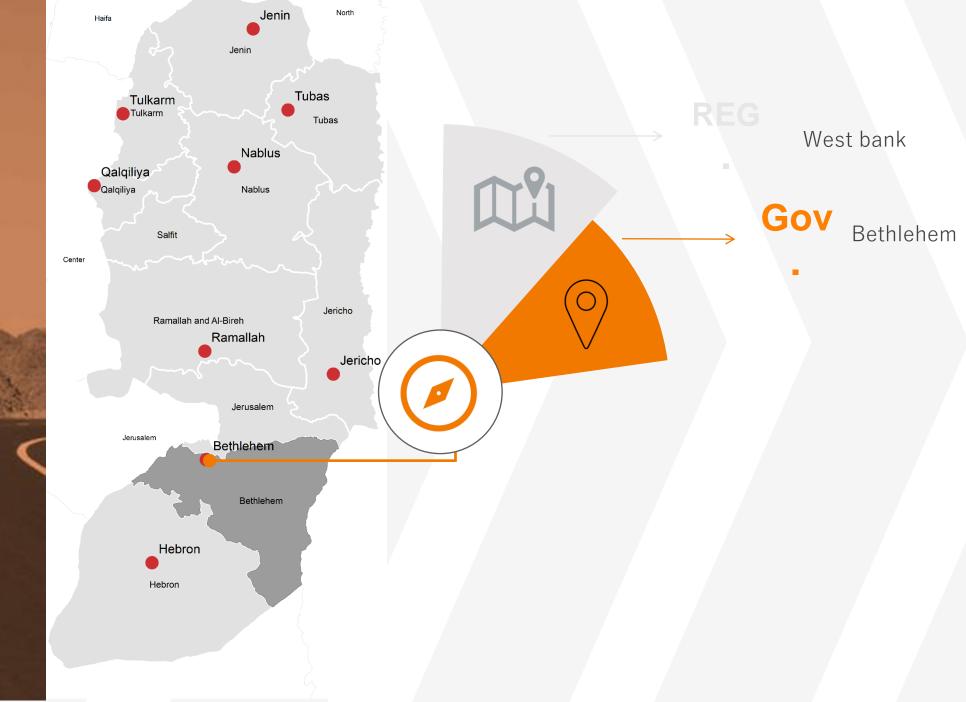
Location



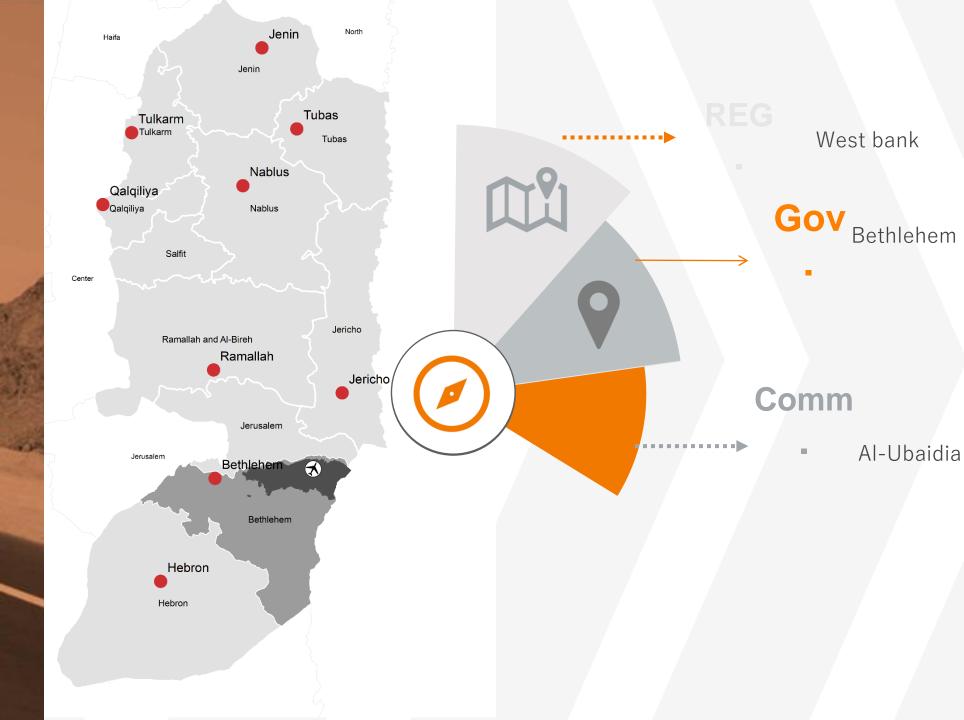


At west bank

Location



Location





Jericho

20 KM

Airport with cities reference

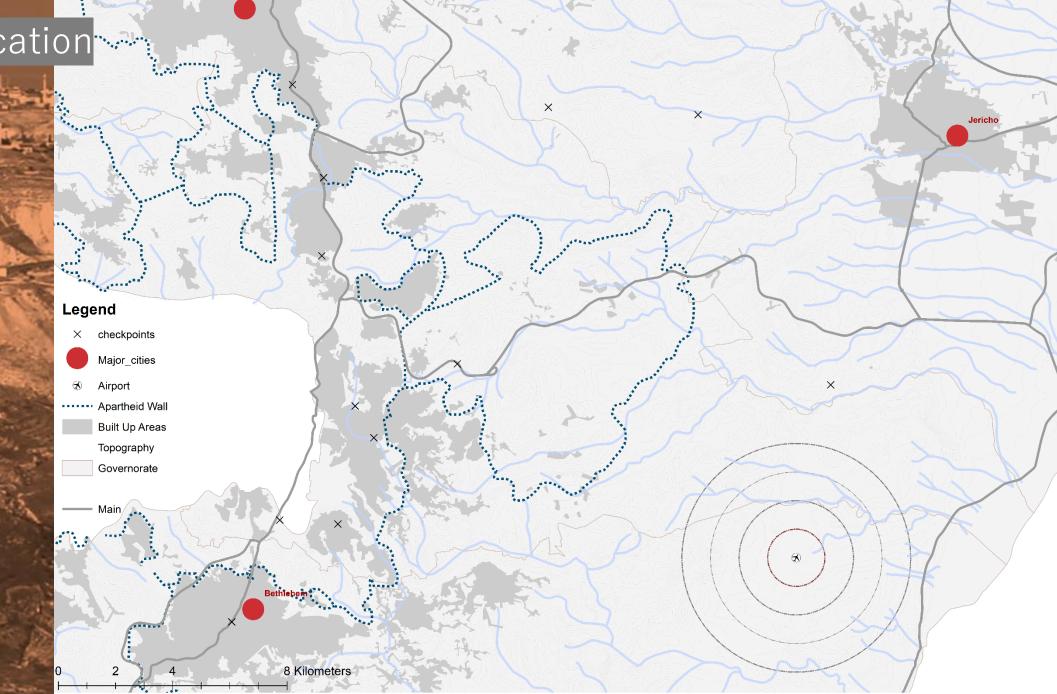


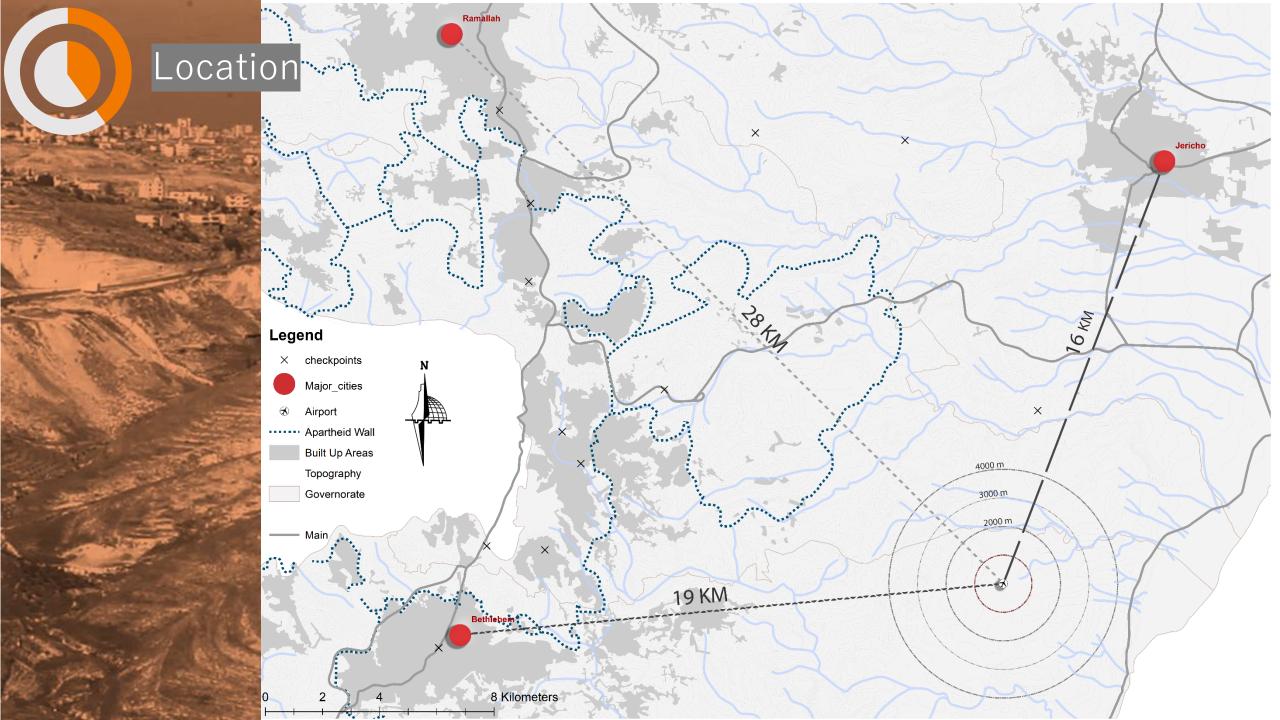
Airport with cities reference

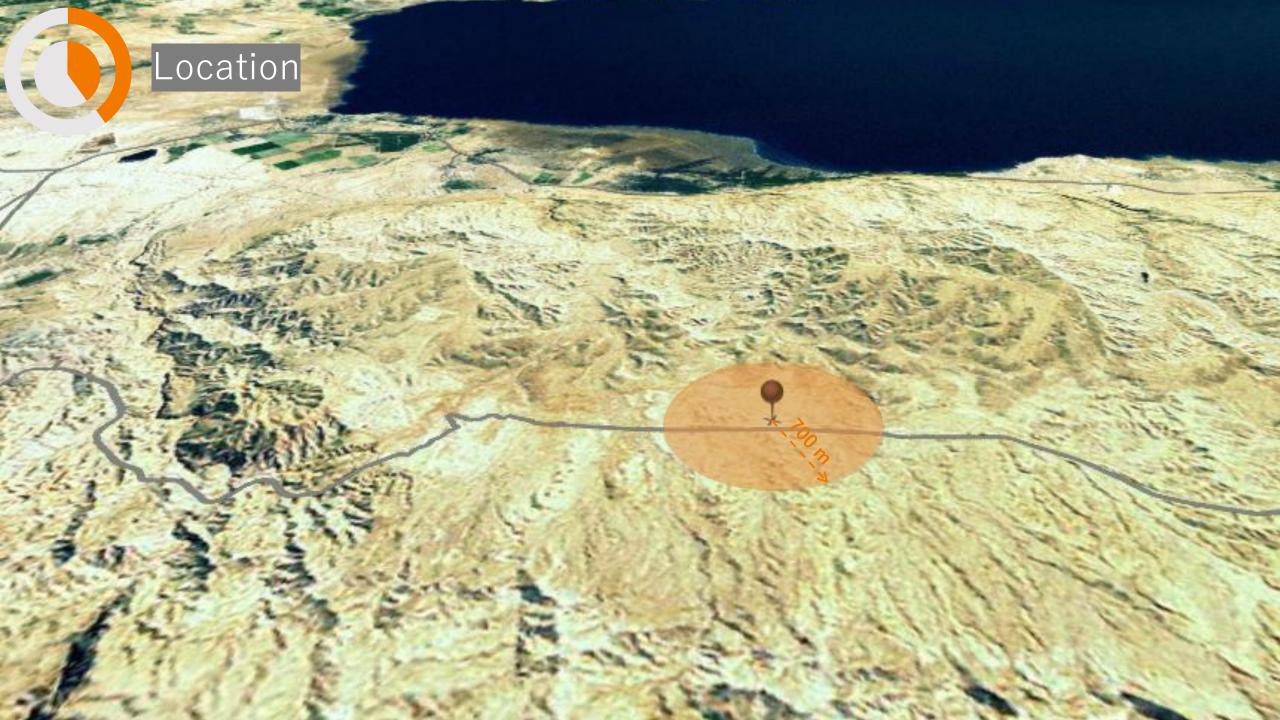


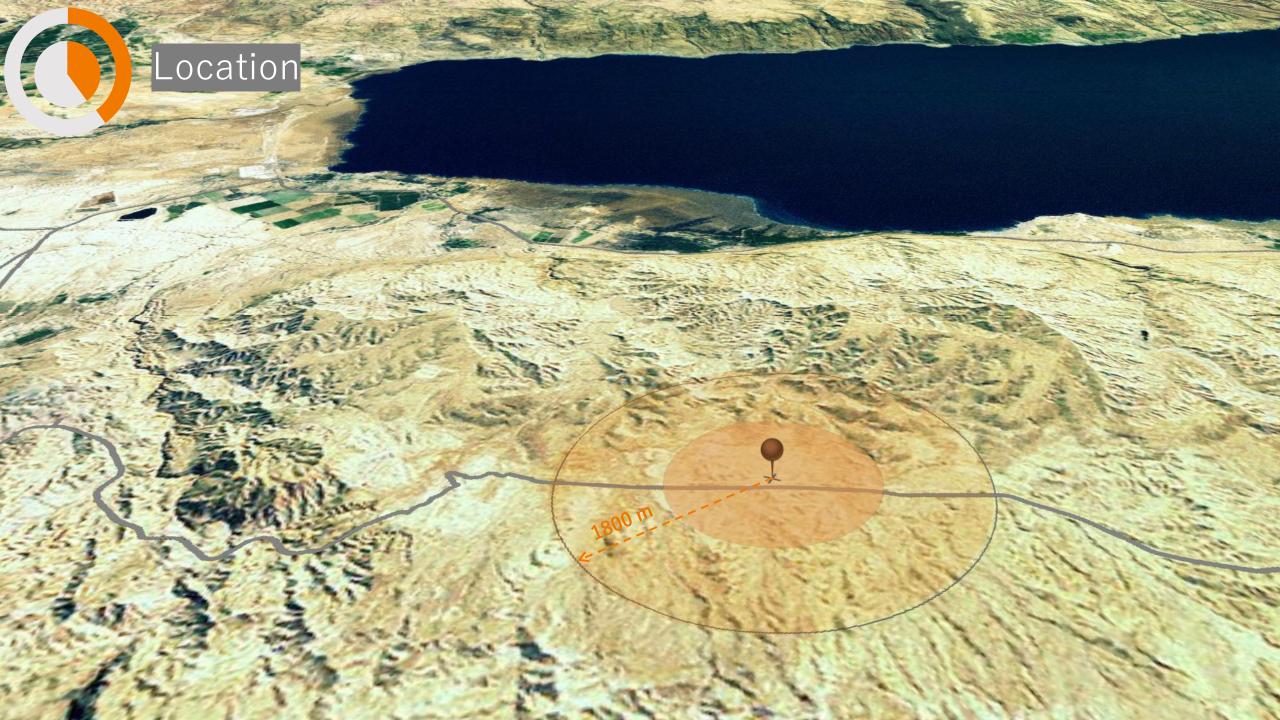


Ramallah



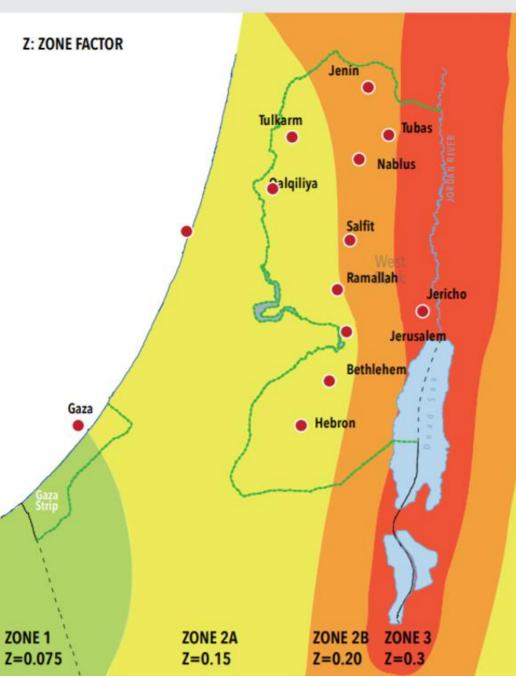


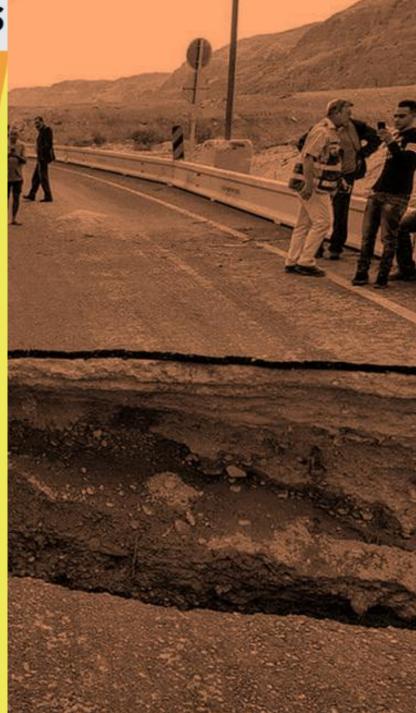




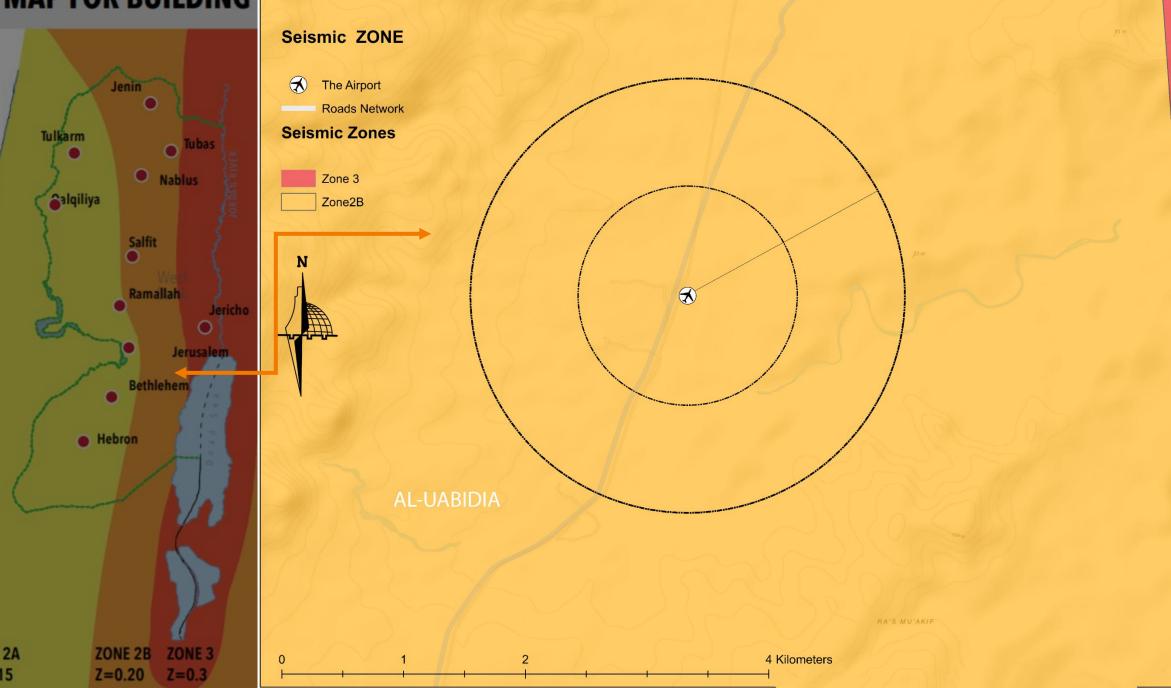
SEISMIC HAZARD MAP FOR BUILDING CODES

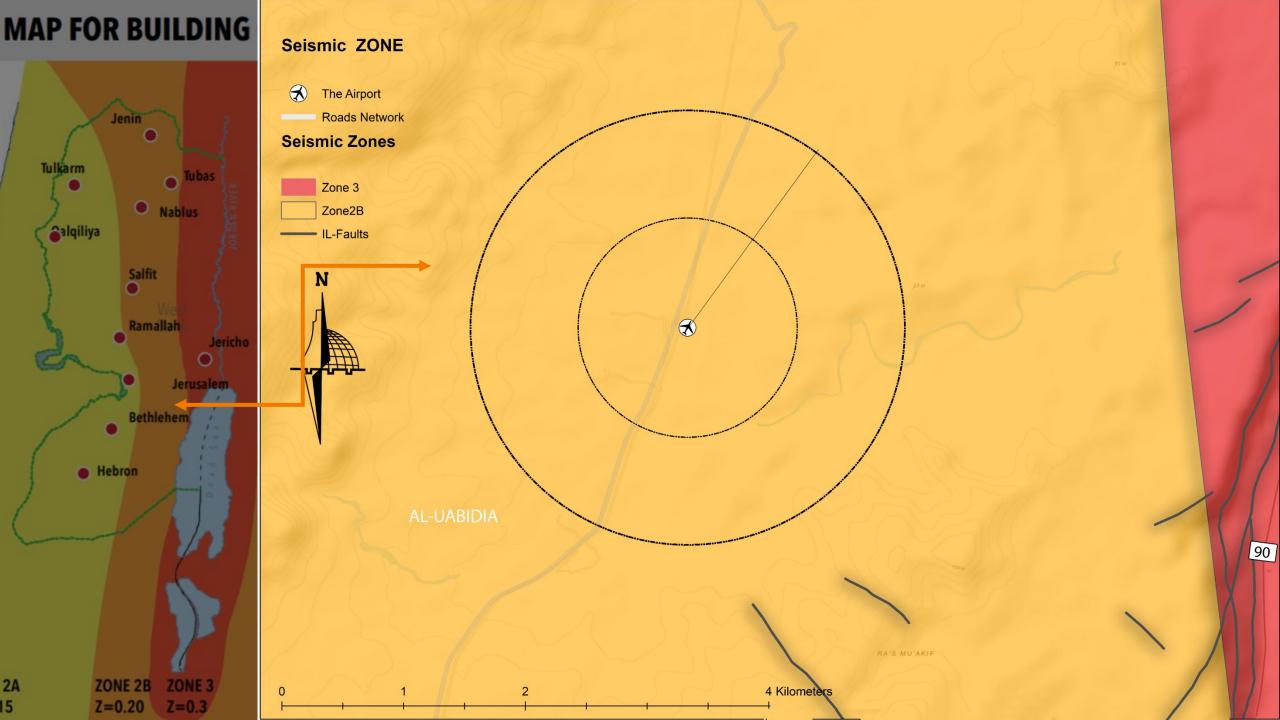


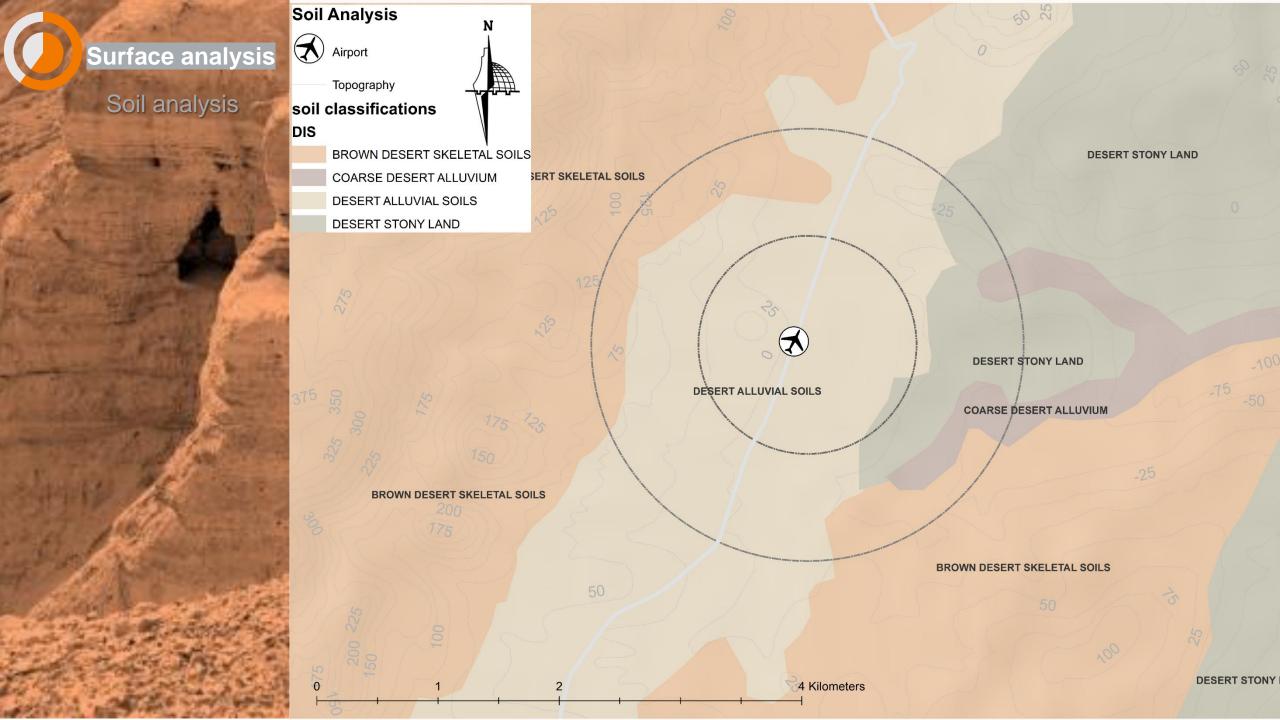


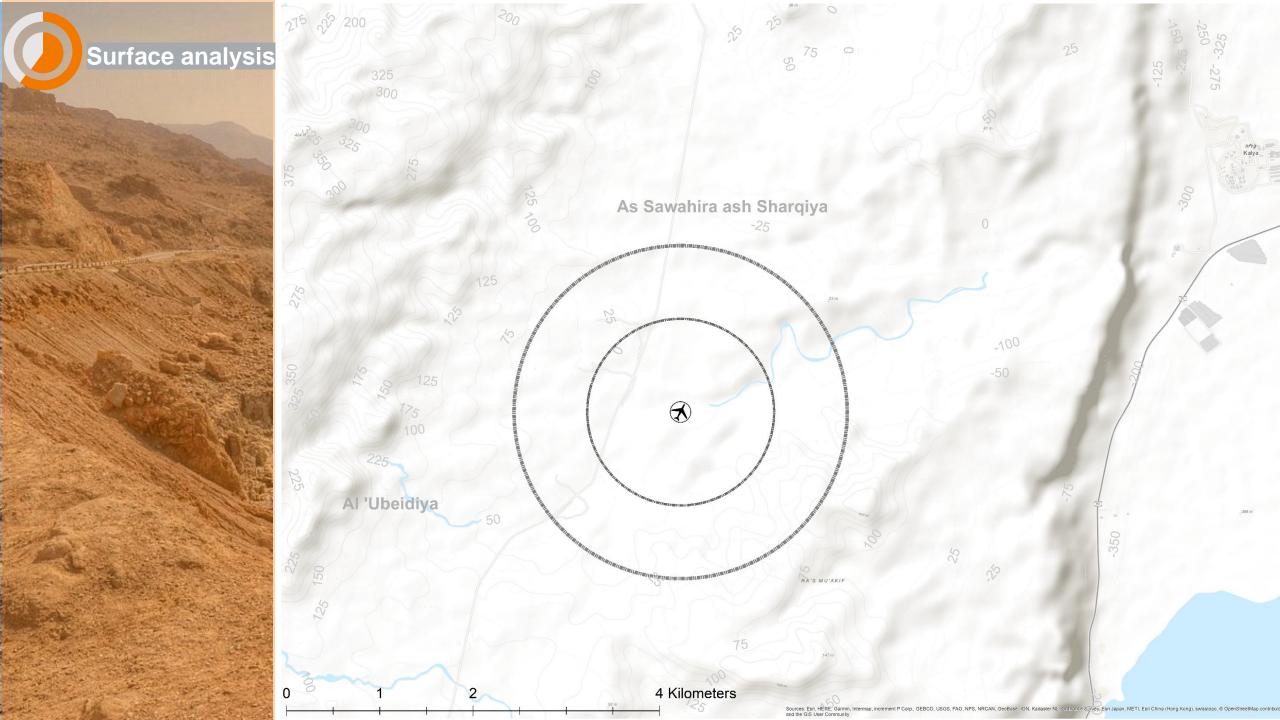


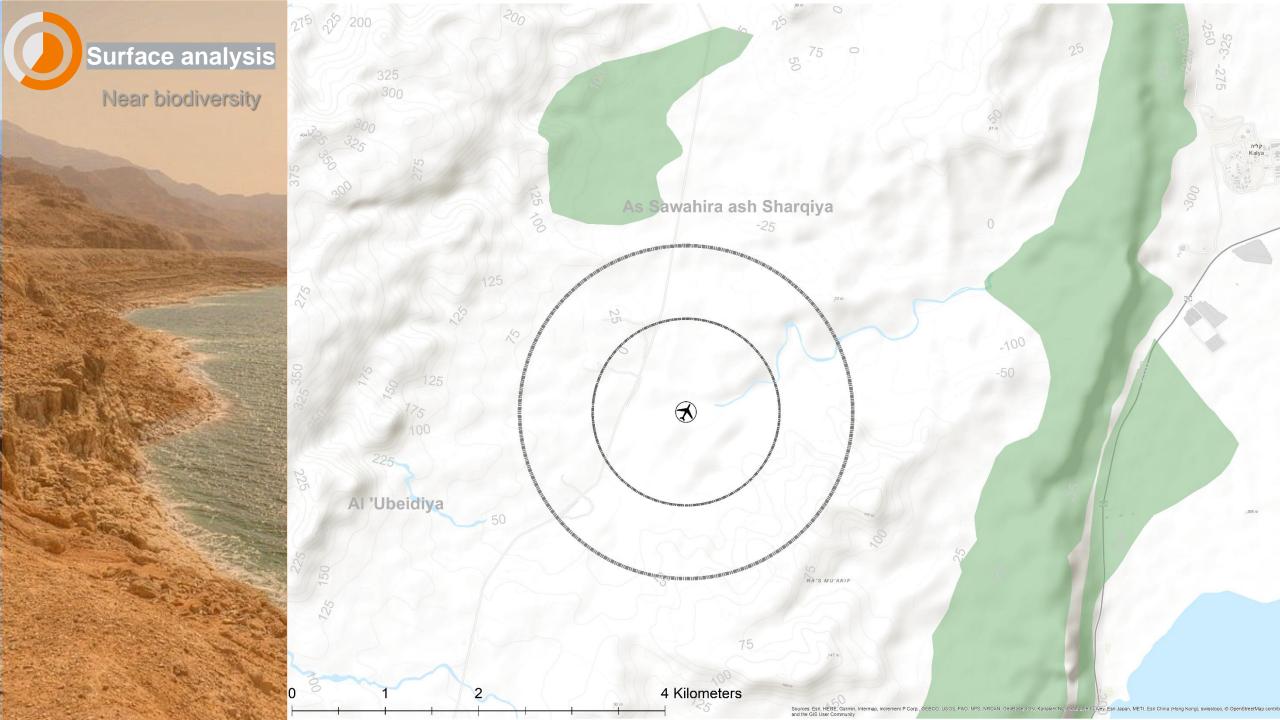


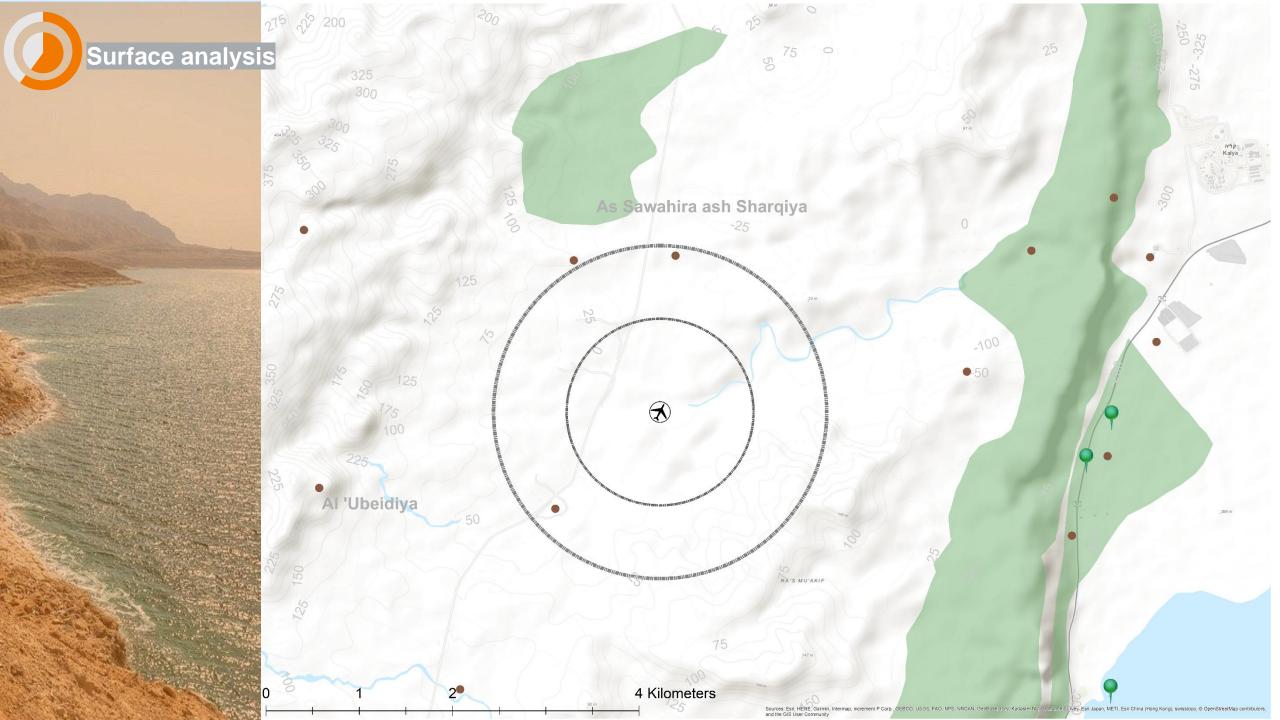


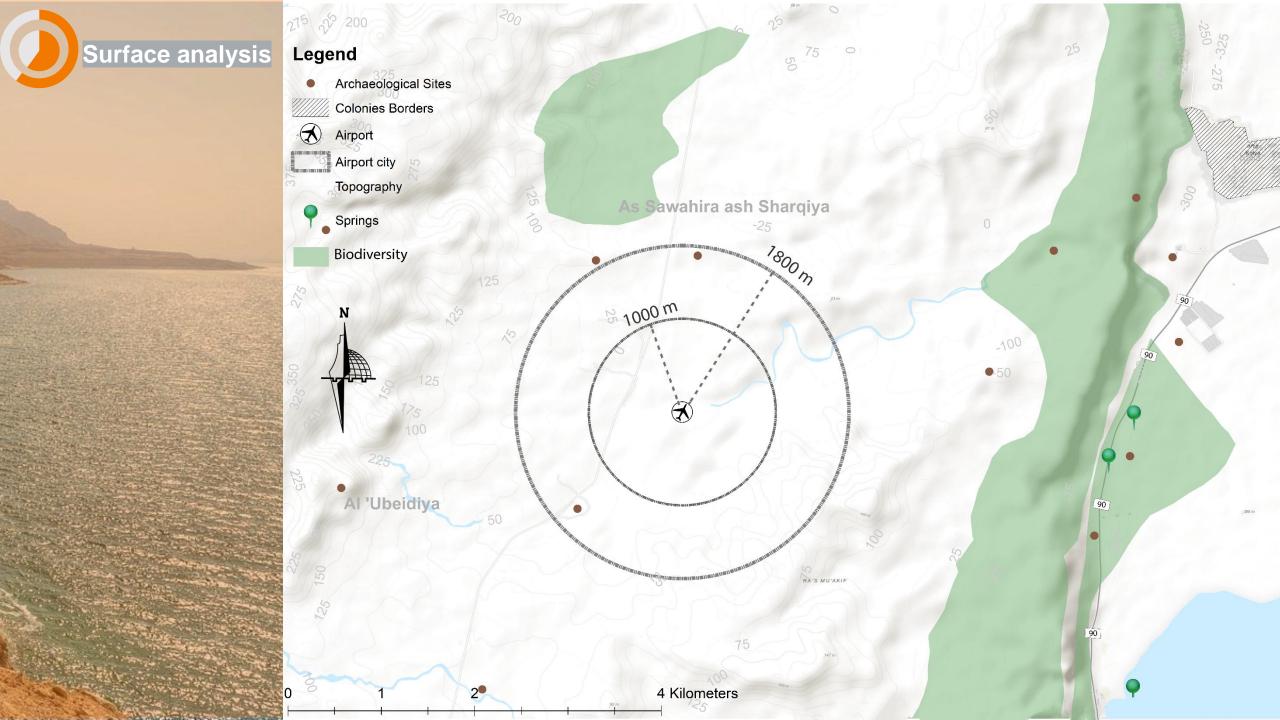








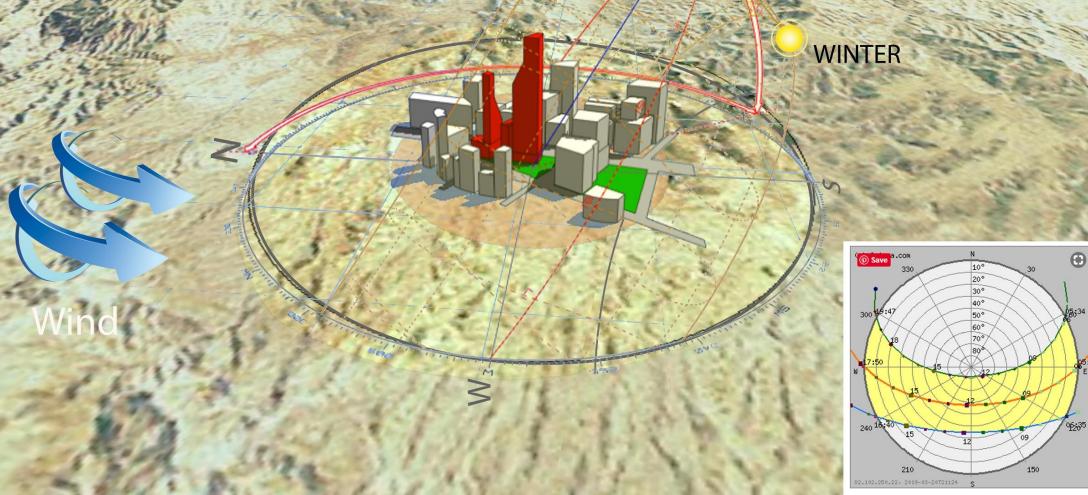








Summer



Sun path

June solstice

Sunrise/sunset

Sunrise

Sunset

00-02 03-05 06-08 09-11

12-14

15-17 18-20 21-23

Time

December solstice

Annual variation

Equinox (March and September

Today

summer



GEOGRAPHIC LOCATION V

SOLAR INFORMATION >

Latitude

Longitude:

Timezone:

Date:

Time:

Azi / Alt:

Rise / Set:

Daylight.

TWILIGHT TIMES

DATE AND TIME

36.41°

39.46°

GMT+03:00

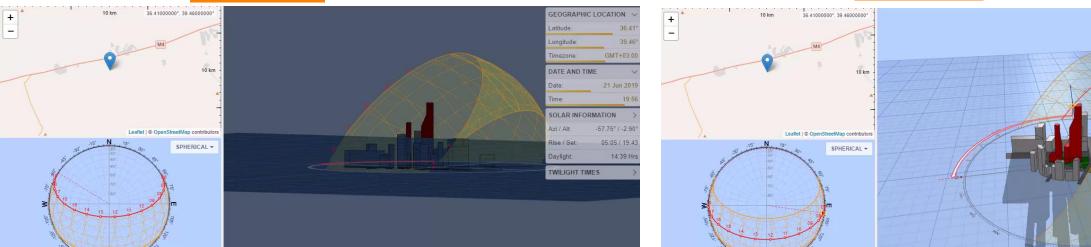
22 Sep 2019

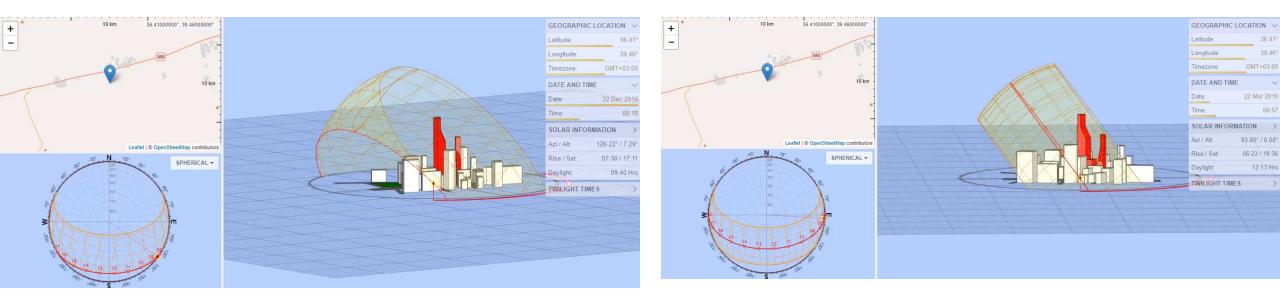
97.47° / 10.58°

06:10 / 18:19

12:10 Hrs

07:06

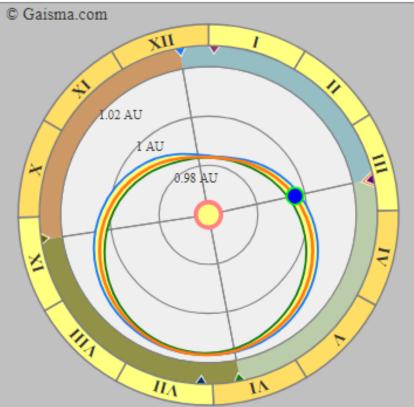












82 102 250 22 2010 03 20T21-24

Variable	Ι	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Insolation, $kWh/m^2/day$	2.56	3.29	4.56	5.93	7.04	7.66	7.55	6.89	5.84	4.37	3.11	2.42
Clearness, <u>0 - 1</u>	0.47	0.48	0.53	0.59	0.64	0.67	0.67	0.66	0.64	0.59	0.53	0.47
Temperature, <u>°</u> C	10.50	11.10	13.64	18.42	21.81	24.22	26.14	26.51	25.07	21.74	17.04	12.40
Wind speed, m/s	6.02	6.19	6.26	5.65	5.28	5.36	5.45	5.18	4.73	4.67	4.80	5.57
Precipitation, mm	136	111	88	28	3	0	0	0	0	19	60	111
Wet days, d	10.3	9.5	7.9	2.9	0.9	0.0	0.0	0.0	0.1	2.6	5.1	9.1

Events

- 🔺 Today
- ▲ December solstice
- ▲ March equinox
- ▲ June so1stice
- ▲ September equinox
- ▲ Perihelion [?]
- ▲ Aphelion [?]

Earth's orbit

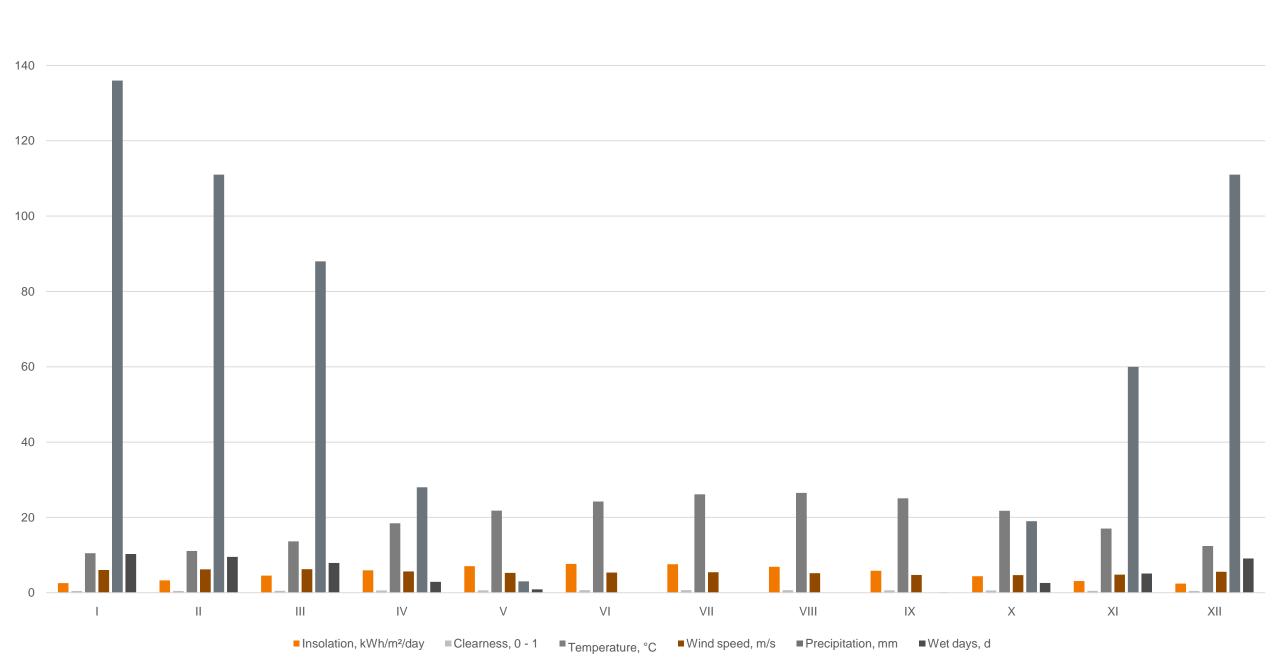
This year Min, years 1600-2600 [?] Max, years 1600-2600 [?] Variation, years 1600-2600

Seasons

Winter Spring Summer Fall

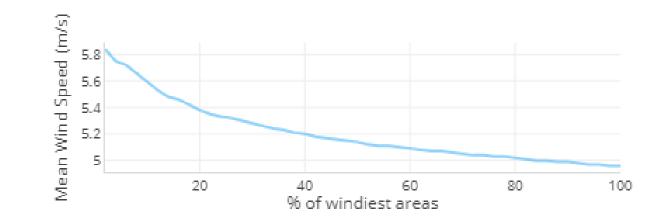
These data were obtained from the NASA Langley Research Center Atmospheric Science Data Center; New et al. 2002

al-'Ubaydiyah, Palestinian Territories - Solar energy and surface meteorology



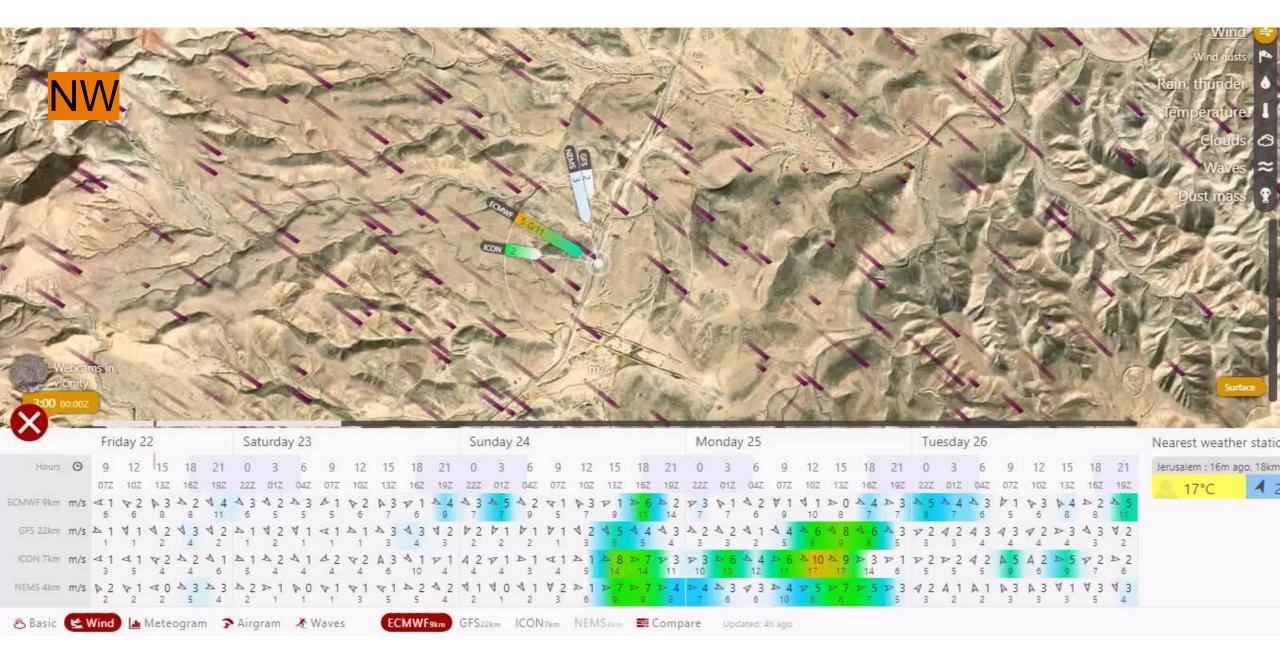


7



Wind speed, m/s

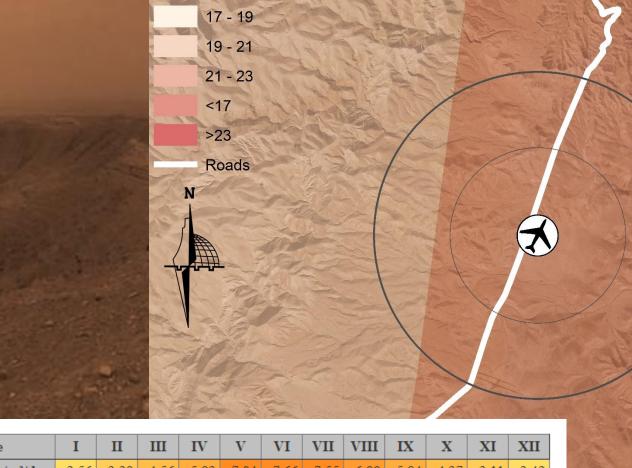




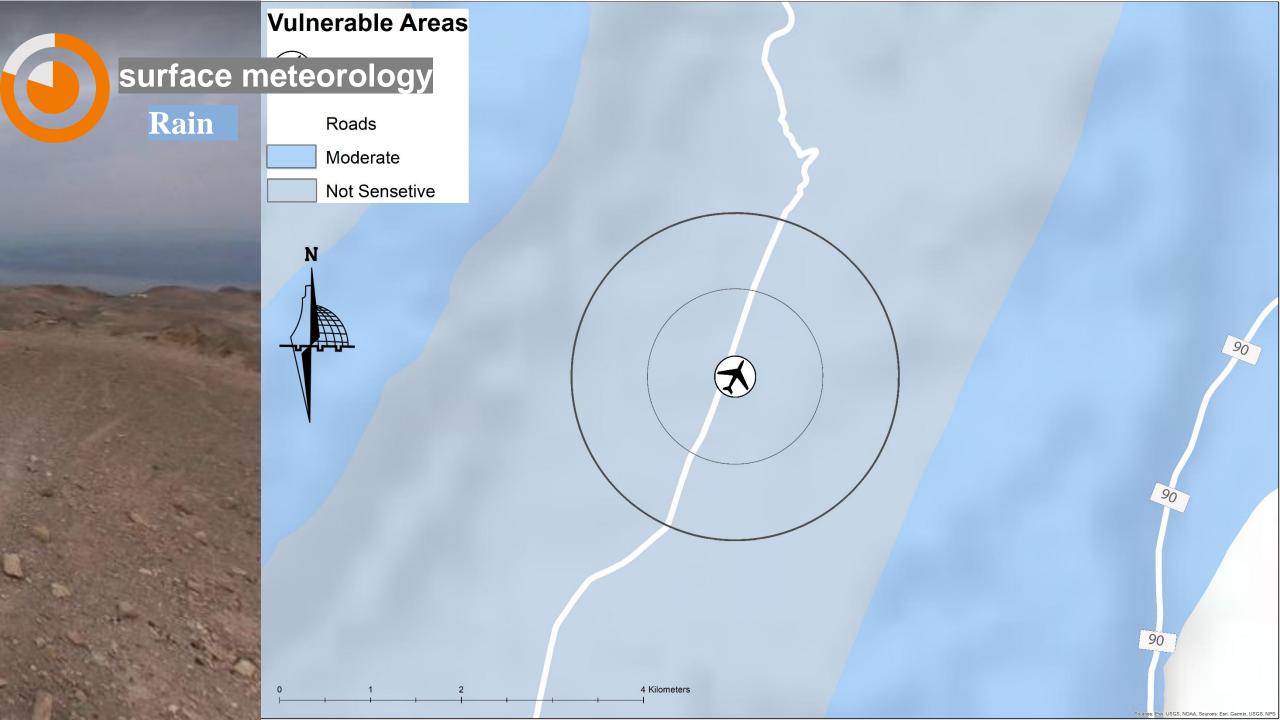
Legend

surface meteorology

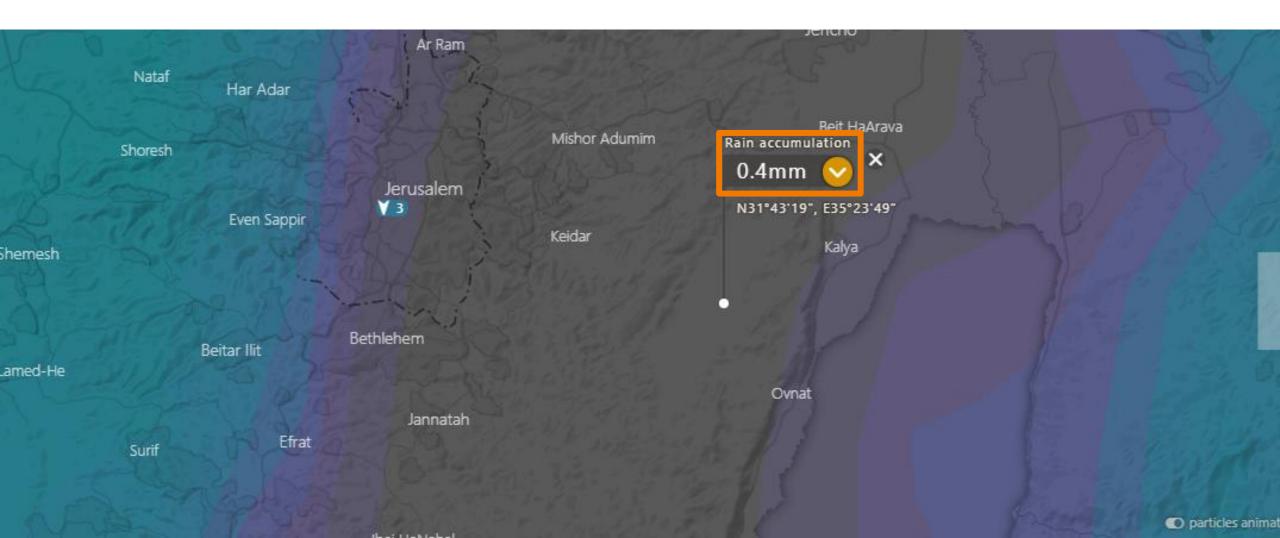
Temperature ture

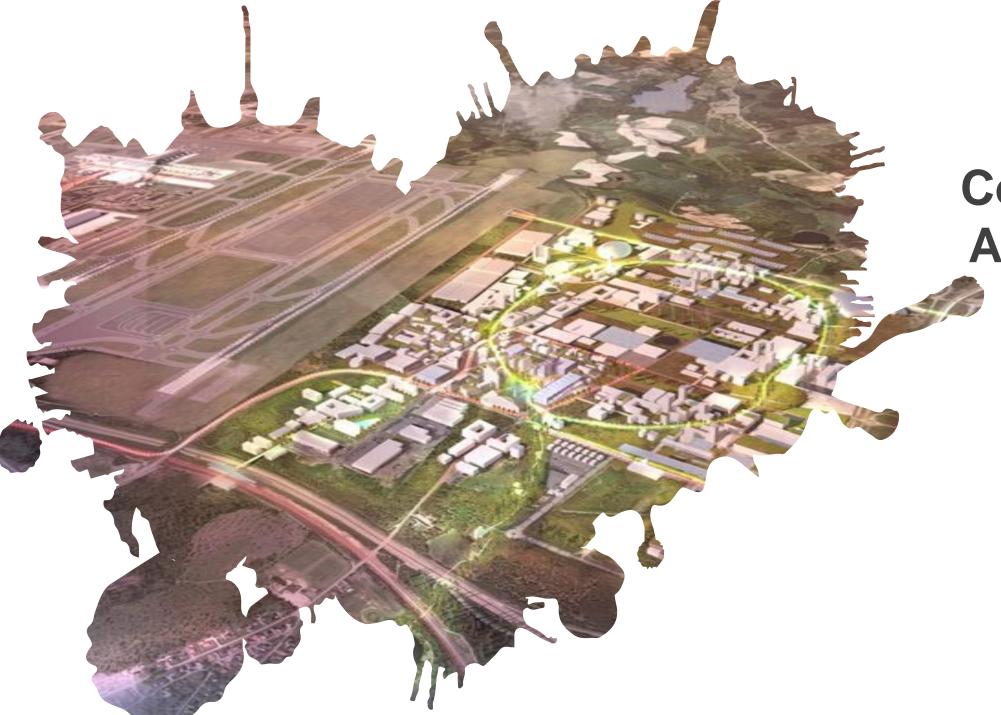


Variable	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Insolation, kWh/m²/day	2.56	3.29	4.56	5.93	7.04	7.66	7.55	6.89	5.84	4.37	3.11	2.42
Clearness, <u>0 - 1</u>	0.47	0.48	0.53	0.59	0.64	0.67	0.67	0.66	0.64	0.59	0.53	0.47
Temperature, <u>°</u> C	10.50	11.10	13.64	18.42	21.81	24.22	26.14	26.51	25.07	21.74	17.04	12.40
A REAL PROPERTY AND A REAL PROPERTY.	1000	1. C.	0		1			2				4 Kilc

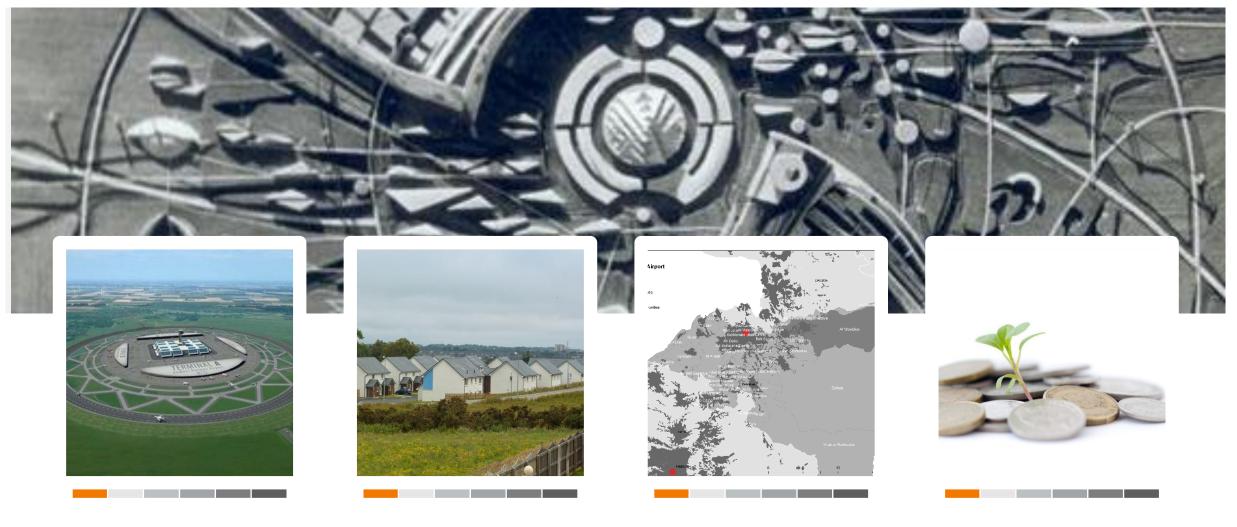








The Concept of Airport city

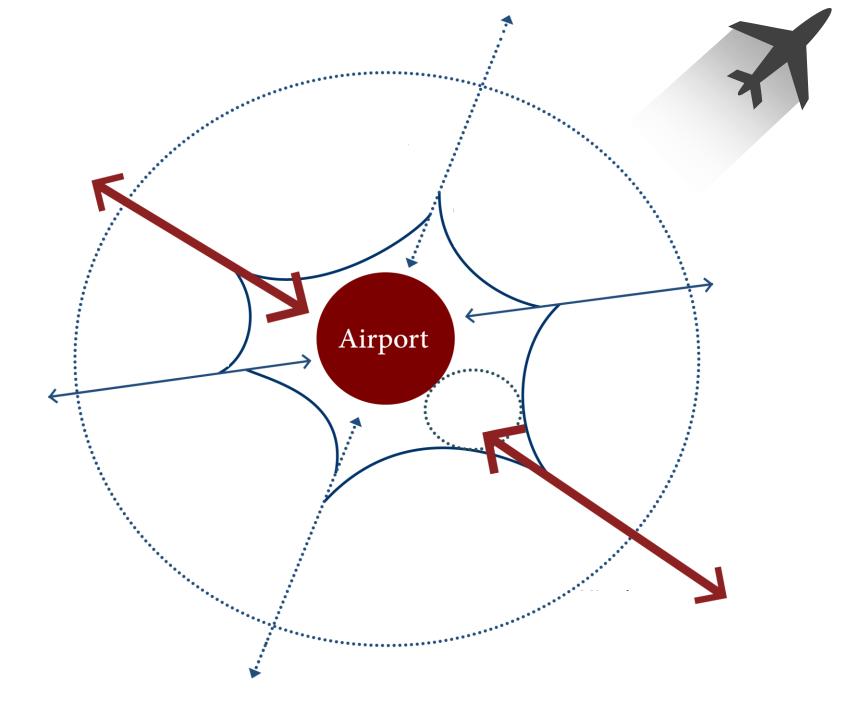


Provide more transportation choices.

Promote equitable, affordabl e housing:. Support existing communities

Enhance economic competitiveness





Airport city Concept

Convention Centre + **Exhibition centre** +Hotels + Business Park +Offices

free trade zone + econonmic zone

> Special Manufacturing + Distrinution Centre

Mixed use Residential Mixed use Residential

Open space +entertainment + Retial

Airport

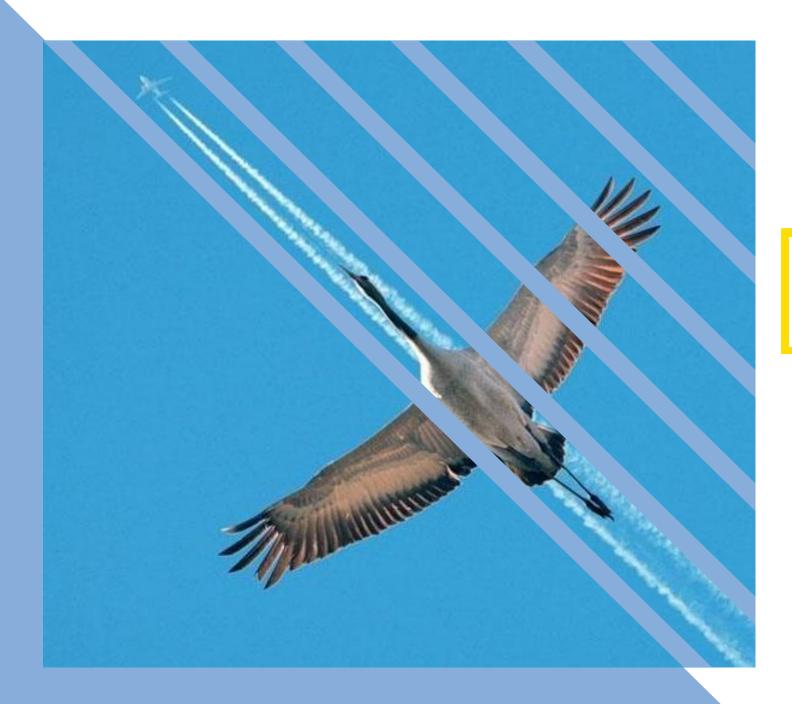
Technology Transport park + Educational Institute

0.5

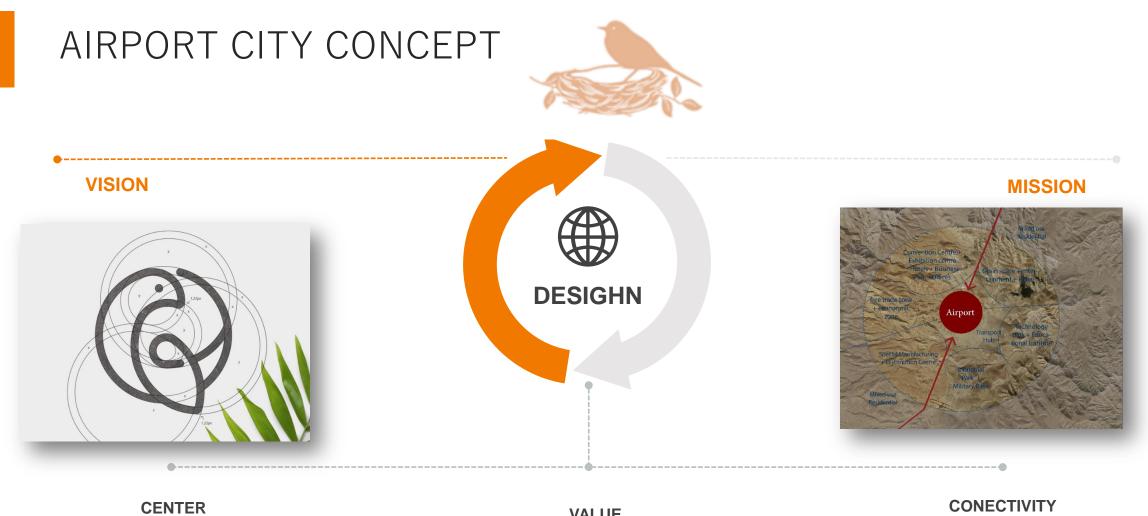
industrial Park + Military Base

Hub

2 Kilometers



Birds <mark>teach</mark> us many things

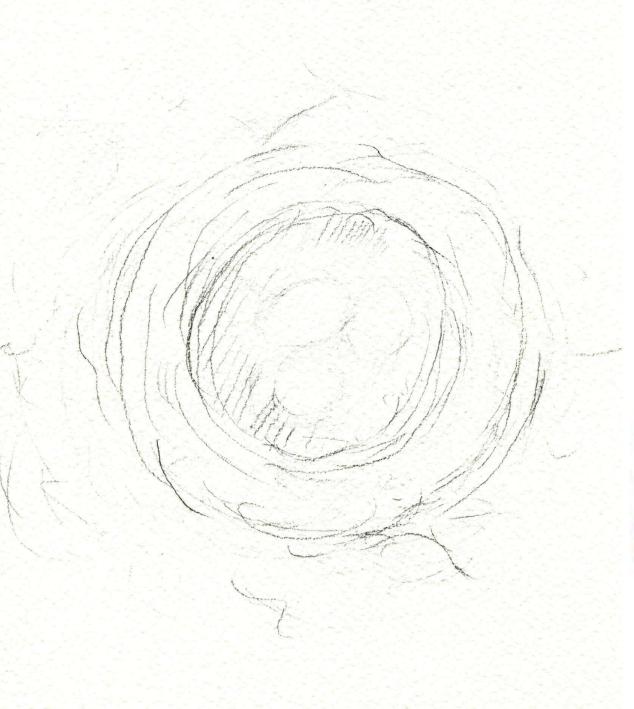


VALUE

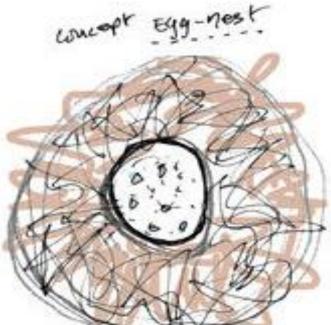
CONECTIVITY













MASTER PLAN



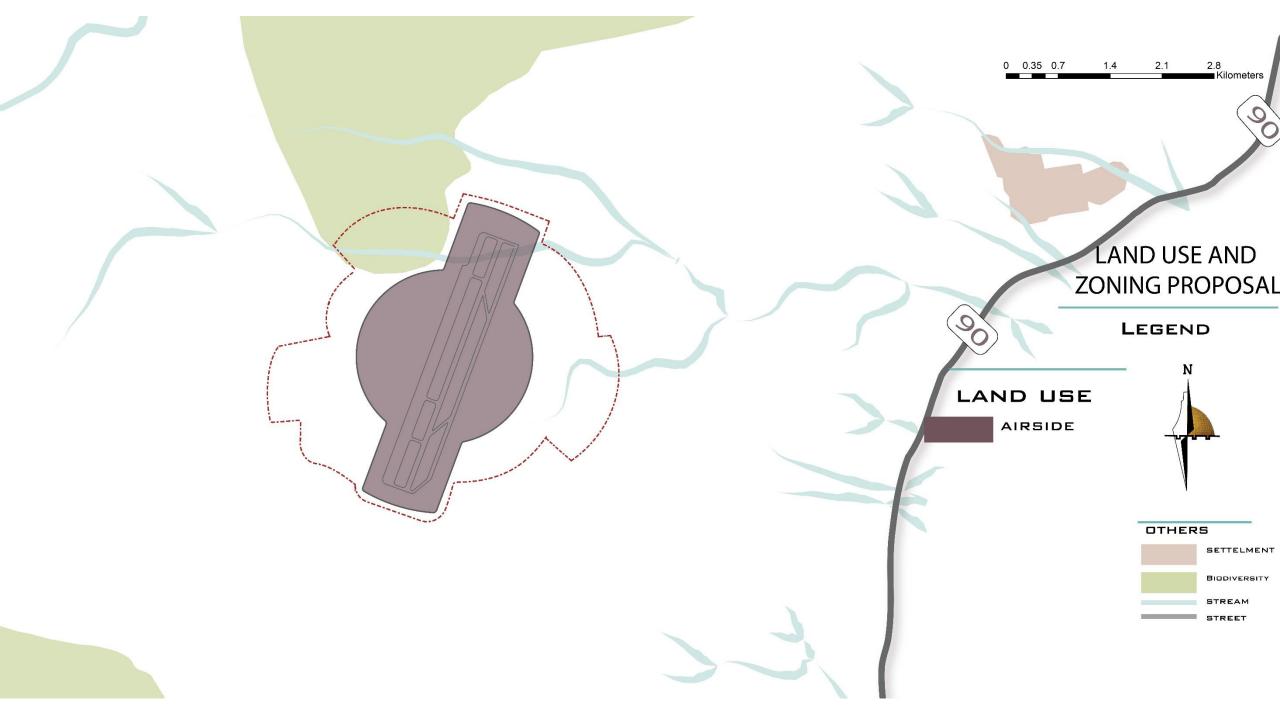


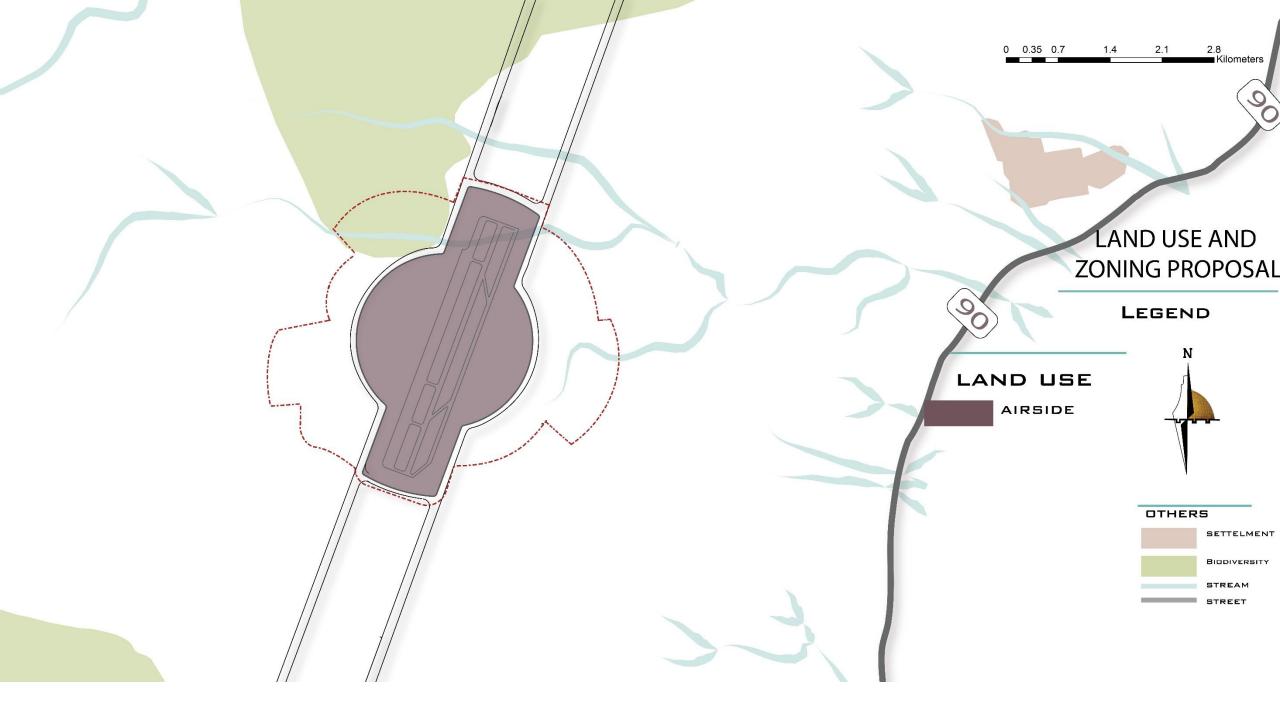
AIRPORT CITY

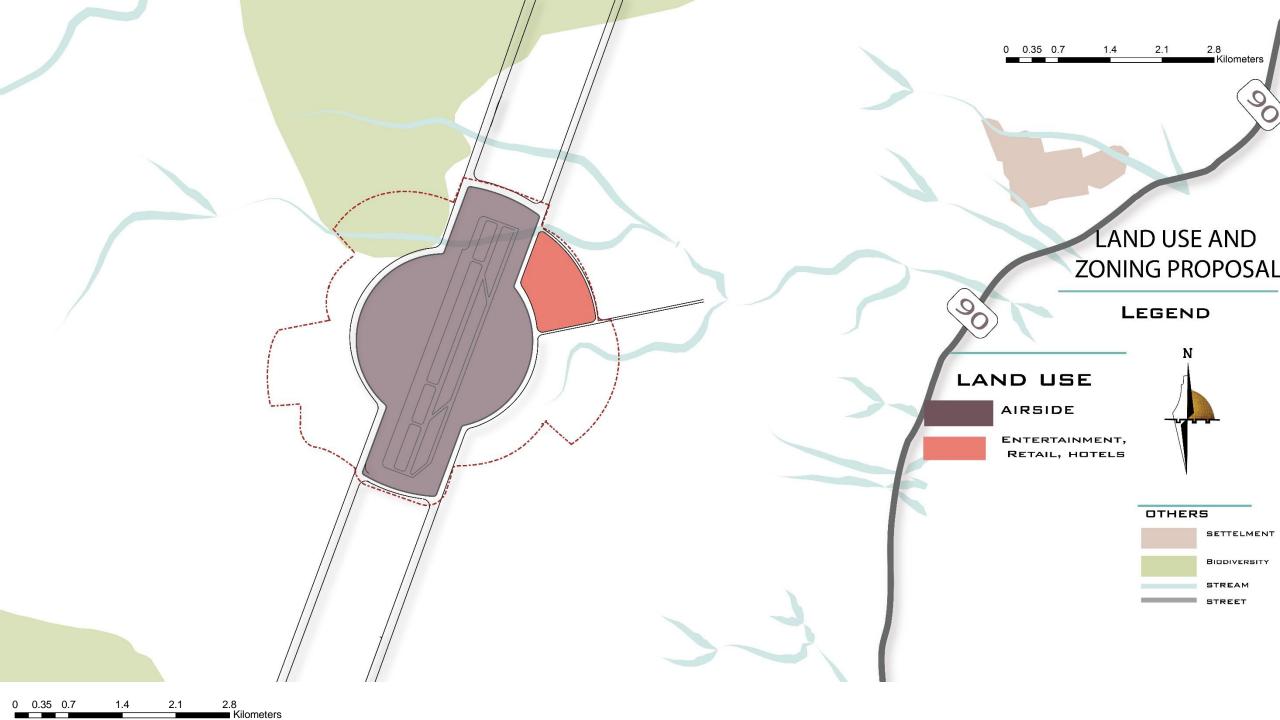


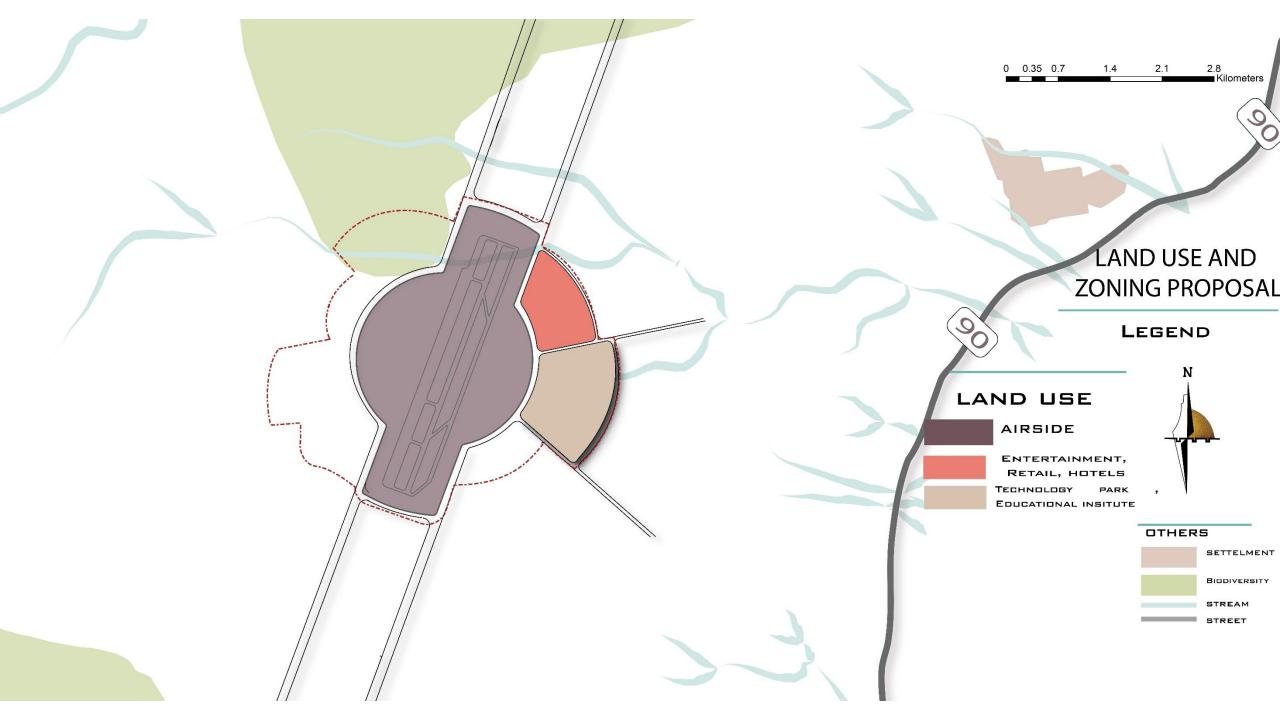


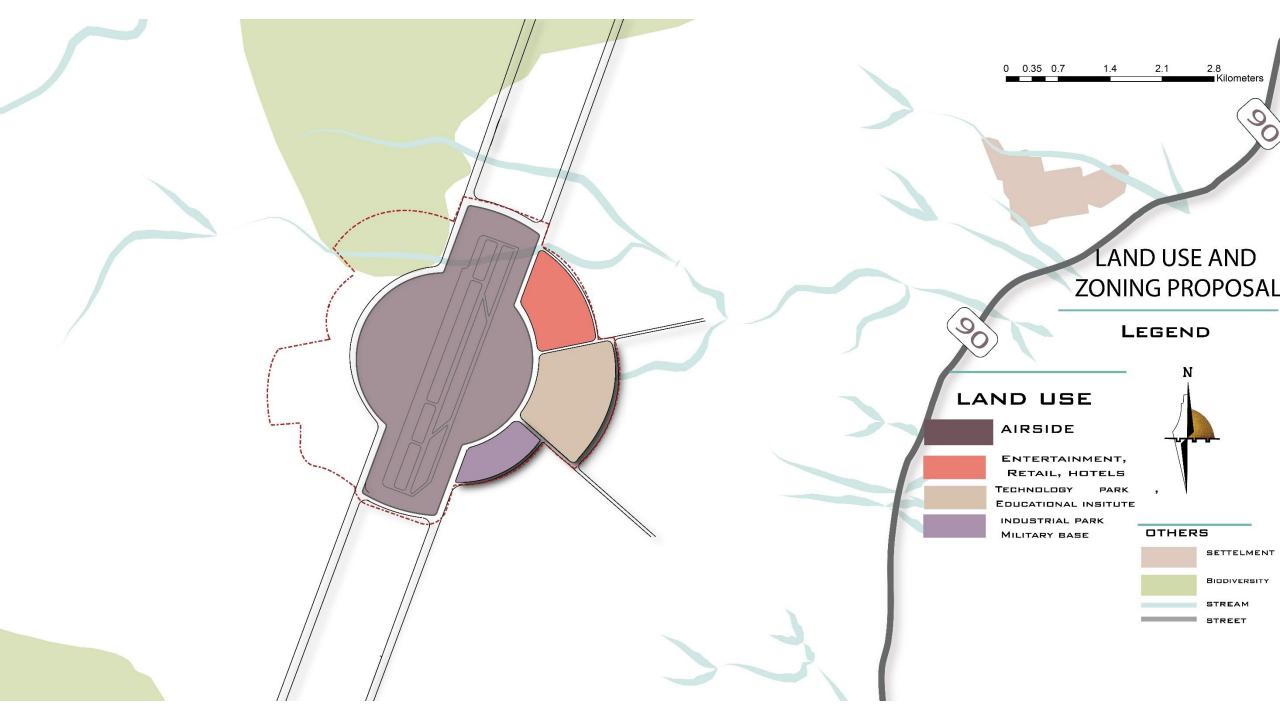


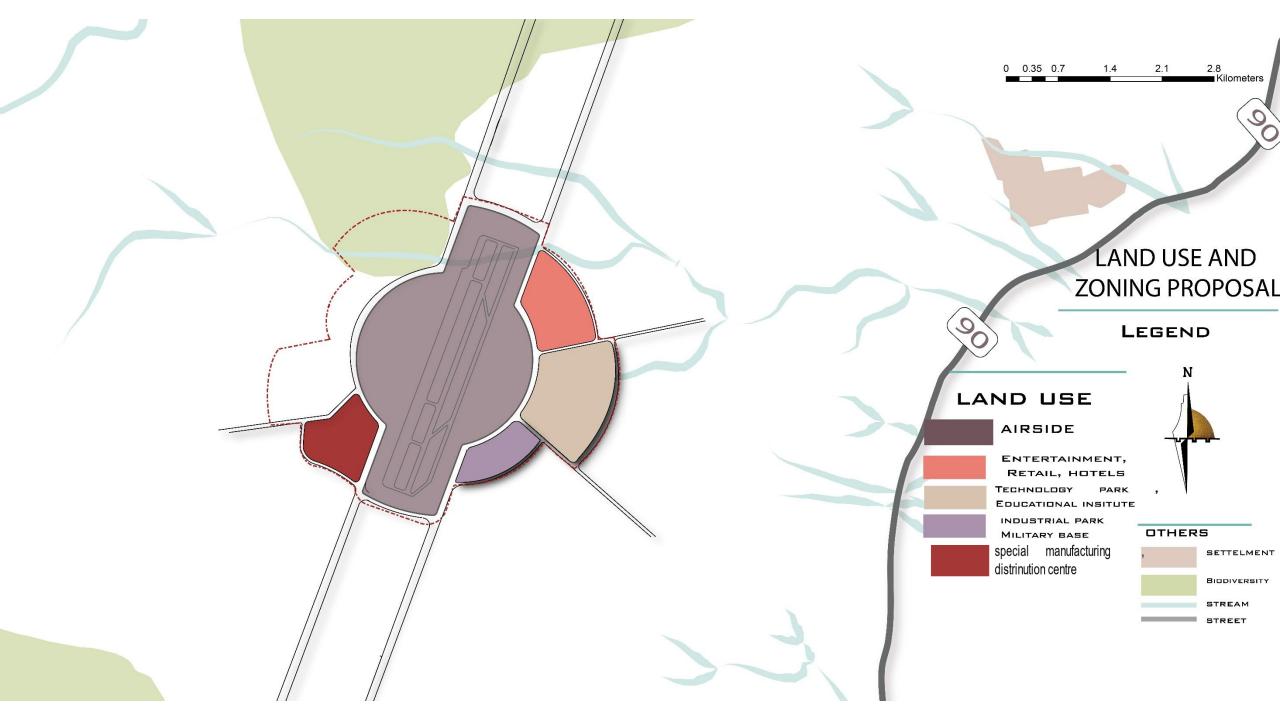


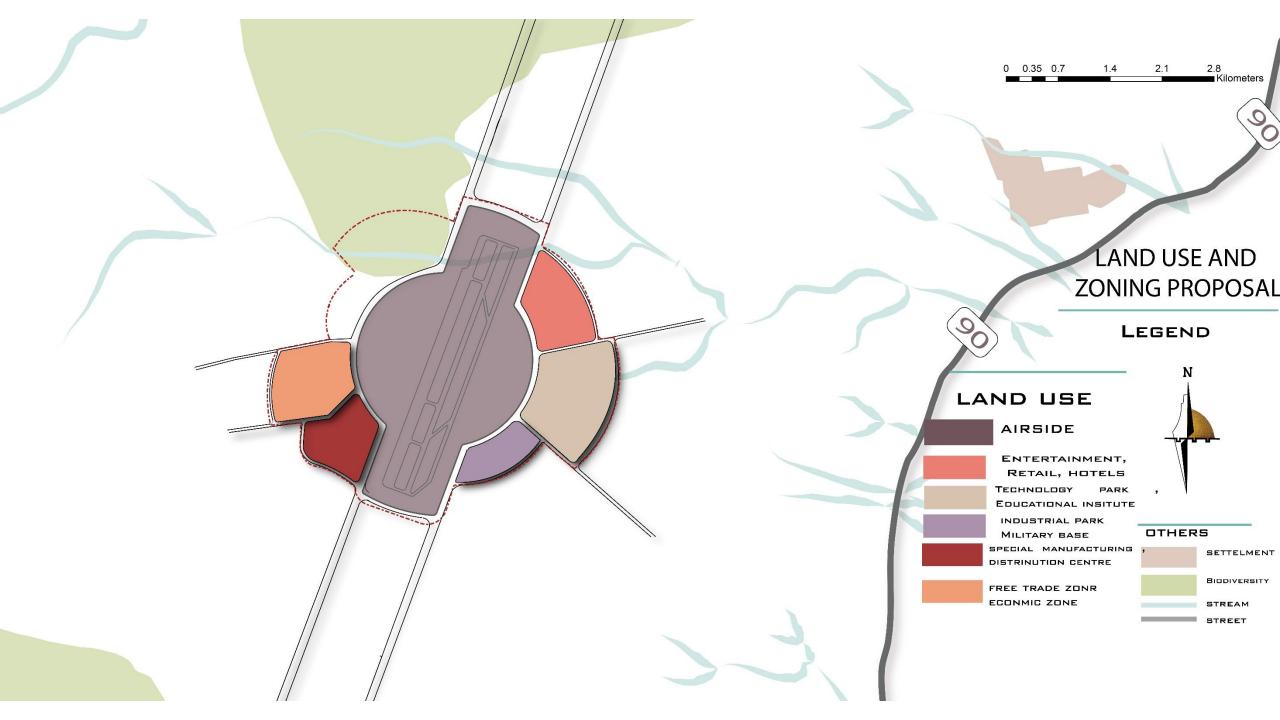


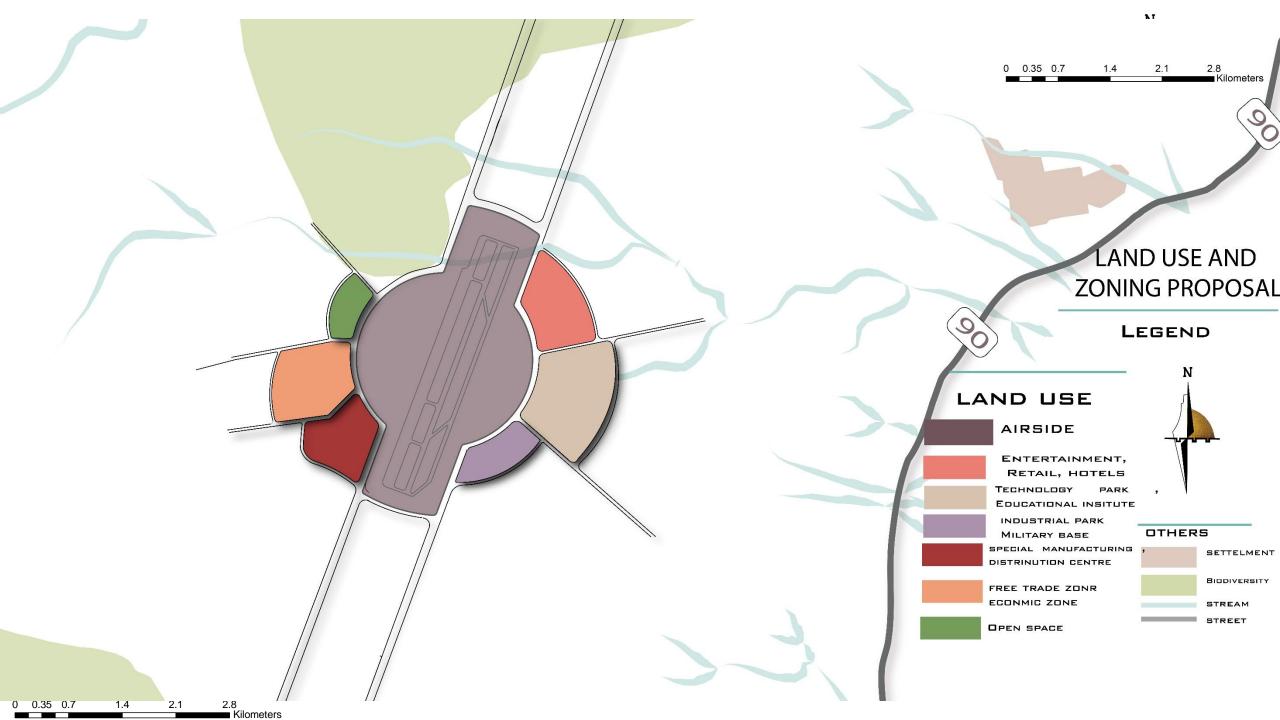


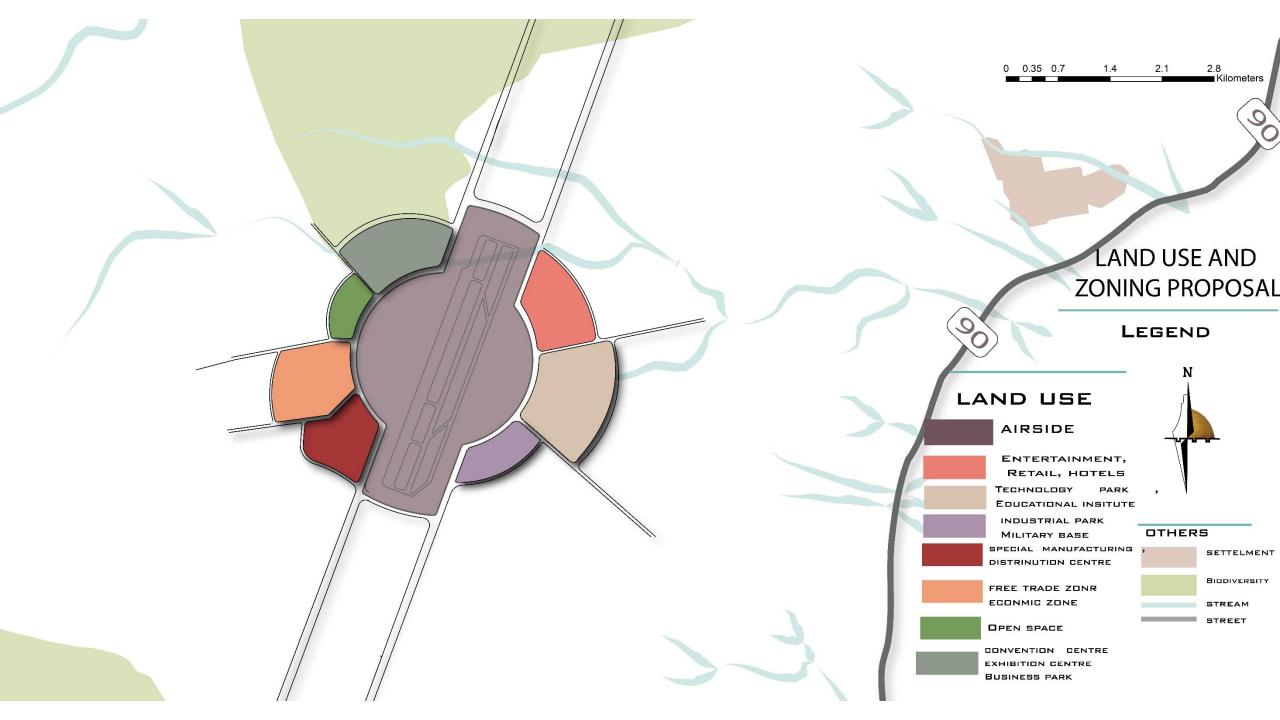










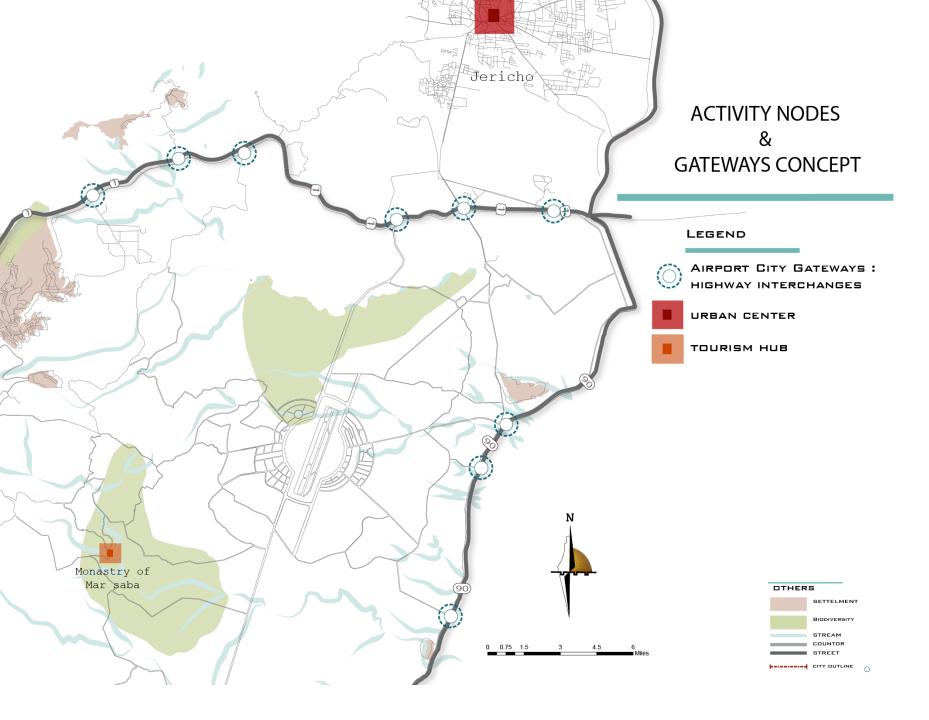


MASTER PLAN



ACTIVITY NODES & GATEWAYS CONCEPT

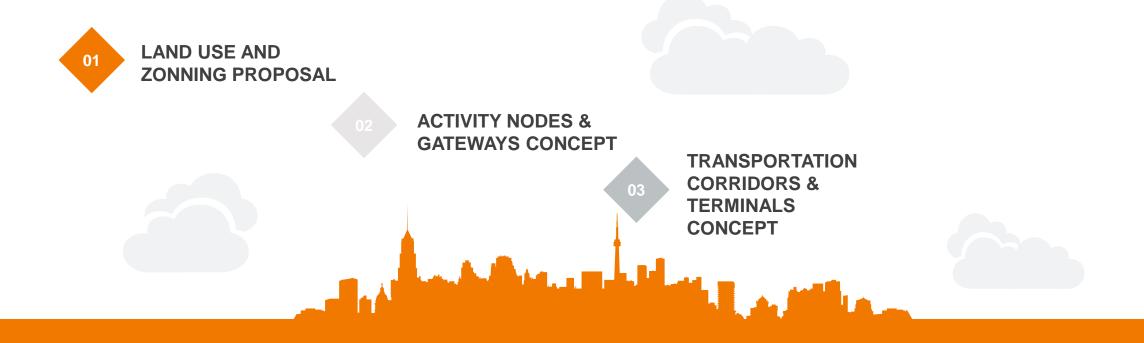
AIRPORT CITY







MASTER PLAN



AIRPORT CITY



N

LEGEND

FUNCTIONAL CLASSIFICATIONS

FREEWAY

0

90

2.6 Miles

0 0.325 0.65

1.3

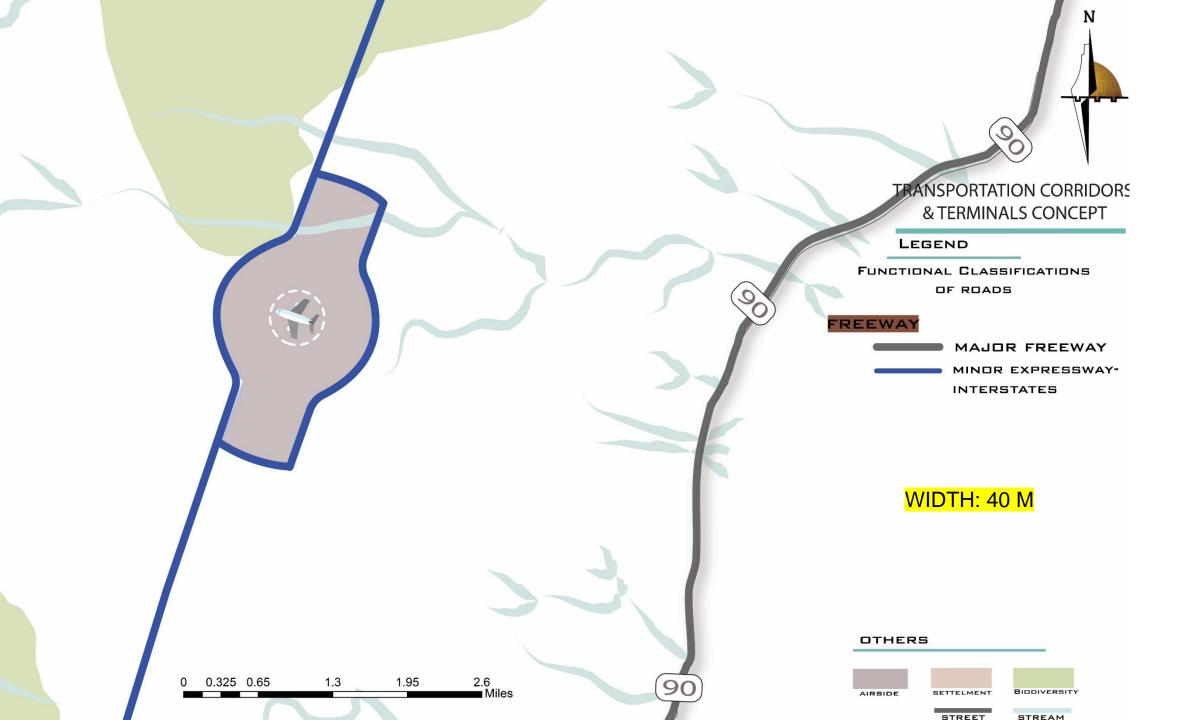
1.95

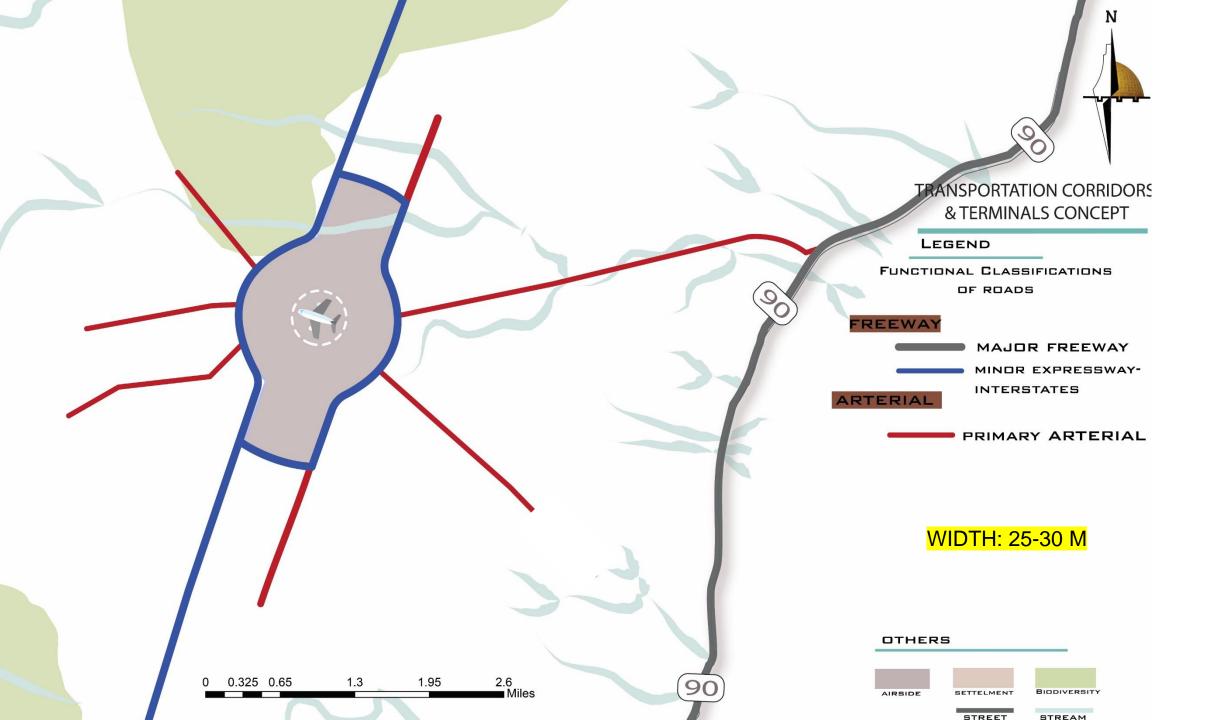
MAJOR FREEWAY



AIRSIDE

SETTELMENT BIDDIVERSITY







Ν

LEGEND

FUNCTIONAL CLASSIFICATIONS OF ROADS

FREEWAY

MAJOR FREEWAY MINOR EXPRESSWAY-INTERSTATES ARTERIAL

> PRIMARY ARTERIAL MINOR ARTERIAL

> > WIDTH: 20-25 M

OTHERS

2.6 Miles

90

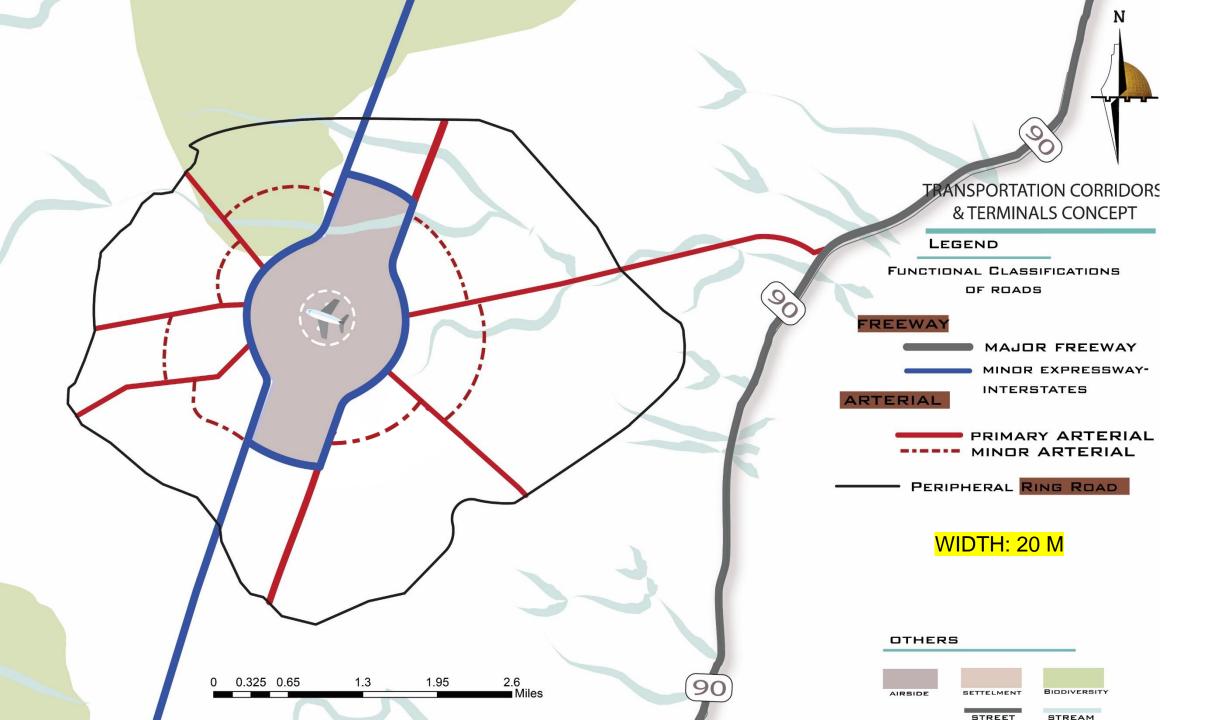
0 0.325 0.65

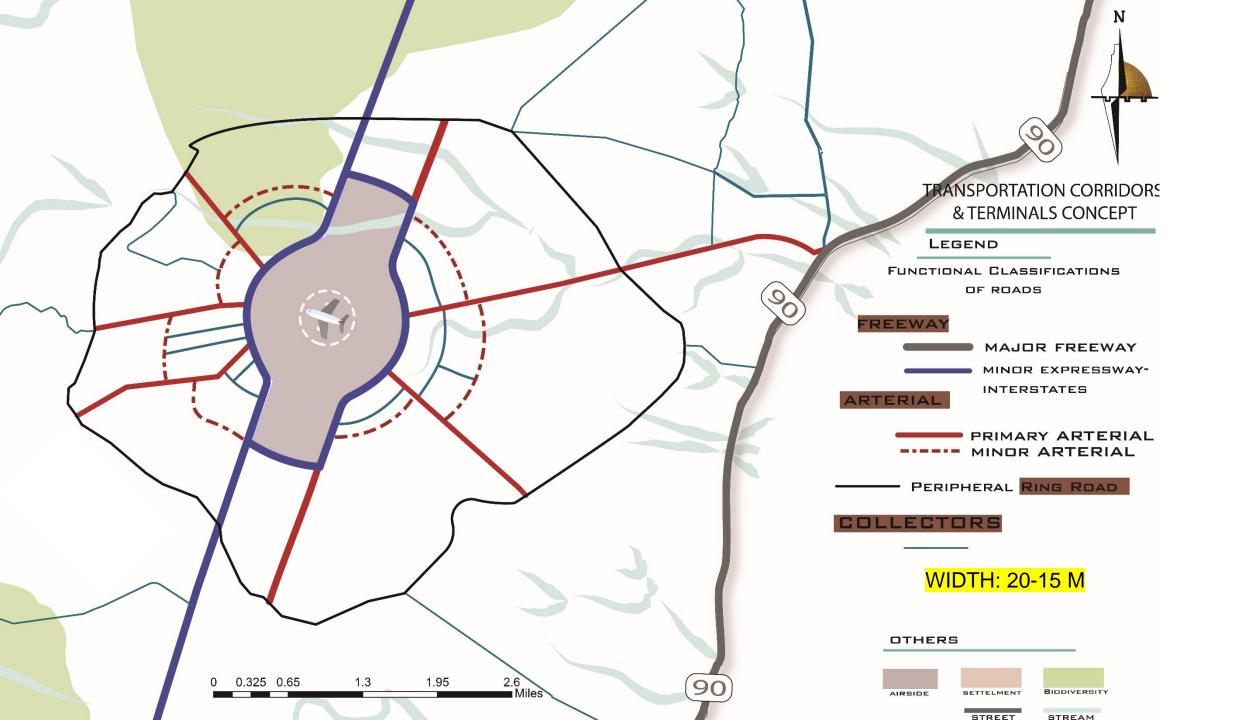
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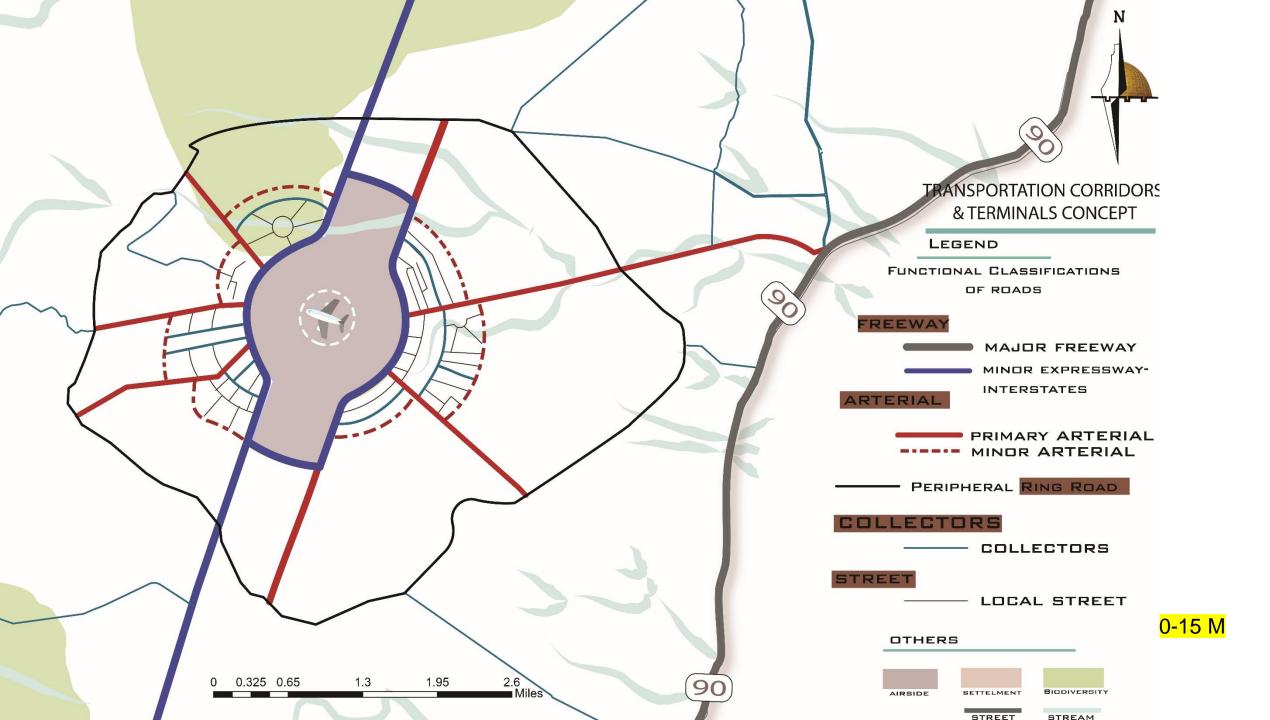
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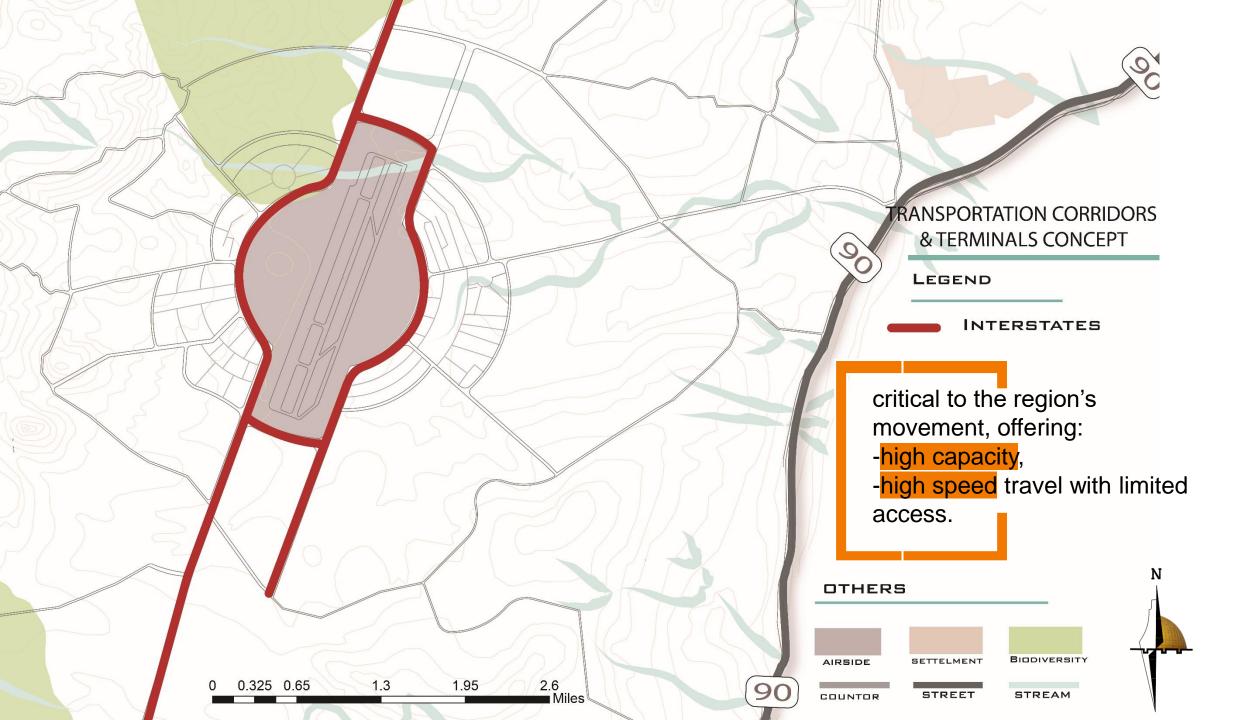


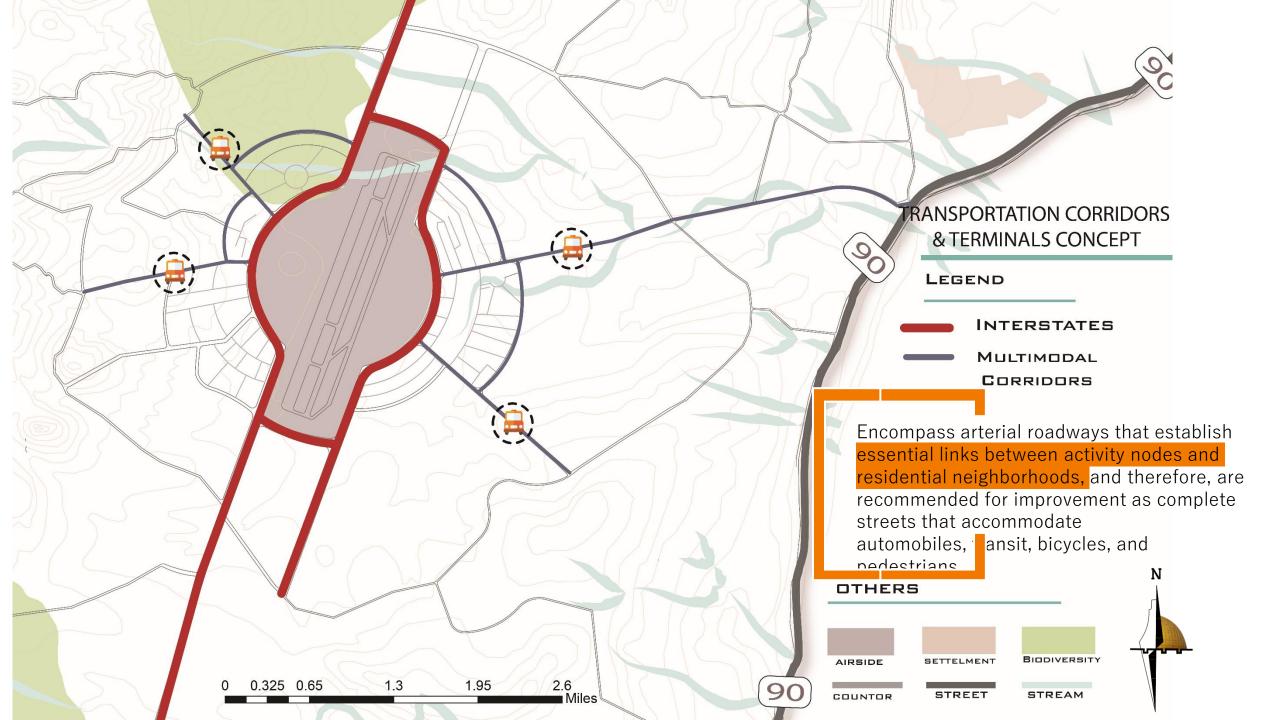
STREAM

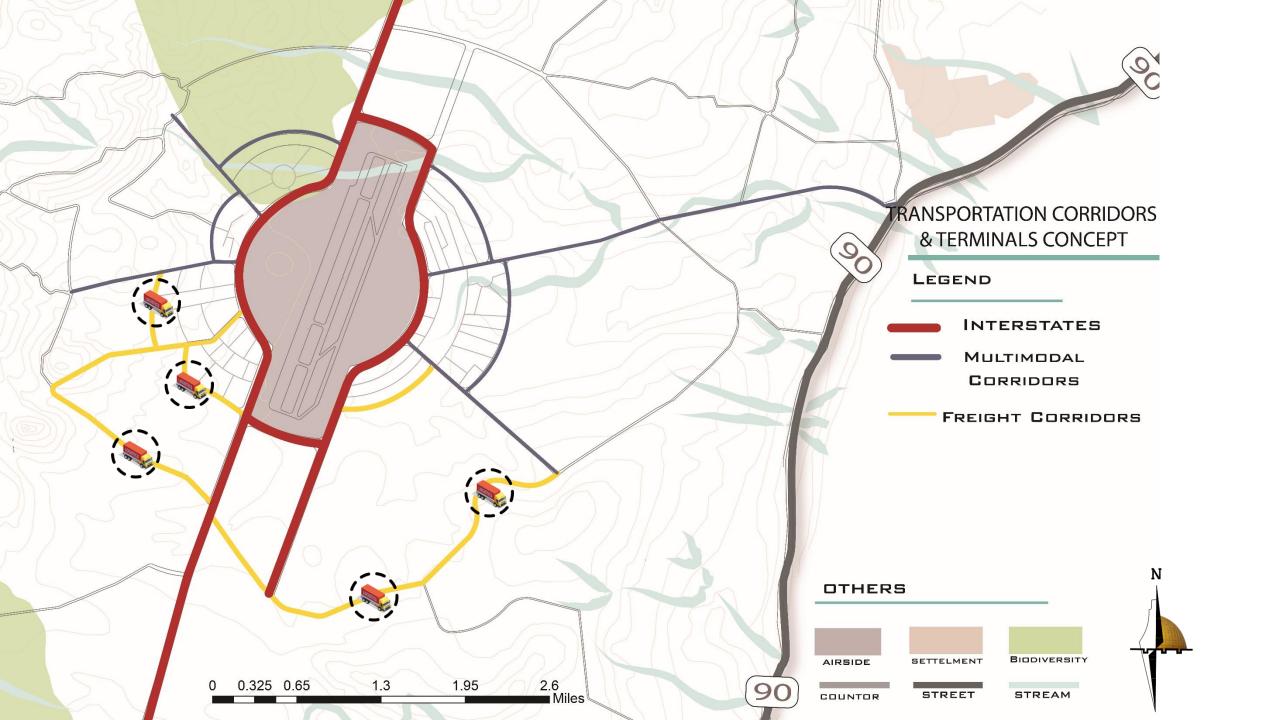


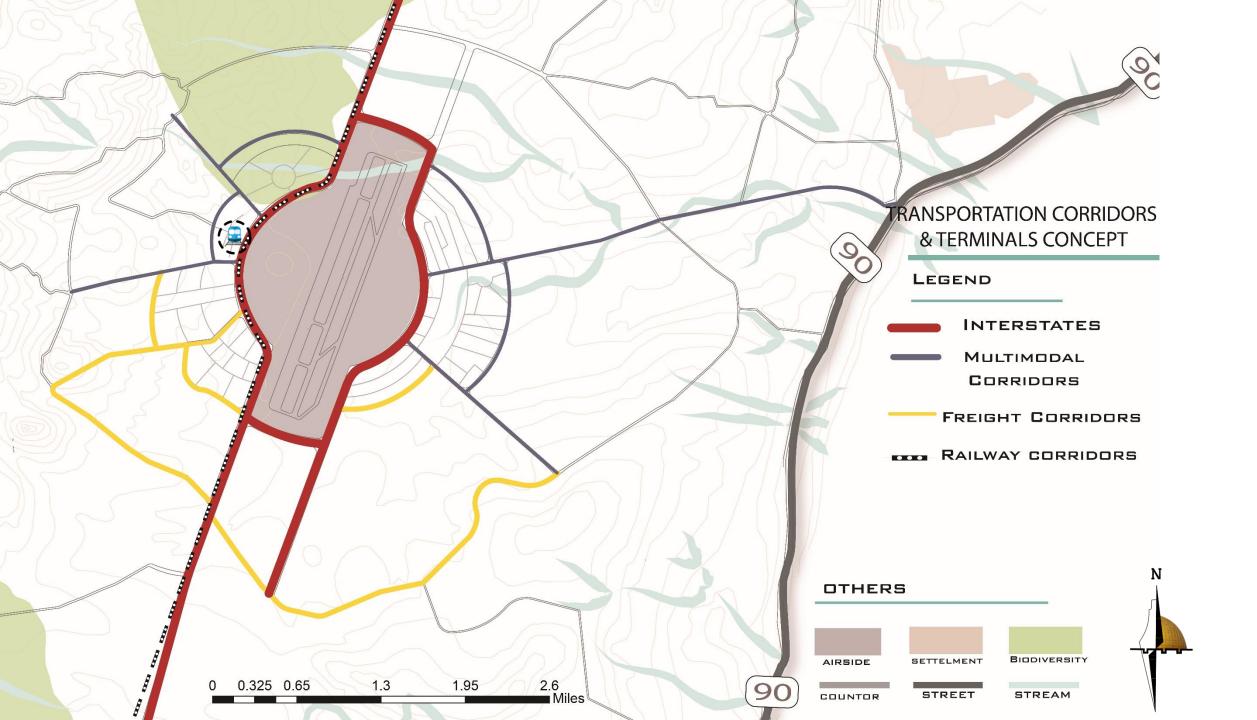




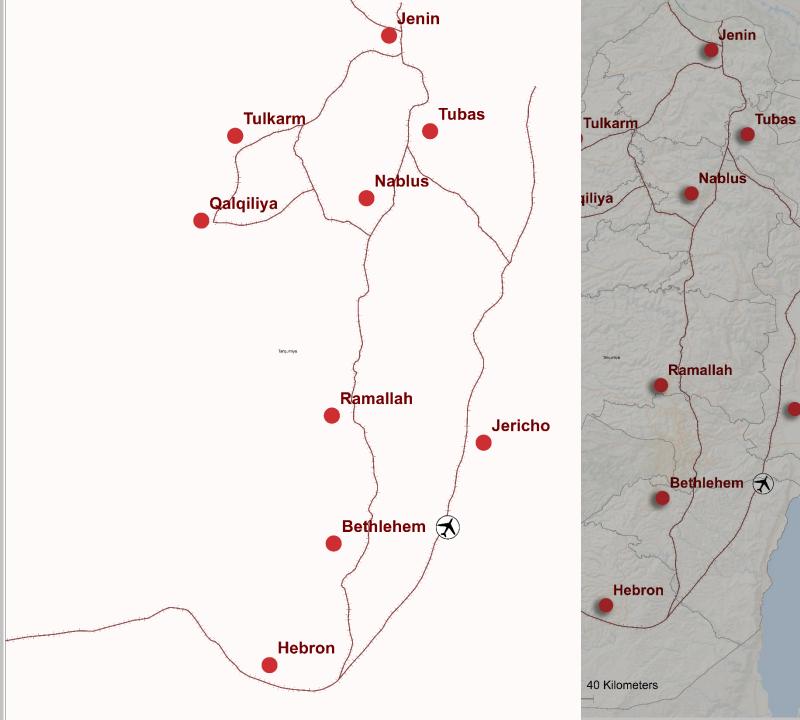






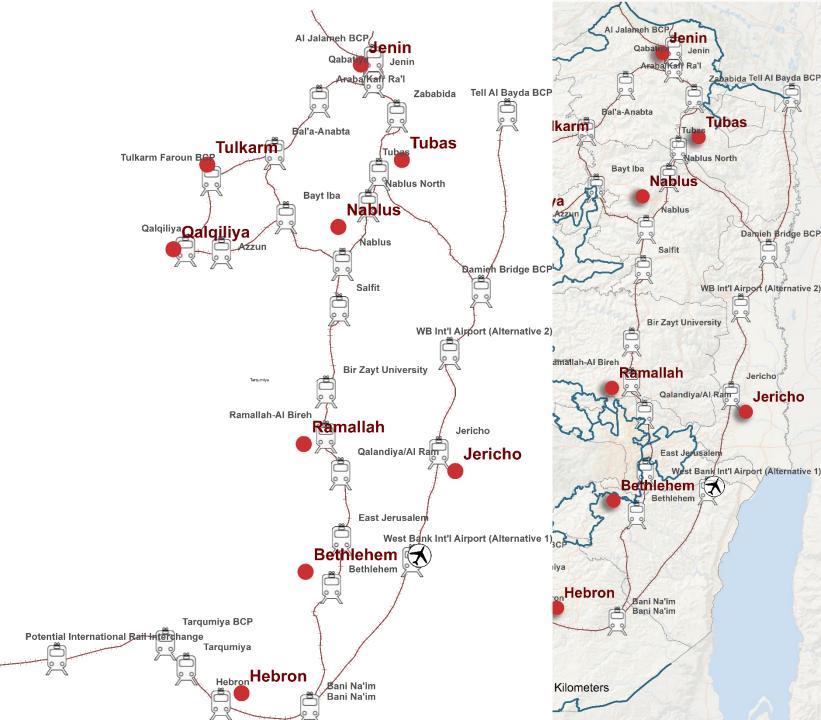




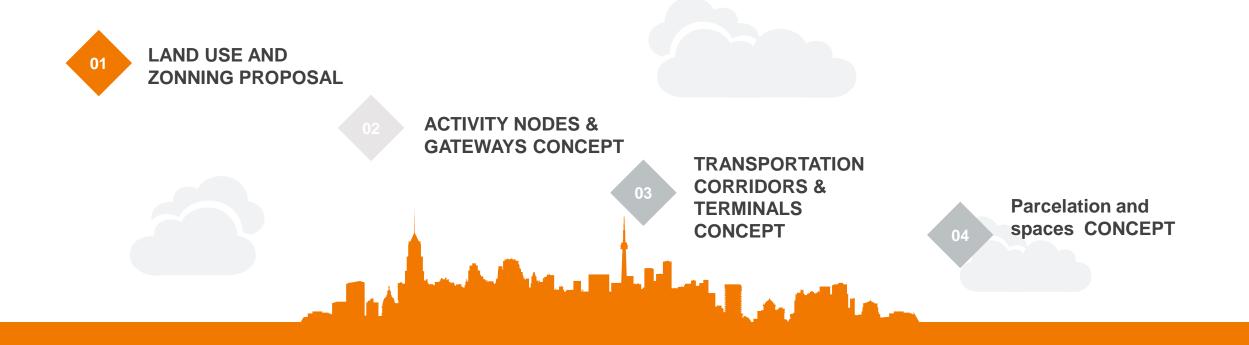


Jericho

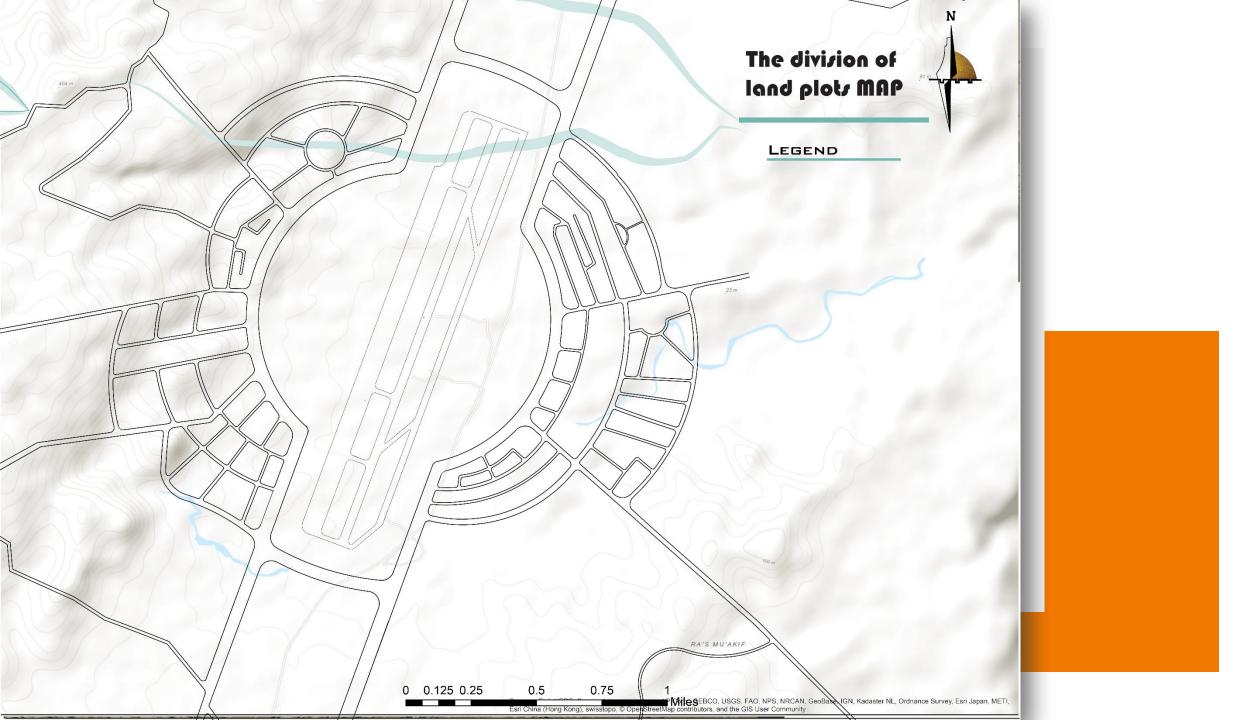




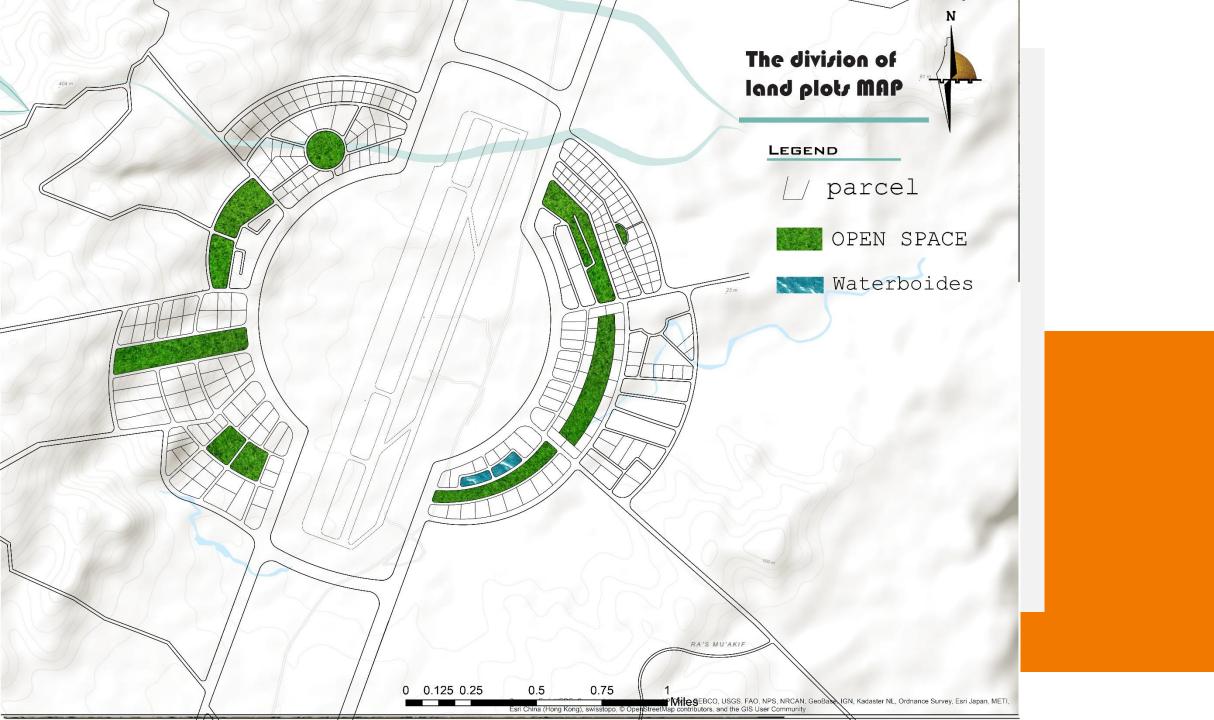
MASTER PLAN

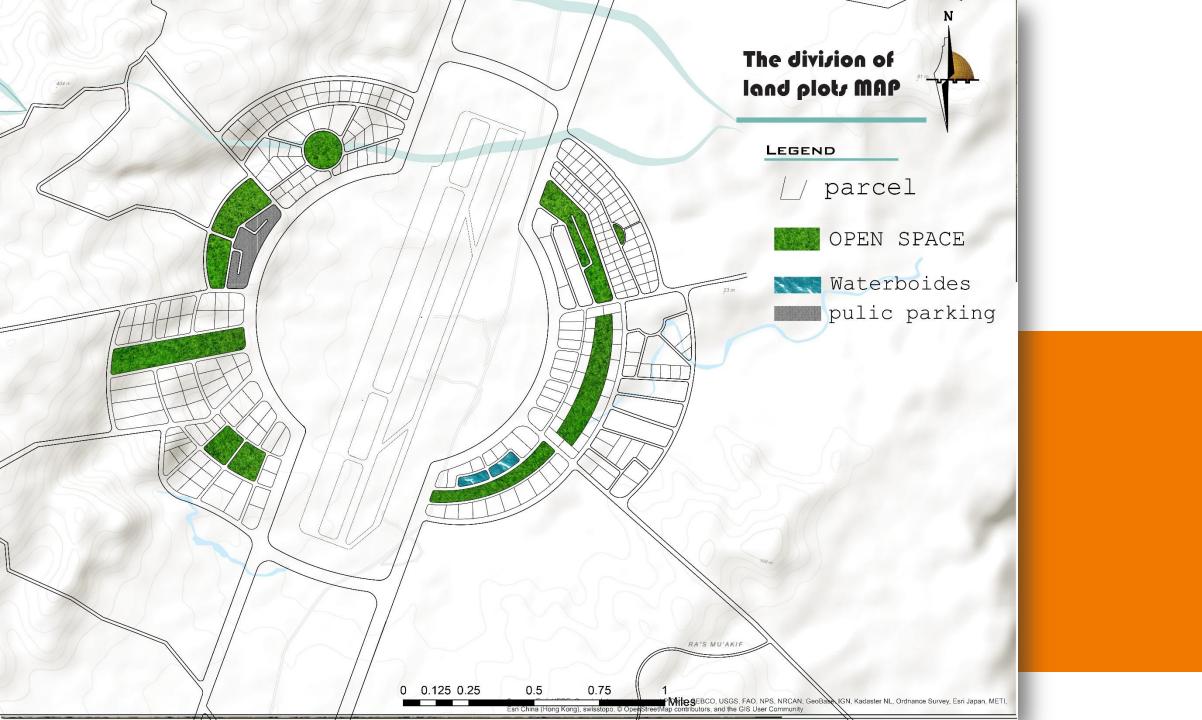


AIRPORT CITY











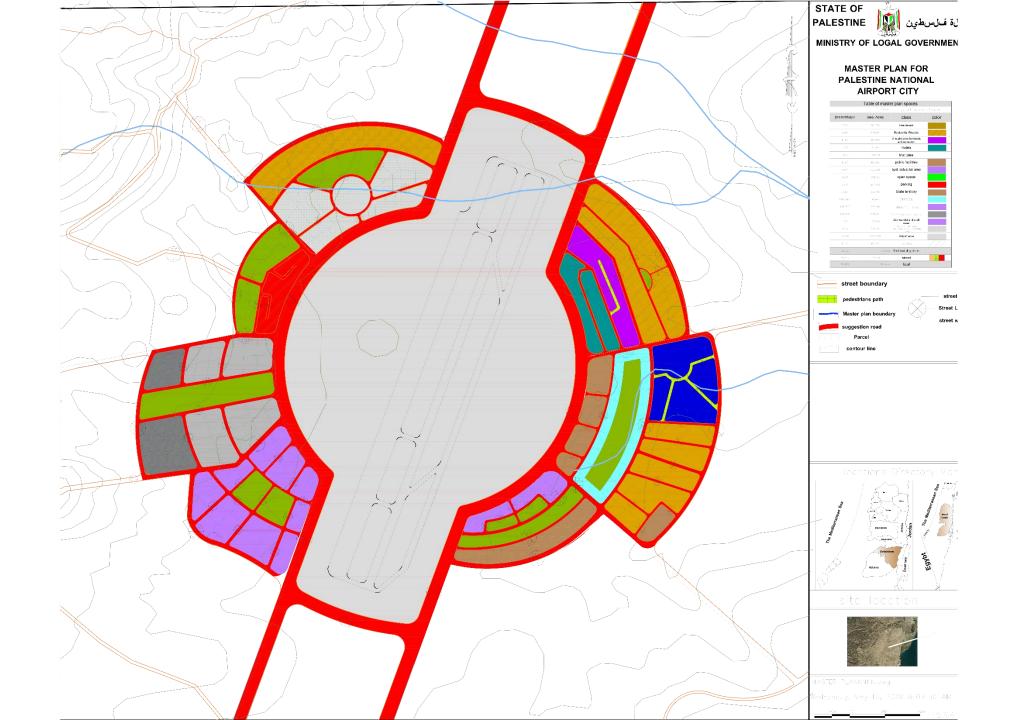
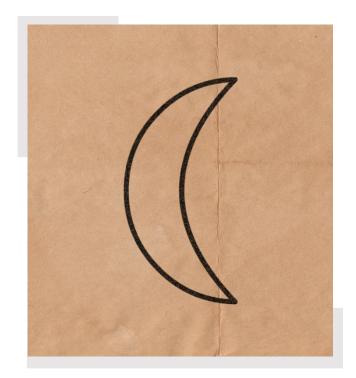


Table of master plan spaces			
	9184.511	total area	a /Acres
percentage	area -Acres	class	color
2.19%	201.076	Residential	
3.13%	287.909	Residential Projects	
1.19%	109.570	A tourist area for hotels and recreation	
1.22%	111.743	Hotels	
2.22%	203.631	Institutes	
1.15%	105.537	public facilities	
1.47%	134.669	light industrial area	
5.70%	523.325	open space	
2.37%	217.333	parking	
1.94%	177.931	State territory	
0.004667	42.867	Water pools	
0.024215	222.406	Industrial area	
0.038951	357.743	Commercial area	
1.73%	158.562	Commercial and craft uses	
3.26%	299.102	Commercial and administrative activities area	4 56 56 56 56 56 56 56 5 4 56 56 56 56 56 56 56 56
44.45%	4082.398	Airport area	
1.18%	108.822	Railway	
79.97%	7,344.62	Total excluding streets	
20.03%	1839.89	street	
100.00%	9,184.51	total	

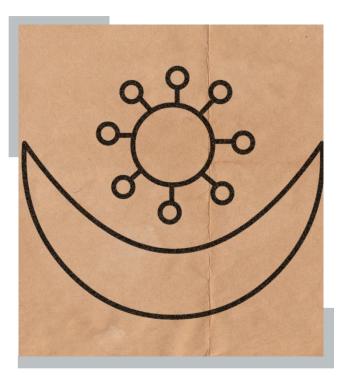




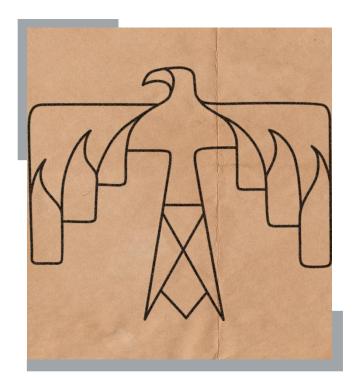
TERMINAL CONCEPT



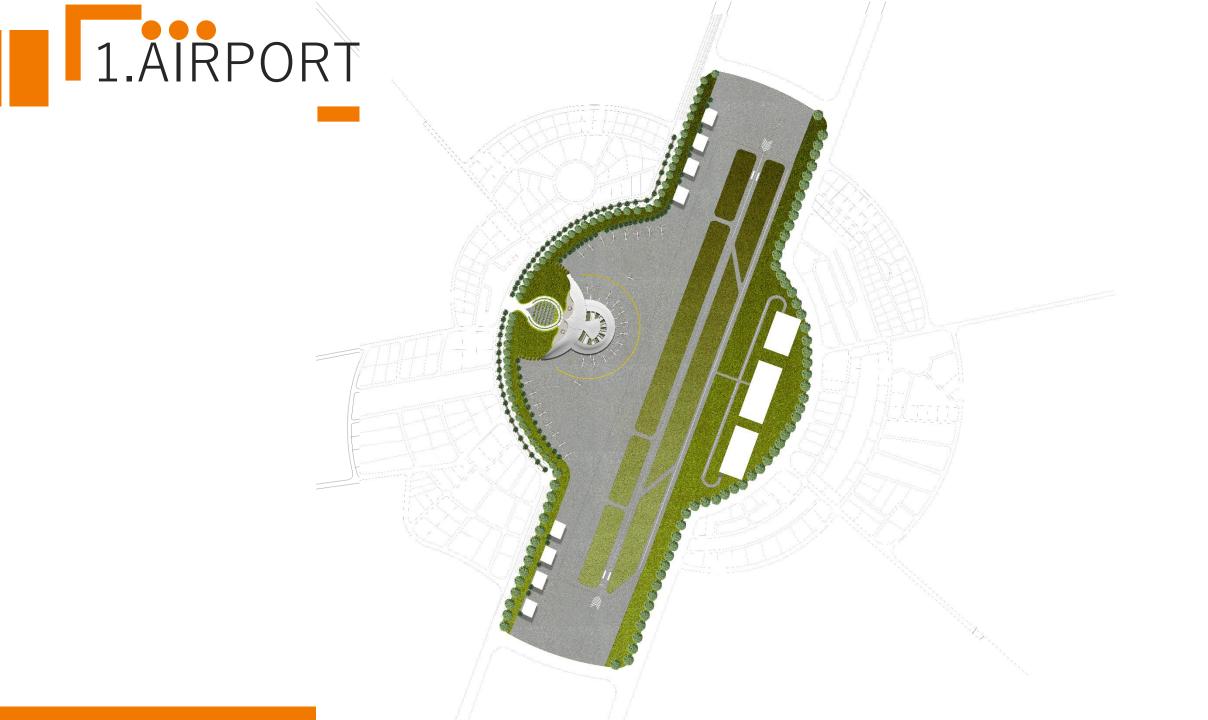
The moon was the protector and guardian of the earth

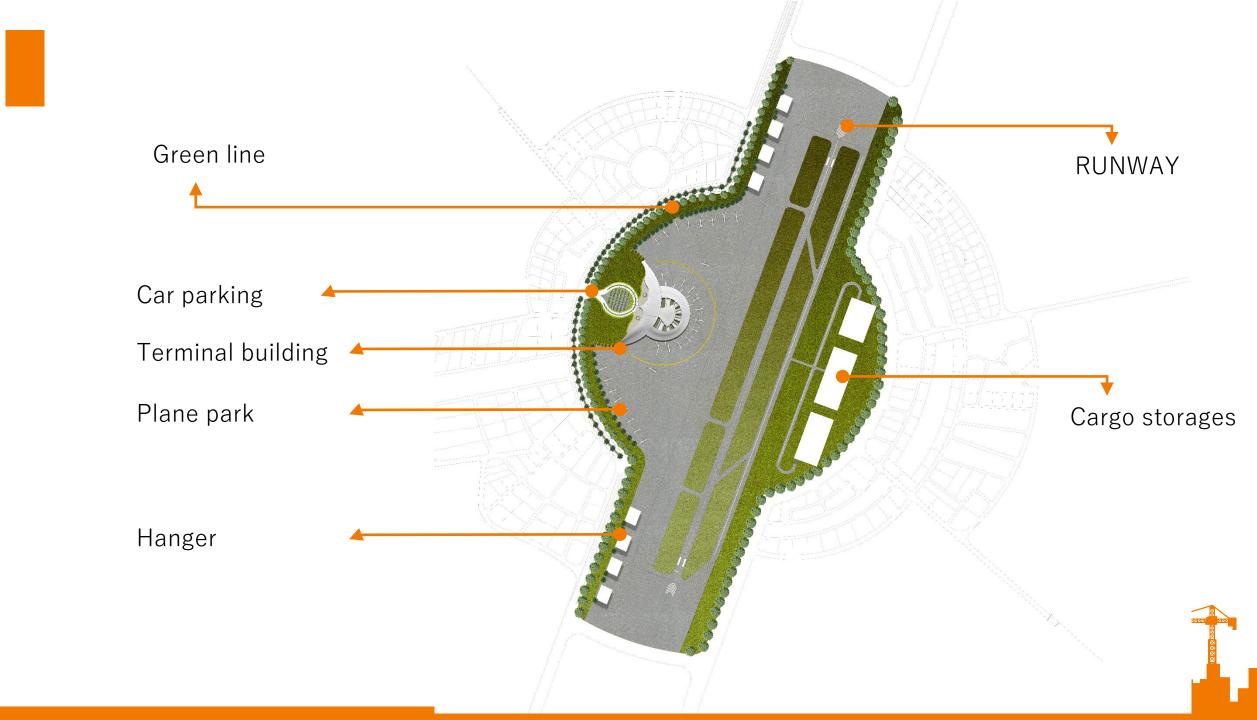


This symbol represents balance because Native Americans believed in striking balance, peace, and harmony among all humans, animals, and plant



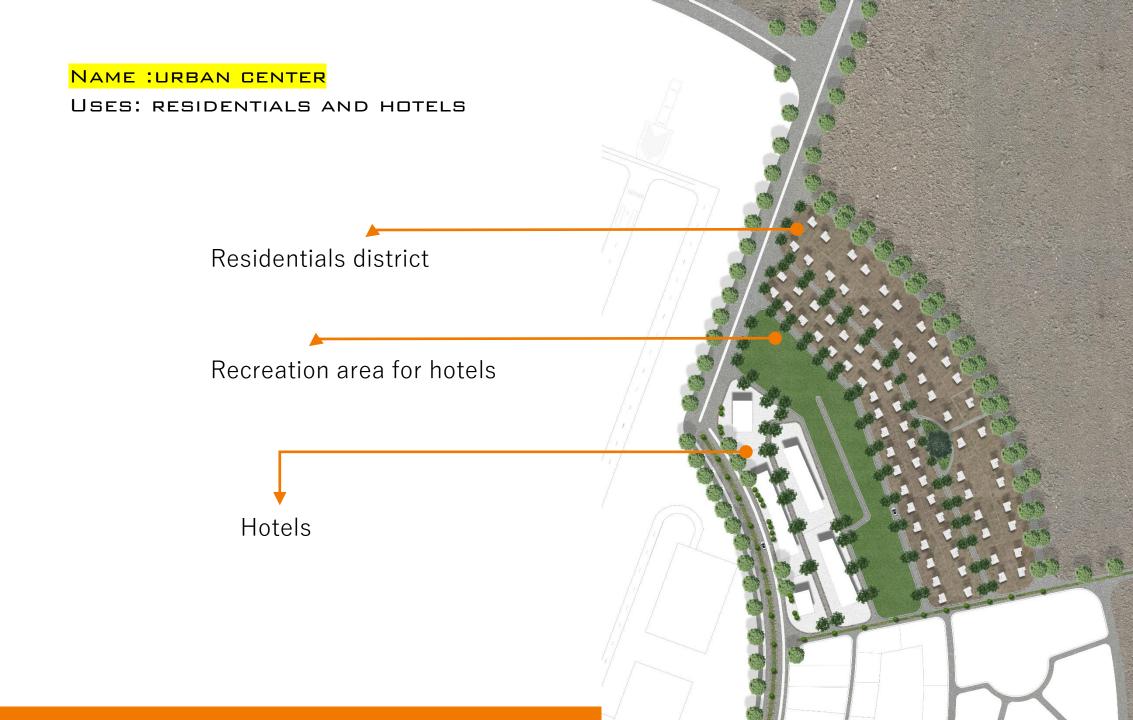
This symbol represents strength and freedom they believed that the beating of the firebird's wings stirred the wind











2.Technology park and educational institute

