Supplementary Materials

Slope

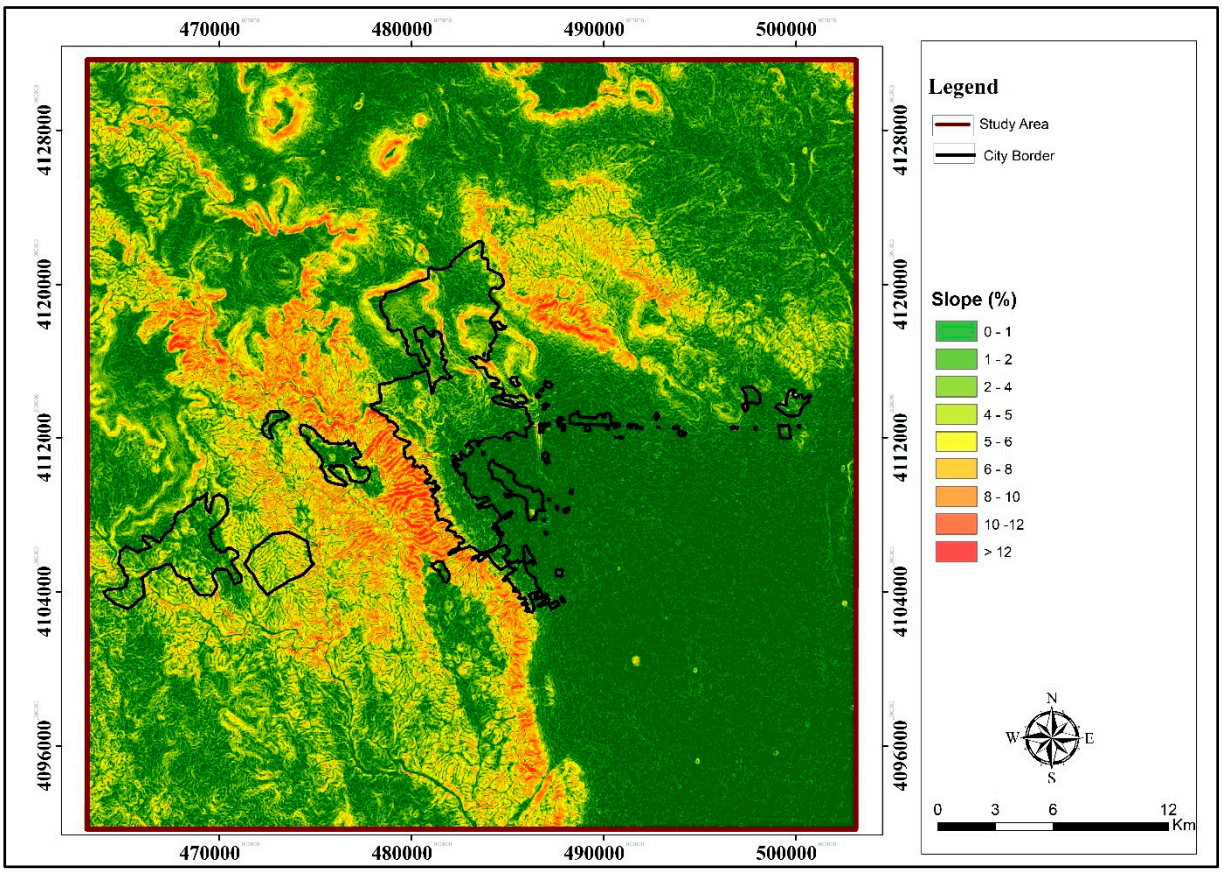


Figure S1: Distribution map of slope data

Table S1: Comparison Matrix of Slope (%) Data AHP Weight Value

Input data	0-1	1-2	2-4	4-5	5-6	6-8	8-10	0-12	12 +	AHP
0-1	1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**0,255**
1-2	1	1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**0,201**
2-4	1/2	1	1	**1**	**3**	**3**	**5**	**5**	**7**	**0,164**
4-5	1/3	1/2	1	1	**1**	**3**	**5**	**7**	**9**	**0,141**
5-6	1/4	1/3	1/3	1	1	**1**	**3**	**5**	**7**	**0,092**
6-8	1/5	1/4	1/3	1/3	1	1	**1**	**3**	**5**	**0,061**
8-10	1/6	1/5	1/5	1/5	1/3	1	1	**1**	**3**	**0,039**
10-12	1/7	1/6	1/5	1/7	1/5	1/3	1	1	**1**	**0,027**
12 +	1/8	1/7	1/7	1/9	1/7	1/5	1/5	1	1	**0,020**

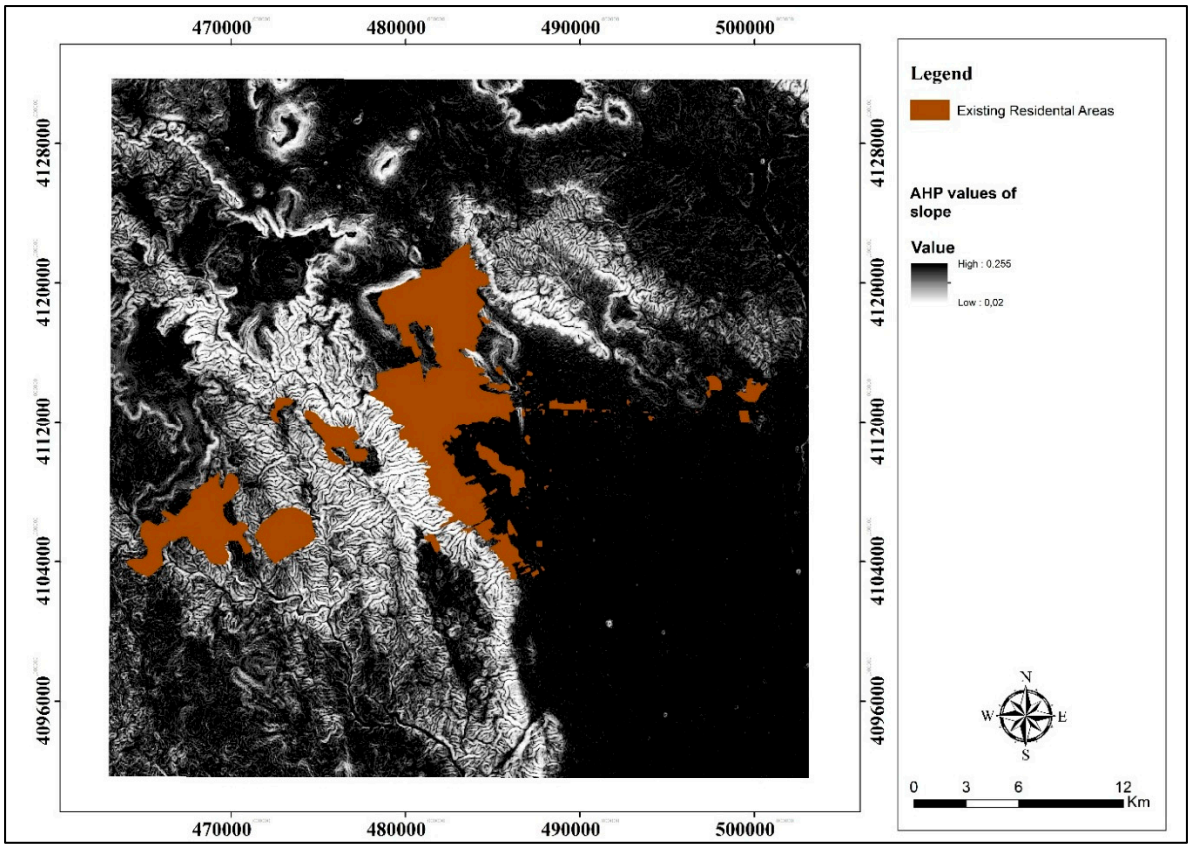


Figure S2: Spat al D str but on Map of AHP We ght Value for Slope (%) data

LULC

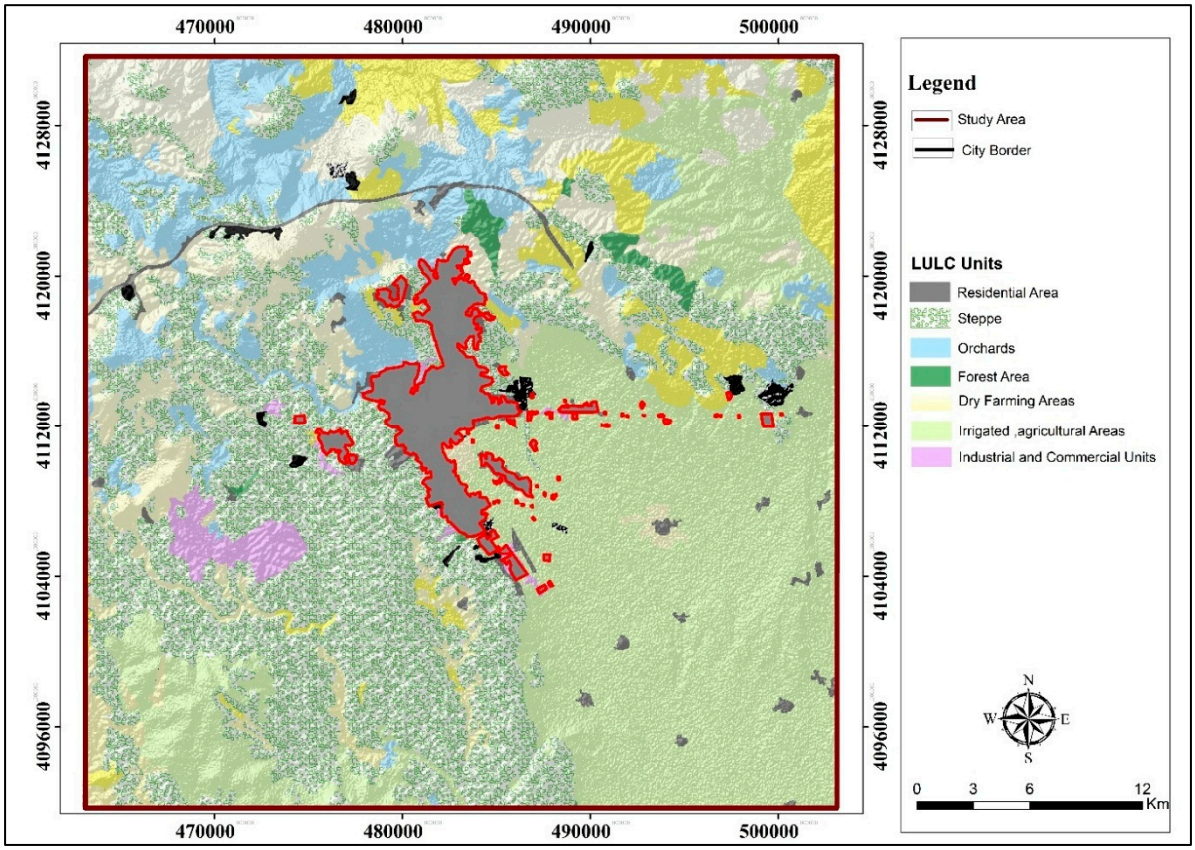


Figure S3: LULC Distribution Map

The existing LULC data is classified between 1 and 5 in terms of suitability for settlement. 1 represents the most suitable area for settlement, 5 represents areas not suitable for settlement. Accordingly, the land use data was divided into 5 separate groups and the AHP comparison matrix was created.

Table S2: LULC data settlement suitability classes

LULC	Suitability class for settlement
Surroundings of the Current Settlement Area	1
Transportation Routes	1
Dry Farming Areas	1
The environment of official institutions	1
Surroundings of Health Areas	1
Current Construction Sites	1
Airport surroundings	2
Surroundings of Sports and Entertainment Areas	2
Surroundings of Industrial and Commercial Units	2
Steppe Areas	3

Surroundings of Orchards	4
Surroundings of Mining Areas	5
Surroundings of Solid Waste Dumping Sites	5
Green City Areas surroundings	5
Surroundings of Irrigated Cultivated Areas	5
Surroundings of Forested Areas	5
Surroundings of wastewater treatment plant	5

Table S3: LULC Data Comparison Matrix AHP Weight Value

Input data	1 class	2 class	3 class	4 class	5 class	AHP
1 class	1	**1**	**3**	**5**	**7**	**0,399**
2 class	1	1	**1**	**3**	**5**	**0,276**
3 class	1/3	1	1	**1**	**3**	**0,167**
4 class	1/5	1/3	1	1	**1**	**0,095**
5 class	1/7	1/5	1/3	1	1	**0,062**

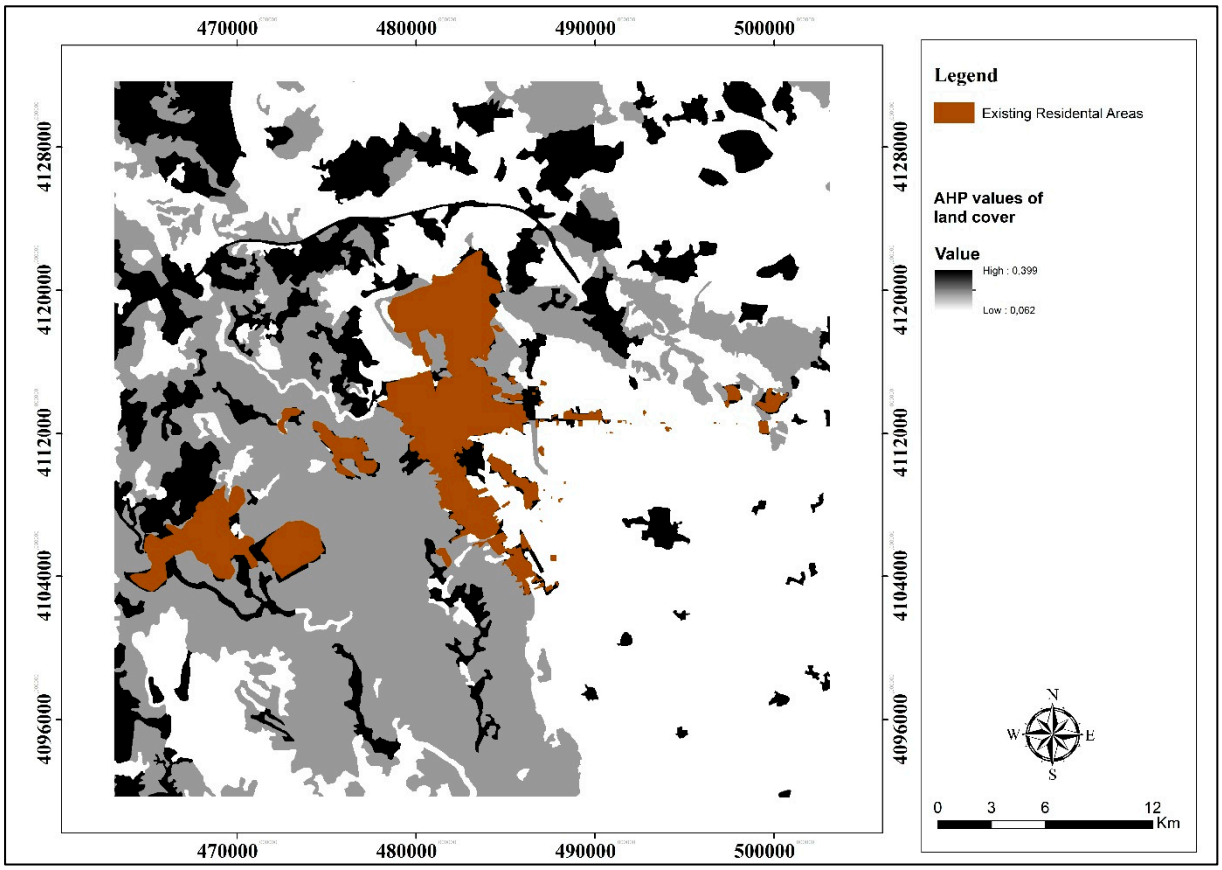


Figure S4: Map of LULC Data Comparison Matrix AHP Weight Value

Excluded

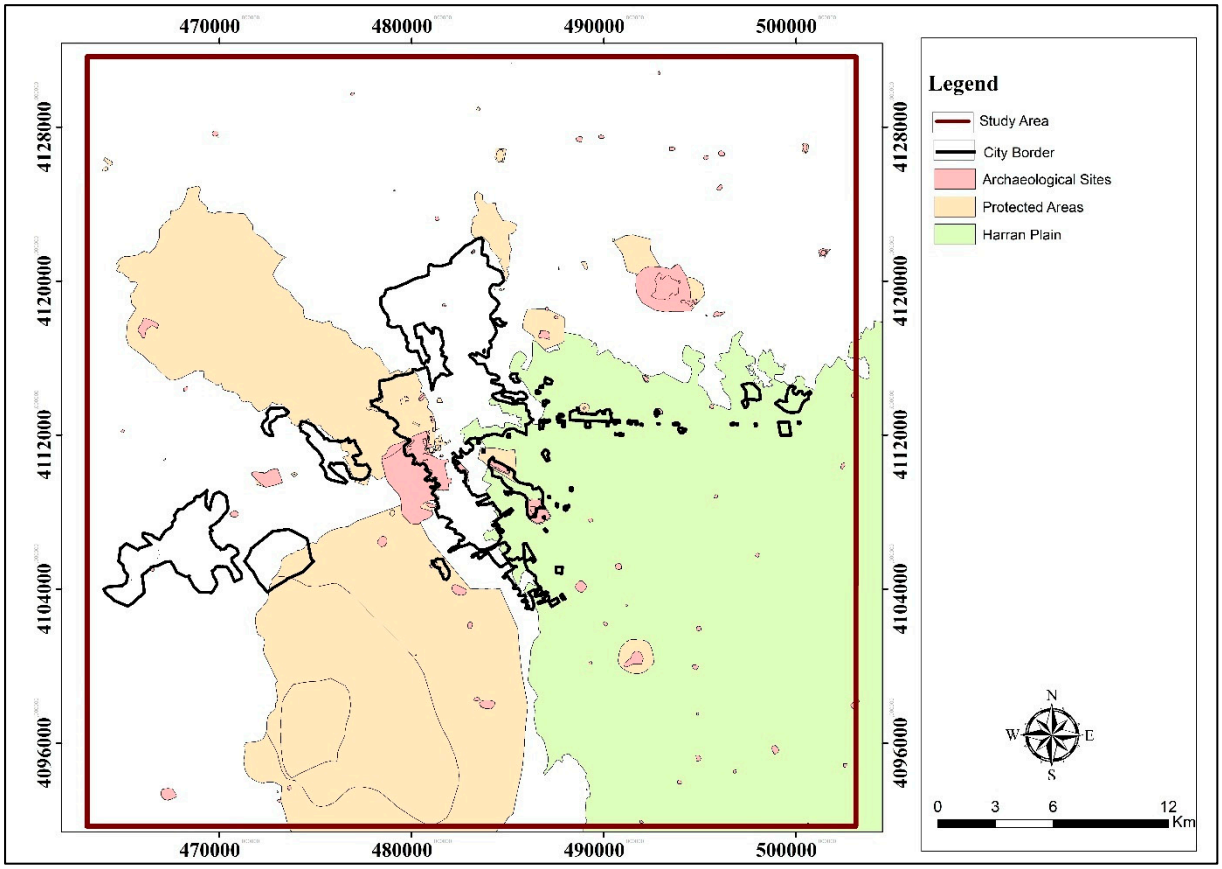


Figure S5: D str but on Map of Excluded Data

Table S4: Compar son Matr x AHP We ght Value of Excluded Data

Input data	Other Areas	Harran Plain	Protected areas	Current settlement	Archaeological Site	AHP
Other Areas	1	**1**	**3**	**5**	**7**	**0,360**
Harran Plain	1	1	**1**	**3**	**5**	**0,360**
Protected areas	1/3	1	1	**1**	**3**	**0,162**
Current settlement	1/5	1/3	1	1	**1**	**0,079**
Archaeological Site	1/7	1/5	1/3	1	1	**0,040**

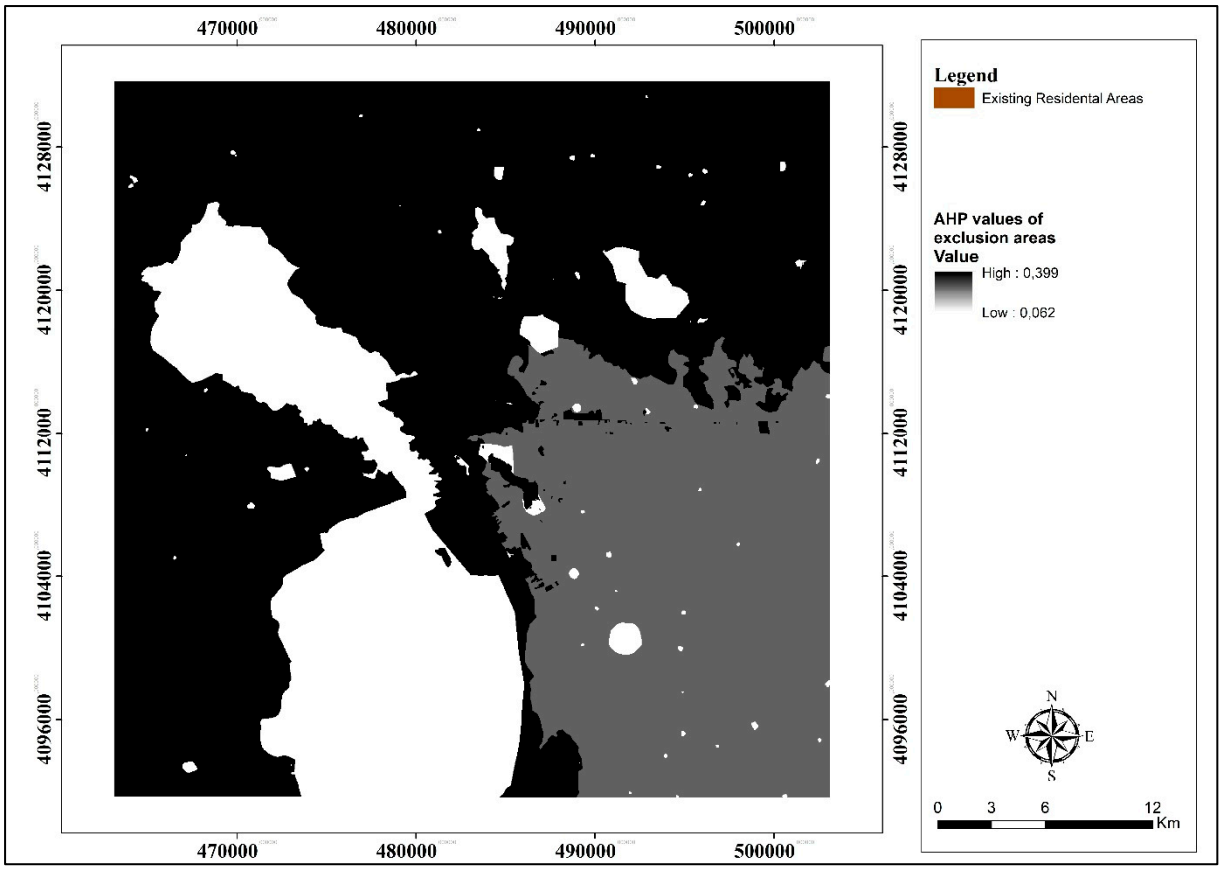


Figure S6: Exclus□on Data AHP We□ght Value D□str□but□on Map

Urbanization:

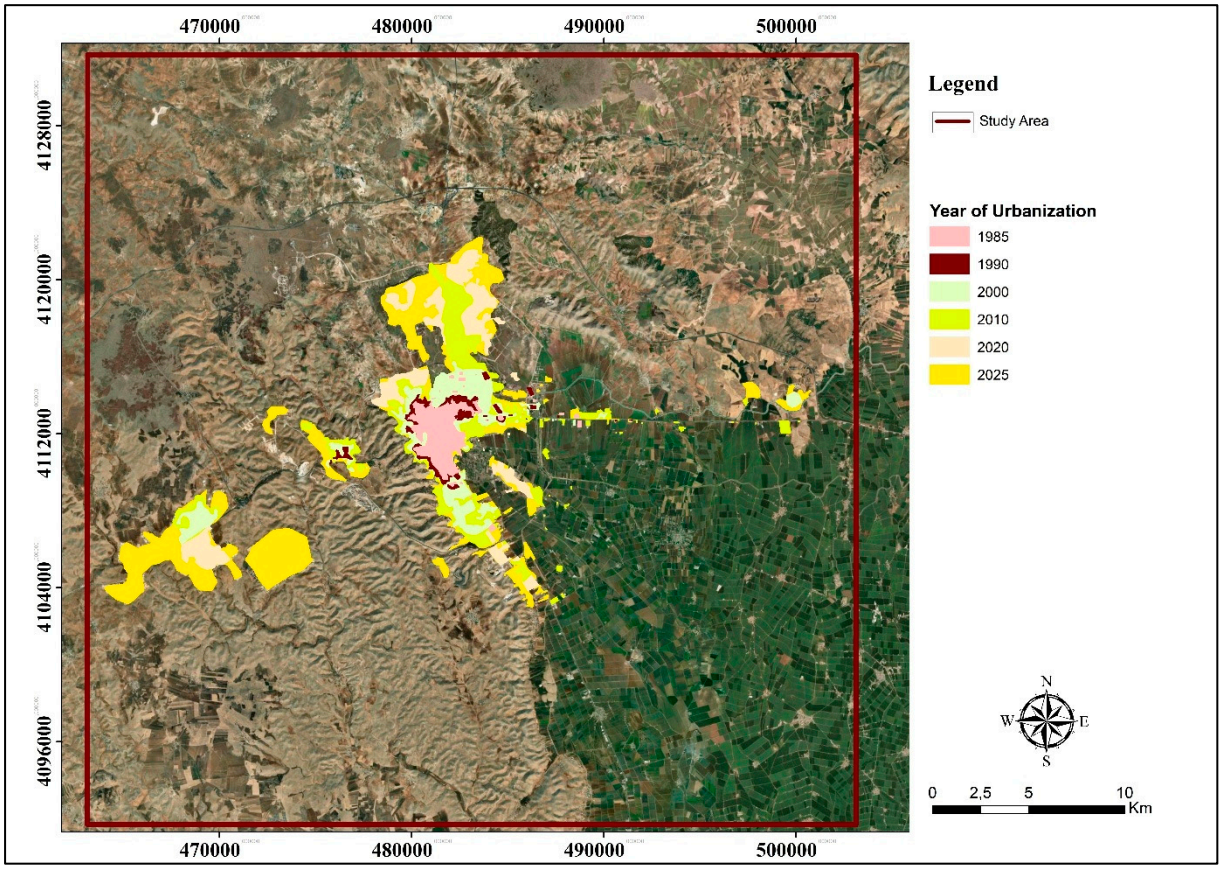


Figure S7: Urban□zat□on Map by Years

Table S5: Compar□son Matr□x of Urban□zat□on Data AHP We□ght Value

Input data	**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**Existing settlement and over 20 km**	**AHP**
2	1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**9**	**0,235**
4	1	1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0,190**
6	½	1	1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**0,145**
8	1/3	1/2	1	1	**1**	**2**	**3**	**7**	**5**	**6**	**7**	**0,108**
10	¼	1/3	½	1	1	**1**	**3**	**5**	**7**	**9**	**9**	**0,106**
12	1/5	1/4	1/3	½	1	1	**1**	**3**	**5**	**7**	**9**	**0,076**
14	1/6	1/5	¼	1/3	1/3	1	1	**1**	**3**	**5**	**7**	**0,051**
16	1/7	1/6	1/5	¼	1/5	1/3	1	1	**1**	**3**	**5**	**0,035**
18	1/8	1/7	1/6	1/5	1/7	1/5	1/3	1	1	**1**	**3**	**0,023**
20	1/9	1/8	1/7	1/6	1/9	1/7	1/5		1	1	**1**	**0,017**
Existing settlement and over 20 km	1/9	1/9	1/8	1/7	1/9	1/9	1/7		1/3	1	1	**0,014**

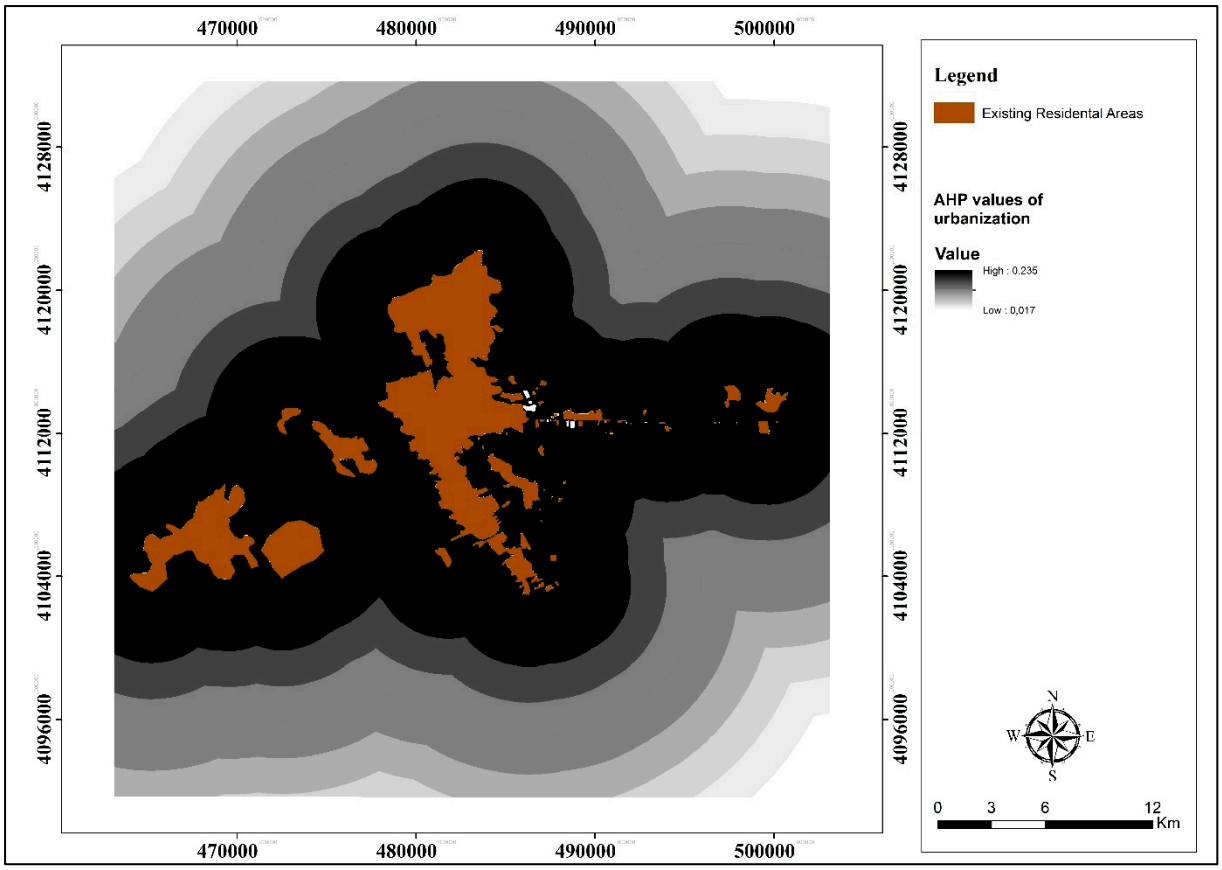


Figure S8: Compar□son Matr□x of Urban□zat□on Data D□str□but□on Map of AHP We□ght Value

Transportation:

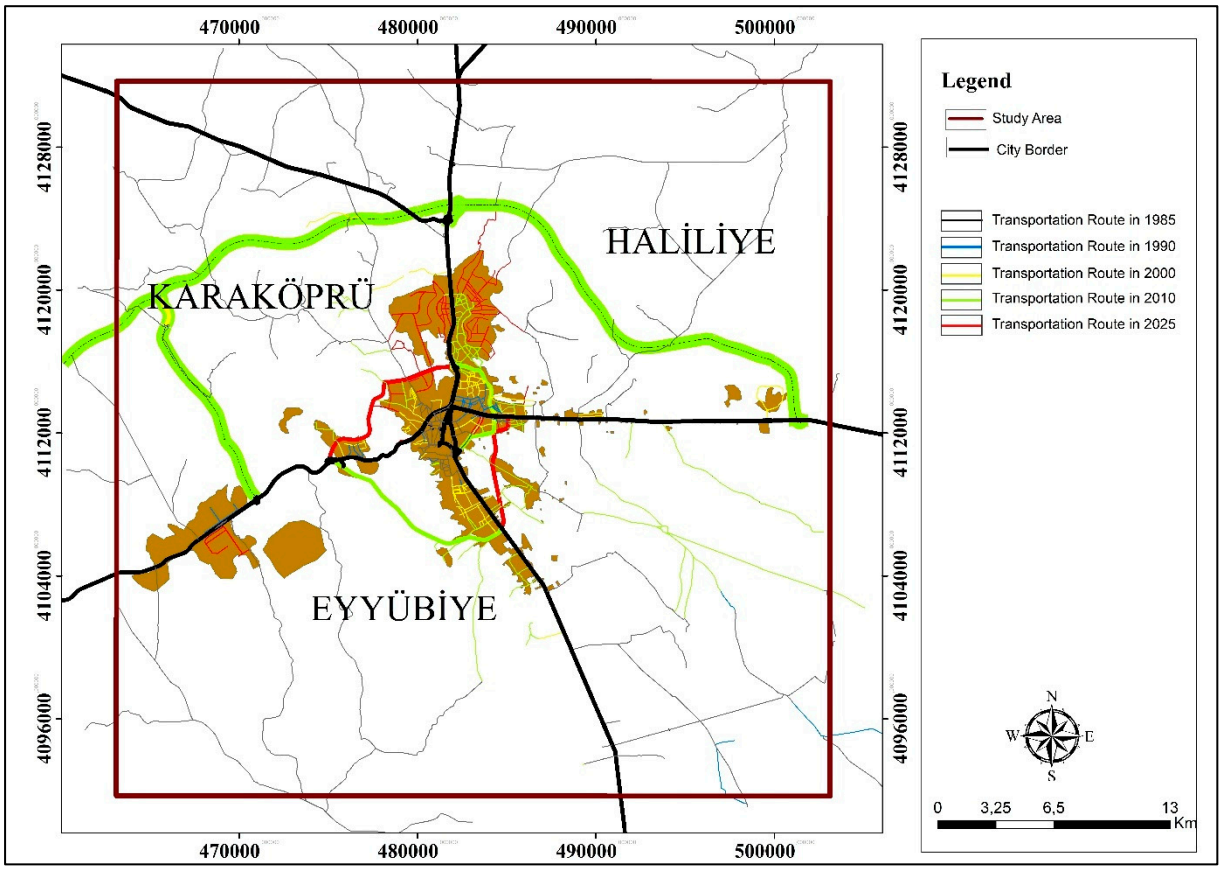


Figure S9: Map of Transportat□on Routes by Year

Table S6: Compar□son Matr□x AHP We□ght Value of Transportat□on Data

Input data	**500**	**1000**	**1500**	**2000**	**2500**	**2500 +**	**AHP**
500	1	**1**	**3**	**5**	**7**	**9**	**0,378**
1000	1	1	**1**	**3**	**5**	**7**	**0,266**
1500	1/3	1	1	**1**	**3**	**5**	**0,165**
2000	1/5	1/3	1	1	**1**	**3**	**0,096**
2500	1/7	1/5	1/3	1	1	**2**	**0,056**
2500 +	1/9	1/7	1/5	1/3	1	1	**0,039**

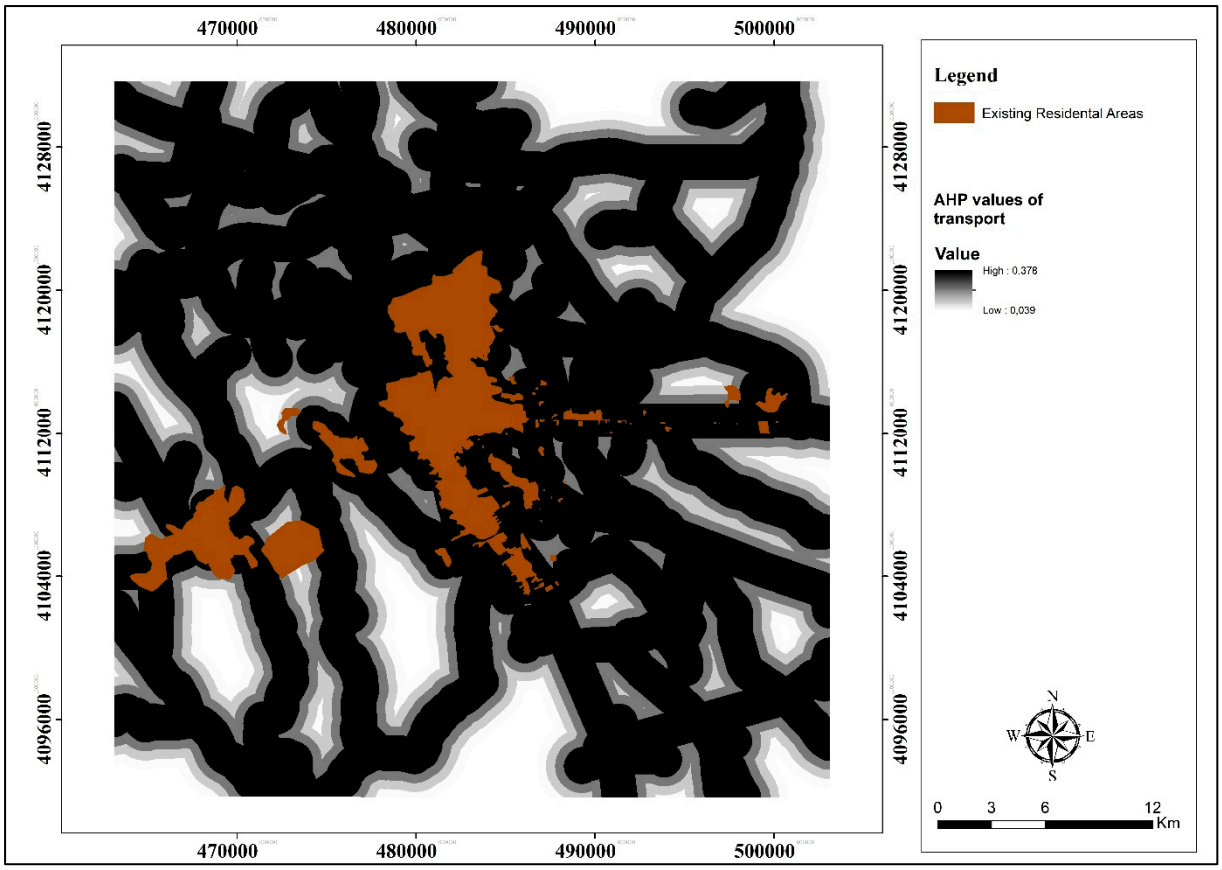


Figure S10: Compar□son Matr□x D□str□but□on Map of We□ght Value of AHP Transport Data

Hillshade

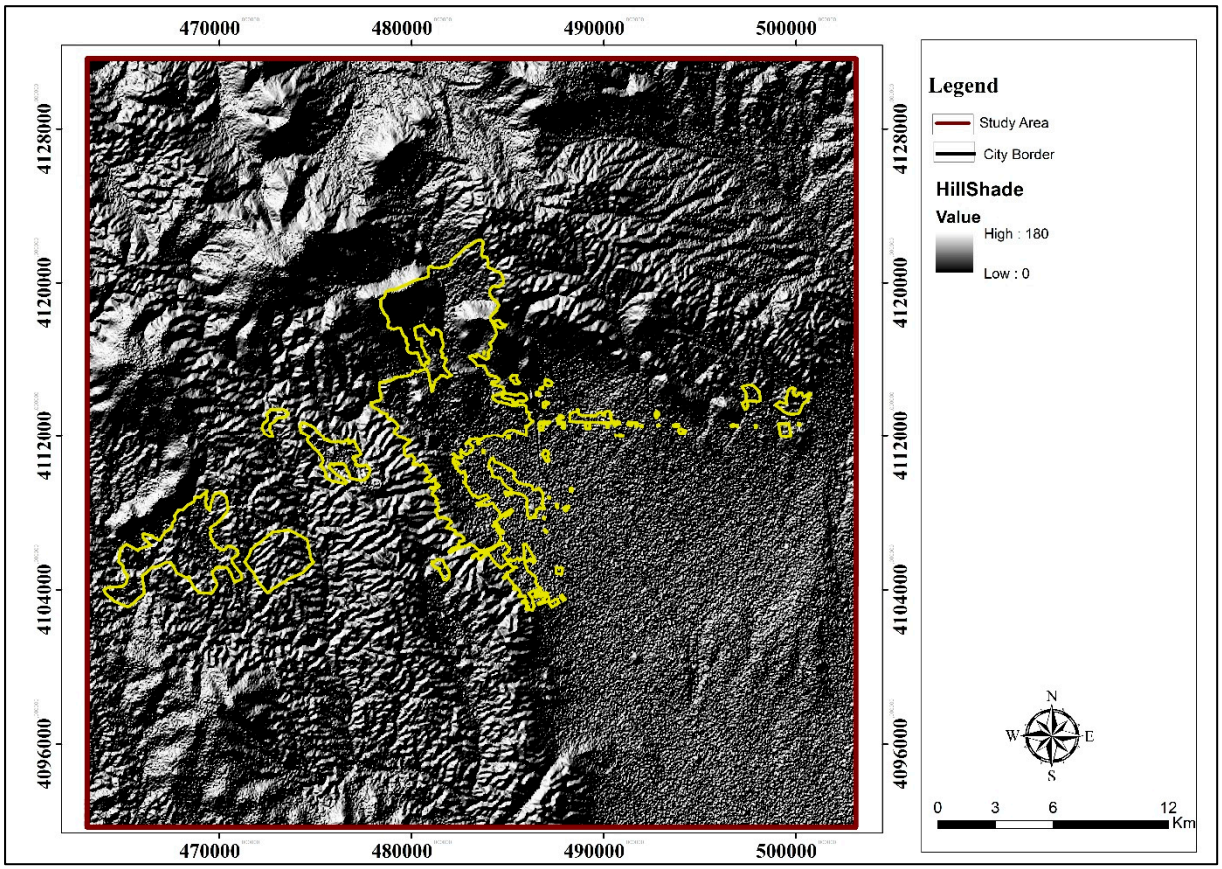


Figure S11: Hillshade Map

The Value of Hillshade varies between 0 and 180. 0 represents flat areas, while 180 represents steeper surfaces. As the value increases, the amount of land desired for settlement suitability decreases.

Hillshade data is divided into 4 groups:

- 1: 0 and 30
- 2: 30 and 100
- 3: 100 and 150
- 4: 150 and 180

Lands in group 1 are preferred for settlement, AHP value is high

Lands in group 4 are not preferred for settlement, AHP value is low

Table S7: Comparison Matrix and AHP Weight Value of Hillshade Data

Input data	1	2	3	4	AHP
1	1	**1**	**3**	**5**	**0,424**
2	1	1	**1**	**3**	**0,290**
3	1/3	1	1	**1**	**0,175**
4	1/5	1/3	1	1	**0,111**

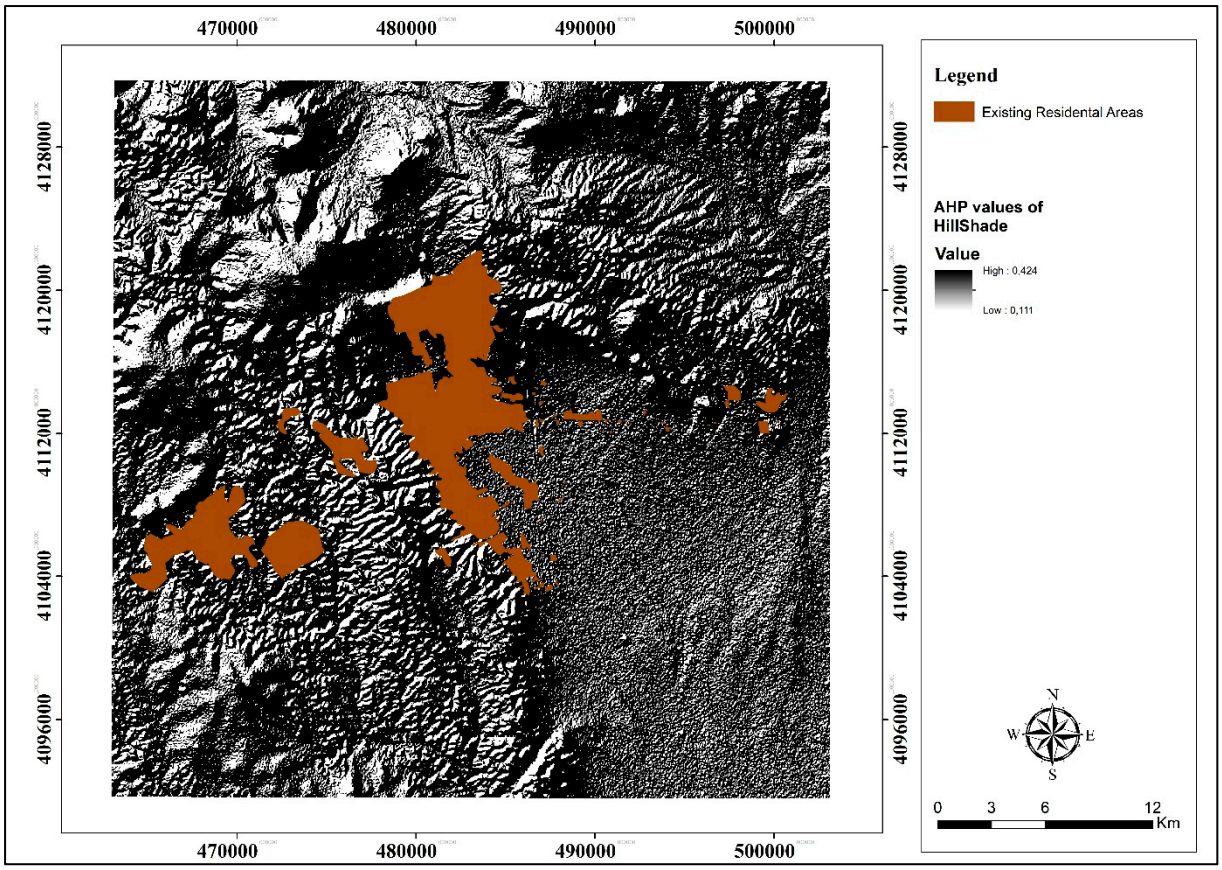


Figure S12: D□str□but□on Map of AHP We□ght Value of H□llshade Data

Disaster Risk Areas:

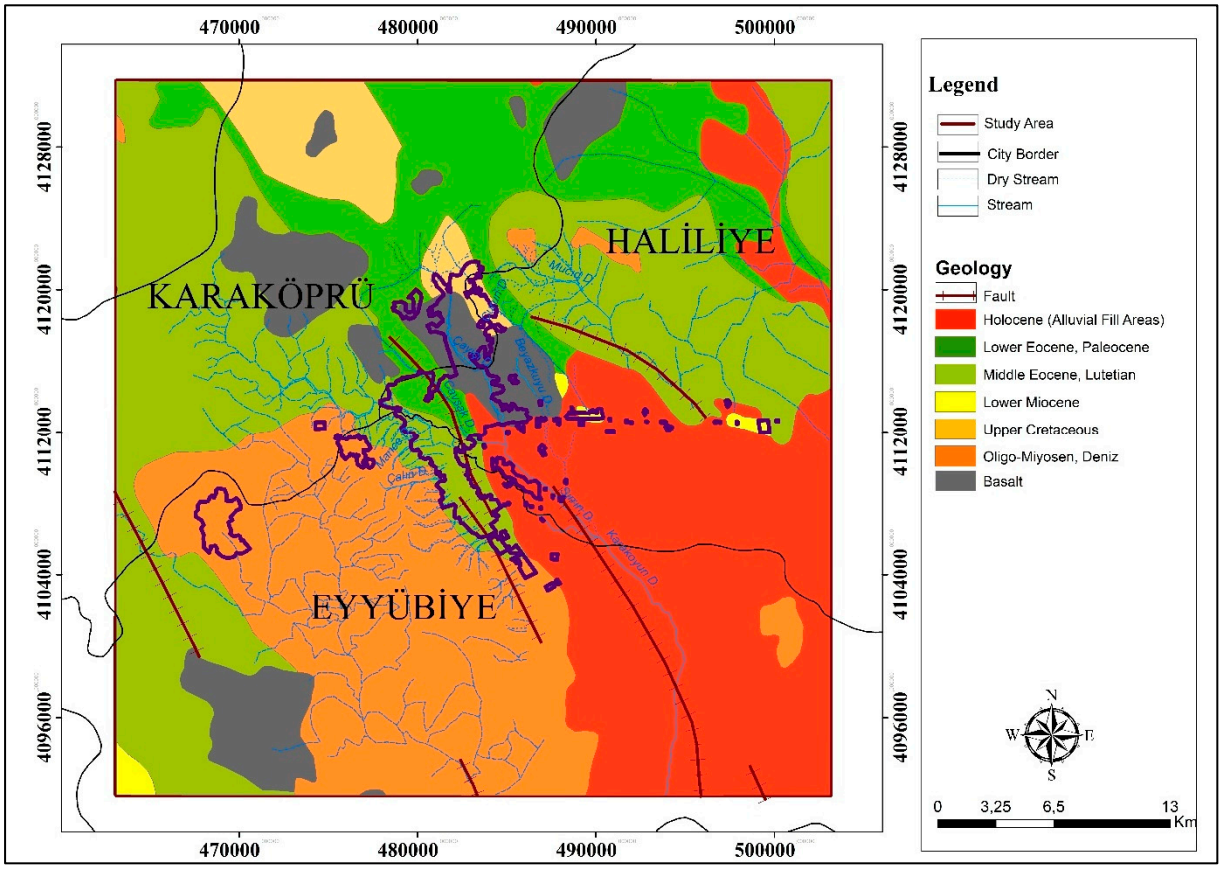


Figure S13: Map of Disaster Risk Areas

Disaster Risk Areas are gathered in 3 risk groups.

1 most risky group

- Holsen Alluvial fill lands
- 500 m to fault lines
- 500 m distance to the stream
- 250 m distance to dry stream beds

2 medium risk groups

- Oligo-Miocene, Marine lands

3 Low risk lands

- Lower Eocene, Paleocene
- Upper Cretaceous (occasionally with ophiolites and Paleocene)
- Middle Eocene, Lutetian
- Lower Miocene
- Basalt, dolerite

1 risk group not preferred AHP value low 0.083

3 risk groups preferred AHP value high 0.724

Table S8: Comparison Matrix and AHP Weight Value of Disaster Risk Area Data

Input data	3	2	1	AHP
3	1	**5**	**7**	**0,724**
2	1/5	1	**3**	**0,193**
1	1/7	1/3	1	**0,083**

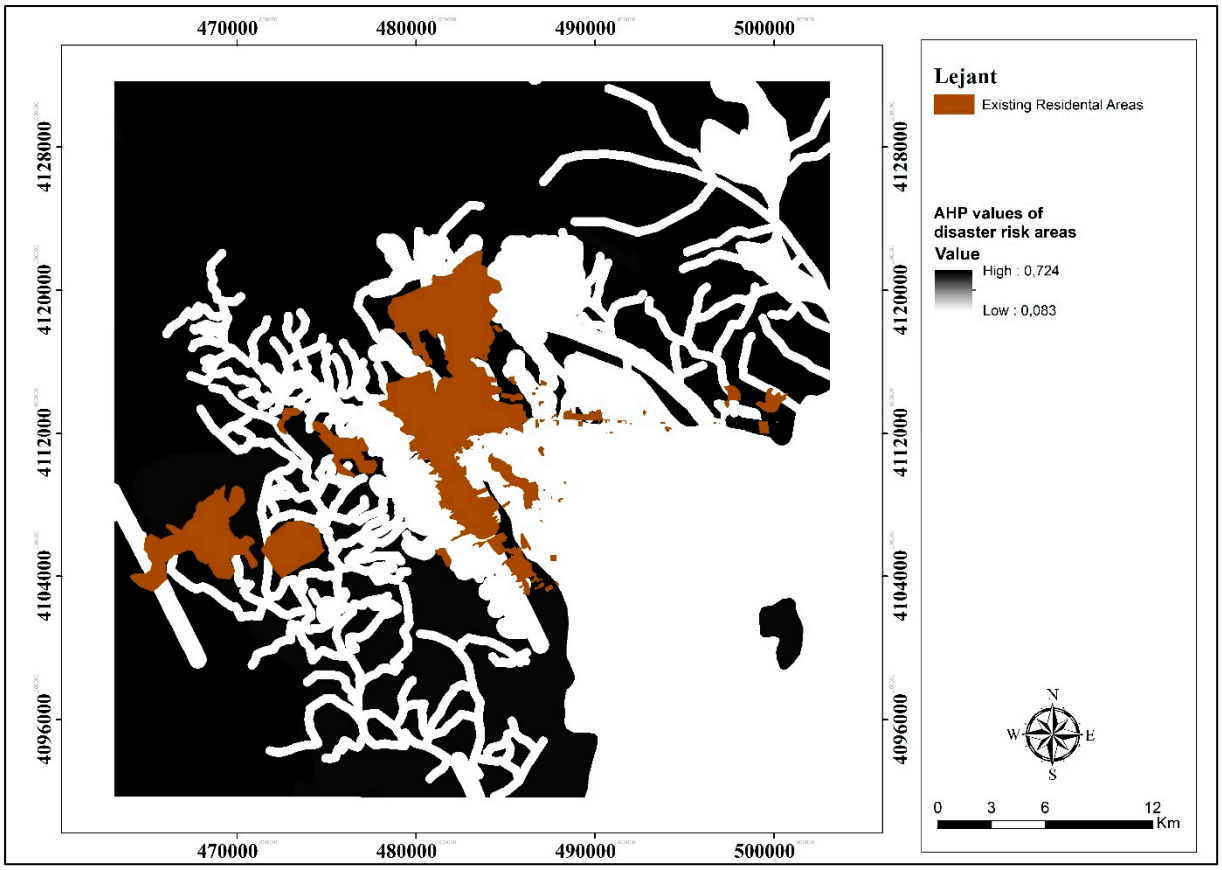


Figure S14: Distribution Map of AHP Weight Value of Disaster Risk Area Data

Public plans that will affect the development direction of the city

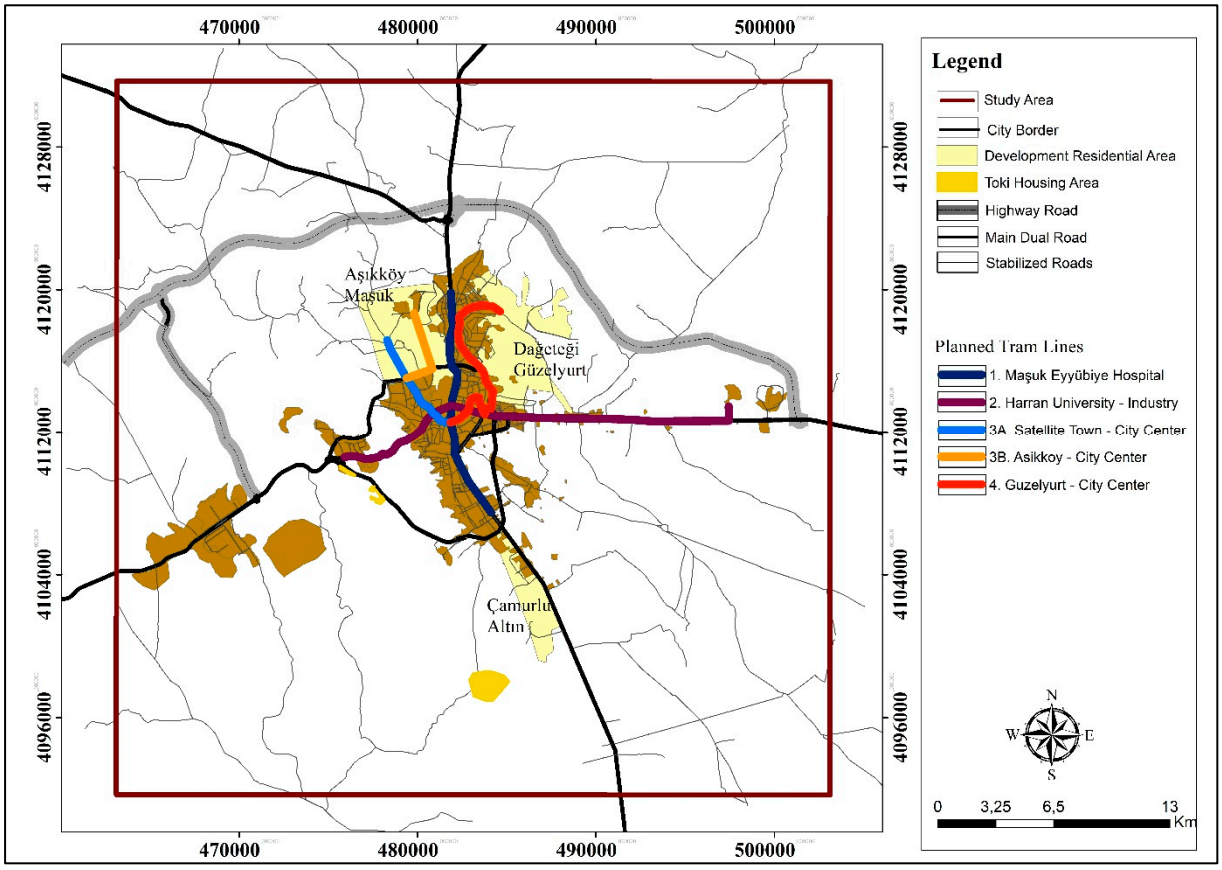


Figure S15: Map of Publ c Plann ng Data That W ll Affect the Development D rect on of the C ty

Table S9: Compar son Matr x and AHP We ght Value of Publ c Plann ng Data That W ll Affect the Development D rect on of the C ty

Input data	Development Residential Area	Toki Housing Area	Tram Lines	Other areas	AHP
Development Residential Area	1	**1**	**1**	**9**	**0,327**
Toki Housing Area	1	1	**1**	**9**	**0,327**
Tram Lines	1	1	1	**7**	**0,308**
Other areas	1/9	1/9	1/7	1	**0,039**

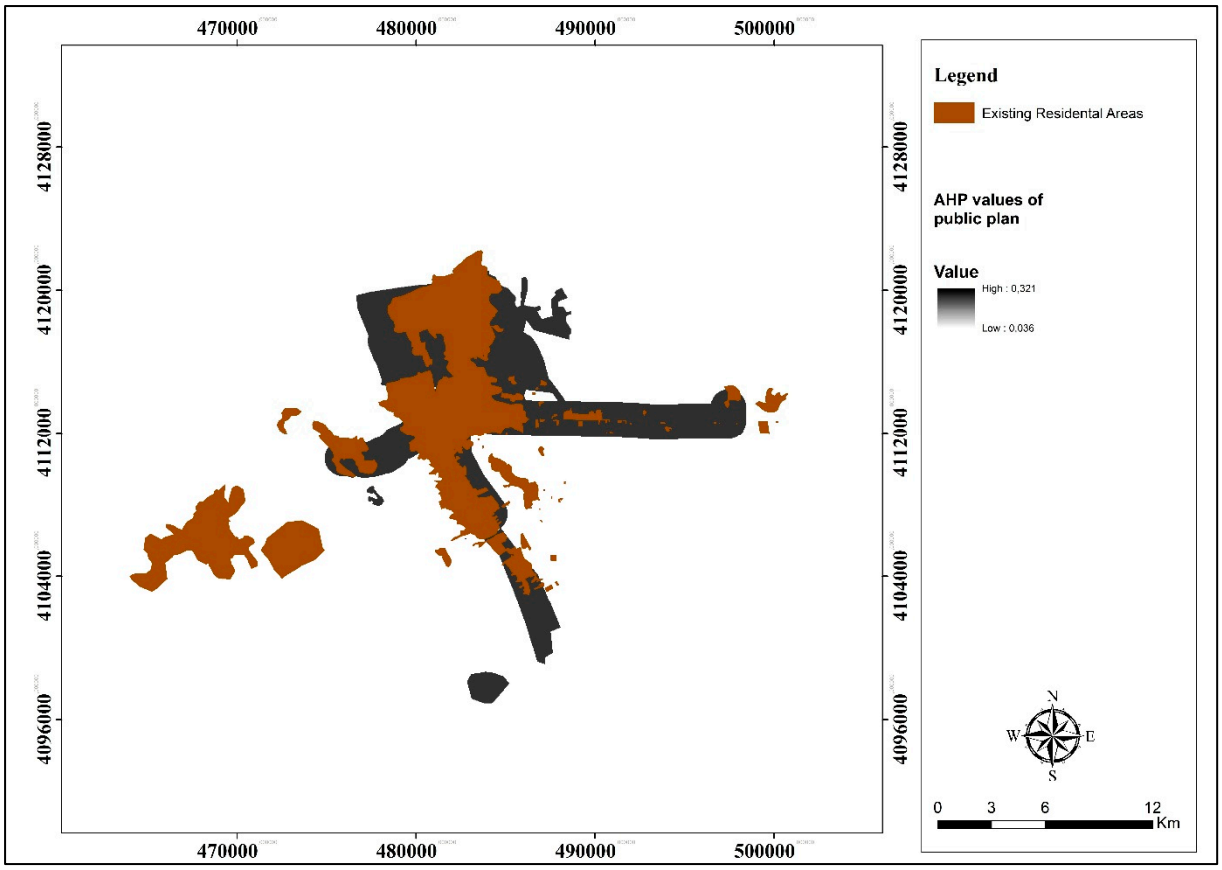


Figure S16: Distribution Map of AHP Weight Value of Public Planning Data That Will Affect the Development Direction of the City