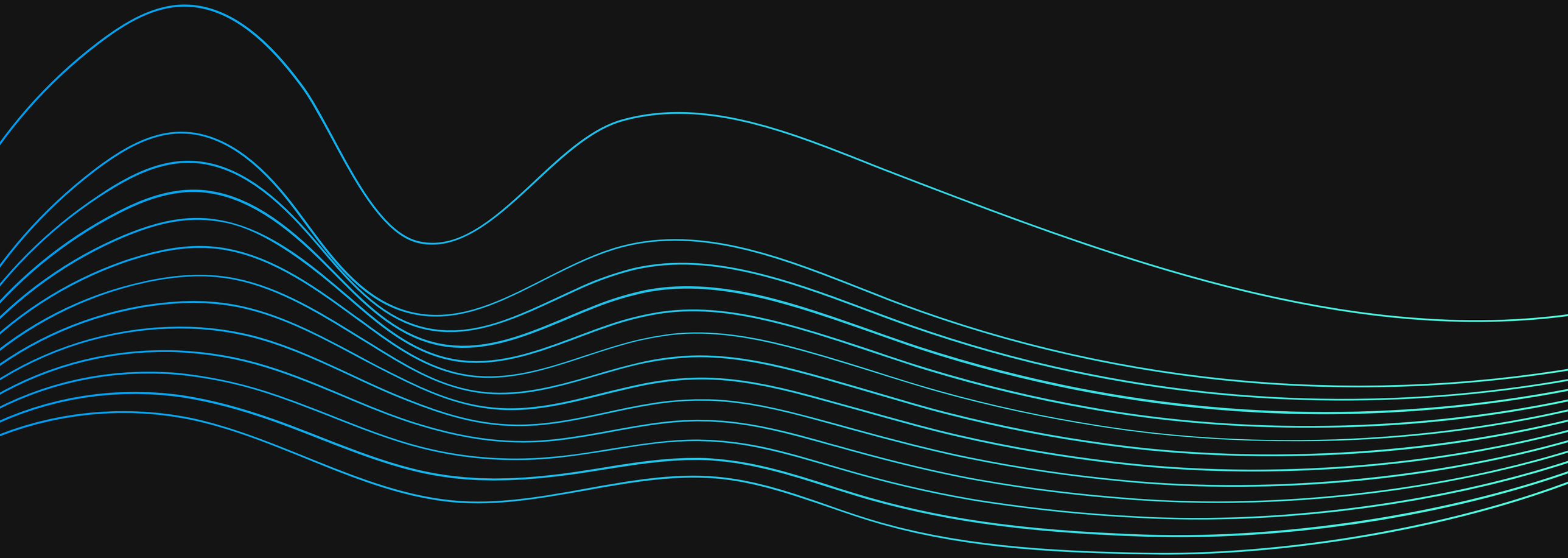
Strategic Relocation from Overcrowded to Underpopulated Cities



SELMAN TURAN TOKER

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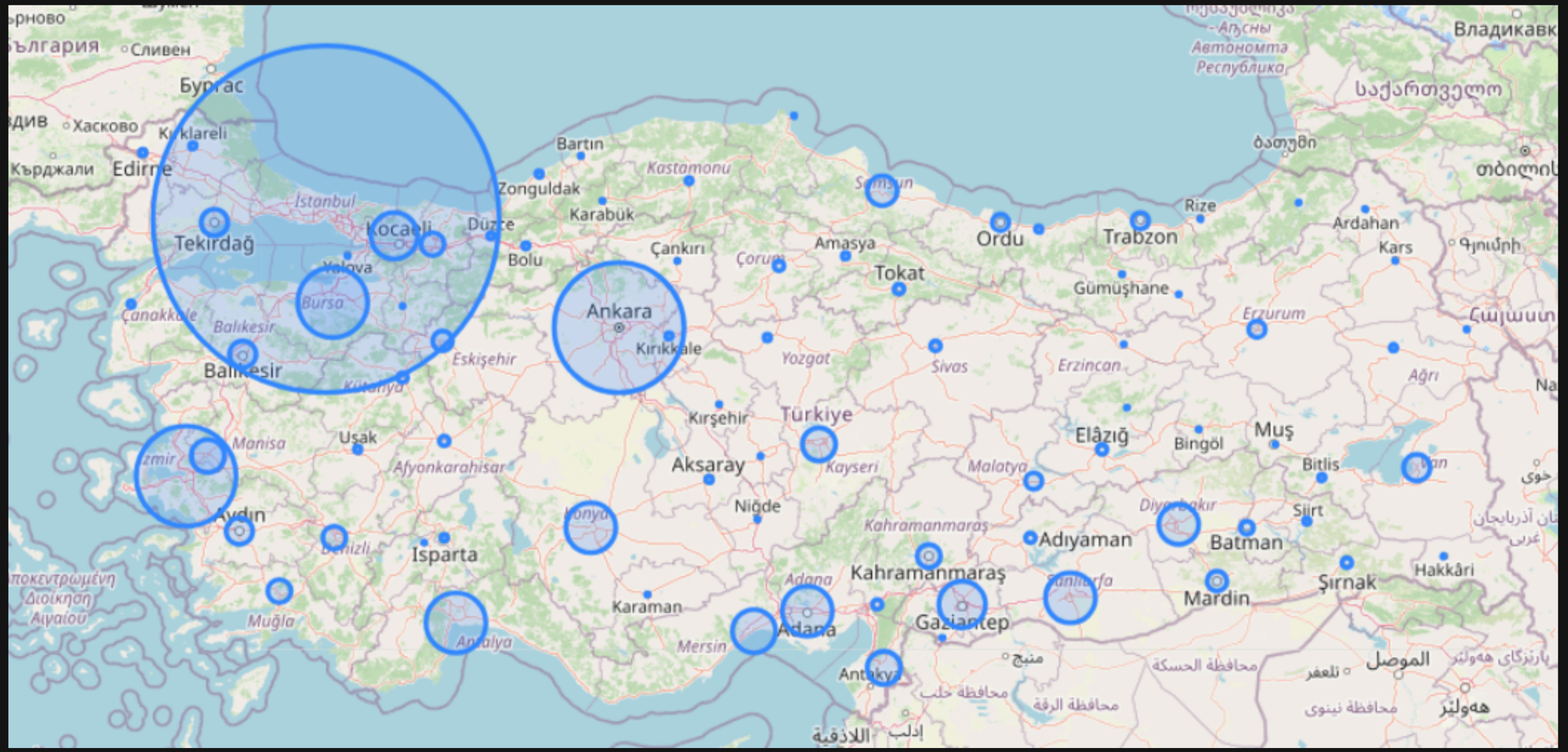
What presentation covers

1. PROBLEM
2. DATA
3. HYPOTHESIS
4. METHODS
5. RESULTS

PROBLEM

THE UNBALANCED POPULATION DISTRIBUTION IN TURKEY NEGATIVELY AFFECTS LIFE IN BOTH DENSELY AND SPARSELY POPULATED CITIES


Бургас
Сливен
Хасково
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Karabük
İstanbul
Tekirdağ
Kocaeli
Düzce
Bolu
Çankırı
Çorum
Amasya
Tokat
Ordu
Samsun
Trabzon
Rize
Ardahan
Kars
Gümüşhane
Erzurum
Ağrı
Çanakkale
Balıkesir
Bursa
Yalova
Ankara
Kırıkkale
Eskişehir
Yozgat
Sivas
Erzincan
Kütahya
Kırşehir
Türkiye
Elâzığ
Bingöl
Muş
Bitlis
Manisa
Uşak
İzmir
Afyonkarahisar
Aksaray
Kayseri
Malatya
Niğde
Aydın
Denizli
Isparta
Konya
Kahramanmaraş
Adıyaman
Diyarbakır
Siirt
Batman
Şırnak
Hakkâri
Mardin
Adana
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Muğla
Gaziantep
Şanlıurfa
Antakya
منبج
محافظة الحسكة
الموصل
تلعفر
محافظة حلب
محافظة الرقة
محافظة نينوى
هەولێر
اللاذقية
إدلب

HYPOTHESIS

We can solve the problem in the most accurate way by calculating the optimum population for each city and then optimizing interprovincial migration.

DATA

CITY POPULATIONS

COMPETITIVE INDEX

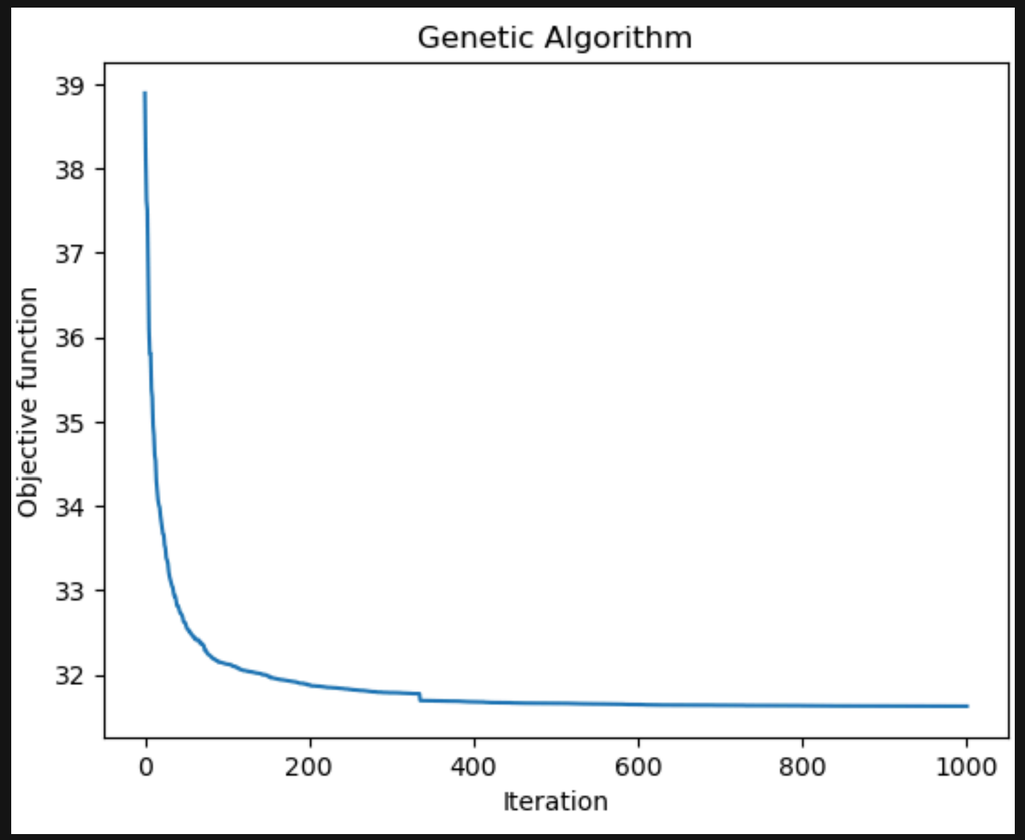
Transportation, Demography, Infrastructure, Social life, Health, Education

POPULATION DENSITY

CITY DISTANCES

METHODS

1. Genetic Algorithm
2. Linear Programming



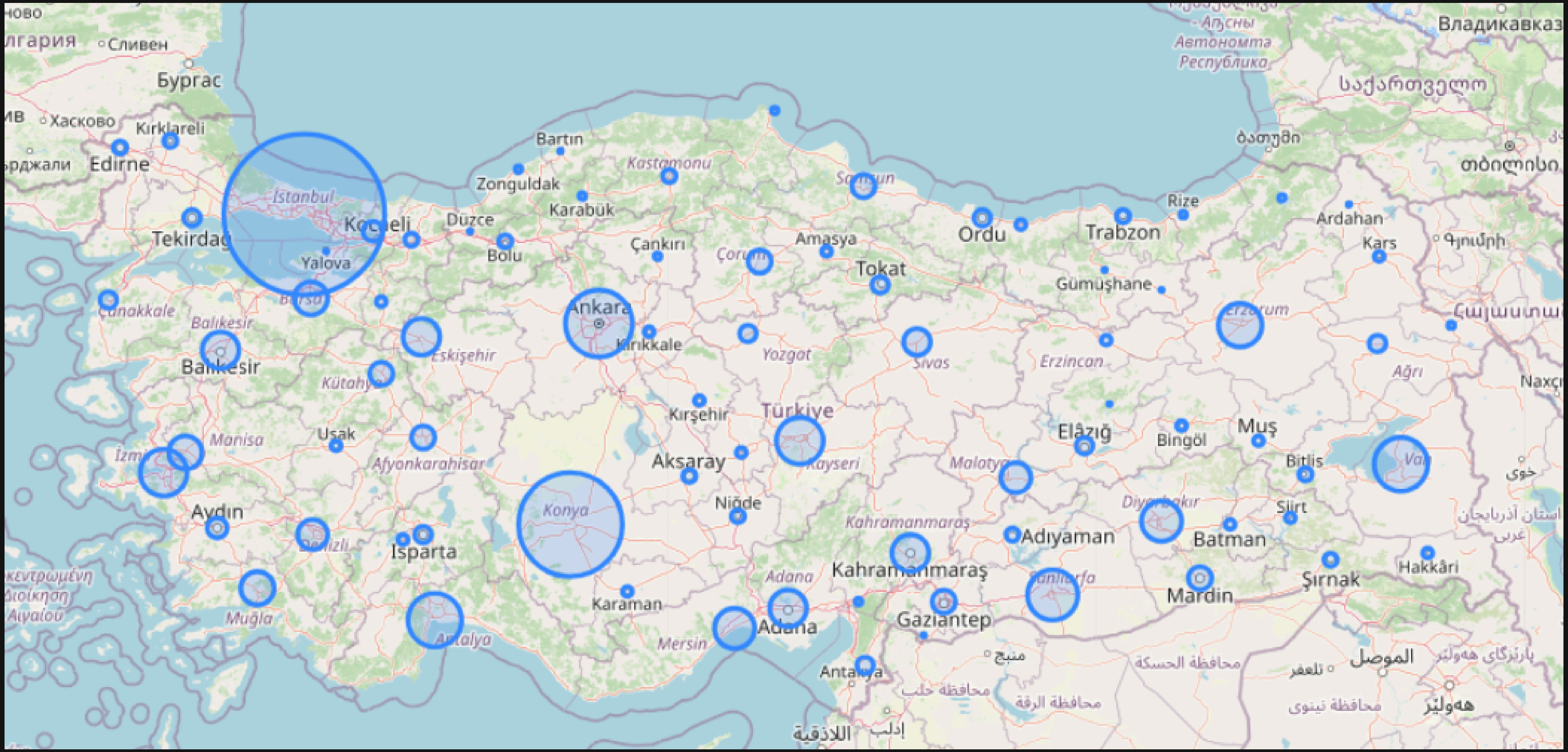
GENETIC ALGORITHM

Calculates the optimum population values for each city using index scores and area

LINEAR PROGRAMMING

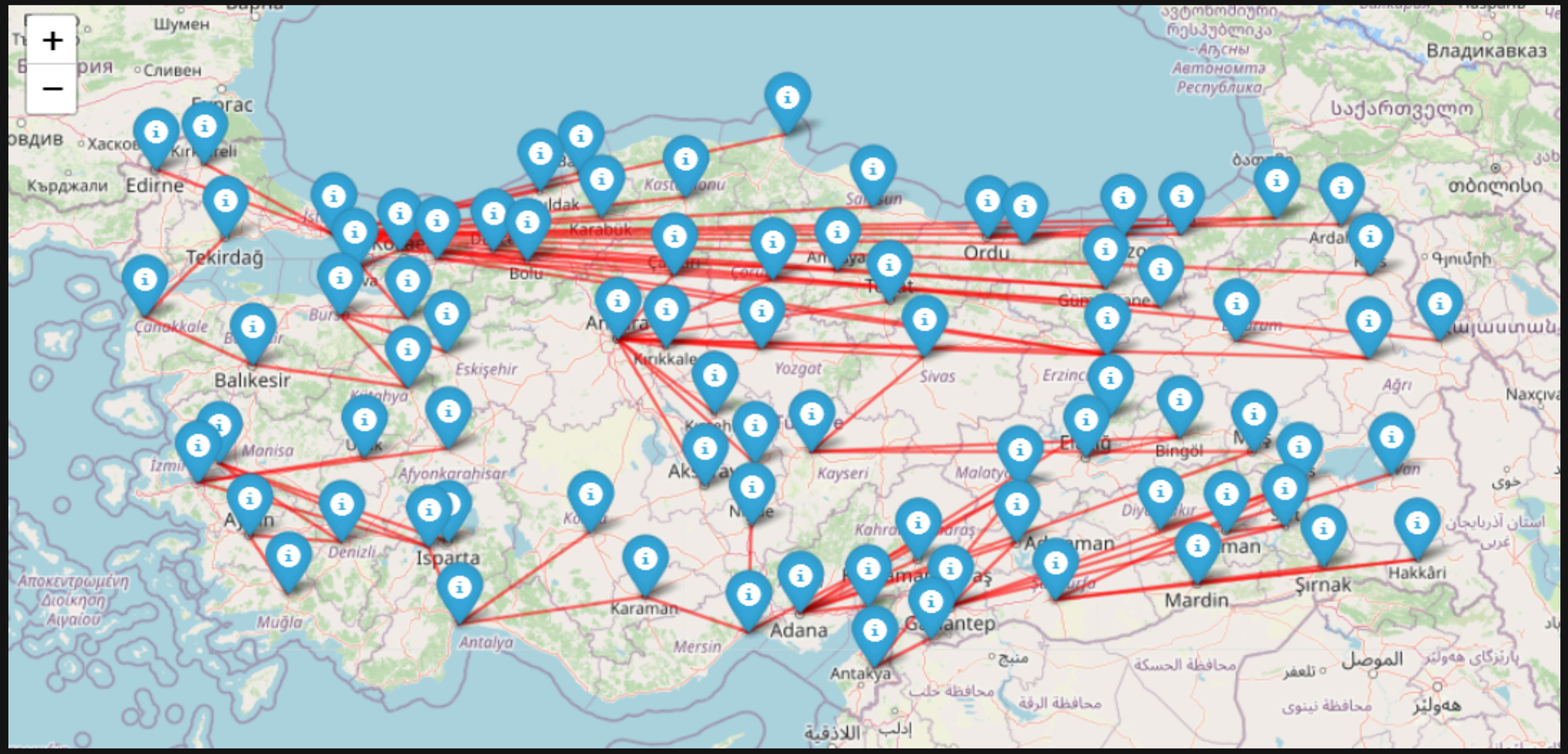
Determines the optimum migration policy using the optimum population data created by the genetic algorithm and the distances between cities

RESULTS



İstanbul
Ankara
Konya
İzmir
Bursa
Antalya
Adana
Kayseri
Eskişehir
Gaziantep
Van
Erzurum
Samsun
Trabzon
Diyarbakır
Türkiye

RESULTS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საქართველო
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