In an increasingly urbanized world, peoples’ access to urban green spaces (UGS) is crucial.

Former studies have mostly focused on determining whether urban dwellers have access to UGS or not.

We used network characteristics to analyze the walkable environment – the connecting area between green space demand and supply – of European cities.

By employing the Local Significance (LS) index, we revealed potential overcrowding effects at UGS in southern Germany.

With the Detour Index (DI), we could not only show how many urban residents have access to UGS within 500 meters network distance, but also estimate the efficiency of the routes people take.

To make the workflow replicable for future analysis, we used open source data and software.

Future research should focus on i.) accounting for the number of UGS people can reach, ii.) augment our results with further environmental data and iii.) account for other means of transportation, like cycling or public transport.