

Amenity and Use



local opportunities

Overview



Indicator name Mix of uses

Indicator number 14

Indicator type Core

Objective To measure the proximity of the road segment to locally oriented Business Land Use Zones which increases the social capital of the local population

Application guidance People experience places at a fine-grained scale. The design of places can shape demand for movement – where an area is more permeable for people who walk and cycle than vehicles, getting around on foot or by bike becomes the natural choice for short trips. Clusters of local shops, schools, stations and stops provide an efficient trip chain for daily visits from home to work and back.

This indicator will support practitioners to understand whether populations are able to access a mix of uses within a reasonable distance by walking and driving. Based on the outcome of the assessment, practitioners can determine whether a road falls within the appropriate urban or rural buffer for accessibility.

Practitioners can use the *mix of uses* metric to measure the status of road segments adjacent to business zones.

Metric



Mix of uses

Related indicators



Access and Connection

- 2 Walking paths
- 3 Cycling accessibility
- 4 Public transport accessibility



Amenity and Use

- 9 Public space
- 10 Local living
- 15 Population density



Comfort and Safety

- 25 Safe speed for environment

Recommendation



- To enrich the analysis, additional data sources could be included that provide insight on as-built land use rather than planned land-use
- Business Land Use Zones B6 and B7 could be incorporated into the analysis
- Walking catchment analysis could be incorporated into the methodology rather than depending on a fixed buffer distance
- To improve the accuracy of the analysis, data on individual building footprints classified as business and commercial (rather than Business Land Use Zones) could be incorporated, particularly for new developments
- Routable network could be used to improve the accuracy of walking and driving distances



Metric – Mix of uses

Metric unit	True/False
Description	To measure the status of road segments adjacent to business zones
Spatial coverage	Applicable to all NSW
Spatial application	This metric is most suitable for link-based analysis based on land zones
Calculation methodology	<p>Obtain land zone data</p> <ol style="list-style-type: none">1. Extract parcels of land where Business Land Use categories cater to local residential populations, where SYMCODE = B1, B2, B3 or B4 <p>Obtain urban and rural area boundary</p> <ol style="list-style-type: none">2. Categorise polygon layer into either Urban or Rural using the Australian Bureau of Statistics (ABS) Sections of State (SOS) polygon database <p>Create buffer based on urban and rural</p> <ol style="list-style-type: none">3. If classified as urban, a buffer of 800m is calculated without dissolve around each polygon4. If classified as rural, a buffer of 5km is calculated without dissolve around each polygon <p>Obtain road network within buffers</p> <ol style="list-style-type: none">5. Use TfNSW Road Track Path Network to make a spatial 'selection by location', as follows:<ul style="list-style-type: none">• Roads within the urban 800m buffer polygon• Roads within the rural 5km buffer polygon <p>Assign value to road network</p> <ol style="list-style-type: none">6. Calculate mix of use attribute by using the maximum value of the two fields <p>Data representation</p> <ol style="list-style-type: none">7. Assign colour based on the classification below<ul style="list-style-type: none">• Road is within the urban or rural buffers• Road is not within the urban or rural buffers <p>Unit: True / False</p> <div><div></div><div></div><div>Within proximity</div><div>Not within proximity</div></div>
Assumption	<ul style="list-style-type: none">• Land Use Zoning polygons within Rural and Urban Land Use classes are measured differently. Rural populations are more likely to use a car to get to the shops, therefore the proximity in rural areas is 5km. Urban populations are measured by the likelihood they can walk to the shops, therefore the proximity in urban areas is 800m (approximately 10-minute walk)• Businesses are currently operating within the Land Use Zone Business categories (B1, B2, B3 or B4)• B5 has been excluded, but could be included if deemed appropriate• Edge of the polygon is a reasonable beginning point for walking or driving distance• A straight buffer is an adequate measure of walking or driving distance• Urban and Rural areas are defined by ABS categories in SOS
Limitations	In some instances, it may be deemed appropriate to include Land Use Zones B5, B6 or B7 Land Use Zones in the analysis
Data source	<ul style="list-style-type: none">• NSW Government, Environmental Planning Instrument Land Zoning (LZN): datasets.seed.nsw.gov.au/dataset/environment-planting-instrument-local-environmental-plan-land-zoning• TfNSW Road Track Path Network

Reference

N/A

