8.35 Proportion of road network dedicated to pedestrians and/or bicyclists

Project Name: UnaLab (Grant Agreement no. 730052)

Author/s and affiliations: Laura Wendling[1], Ville Rinta-Hiiro[1], Maria Dubovik[1], Arto Laikari[1], Johannes Jermakka[1], Zarrin Fatima[1], Malin zu-Castell Rüdenhausen[1], Peter Roebeling[2], Ricardo Martins[2], Rita Mendonça[2]

[1] *VTT Technical Research Centre Ltd, P.O. Box 1000 FI-02044 VTT, Finland*

[2] *CESAM – Department of Environment and Planning, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal*

Proportion of road network dedicated to pedestrians and/or bicyclists	Green Space Management
Description and justification	Increase in pedestrian and bicycle traffic is regarded beneficial for its economic, environmental, health and life quality effects. Availability of pedestrian paths and bicycle lanes can decrease the dependency on automobile ownership and use and related costs, free space from automobile traffic and congestion, reduce air pollution, increase physical activity and related health benefits and improve social activity and interaction within communities.
Definition	Proportion of road network dedicated to pedestrians and/or bicyclists (% of network)
Strengths and weaknesses	+ The numeric indicator is easy to obtain and can be compared to different areas of interest - Path length as a variable does not yield information regarding their use, utility, or perceived value by the community, which depend for instance on their coverage, consistency, terrain, safety and connectivity.
Measurement procedure and tool	The proportion of road network dedicated to pedestrians and/or bicyclists is calculated as the total pedestrian/bicycle path length measured as a percentage of the total road network in the whole urban community in question. The pedestrian/bicycle paths are roads or lanes designated and marked for use by pedestrians and/or bicycles. The calculation can be performed from a map with adequate markings of path types and lengths, from which pedestrian/bicycle paths are summed. Pedestrian paths and bicycle routes can be considered together or separately, depending on the specific metric desired. $$Pedestrian\ or\ bicycle\ paths\ (\%) = \left(\frac{Length\ of\ pedestrian\ or\ bicycle\ paths}{Length\ of\ entire\ road\ network}\right) \cdot 100$$
Scale of measurement	Street to metropolitan scale
Data source	

Required data	Length of pedestrian and/or bicycling paths (e.g., from a map) Length of the entire road network
Data input type	Quantitative
Data collection frequency	Annual
Level of expertise required	Moderate
Synergies with other indicators	Synergies with *Area devoted to roads*, and *Encouraging a healthy lifestyle* indicators
Connection with SDGs	SDG 3 Good health and well-being, SDG 15 Life on land
Opportunities for participatory data collection	No opportunities identified
Additional information	
References	

8.35.1 New pedestrian, cycling and horse paths

Author/s and affiliations: Gerardo Caroppi[1,2], Carlo Gerundo[2], Francesco Pugliese[2], Maurizio Giugni[2], Marialuce Stanganelli[2], Farrokh Nadim[3], Amy Oen[3]

[1] *Aalto University, Department of Built Environment, Espoo, Finland (gerardo.caroppi@aalto.fi)*
[2] *University of Naples Federico II (UNINA), Department of Civil, Architectural and Environmental Engineering, Naples, Italy*
[3] *Norwegian Geotechnical Institute (NGI), Oslo, Norway*

Pedestrian, Cycling And Horse Paths	Green Space Management
Description and justification	The implementation of the design scenario can introduce new pedestrian, cycling and horse paths. The development and the permanent maintenance of a well-connected and safe bike, pedestrian, horse paths network could provide the opportunity for the enjoyment of natural resources, due to a higher accessibility. Therefore, the measure of the