

Sustainable transport corridors from the PUCP: proposal to improve the mobility of the university community in the city of Lima



Fig. 1



Fig. 2

- ✓ Traffic in Lima: problem for the quality of life of the inhabitants.
- ✓ High levels of stress in people due to various factors regarding transport.
- ✓ Increase travel times.
- ✓ The population has been forced to modify their habits in terms of hours, meals, sleeping times.
- ✓ Environmental pollution: carbon emissions from cars. This leads to health problems.

The problem: the traffic in Lima

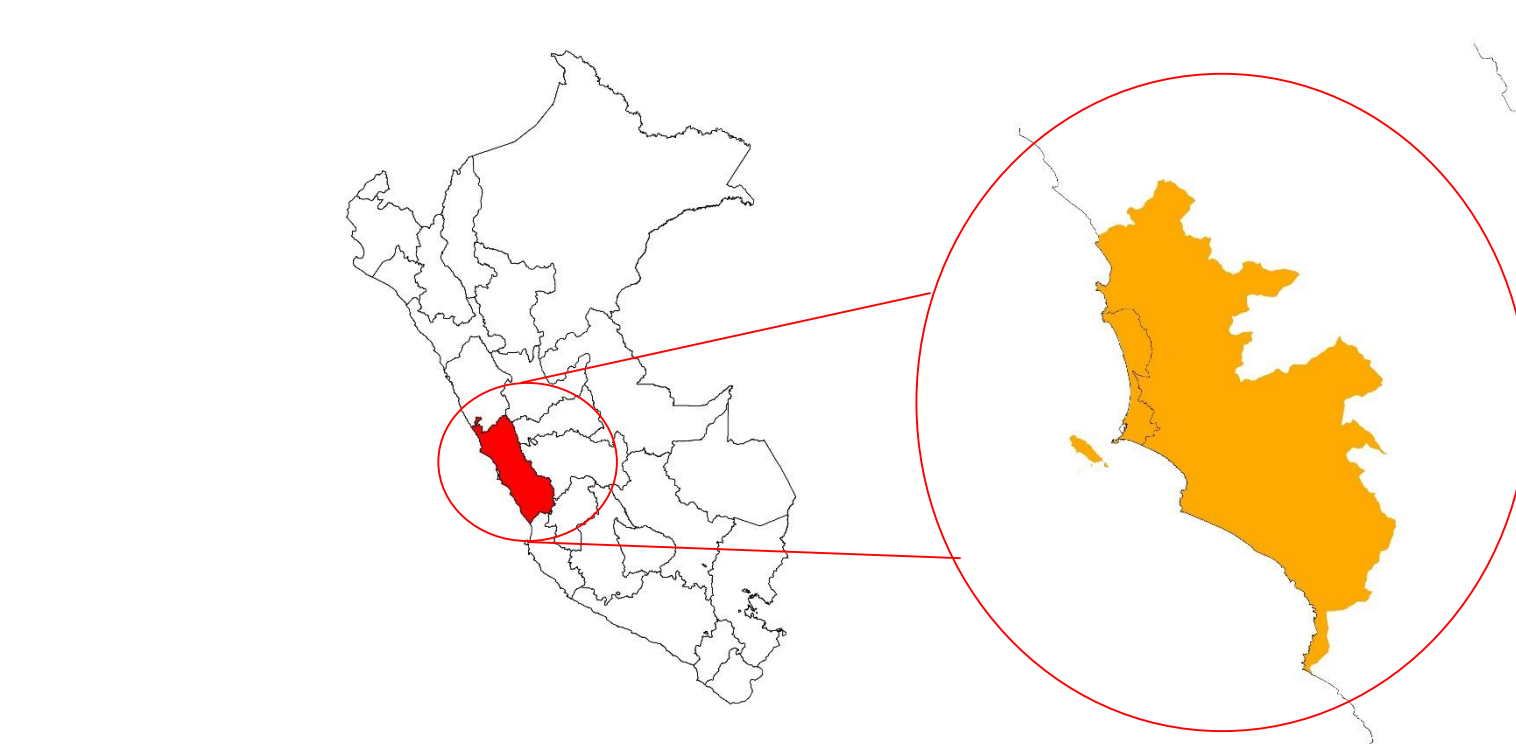


Fig. 3

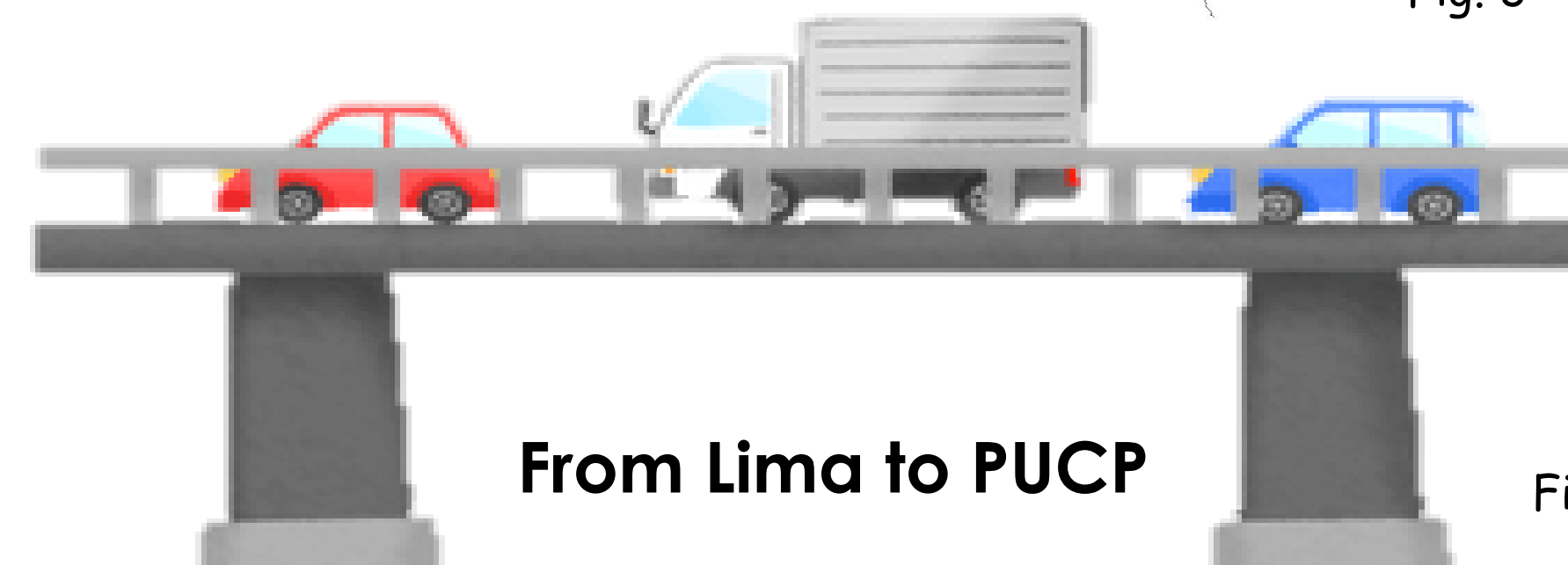


Fig. 4

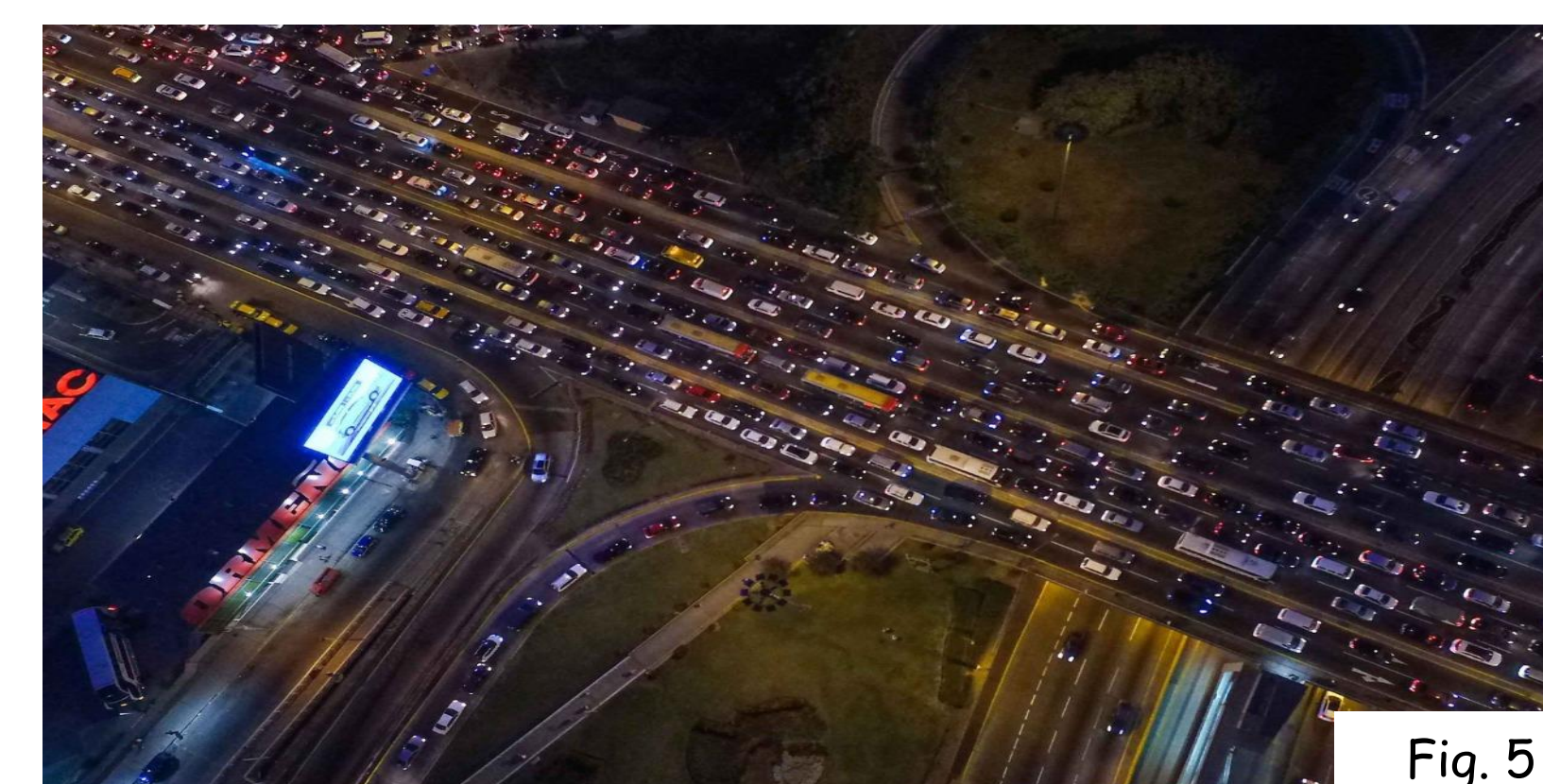


Fig. 5

- ✓ Greater use of fuel and increase its cost.
- ✓ Problems of insecurity on the tracks and in transport.
- ✓ The discomfort in public transport.
- ✓ Increase in the individual use of the car, not compatible with the growth of the population in the city.
- ✓ There is no constant use of bicycles due to the absence of cycle paths.
- ✓ Absence or deficiencies in public transport policies.



Fig. 6

What do we want? Improve the quality of transportation, starting from our university community.



Fig. 7



Fig. 8



Fig. 8



Fig. 9



Fig. 10

OUR PROPOSAL AND POSITIVE LONG-TERM IMPACTS

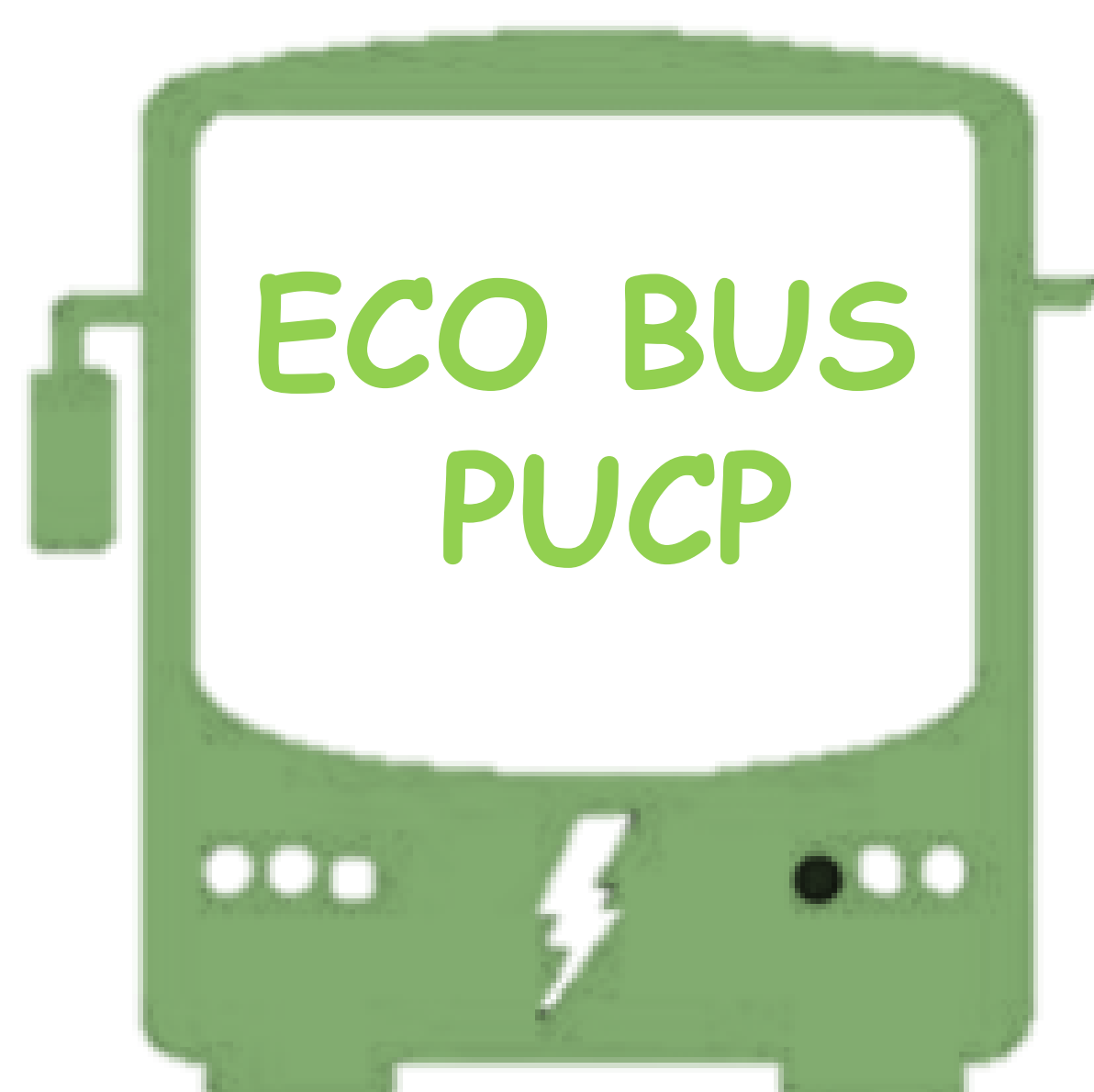


Fig. 11

- ✓ Routes: 1 hour on the way and 1 hour on the way back.
- ✓ Distance: between 10-15 km Operation: Monday - Friday (until 10 p.m) and Saturday (until 6 p.m.)
- ✓ Use: staff and community PUCP
- ✓ Admission: with university or worker card.
- ✓ Fuel: natural gas / future: electric bus.
- ✓ A minimum monthly bonus will be charged to students and workers.
- ✓ Parking lots
 - ✓ From the North: Parking of EE.GG.LL (collection center) and Riva Agüero (exit).
 - ✓ From the south: Main door (collection center and exit).
 - ✓ From the East: EE.GG.CC. (collection center) and exit through the main door.



Fig. 12

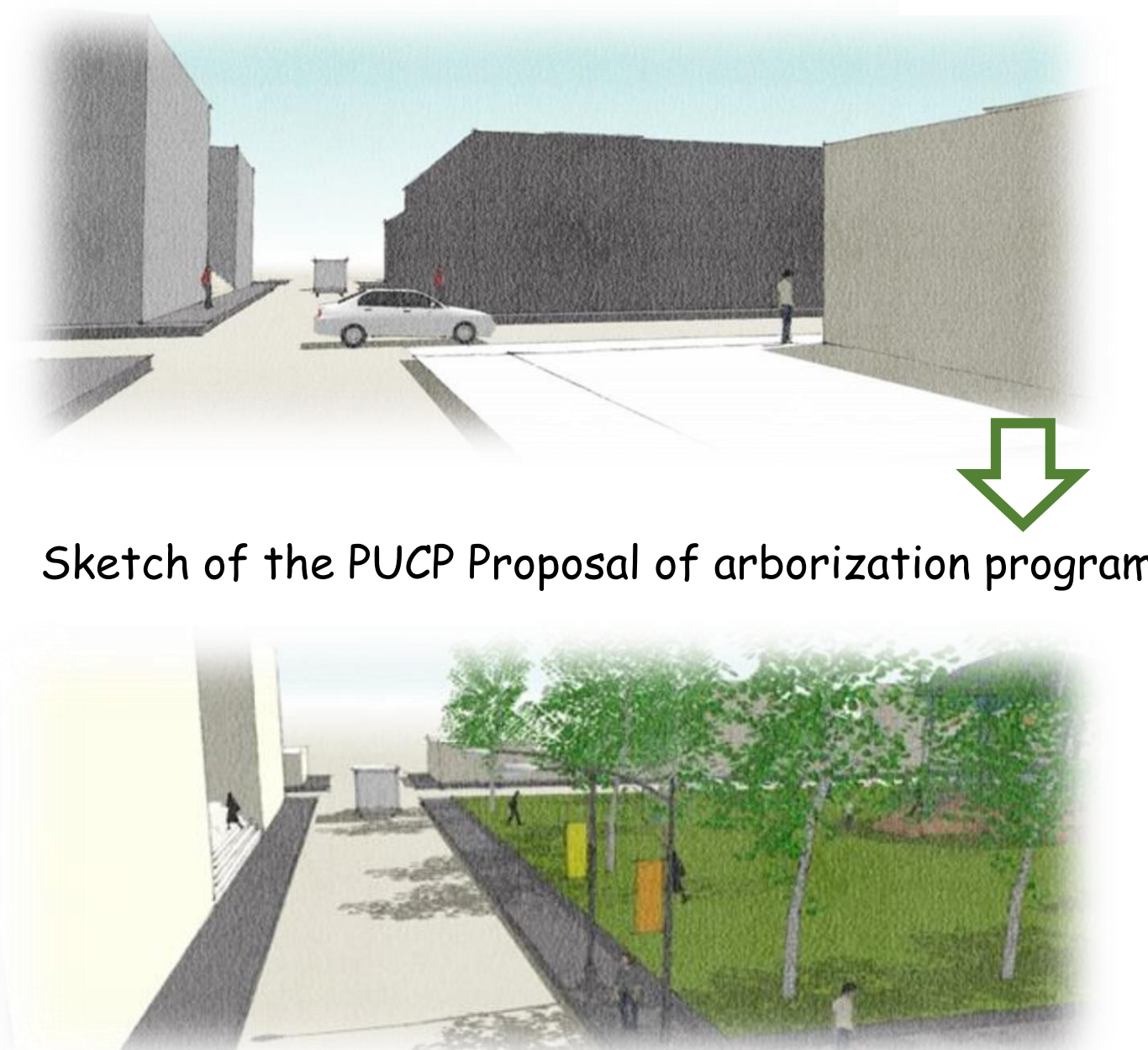


Fig. 15

- ✓ It will be a mitigation strategy to reduce emissions, as well as avoiding other types of pollution.
- ✓ Compensation for emissions from transport is proposed, promoted through an arborization program in the areas where the bus transits, defining a diversity of species that are the most appropriate for the absorption of pollutants.

- ✓ Reduce the stretches and time to reach the university.
- ✓ A contribution to improve the quality of transport for the university community.
- ✓ In addition to improving safety, and making efforts to use eco-efficient transportation.

Fig. 16



Sketch of the PUCP Proposal of arborization program

- ✓ Avoid the individual use of the car by the PUCP community.
- ✓ Use the space of the PUCP to expand the green areas and not for parking lots for the largest number of cars.

Fig. 17

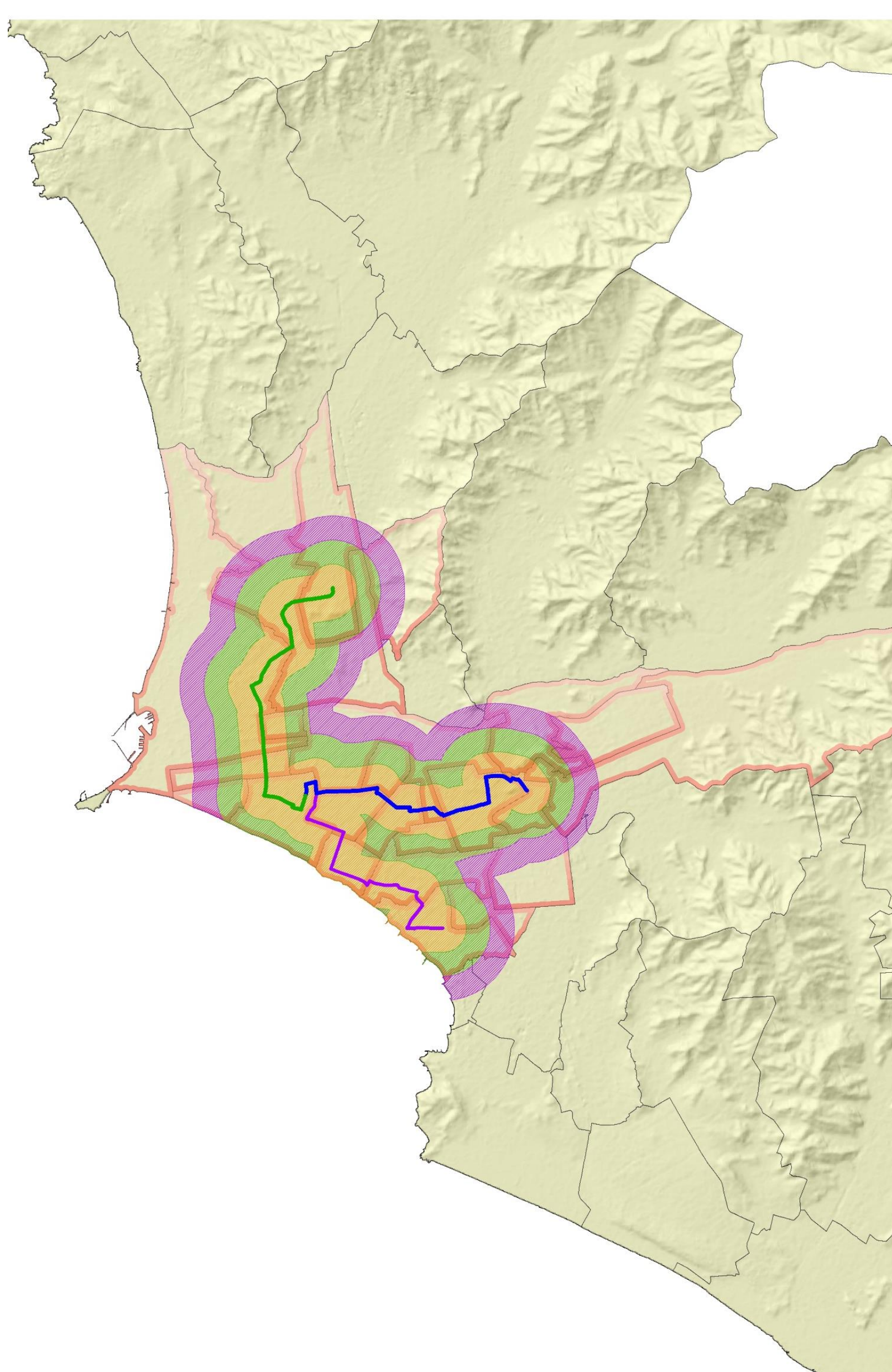


Fig. 13

North PUCP Corridor

Route (Avenues):
Av. Riva Agüero - La Mar (Cipriano Dulanto)
Av. Parque de las Leyendas
Av. de los Precurosos
Av. Elmer Faucett
Calle Carbono
Av. El Olivar
Av. Los Próceres
Av. 12 de Octubre
Av. Antúnez de Mayolo

Bus Stops: Place - District

1. Puerta Riva Agüero - San Miguel
2. La Mar - San Miguel
3. Parque de las Leyendas - San Miguel
4. Precurosos con Escardó - San Miguel
5. Precurosos con Faucett - San Miguel
6. Venezuela - Bellavista
7. San José - Bellavista
8. Puente Colonial - Bellavista
9. Argentina - Carmen de la Legua Reynoso
10. Hospital San José - Carmen de la Legua Reynoso
11. Virgen / Boulevard los Camarones - Carmen de la Legua Reynoso
12. Quica - Callao
13. Lima Cargo - Callao
14. Perú - Callao
15. Pacasmayo - Callao
16. Los Dominicos - Callao
17. El Olivar con Próceres - San Martín de Porres
18. Angélica Gamarra - San Martín de Porres
19. Las Vaquitas - San Martín de Porres
20. Universitaria - San Martín de Porres
21. Fitzcarrald - Los Olivos
22. Orión / Plaza Vea - Los Olivos
23. Municipalidad de Los Olivos - Los Olivos

East PUCP Corridor

Route (Avenues):
Av. Riva Agüero
Av. Tulipanes
Av. Universitaria
Av. Mariano H. Cornejo
Av. Del Río
Av. Colombia
Av. José M Plaza
Av. 6 de Agosto
Av. Felipe Salaverry
Av. Cuba
Av. Alejandro Tirado
Av. Nicolás Araníbar
Av. México
Av. Aviación
Av. Bausate y Mesa
Av. Nicolás Ayllón
Av. Circunvalación

Bus Stops: Place - District

1. Puerta Riva Agüero - San Miguel
2. Mariano H. Cornejo - Pueblo Libre
3. Mariano H. Cornejo con Barcelona - Pueblo Libre
4. Plaza las Bañeras - Pueblo Libre
5. Ovalo Pedro Ruiz - Pueblo Libre
6. Brasil - Pueblo Libre
7. Salaverry - Jesús María
8. Cuba con Arequipa - Cercado de Lima
9. México con Palermo - La Victoria
10. Aviación - La Victoria
11. Bausate y Meza - La Victoria
12. Circunvalación - La Victoria

South PUCP Corridor

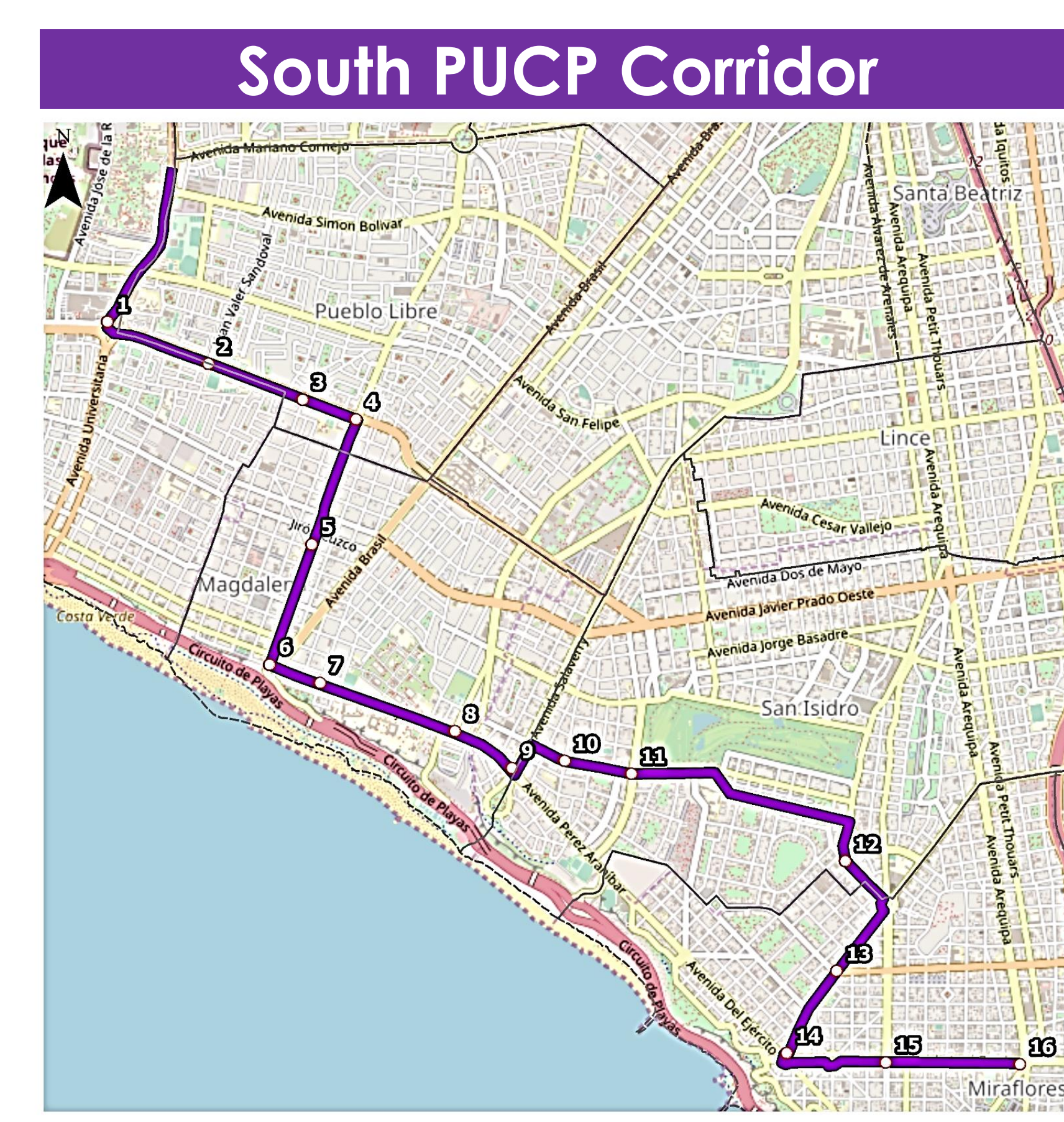
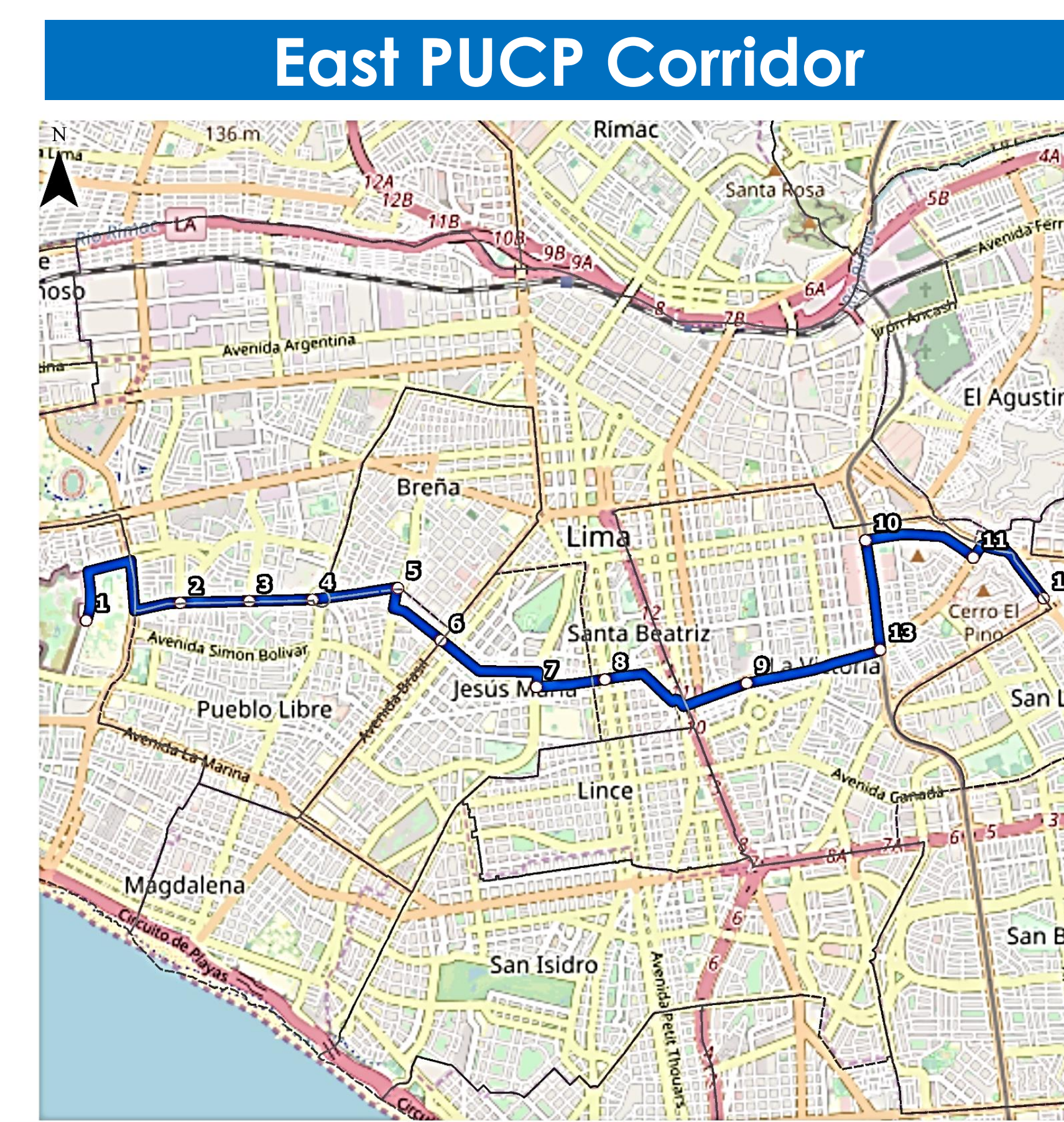
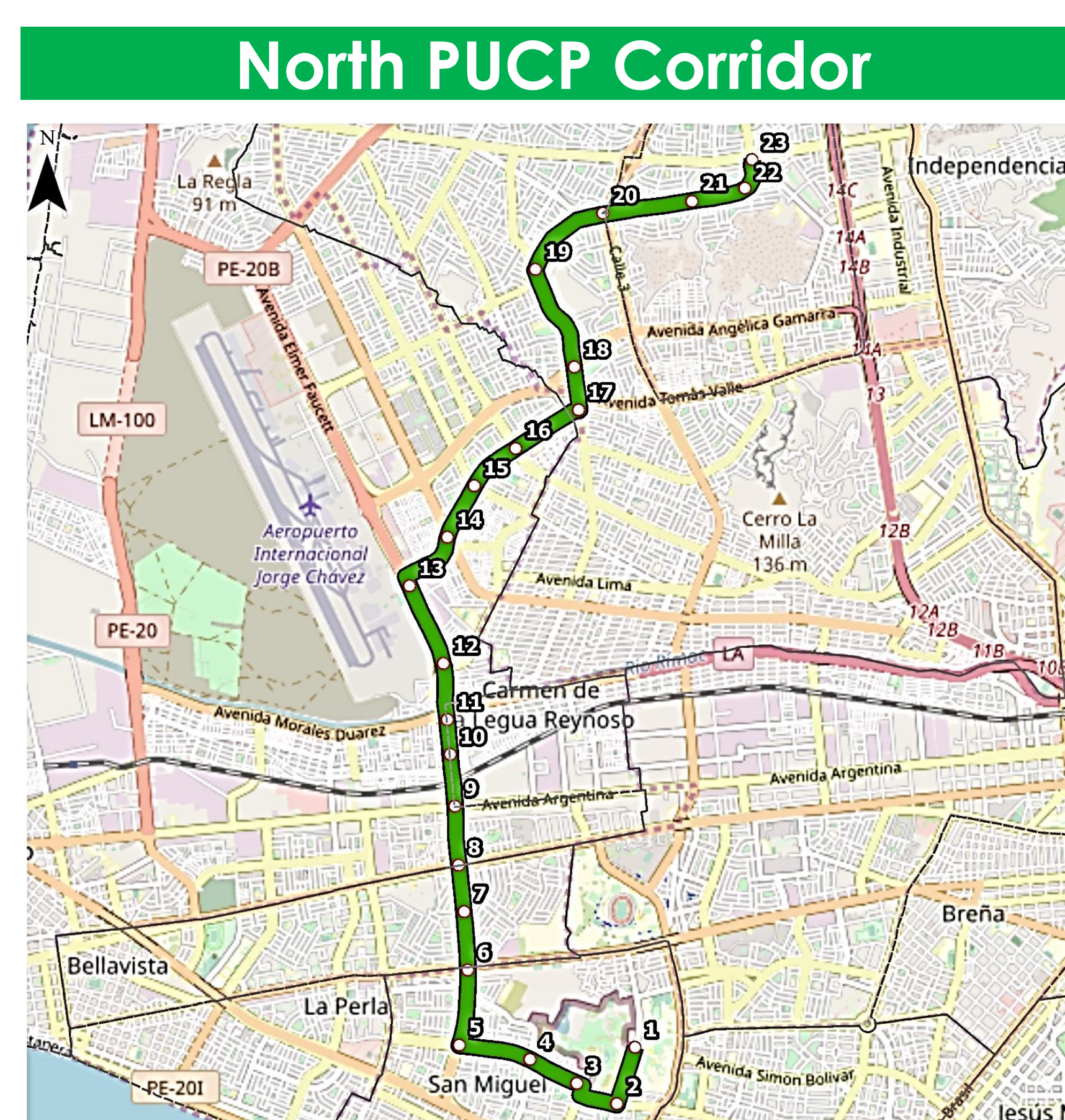
Route (Avenues):
Av. Universitaria
Av. La Marina
Av. Antonio José de Sucre
Av. del Ejército
Av. Salaverry
Av. General Juan Antonio Pezet
Av. Alvarez Calderón
Av. Camino Real
Av. Santa Cruz
Av. José Pardo
Óvalo de Miraflores

Bus Stops: Place - District

1. Puerta Principal - San Miguel
2. Universitaria - San Miguel
3. Marina con Valer Sandoval - San Miguel
4. Marina con Castilla - Pueblo Libre
5. Sucre - Pueblo Libre
6. Sucre con San Martín - Magdalena del Mar
7. Ejército - Magdalena del Mar
8. Larco Herrera - Magdalena del Mar
9. Ejército con José Cossio - Magdalena del Mar
10. Salaverry - Magdalena del Mar
11. Dellepiani - San Isidro
12. Emilio Cavenecio - San Isidro
13. Angamos Oeste - Miraflores
14. Plaza Centro América - Miraflores
15. Pardo con Espinar - Miraflores
16. Óvalo de Miraflores - Miraflores



Fig. 14



References and Sources

- Alegre, M. (2016). Transporte urbano ¿Cómo resolver la movilidad en Lima y Callao? Consorcio de Investigación económica y social. Universidad del Pacífico, PUCP.
- Bull, A. (2003). Congestión de tránsito. El problema y cómo enfrentarlo. CEPAL/ GIZ, Santiago de Chile.
- Esposito, N. (2018) El transporte y el estrés en la ciudad de Lima. Universidad Ricardo Palma.
- Facultad de Psicología.
- Kuncel, K. (2012) Realidad del tráfico, circulación y seguridad vial en Lima y la perspectiva a futuro. Fundación TRANSITEMOS.
- Fig. 1: Alonso Chero / El Comercio
- Fig. 2: Reporte del tráfico en Lima (Facebook)
- Fig. 3: Own elaboration (Sources: MINAM, INEI, IGN)
- Fig. 4: JapaClip https://japaclip.com/es/crossing-the-bridge/
- Fig. 5: Redacción Ludicez
- Fig. 6: David Hermosa (http://blogs.worldbank.org/)
- Fig. 7: Alex Fernandez / Felix Ingaurua / Puntoedu Noticias
- Fig. 8: PUCP
- Fig. 9: DePeru.com / Zona Escolar PUCP
- Fig. 10: Ricardo Zárata
- Fig. 11: AUT University New Zealand
- Fig. 12: https://es.123rf.com/profile_whitcity
- Fig. 13: Own elaboration (Sources: MINAM, INEI, IGN)
- Fig. 14: Ministerio del Ambiente (Gobierno de la República del Ecuador)
- Fig. 15: Andina
- Fig. 16: María Alejandra Cuentas
- Fig. 17: José Luis Zuloaga / Ricardo Zárata
- Fig. 18: María Alejandra Cuentas (Sources: Área de Infraestructura de la PUCP)
- Sources of the base map: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Contacts:

Lic. María Alejandra Cuentas Romero (Geographer and student of the master's degree in Environmental Development)
alejandra.cuentas@pucp.edu.pe

Dr. Ana Sabogal Dunin Borkowski De Alegría (Professor of the PUCP, Director of the Master in Environmental Development and Director trAndeS)
asabogal@pucp.pe

Bach. José Luis Zuloaga Obregón (Geographer and student of the master's degree in Environmental Development)
jzuloaga@pucp.pe

Ricardo Zárata Sotelo (Student in geography and environment)
izarates@pucp.pe