



UN-HABITAT

UN-Habitat's work on transport and mobility

Focus on NUP transport–mobility guide

Presentation by: Nanor Karageozian, DPhil

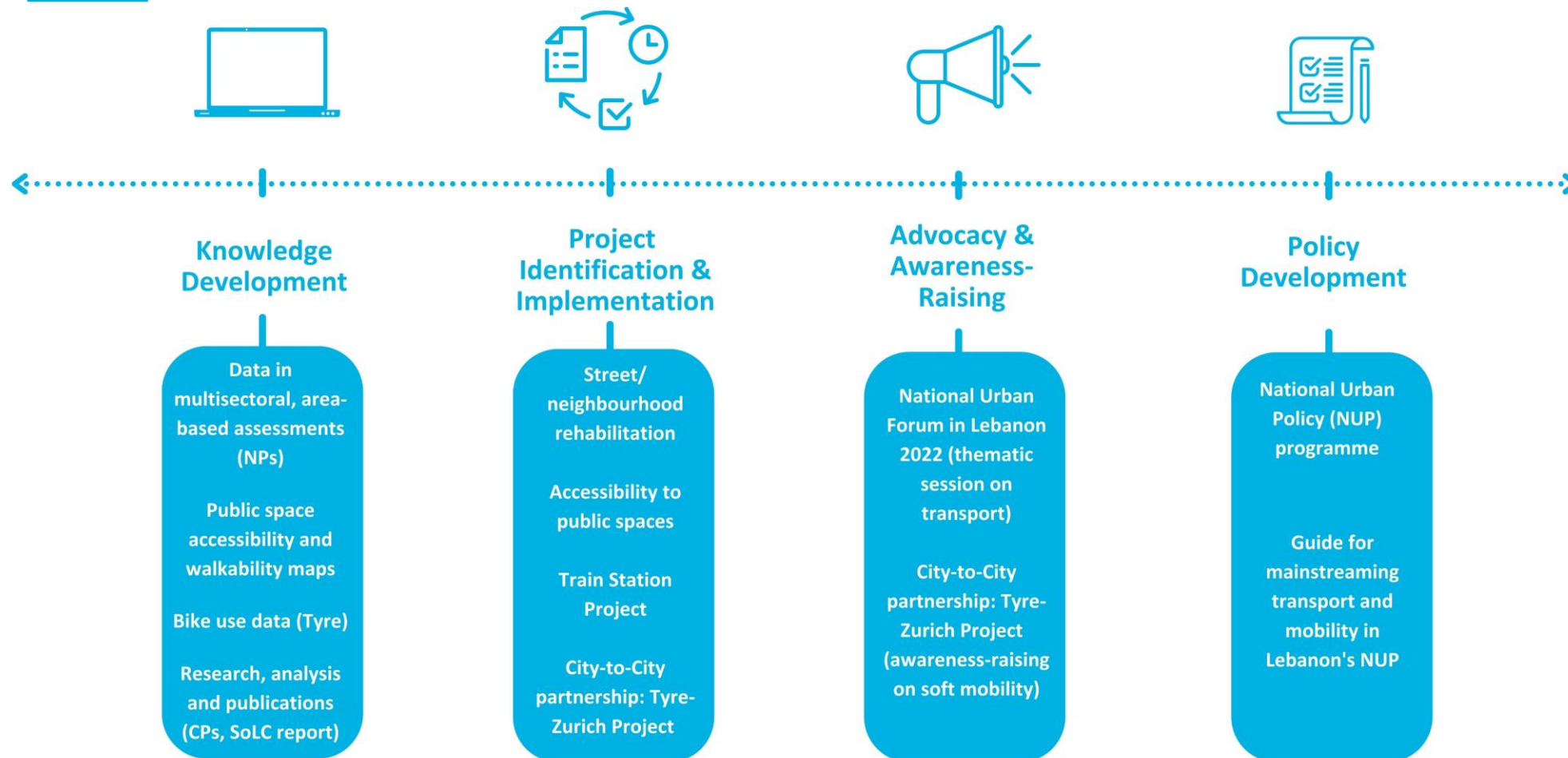
Urban Analysis and Policy Unit Manager

During: ESCWA Regional Dialogue Session on “Rethinking Mobility”

Date: 18 May 2023

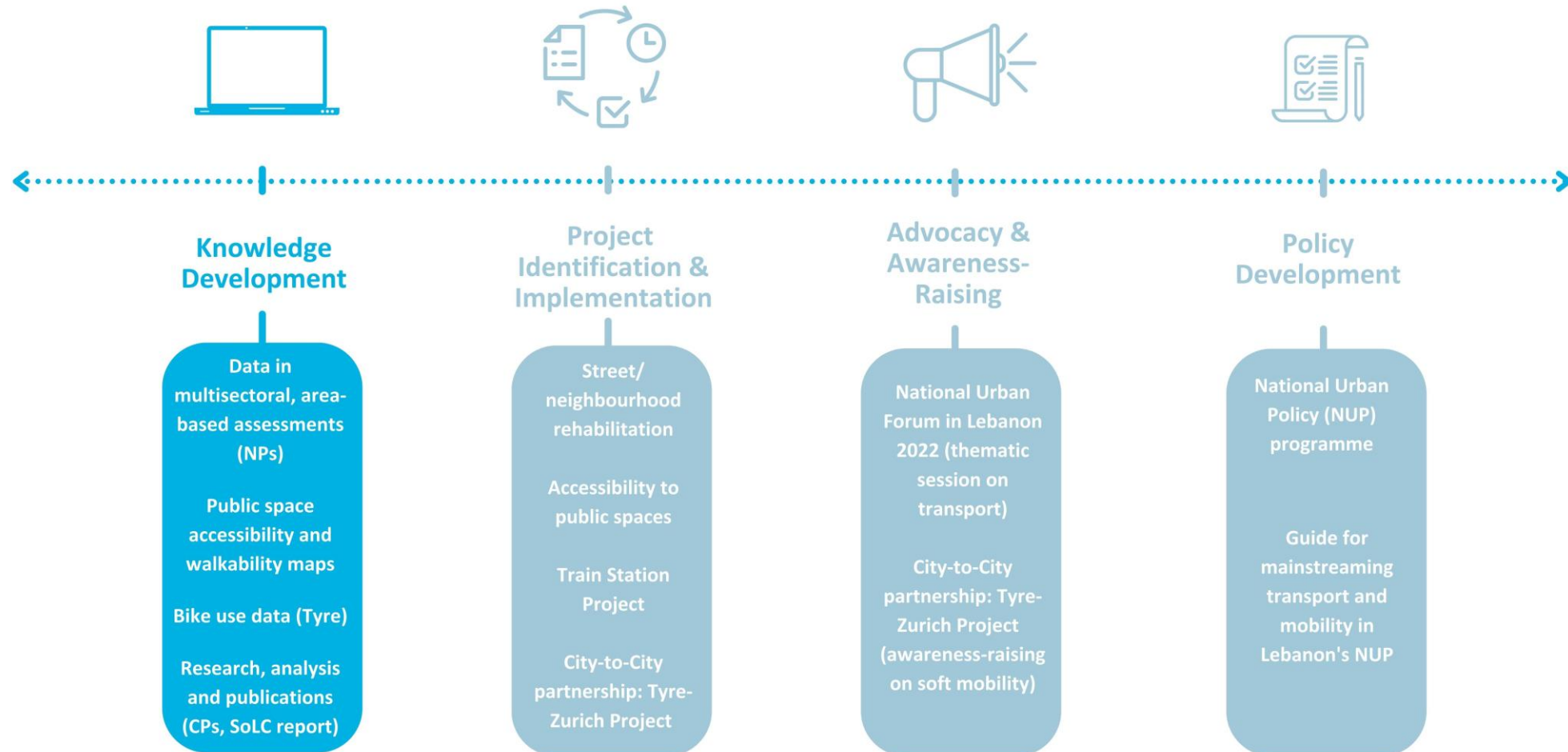
UN-Habitat Lebanon Country Programme

Transport–mobility portfolio



UN-Habitat Lebanon Country Programme

Transport–mobility portfolio



5 open public spaces

Accessibility for people with disabilities



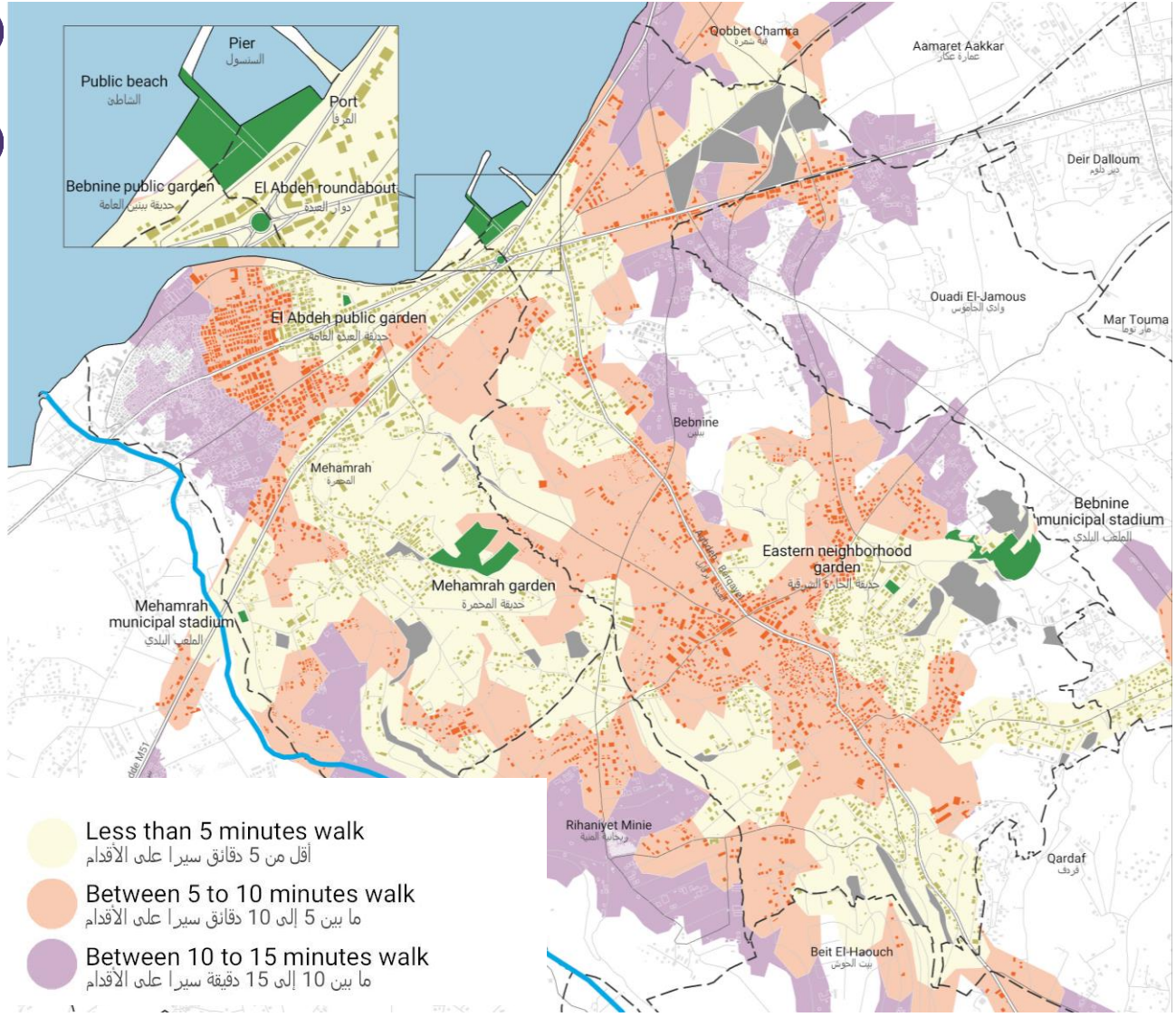
Pedestrian sidewalk



Vehicular roads



- Good condition / حالة جيدة
- Regular condition / حالة عادية
- Bad condition / حالة سيئة
- Not existing / not applicable / غير موجود / غير قابل للتطبيق
- Pedestrian sidewalk / رصيف المشاة
- Vehicular roads / طرق المركبات
- Accessibility for people with disabilities / إمكانية الوصول للأشخاص ذوي الاحتياجات الخاصة



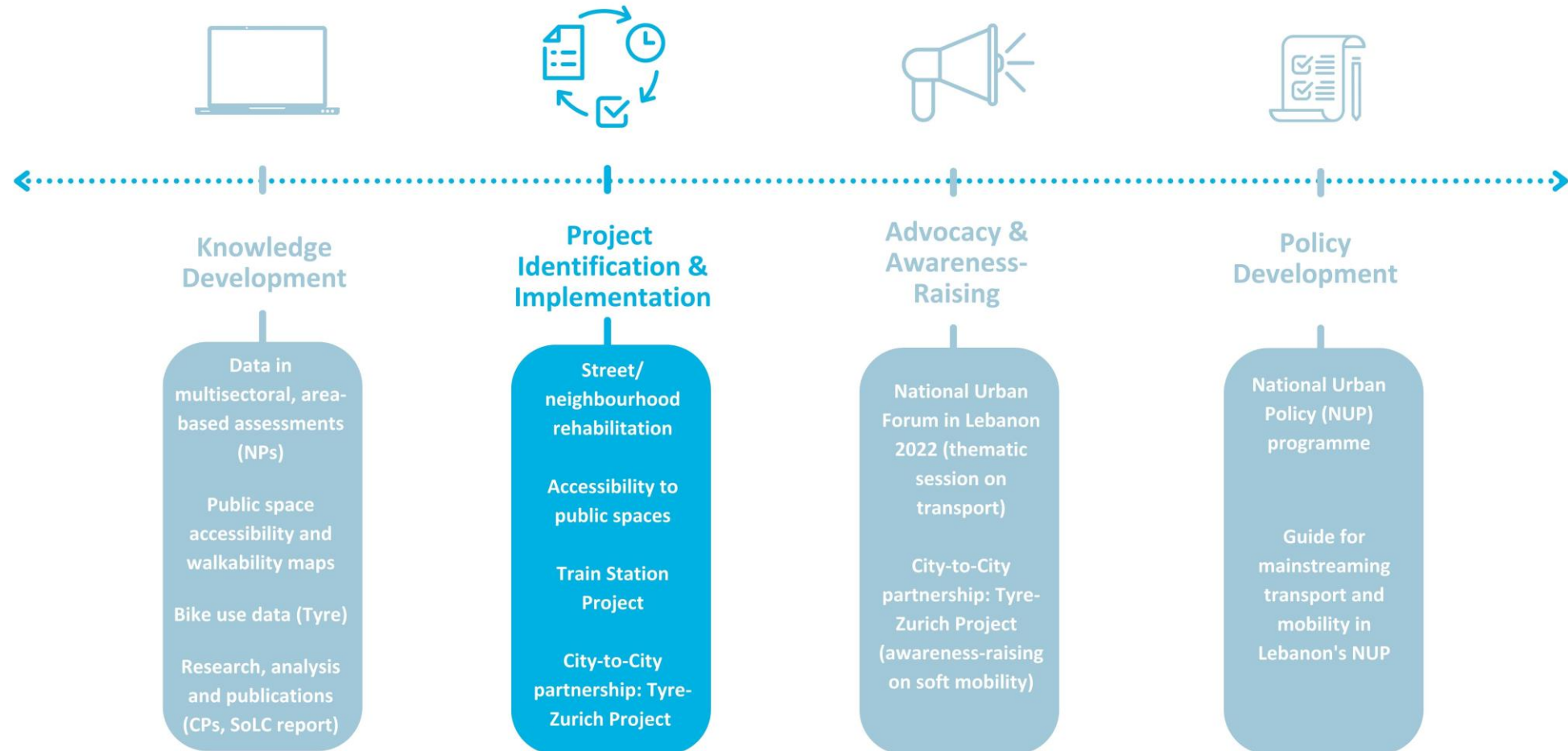
12 | ACCESS ACCESSIBILITY & MOBILITY

Haoush El-Oumara Taalabaya El-Fawaa Hayy El-Souk

Roads (by area) showing major signs of deterioration	7%	32%	15%
Roads (by area) with no sidewalks	60%	91%	78%

UN-Habitat Lebanon Country Programme

Transport–mobility portfolio



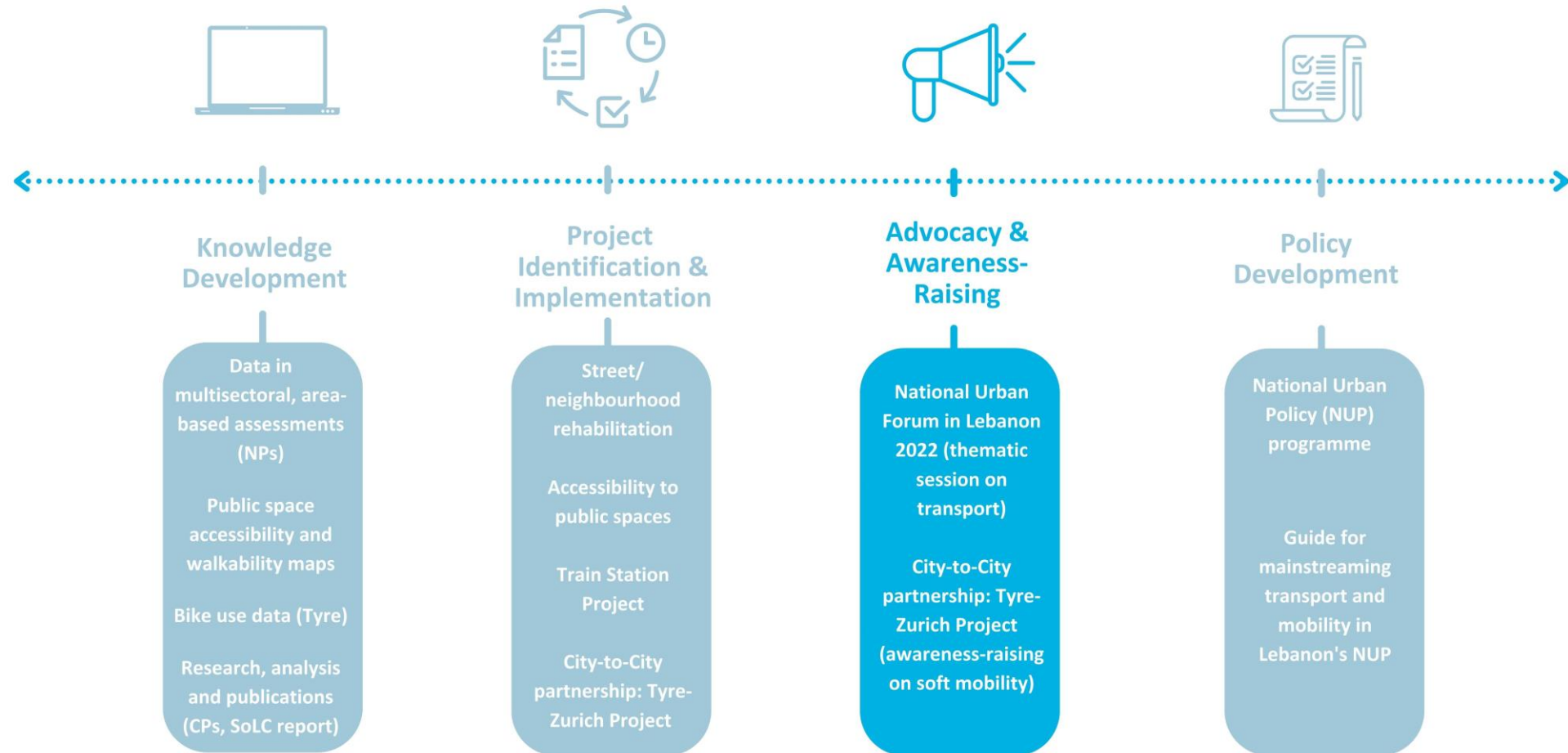


Public space location



UN-Habitat Lebanon Country Programme

Transport–mobility portfolio





Towards the development of a national urban transport and mobility policy

Launch of UN-Habitat's *Guide on Mainstreaming Transport and Mobility in Lebanon's National Urban Policy* and discussion on way forward

Thursday, 24 March 2022 | 10:00–11:30 a.m.

UN House ESCWA, Conference Hall



المنتدى الوطني الحضري
BEIRUT, LEBANON | 23-24 MARCH 2022



Stadt Zürich

Tour in Sour



المنتدى الوطني الحضري
BEIRUT, LEBANON | 23-24 MARCH 2022

How can Lebanon improve its transport network with minimal cost?

1. Revitalize bus access + transport networks
2. Carpooling
3. Road regulation law enforcement



What can we do to achieve better transportation in Lebanon?



المنتدى الوطني الحضري
BEIRUT, LEBANON | 23-24 MARCH 2022



#NUFLebanon



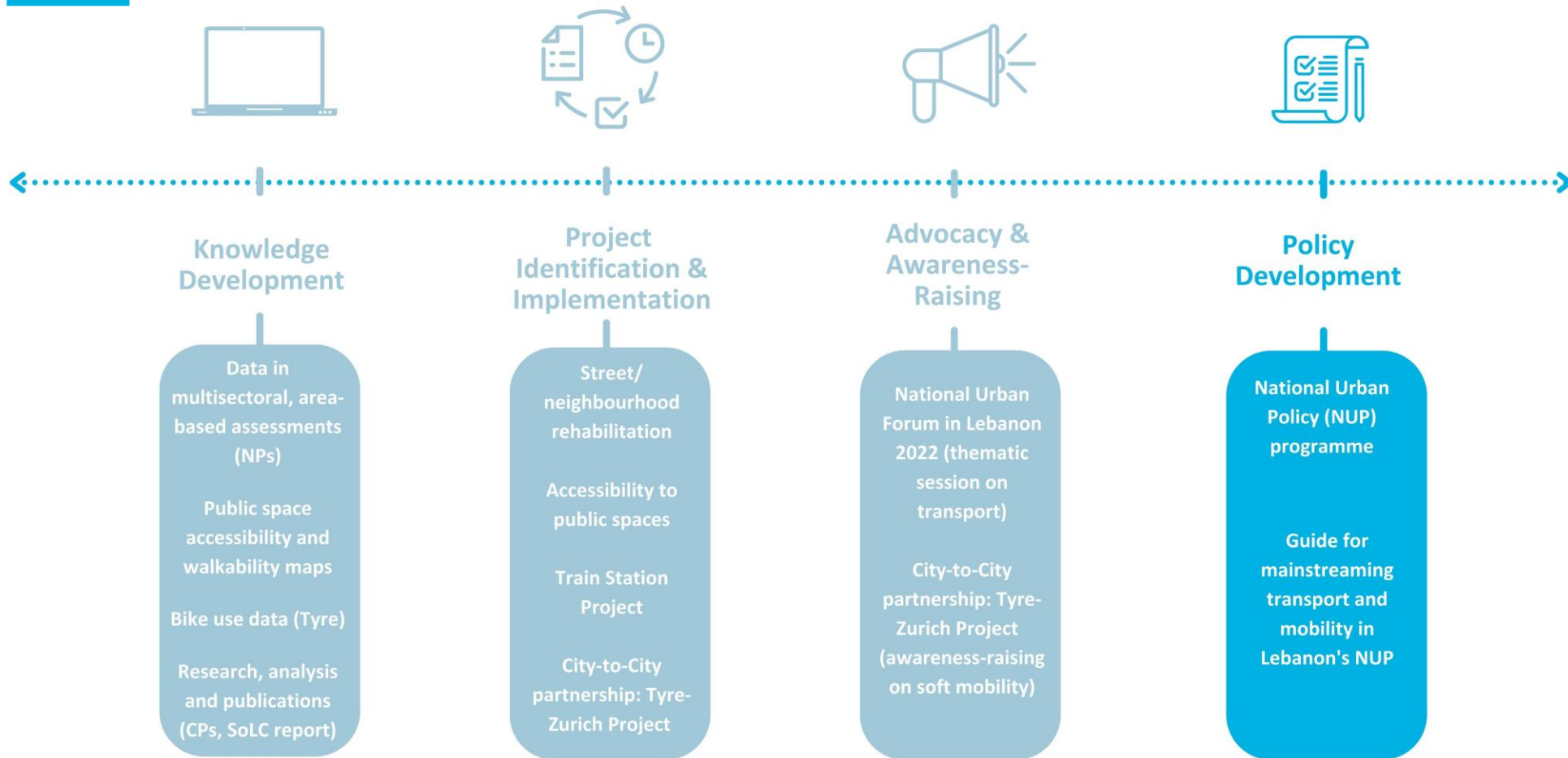
1. Enable sustainable mobility and regulatory reforms
2. Avoid unnecessary trips
3. Shift to more efficient transport modes
4. Improve trip efficiency



#NUFLebanon

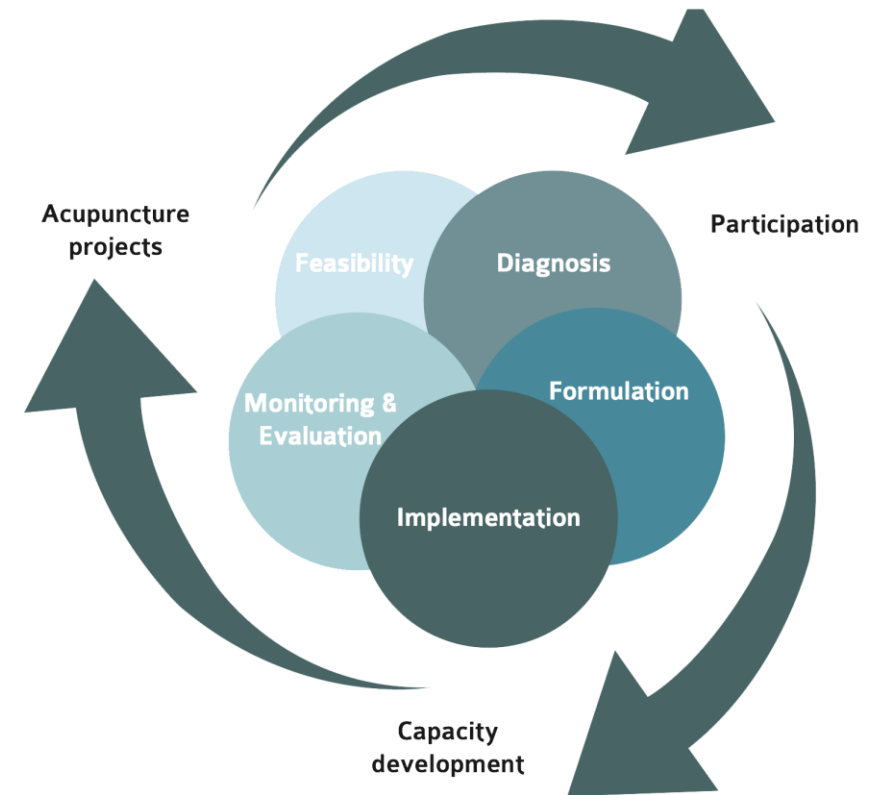
UN-Habitat Lebanon Country Programme

Transport–mobility portfolio



UN-Habitat's National Urban Policies Programme

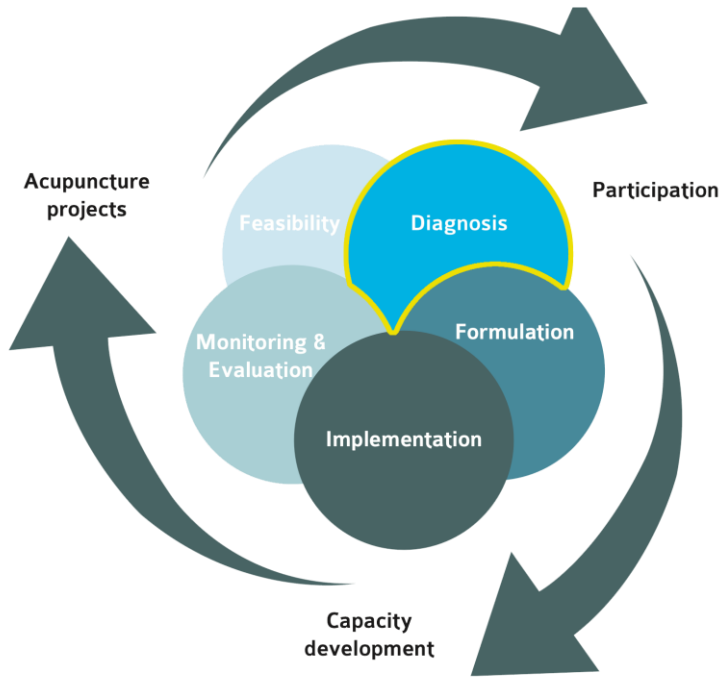
UN-Habitat's National Urban Policies (NUPs) programme seeks to build integrated, cross-sectoral, people-centred, local and national public policies that better regulate urbanization and capitalize on its multiple opportunities, with attention to the inevitable stresses of urbanization that first and foremost affect the most vulnerable segments of society.



The NUP process. *Source:* UN-Habitat (2016)

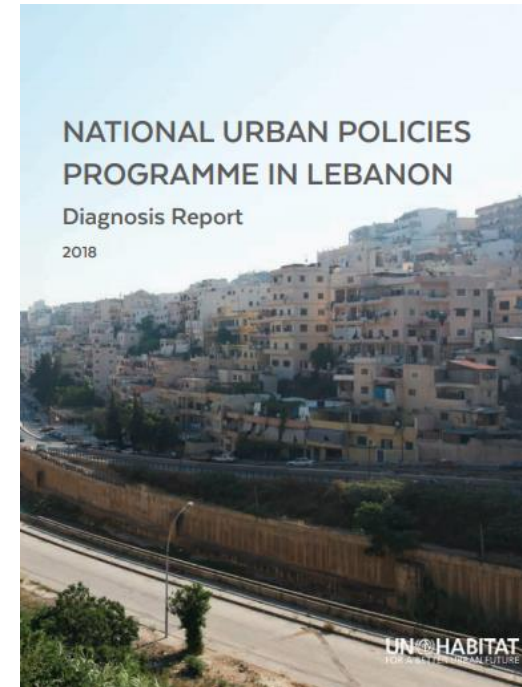
<https://unhabitat.org/programme/national-urban-policy>

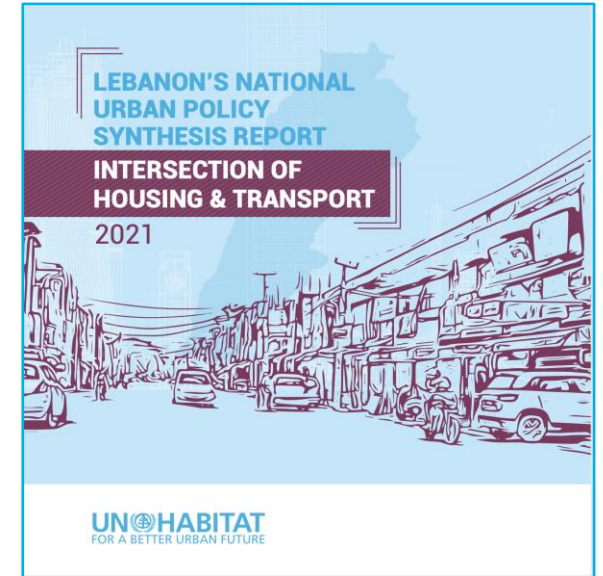
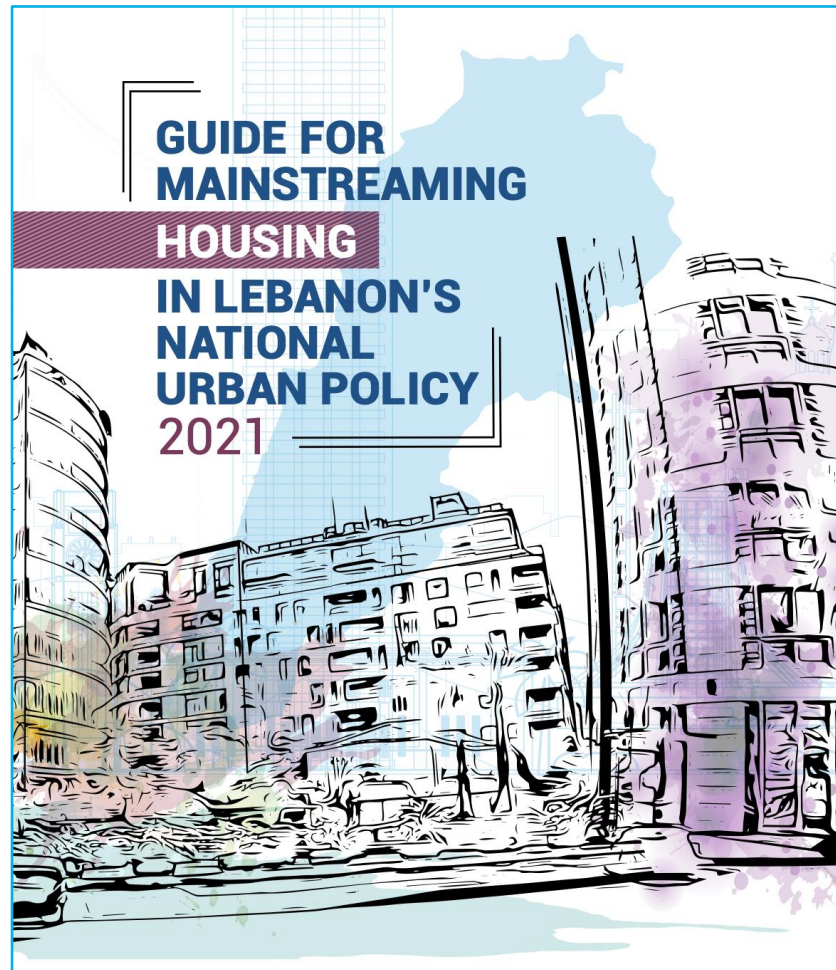
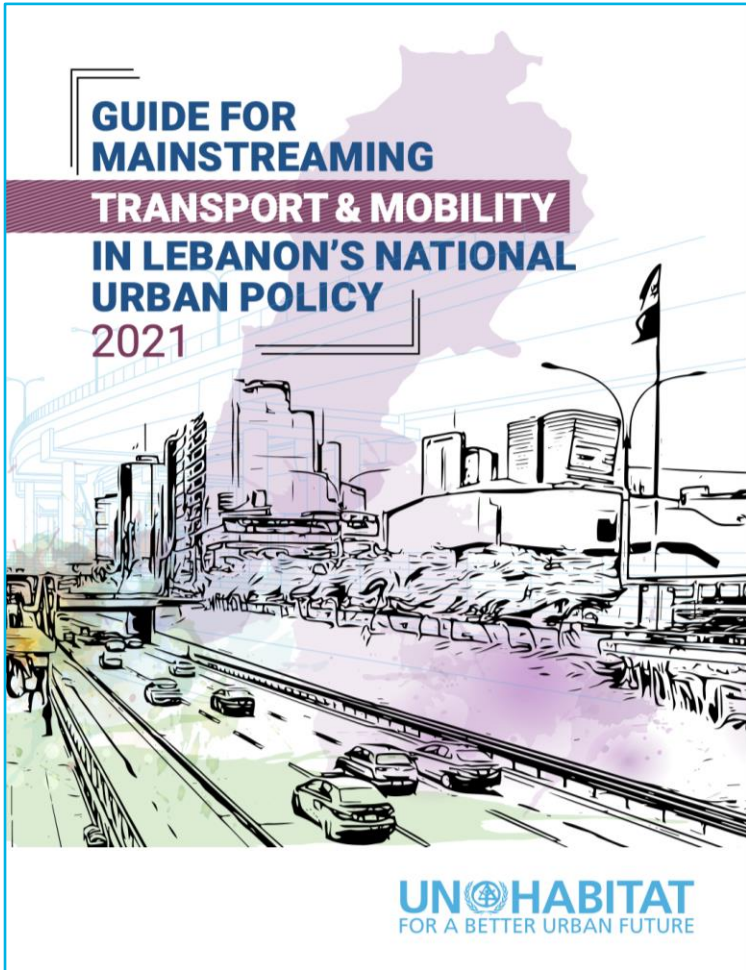
NUP Diagnosis Report 2018

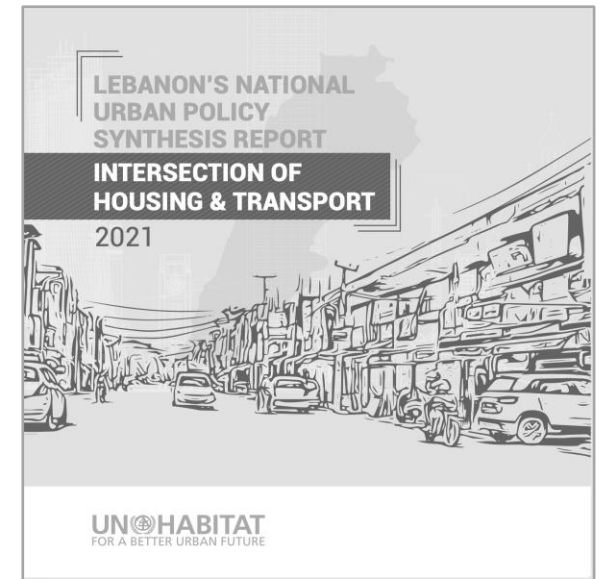
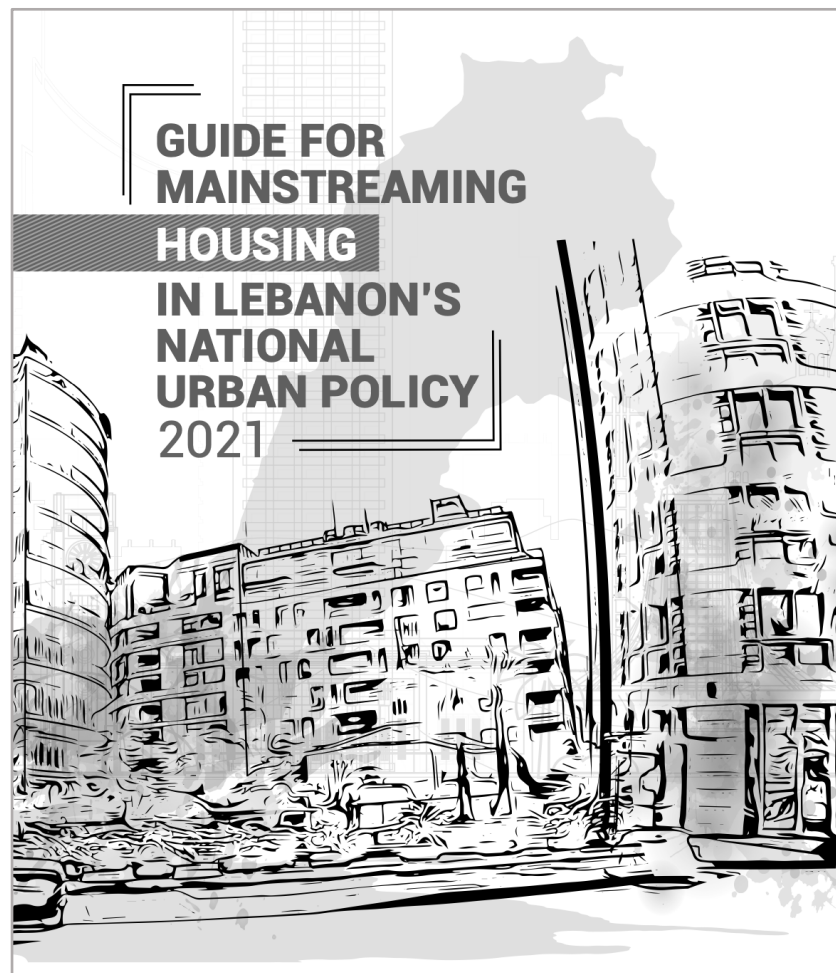


The NUP process. *Source:* UN-Habitat (2016)

Following the **NUP Diagnosis report** (2018), **access to adequate and affordable housing and to a sustainable and inclusive transport system** have been identified as major challenges in Lebanon, particularly affecting urban centres, where the vast majority of the country's population resides.







Lebanon: Transport challenges



High motorization rates & severe traffic congestion

- Approximately **1.75 million registered vehicles** for a population of about 5.5 million
- High reliance on cars is **due to the lack of alternatives** and the availability of low-interest car loans from financial institutions.
- Congestion is worsened by the **underdeveloped and poorly maintained roadway infrastructure**, including potholes, inadequate street lighting, and slippery pavements.



Energy, environmental and health impacts

- **Increasing energy consumption** in road transport
- **70%** of cars are **older than 10 years**
- **Larger vehicle types = 60%** of passenger car fleet
- The **transport sector** in Lebanon is responsible for:
 - **99% of CO emissions**
 - **60% NOx emissions**
 - **57% of total NMVOCs**
 - **> 23% of total annual GHG emissions**

Lebanon: Transport challenges



Inadequate bus system and absence of rail

- **400 km** of installed **rail** and almost 30 stations are **completely inoperative** since the country's civil war.
- Late **1990s**: Purchase of **200 newer-model buses** reduced to less than **40 old-model buses** operating on 9 lines **to serve a population of over 2 million people** in the Greater Beirut Area.
- **Vehicle occupancy** rates for **mass transport** in Lebanon:
 - Taxis, “service” & ride-hailing providers: 1.2 passengers per vehicle
 - Private minivans: 6 persons per van
 - Buses: 12 persons per bus

These operate in an ad hoc manner without any fixed routes, schedules, stops or stations or any coordination and management.



Fragmented institutional and regulatory framework

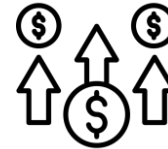
- **Several governmental institutions** have **different types of authority** over the transport sector
- Including authority to regulate, implement, operate, manage, and oversee various parts of the sector
- Main entities:
 - Ministry of Public Works & Transport (MoPWT)
 - Ministry of Interior and Municipalities (MoIM)
 - Council for Development and Reconstruction (CDR)
 - Ministry of Finance (MOF)
 - Municipalities

Lebanon: Mobility challenges



Lack of walking, bicycling spaces and poor road safety

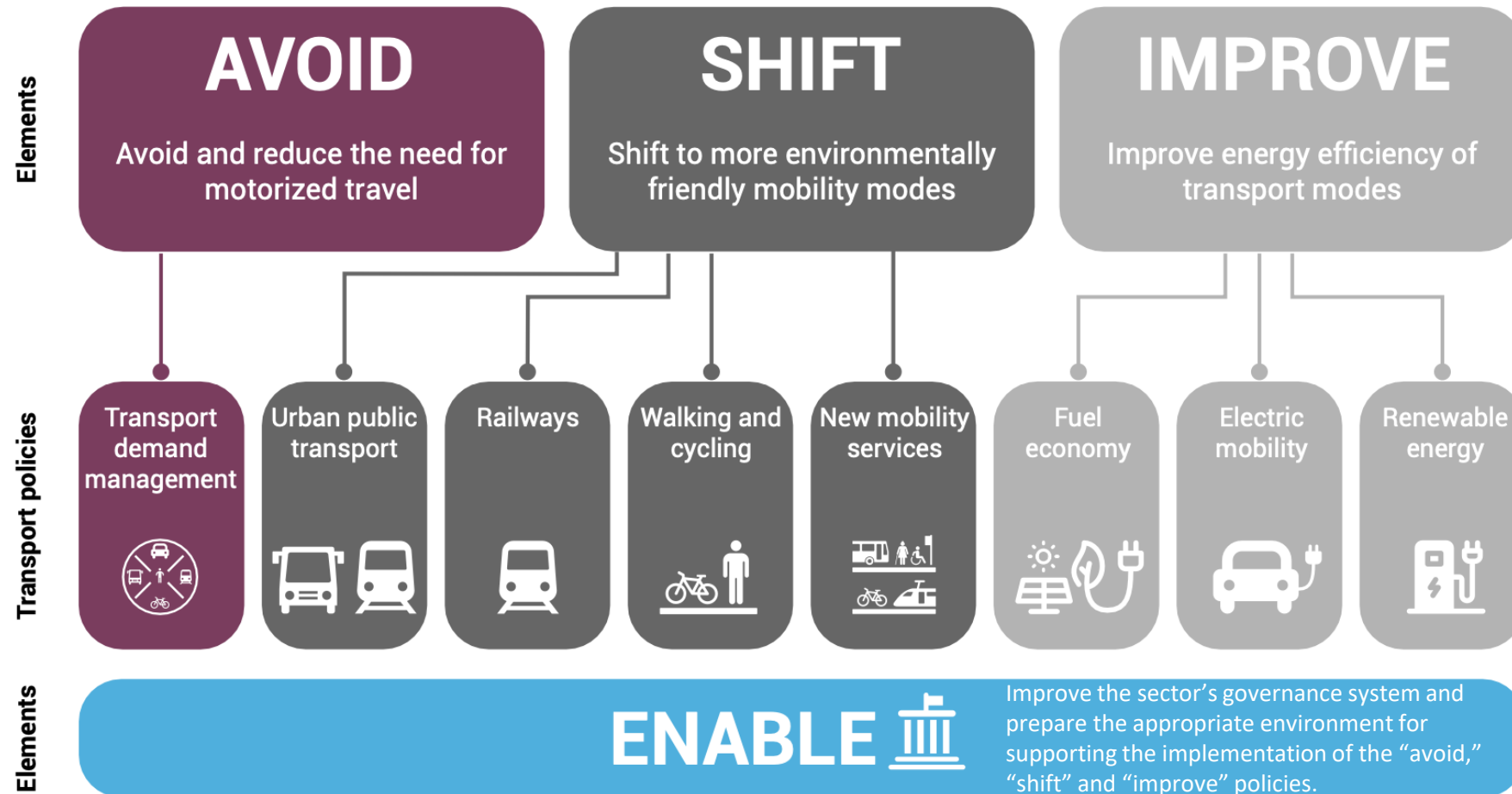
- Lack of zoning and land-use planning for walking and cycling.
- Non pedestrian friendly sidewalks and streets
- Limited availability of parks and public squares for walking and cycling.
- No dedicated bicycle lanes
- Limited and underutilized bike-sharing systems
- High dominance of highways and roadways in urban areas, creating barriers between residential areas and the city center.
- Automobile-centric culture leading to a high risk of accidents



High mobility cost and lack of innovative mobility choices

- Cost of motorized mobility in Lebanon ranges from USD 0.43 to USD 0.64 per vehicle-kilometer traveled.
- Devaluation of the LBP since 2019 has further increased vehicle-related costs, making motorized mobility unsustainable.
- Major cost components of mobility include fuel (20%), emissions (13%), travel time and accident costs (11% each), and congestion cost (8%).

Framework for mainstreaming transportation and mobility into Lebanon's NUP



“Avoid” policies



1. Promote telecommuting
2. Promote flexible time and work travel planning
3. Apply alternate-day travel
4. Charge tolls on urban highways
5. Use air-pollution-based car bans
6. Reallocate road space
7. Create pedestrian-only zones
8. Promote carpooling
9. Use access management strategies
10. Apply parking surcharges
11. Upgrade walking infrastructure
12. Prioritize biking and micromobility over motorized traffic
13. Provide information tools
14. Incentivize online shopping
15. Raise awareness on the impacts of car use, e-work, e-learning
16. Create acupuncture projects
17. Mandate mobility-oriented urban planning and development
18. Tighten urban zoning based on roadway constraints
19. Update urban zoning laws

“Shift” policies

1. Revitalize bus service
2. Prioritize bus operation on roadways
3. Rehabilitate the rail network
4. Prioritize public transport projects
5. Link seaports to the rail network and the airport to the bus network
6. Provide shared micromobility infrastructure
7. Upgrade the walking infrastructure
8. Prioritize biking over motorized traffic
9. Apply parking surcharges
10. Build park-and-ride facilities near public transport hubs, and automated parking in urban areas
11. Require parking garages in all municipalities
12. Provide public transport subsidies
13. Raise awareness about alternative transport means and public transport



“Improve” policies

1. Activate car scrappage programme
2. Modernize the vehicle inspection process
3. Incentivize the adoption of electric and natural gas vehicles
4. Upgrade bus technologies
5. Rehabilitate rail assets
6. Improve electricity production capacity and energy mix
7. Raise awareness about cleaner passenger car technologies
8. Enact incentives for FEVs and disincentives for older vehicles
9. Use access management strategies
10. Develop strict highway zoning laws
11. Build natural-gas-refuelling and electric charging infrastructures



“Enable” policies



1. National Transport Strategy
2. Establish a regulatory authority
3. Involve the public in transport planning
4. Create and innovation and entrepreneurship ecosystem
5. Develop a unified statistics platform
6. Provide capacity-building for bus operators
7. Provide capacity-building for public transport authorities
8. Regulate the operation of micromobility devices and sharing systems
9. Establish regulatory and institutional frameworks for operating new bus technologies
10. Implement relevant laws approved but still on the books
11. Adopt developed privatization frameworks
12. Secure funding and resources from international donors and organizations
13. Subsidize the transition to new bus technologies
14. Incentivize the building of a new energy infrastructure

Way forward to sustainable mobility: Multistakeholder collaboration to enable key mobility policies



Thank you

unhabitat-lebanon@un.org
www.unhabitat.org/lebanon

