SUTP.
Sustainable Urban Transport Project

IMPLEMENTING THE NEW URBAN AGENDA

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of
Federal Ministry for Economic Cooperation and Development

Solution: Cycling.

iNUA #2: Solution: Cycling. Implementing the New Urban Agenda

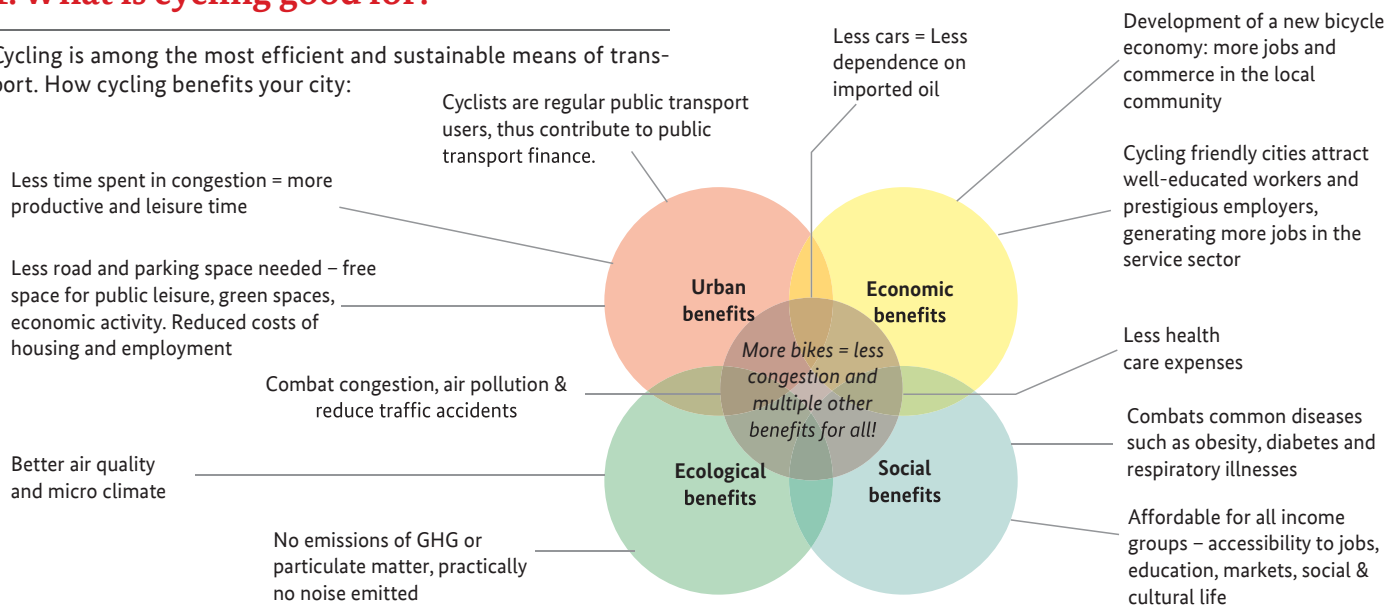
"We will promote access for all to safe, age- and gender-responsive, affordable, accessible and sustainable urban mobility and land and sea transport systems, enabling meaningful participation in social and economic activities in cities and human settlements, by integrating transport and mobility plans into overall urban and territorial plans and promoting a wide range of transport and mobility options, in particular through supporting:

(a) A significant increase in accessible, safe, efficient, affordable and sustainable infrastructure for public transport, as well as **non-motorised options** such as walking and **cycling**, prioritising them over private motorised transportation"

New Urban Agenda #114(a)

1. What is cycling good for?

Cycling is among the most efficient and sustainable means of transport. How cycling benefits your city:



Consider these five main requirements that make cycling attractive:

1. Coherence: Cycling infrastructure should form a coherent, well-communicated and signed network. Cycling plans should be oriented towards a network that provides connections between all important origins and destinations for transport system users. This includes orientation, consistent quality of the routes and a sufficient number of safe parking possibilities.
2. Directness: Cyclists should be able to use the most direct route so that the number and length of detours can be kept to a minimum. Many motorists are willing to change their mode of transport (at least for short trips) if it is faster and more convenient to make the journey by bike rather than by car. Using a bike is also less costly and involves less difficulty of finding a parking spot, given the proper cycling infrastructure.
3. Safety: Cyclists (and pedestrians) are vulnerable in traffic as they don't benefit from the active safety features of cars. Thus, road planners and street designers must create a safe environment for non-motorised road users. Some basic principles: lower traffic speed; combine the shortest and safest routes and separate different kinds of vehicles where differences in speed are significant.
4. Comfort: Uneven surfaces and frequent stopping makes cycling less attractive. Other negative factors include: exhaust fumes, pedestrian overcrowding, parked cars and buses or economic activity along cycling routes. These factors can be reduced by proper design, routing, parking management and enforcement.
5. Security: Cycling should be easy and relaxing. Next to road safety, personal security is also an important factor. Cyclists want to feel secure, which can be supported by attractive urban areas with many people around (social observation), street illumination or even police presence in critical areas.

Bike sharing in Mexico City. Author: Adriana Lopez

2. What can mayors do?

True cycling cities can usually count on committed city mayors that prioritise cycling in their political agenda. Mayors ensure that their administration translates this into ambitious action. To bring the described benefits to your city, you can encourage cycling use with four practical steps:

Raise awareness & create alliances beyond your administration:

Start by raising people's awareness of the benefits of cycling through active promotion. **Car-free days, bike parades and bike to work days** draw the attention of media and citizens. Events can be jointly planned with bicycle organisations, schools, businesses and other stakeholders. Further, specific action with schools, businesses and other groups can help to reach people individually and directly.

What can you do with a cycling budget of 50,000 EUR

- *building 300 m of a cycle path*
- *purchasing 600 cycle stands*
- *establishing a pool of 50-100 rental bikes*
- *signing 35 km of a cycle route network*
- *organising 50 bicycle check days*
- *offering 100 bicycle training sessions*
- *establishing and designing 6-7 residential streets*
- *providing 50 covered cycleparking spaces including lighting*
- *marking 6,5 km of a bike lane*
- *hiring a cycling coordinator for 1,5 years*

Identify a bike coordinator and/or commission to coordinate bike promotion and team-up with other stakeholders.

In order to ensure continuous enhancement and implementation of cycling policies and measures, clear-cut responsibilities have to be assigned. A motivated and engaged **bike coordinator** within the city administration (sometimes called "advisor to the mayor on cycling") is a good starting point to build up working relations with other stakeholders and coordinate a number of activities. A **bicycle working group** of planners and road engineers, bicycle organisations, traffic police as well as civic organisation and business representatives (optimally headed by a high-ranking official, e.g. vice mayor) agrees on a joint working agenda. Advanced institutional structures include dedicated **cycling offices** or administrative units with various specialists who handle cycling-related issues in the field of infrastructure, promotion, information and community service.

Develop a cycling plan

Strategically enhance cycling as a mode of transport. A cycling plan defines objectives, infrastructure and promotional activities and **provides a clear road map** towards transforming your city into a cycling city. Effective cycling plans are elaborated in an inclusive manner and are backed by a **dedicated share of the municipal budget**. Cycling organisations can be important contributors to identifying suitable measures, but don't forget about other stakeholders such as pedestrians, businesses and car-drivers which may be impacted by infrastructure measures. It is the task of your administration to deal with diverging interests and to ensure that the development of cycling is embedded in the overall urban development and mobility policy.

Have a look at the SUTP map of local cycling and walking strategies – and get inspired!

Implement basic infrastructure and develop it to suit cyclists' needs

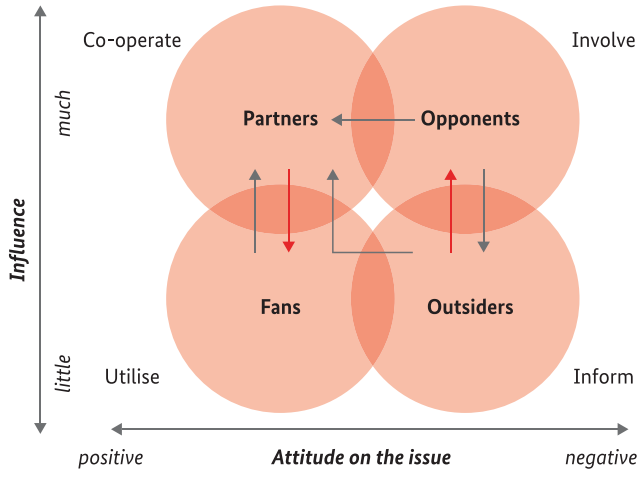
While brave citizens might decide to cycle regardless of cycling infrastructure quality, others will not consider cycling without appropriate bikeways that increase their safety and comfort. A better environment for cyclists includes adequately sized and dedicated cycling lanes, safe routing (especially at crossroads) and safe parking facilities distributed all over the city.

3. Who to team up with?

As a leader in urban government, you are in charge of setting up the cycling strategy. However, cycling policies only become effective when you properly assess cyclists' needs and incorporate them into the planning process. Therefore, different actors in the public and private sectors, NGOs and civil society must all contribute to achieve the ideal cycling conditions for your city. You should also include the interests of civil society organisations, schools and health insurances. All these actors can jointly develop and implement policy, acting through working groups, roundtables or commissions.
After setting up the plan, it is the city government's task to realise the strategy and implement the infrastructure. This will involve cooperation with local companies in private sector, such as bicycle shops or garages, since they contribute to bringing the bicycles on the streets. Mass and social media can also make cycling more visible in public spaces and private households.

4. Where to learn from?

Cities create cycling cultures over long and short periods. There is no single approach to create a cycling-friendly city, but other cities can provide relevant learning experiences on successes and failures in making cycling an integral part of their everyday mobility culture. Indeed, to ensure a feasible and efficient cycling policy, it is crucial that you develop a tailor-cut strategy that best suits the context of your city. The following figure shows how to involve various stakeholders.



Bi-directional bikeway during rush hour in Bogota. Author: Carlos Felipe Pardo


Typical secondary road in Amsterdam. Author: Manfred Breithaupt

Amsterdam:

Amsterdam is world renowned for its quality cycling infrastructure and its inhabitants' enthusiasm to use bicycles whenever possible. In 2014, cycling reached 50% in the city's modal split – every 2nd trip was done by bicycle! Within the inner city this figure reached 63%.
Like many other cities, Amsterdam was rapidly turning into a car-oriented city in the 1960s. Emboldened by a high number of pedestrian fatalities from cars (400 children in 1972 alone), the residents of Amsterdam stood up against the radical infrastructure plans that would have benefited mostly car drivers. In reaction, the city council introduced a new traffic-circulation plan in 1978 which reduced the space for cars and parking and gave that space to pedestrians and cyclists instead.

Amsterdam in numbers:

- Total length of cycling network: **500 km**
- Modal split share for bikes: **50%**
- Average bikes per household: **2**
- Average of **2 million km** ridden by bike every day
- Cycling trips per day: **500,000**
- **US$30** per capita spent on cycling infrastructure per year *(Netherlands total)*

Today, Amsterdam's cycling policy is based on four pillars: road safety, infrastructure, parking, and education and promotion. The policy resulted in a network of separate cycle lanes, with a total length of over 500 kilometres. The principal cycling network, a grid of protected cycle routes throughout the city, is the core of the infrastructure. With an average of 2 million kilometres ridden by bike every day in Amsterdam, planners and policy-makers are now facing new challenges such as bicycle parking, inter-modality and access to public transport, as well as road safety and comfort for cyclists. These problems have been principally addressed in the new bicycle plan which was introduced in 2011.

Further information: Plan Amsterdam 04/2014, available at https://www.amsterdam.nl/publish/pages/617263/planam-04-2014_corr.pdf

Bogotá:

Bogotá implemented the most extensive cycling network in Latin America and consequently has the highest number of cyclists in a Latin American city. Today, the network spans more than 410km in dedicated bikeways and cycle lanes around the city, connecting the residents of Bogotá with centres of civic and commercial life as well

as with extensive bike parking facilities at Transmilenio stations (Bogotá's Bus Rapid Transit system). The network was initiated in 1997 by the Mayor Antanas Mockus' administration. Extensive expansion was undertaken by his successor, Enrique Peñalosa, who also introduced a formal plan that represented a personal commitment to a healthy, car-free city.

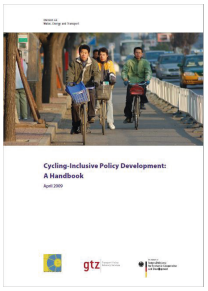
Bogotá in numbers:

- Total length of cycling network: **410 km**
- Mean bike speed: **17 km/h**
- Average bikes per household: **2**
- Cycling trips per day: **600,000**
- CO2e reductions 2000-2014: **86,431t**

Due to the extensive infrastructure upgrades, bicycle use has increased from 0.2% of the population in 2000 to about 6% in 2014. Lower-income citizens especially benefit from the new cycling network: within this group, 23% of all trips are made by bike. One key to this success was the design of the cycling paths that took the built and natural topographic features of Bogotá widely into consideration. It is estimated that a total reduction of 86,431 tons of CO2e was achieved between 2000 and 2014.
The success of Bogotá's cycling scheme can be traced to several important factors: there was political will to enhance cycling, the network connected the most important points of interest (residential areas, economic and urban centres, recreational areas), intermodal connection points were created, intersections were re-designed to prevent dangerous situations and the geophysical environment of the area was taken into consideration to make cycling as comfortable as possible.

Further information: Despacio Bicycle Account 2014, available at http://despacio.org/wp-content/uploads/2015/01/Bogota-2014-Bicycle-account-summary.pdf

There are vast resources available to help cities shape cycling strategies & measures – a small choice of SUTP and other sources:



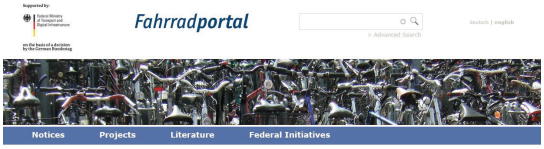
Cycling-inclusive Policy Development Handbook
www.sutp.org

Promoting cycling for everyone as daily transport mode (PRESTO)
www.ec.europa.eu

Overview on Cycling and Walking Strategies
www.sutp.org

The Bike-Share Planning Guide (Institute for Transportation & Development Policy)
www.itdp.org

Cities Safer by Design - bicycle structure (World Resources Institute)
www.wri.org



Cycling Expertise of the German Cycling Portal
About 40 compact factsheets on multiple cycling aspects, e.g. accident risks, societal costs & benefits of cycling
www.nationaler-radverkehrsplan.de

Ciclo-inclusión en América Latina y el Caribe: Guía para impulsar el uso de la bicicleta (Inter-American Development Bank)
www.adb.org

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