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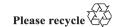
Draft guide for designating national cycling network

Submitted by secretariat

I. Introduction

1. The Group of Experts on cycling infrastructure module (GE.5) reviewed at its second session the draft guide for designating national cycling network should be developed which should contain and explain recommended steps for the initial designation of national cycling networks, and which could be applied by countries which neither have procedure in place nor experience in designating cycling networks.

2. GE.5 provided comments on the guide and requested the secretariat to present the updated guide at its third session.

3. This document presents the updated guide. This document keeps placeholders for cycling infrastructure types and their parameters which should be applied to constitute the network and other placeholders for GE.5 recommendations pending discussion on the parameters.

4. GE.5 is invited to consider this document and elaborate it further as deemed necessary.

II. Setting objective

5. Cycling networks should be an important component of a mobility strategy of a country, region or a municipality. They need therefore to be, if not done so yet, an integral part of the infrastructure and mobility plans.

6. The designation of the cycle route network depends on the geographical area that is concerned and should focus on the relevance of the connections at the dedicated scale. Any pre-existing networks including the networks at the municipality and regional levels should be taken into account for detailed designation of intercity and inter-points-of-interest connections as part of the national network. When existing, higher-level cycle routes networks, such as international networks, e.g. EuroVelo, should serve as a backbone for national cycle route network. In such a way, the network is able to serve various types of

users both as a whole or at its different sections. Such network would support the everyday commuting and leisure needs of the population. It can also support the tourism offer of a country or region. At the same time, it is noted that commuting cycling routes and tourism or leisure routes may at some sections be separated so that each of them can serve their distinctive functions.

7.   Therefore, when designating a cycling network at a national level, there should be a full clarity and understanding as to:

- types of users of the network,

- needs and priorities the different types of users have, and

- types of infrastructure the different users need.

8.   When it comes to cyclists, one can differentiate between everyday, leisure or tourist cyclists. At the same time, within the three groups, one can differentiate by their experience or ability to cycle or by the type of cycle they use.

9.   There are numerous and different needs and priorities that cyclists may have across the different groups of users. Among them, e.g.:

- safety: the cycling route has to be safe both in terms of interaction with motorised traffic (external interaction), with other cyclists (internal interaction) or between the cyclist and the infrastructure,

- security: the cycling route should offer a good degree of personal security by providing frequent access points, lighting and passive surveillance as far as possible,

- directness: the cycling route should allow for a most direct, short connection between two places unless the route is designed for cycling leisure or tourism purposes, in which case directness should be considered from the angle of the attractiveness objective; the latter also applies when a route follows a geographical corridor (along a river valley or overpassing a mountain for example).

- continuity: the cycling route should be uninterrupted, well connected and signposted,

- attractiveness: the cycling route crosses through recommended points of interests, and

- comfort: the cycling route allows easy use (no steep slopes; clear signage, access to facilities, connectivity to public transport, rest areas and equipment along the route) and comfortable flow of traffic.

10.   There are different types of cycling infrastructure developed and operated in accordance with specific parameters. Depending on the infrastructure type and its parameters it can be suitable to serve more some user needs and their priorities rather than other from the list above.

11.   Availability of the already existing infrastructure which can be used by cyclists, or which would need to be adapted to the needs of cyclists is another important aspect in developing cycling network and in taking a decision on what specific type of infrastructure (and with which parameters) would be the most appropriate one, also from the angle of the investment needs, in constituting the network.

12.   Generally, different cycling infrastructure types can be clustered into three groups, as below, to specify when cyclists could use the available road infrastructure depending on volumes and speed of motorised traffic.

13.   These three clusters are:

- Cycle tracks (including greenways)

- Cycle lanes (including bus-and-cycle lanes and contraflow cycle lanes)

- Mixed traffic (including cycle streets, streets with contraflow cycling, agricultural / forestry / industry / water management roads, other mixed traffic arrangements).

14.   This analysis could be further reinforced by taking into account additional factors such as e.g. volume of cycling traffic but also other factors.

15.   In situations, where the cycling traffic is significant, while the motorized traffic is low, an earlier built road serving motorized traffic can be reclassified for example to a cycle street in the process of cycling network development. In such a case, the road will continue serving a mixed traffic, however it will give priority to cyclists over other users.

16.   It is important that directives are put in place to clarify when mixed traffic is not appropriate and should not be allowed. They should assist in prioritizing investments needs for upgrading infrastructure on a planned network.

17.   As stated above, the designation of the cycling network is a complex task. It should follow therefore a comprehensive and structured process. Steps recommended in this process are listed and explained in section III.

III.   Steps in designating the cycling network

18.   The following steps are recommended to be followed for designating cycling infrastructure at the national level:

Step 1:   Declaring the ambition and set up a team for designating the cycling network at the national level and commence informal consultations with various stakeholders.

Step 2:   Set objectives for the cycling network service – define destinations and points to be connected, define users, their needs, and ways to address them, also define principles regulating the cycling network.

Step 3:   Assess available routes and existing infrastructure – identify what cycling routes exist at different administrative levels and of what type, which can constitute national cycling network according to principles defined at step 2 as well as evaluate available infrastructure which can be adapted to meet the cycling network guidelines.

Step 4:   Define criteria for use of specific infrastructure type on the network.

Step 5:   Designate the network – draw the network and identify links to other networks as necessary.

Step 6:   Hold formal public consultations – involve administrative bodies, public, cycling organisations and associations and collect and consider their feedback on the network as well as redesign options.

Step 7:   Detail the network and indicate the missing links or network section for improvement to achieve the criteria set up in steps 2 and 3.

Step 8:   Approve the cycling network and implement it.

Step 9:   Monitor and follow the evolution of the network.

Step 1:   Declare the ambition and set up the team:

19.   The relevant authority should officially declare its ambition before starting to implement the different steps leading to a National Cycle Route Network. Depending on the administrative organisation of a country, and to have a good in-sight into the work done at various administrative levels (municipality, provinces, etc.), it should be considered to set up a team consisting of experts from various administrative levels. The team, if possible, may also include experts from cycling associations and industry. The team should identify stakeholders, not part of the team, including representatives of the public, who it would work with and consult on solutions proposed throughout the network designation process.

20.   Another way of approaching this step is by setting up a core team for the designation of the network and separate technical groups of experts and advisory group of cycling agencies and industry to provide targeted advice in support of the core team's work. The core team should also identify additional stakeholders, including representatives of the public, who it would work with and consult on solutions proposed throughout the network designation process.

[Placeholder for specific GE.5 recommendation]

Step 2: **Set objectives for the cycling network service, define destination and points to be connected and principles:**

21.   In this step, the objectives as discussed in section II should be considered and defined. This step should also include defining general principles to be followed in establishing national network, through which the purpose of network uniformity be achieved. Such principles can concern e.g. trans-regional aspect of a national cycling route or its minimum length. Also, the density of the network should be considered. These principles need to be set up separately country by country, as there is no one-fit-all set of principles and often they depend on administrative organisation of a country, its territory and population. Consideration needs to be given to destinations and points of interests that the future network should connect so as to serve best its users. At sections, where and as necessary, routes serving commuters and routes serving leisure and tourists cyclists should be separated.

22.   As any network should follow the priority for safety, criteria need to be set up for achieving adequate safety level taking into consideration the external (with motorised traffic) and internal (among cyclists) interactions as well as the cyclist interaction with the infrastructure.

23.   Legislation and policies should be examined on user classification, separation requirements in place/in force.

24.   When existing, higher-level cycle routes networks, such as international networks e.g. EuroVelo, should be included in national cycle route networks.

[Placeholder for GE.5 recommendations for:

(a)   user classification – see section III and table 1 of Informal document (WP.5/GE.5) 2023 No. 2

(b)   separation of cyclists from motorised traffic – see section IV and table 2 of Informal document (WP.5/GE.5) 2023 No. 2, and

(c)   separation between types of cyclists and classification of routes – see section III and table 1].

Step 3: **Assess available routes:**

25.   The aim of this step is to obtain an up-to-date status of the existing cycling infrastructure and relevant services (access to facilities, connectivity to public transport) existing and already connecting the destinations and the points of interests identified in step 2 as well as identify missing links.

26.   In this context, it is also important under this step to assess available road and other infrastructure that could be used or adapted and used for safe and comfortable cycling. This would involve assessment of ordinary roads or special roads such as service roads, or evaluation of river valleys, canal towpaths or even unused railway lines on their appropriateness for locating cycling routes. The assessments should be data driven and different sources of data should be used. The volumes of cycling and motorists traffic data as well as mobility patterns should be an important part of the analysis. Market research, as far as feasible, may also be conducted to collect views on mobility patterns and needs from a representative sample of society.

27.   Moreover, the evaluation should encompass for each cycling route or its section the type of the infrastructure and its parameters. It is recommended that this information is collected and stored in the Geographic Information System (GIS) environment.

[Placeholder for GE.5 recommendations on the classification of types of cycling infrastructure and the parameters – see section V and tables 3 and 4 of Informal document (WP.5/GE.5) 2023 No. 2]

Step 4: **Define usage criteria:**

28. The aim of this step is to define the types of infrastructure for the network (if not done so yet), and the values of their parameters. Furthermore, depending on the route classification as a function of their primary users, the parameters can be defined for different classes of routes/their primary users.

29. Legislation and standards in place should be examined. Efforts should be made to introduce binding standards in the country.

> [Placeholder for GE.5 recommendations with parameter values for selected types of infrastructure and proposed user/route classification – see section V and tables 3 - 6 of Informal document (WP.5/GE.5) 2023 No. 2]

Step 5: **Designate the network:**

30. The aim of this step is to designate an achievable cycling network at the national level taking into account:

- the defined objectives, criteria and classifications,

- the existing infrastructure, and when necessary, the indications for upgrade.

31. The network plan should be drawn up in GIS environment.

32. When drawing it, the following issues should be re-analysed in connection with the objectives set for the network:

- connectivity to important urban, employment and education centres at national and regional level,

- linking to the important tourist attractions,

- route attractiveness – along waterways, in nature,

- route comfort (inclination),

- connectivity to public transport,

- cross-border-connectivity, especially with transnational cycle routes such as EuroVelo.

> [Placeholder for other specific GE.5 recommendations]

Step 6: **Hold formal public consultations:**

33. While informal consultation should, as far, as possible, take place at any step of the process in designating the network, formal public consultations is an important step to collect the feedback on the network but also to correct its design from the future users, public at large from own as well as neighbouring countries and other important stakeholders, including the local communities and administration through which the network would cross. For the connectivity across borders, also administration from neighbouring countries should be consulted.

34. Public consultation and public participation may be in any case a requirement as per national legislation in force, in particular for countries, Contracting Parties to the Aarhus Convention.

35. Through the public consultation the following should be confirmed:

- is the network meeting the expectations and requirements of the stakeholders,

- does it support cycling for commuting

- does it support cycling for leisure or tourism purposes

- does it encourage an uptake in cycling,

- other.

> [Placeholder for specific GE.5 recommendations]

Step 7:   **Detail the network**

36.   The aim of this step is the preparation of a detailed plan for the development and maintenance of the network, including assurance of funding. For the development phase the focus needs to be given to putting in place an achievable plan for construction of the missing links and for upgrades of the available but deficient infrastructure. The construction plan should detail sections of the network prioritized for development, i.e. assign priority for development linked to annual funding disbursements, it should also identify responsible bodies and shared responsibilities for implementation. Sections of networks to serve highest traffic volumes or improving cyclist safety should be prioritized for development.

37.   The step should also incorporate preparation of legislative acts, if not yet available in the country, for introducing binding standards.

38.   The plan should be supported by the information and analysis of benefits for the society from investments in cycling and its network.

        [Placeholder for specific GE.5 recommendations]

Step 8:   **Approve the cycling network and implement it**

39.   The aim of this step is the approval of the network development plan at the government level and assurance of funding for its implementation. It is also the adoption of the legal acts and standards and their publication.

        [Placeholder for specific GE.5 recommendations]

Step 9:   **Monitor and follow the evolution of the network**

40.   The aim of this step is to define a framework for the future monitoring and evolution of the network over time. It should take into account the principles defined in step 2 and consider the governance established in step 1. The implementation and progress of the national cycle route network should be based on GIS data according to step 5.

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