



A Roadmap for Municipalities on Bicycle Transportation Workshop

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Turkey's first bike infrastructure related regulation, which was prepared by the Ministry of Environment and Urbanization in 2015, "Regulation on the Design and Implementation of Bike Lanes, Bike Stations and Bike Parks in Urban Roads" (Bike Regulation) is one of the most significant initiatives on constructing cycling infrastructures in our cities. Therefore, various ministries, particularly Ministry of Environment and Urbanization, have supported this initiative with incentives.

Despite all these initiatives and effort, currently, there aren't any cycling infrastructures designed and implemented as an integrated network. In addition to this, the rate of bike usage in modal split is relatively low. These circumstances bring the questions of "How can bicycle be adopted by everyone as a mode of transportation?", "How did the cities that serve good examples of cycling infrastructure manage it?", "What are the cities that are trying to develop their cycling infrastructure doing about this topic?" and "What are our cities doing on this topic and what else can we do in the future?" Taking these questions into consideration, the "A Roadmap for Municipalities on Bicycle Transportation Workshop" was planned and organized to discuss with the representatives from municipalities, who are the main implementers of this cycling infrastructure, what they see as opportunities, barriers and impacts in this field, and to generate and propose solutions.

OBJECTIVES

Although local and central governments have promoted cycling for years, it was never perceived as a mode of transportation but as a type of recreation and sports. Despite the Ministry's calls for grants, transportation oriented, safe and integrated bike networks couldn't be implemented properly.

At the workshop conducted by WRI Turkey Sustainable Cities, with the supports of Ross Philanthropies and Transformative Urban Mobility Initiative (TUMI), the following was aimed:

- Determining the problems that the municipalities face during the bicycle transportation planning.
- Determining the difficulties before the cycling infrastructure for transportation.
- Determining the problems that the implementation units face during the implementation.
- Identifying the factors that will raise the awareness in traffic and promote bike usage.
- Developing solutions for the topics with collective thinking.

The aim of this report, prepared based on the discussions and recommendations from the workshop, is to support both local and central governments on their policy and plan development efforts on cycling.

Within this context, WRI Turkey Sustainable Cities carried out the workshop with twenty-six participants from fifteen municipalities who are the experts of the topic. In addition to this, three representatives from the central government, which are Ministry of Environment and Urbanization and Ilbank, showed their support by giving presentations and taking place in group works. Within the scope of the workshop, Consul General of the Netherlands in Istanbul Bart Van Bolhuis and WRI Ross Center for Sustainable Cities Health & Road Safety Manager Ben Welle gave presentations addressing the examples across the globe and answered the technical questions of the participants. Lastly, four observers from the Netherlands Istanbul Consulate General, GIZ Turkey and Bloomberg Initiative for Global Road Safety participated in the workshop.

CURRENT SITUATION OF BICYCLE TRANSPORTATION IN TURKEY

Within the scope of the current situation of cycling in Turkey, information on length of bike lanes in km and bike-sharing systems, legal regulations on the topic, and current and previous incentives were covered.

In order to evaluate the current situation of cycling in Turkey, we primarily made a literature review and interviewed several municipalities. Within the framework of these interviews, we detected that there are bike lanes in thirty-four cities in Turkey. In some of these cities, the cycling infrastructure is at a limited level, however these implementations carry great importance to develop infrastructure in terms of promoting cycling.

The cities that have bike lanes were invited to the workshop and were asked to provide the data on their bike-sharing systems such as the length of bike lanes in km, the number of bike sharing system's stations, the number of bikes at the stations, the number of monthly and yearly bike users. A follow-up chart was made on the day of the workshop and part of the incomplete and noncurrent data were filled with the help of the participants. In terms of the length of bike lanes in kilometers, Konya and in terms of sharing systems, Istanbul come to the forefront as the most bicycle transportation friendly cities.

Current length of the bike lanes according to the cities (km)



Adıyaman 5,5 km	Denizli 37 km	İstanbul 160 km	Konya 515 km	Ordu 6,5 km	Tekirdağ 1,4 km
Antalya 20 km	Eskişehir 65 km	İzmir 60 km	Mersin 7 km	Sakarya 57 km	Trabzon 8 km
Çanakkale 16 km	Gaziantep 54 km	Kırşehir 15 km	Osmaniye 1 km	Samsun 20 km	

Within the scope of the study, we concluded that the existence of bike lanes and bike-sharing systems don't always correspond to each other. It is determined that Istanbul has the most widespread network in terms of bike-sharing systems. Konya, Kayseri and Izmir follow Istanbul.

Current bike-sharing systems according to the cities (stations)



Antalya 6 stations	Gaziantep 7 stations	İzmir 32 stations	Kocaeli 15 stations	Malatya 1 stations	Muğla 4 stations
Çanakkale 11 stations	İstanbul 141 stations	Kayseri 24 stations	Konya 46 stations	Mersin 6 stations	Ordu 18 stations
Eskişehir 13 stations					

LEGAL REGULATIONS

The most significant legal regulation on cycling infrastructure and bike-sharing system in Turkey is “Regulation on the Design and Implementation of Bike Lanes, Bike Stations and Bike Parks in Urban Roads”. In addition, “Highway Traffic Act”, “Law on Land Development, Planning and Control”, and “Regulation on Strategic Spatial Plan” are also significant legal regulations on implementing cycling infrastructure and bike-sharing systems. Projects about cycling infrastructure and bike-sharing systems should be mentioned in transportation master plans, implementation plans and urban design projects.

TO HAVE BIKE LANES AND BIKE PARKS IN IMPLEMENTATION PLANS WILL BE OBLIGATORY AS OF 1 JUNE 2019.

Current acts, standards, regulations and plans

Acts / Standards / Regulations / Plans	Parts Related to Cycling
HIGHWAY TRAFFIC ACT (6047)	Highway Traffic Act includes the descriptions of terms such as bike lane, bike and electric bike. It also includes the title of rules regarding moped drivers and motorcyclists. Article 3, Article 37, Article 66, Article 103 of the Act are directly; Article 53, Article 68 are indirectly related to the topic.
TURKISH STANDARDS INSTITUTION - STANDARDS	Current standards regarding bicycle as a mode of transportation are in the following: <ul style="list-style-type: none"> ■ TS 10839: Design Criteria of Cycle Road Function Crossings in Urban Roads / March 2013 ■ TS 11782: Cycle Parking Design in Urban Areas / March 2013 ■ TS 12576: Urban Roads - Structural Preventive and Sign Design Criteria on Accessibility in Sidewalks and Pedestrian Crossings / June 2012 ■ TS 7249: Dimensioning and Design Principles of Urban Roads / March 2013 ■ TS 9826: Urban Roads - Cycle Roads / March 2013

	<p>In addition to this, "Bike Regulation" directs to the related standards when necessary:</p> <ul style="list-style-type: none"> ■ "In case of a bike lane on the sidewalk, the width of the sidewalk minus the bike lane is determined according to the minimum conditions in TS 12576. ■ "While planning new residential areas, with the texture and geographical features of the land taken into account, the width of the urban road appropriate for a bike lane is planned by adding the minimum bike lane width stated in TS 9826 standard." 															
<p>REGULATION ON STRATEGIC SPATIAL PLAN</p>	<p>"Regulation on Strategic Spatial Plan" determines the procedures and principles concerning the production and implementation of spatial plans from every type and scale. This regulation also involves the procedures and principles related to the plans for special purpose and projects such as transportation master plans.</p> <p>The regulation contains parts such as spatial strategy plan, territorial development plan, master plan, implementation plan, conservation master plan, integrated coastal zone planning, urban design project. The principles that the plans are based on, the data obtained from the planning and research topics of the planning are covered in every part. With the regulation, the spatial plan staging is clarified and its relation with other master plans (transportation masterplan, integrated coastal area plan, long term development plan) is established.</p> <p>In accordance with the Regulation on Strategic Spatial Plan, and as stated in the bike regulation, only implementation plan and transportation master plan can include the demonstrations related to bikes.</p> <p>ANNEX-1d Implementation Plan Demonstrations</p> <table border="1" data-bbox="496 981 1369 1173"> <thead> <tr> <th></th> <th>LINE TYPE</th> <th>SYMBOL</th> <th>HATCH</th> <th>ZONE COLOUR CODE (RGB)</th> </tr> </thead> <tbody> <tr> <td>BIKE LANE</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BIKE PARK</td> <td></td> <td></td> <td></td> <td>255/229/207</td> </tr> </tbody> </table>		LINE TYPE	SYMBOL	HATCH	ZONE COLOUR CODE (RGB)	BIKE LANE					BIKE PARK				255/229/207
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<p>REGULATION ON THE DESIGN AND IMPLEMENTATION OF BIKE LANES, BIKE STATIONS AND BIKE PARKS IN URBAN ROADS</p>	<p>Regulation on the Design and Implementation of Bike Lanes, Bike Stations and Bike Parks in Urban Roads (Bike Regulation) entered into force in 2015 to "convert cycling as a mean of transportation in urban roads".</p> <p>Bike Regulation regulates the procedures and principles regarding the planning, designing, making and managing of bike lanes, bike stations and bike parks.</p> <p>In accordance with the regulation, the bike lanes are shown on the implementation plan and, if any, on transportation master plan which are made according to the Regulation on Strategic Spatial Plan.</p> <p>Regarding the topic of bringing current bike lanes in compliance with the regulation, the Regulation also states in a provisional article that "within 5 years, current bike lanes shall be adjusted according to the provisions of the Regulation."</p>															
<p>TRANSPORTATION MASTER PLAN</p>	<p>Bike lanes, bike stations and bike parks shall be shown on the transportation master plan of the city (if any).</p>															
<p>IMPLEMENTATION PLAN</p>	<p>Bike lanes, bike stations and bike parks shall be shown on the implementation plan of the city which is made in accordance with the Regulation on Strategic Spatial Plan.</p> <p>The articles concerning the demonstration of bike lanes in the implementation plan of the Regulation on Strategic Spatial Plan:</p> <ul style="list-style-type: none"> ■ Providing that the number of general traffic lanes won't be reduced and the related TSI standard will be taken into consideration, the width of the parts of roadways divided for the use of pedestrians, disabled and cycling can be increased in the implementation plan without the need of any change in the masterplan. ■ Development of implementation principles regarding the pedestrian and bike lanes and bike parks in implementation plans is essential. 															

INCENTIVES

With the Regulation that entered into force in 2015, several incentive mechanisms were put in action. The ministries that have actively provided/still providing incentives are Ministry of Health and Ministry of Environment and Urbanization. Aforementioned incentive programmes are listed below:

Incentives provided by the ministries

Related Ministry	Incentive Program	Content
MINISTRY OF HEALTH	PROMOTION OF PHYSICAL ACTIVITY PROJECT (2015-2018)	<ul style="list-style-type: none"> The target group of this project provided by the General Directorate of Public Health is determined as children-schools, universities and municipalities. (sağlık.gov.tr, 2015) It is aimed to distribute 1 million bikes within the scope of the project. In this regard, primarily 10 thousand 589 bikes were given to the schools that are under the maintenance of the Ministry of National Education and that have opened optional sports and physical activity courses and have implemented "bicycle module" courses for 5th, 6th and 7th grades. In this context, bikes were distributed to 30 metropolitan municipalities.
	TURKEY HEALTHY DIET AND ACTIVE LIFE PROGRAMME (2014 – 2017)	<ul style="list-style-type: none"> The aim of the project is to provide physical activity opportunities in order to get the citizens to adopt the habit of physical activity and to improve and popularize these activities. Under the guidance of Public Health Administrations, walking events were organized with the participation of the designated target groups on the last Sunday of every month. Within the scope of "Promotion of Physical Activity and Improving Environmental Factors", the activity of "designing local areas for pedestrians and disabled people while prioritizing implementation of bike lanes in order to promote active transportation" is defined. (Vardar, 2015)
MINISTRY OF ENVIRONMENT AND URBANIZATION	FINANCIAL SUPPORT PROGRAMME FOR THE MUNICIPALITIES TO IMPLEMENT BIKE LANES WITH THE PURPOSE OF POPULARISING CYCLING	<ul style="list-style-type: none"> Ministry of Environment and Urbanization has started a financial support programme for the municipalities to use in the implementation of bike lanes in order to popularize cycling. It is expected that the total length of the bike lanes implemented with this programme will be 91 kilometers. The Ministry has approved 11 of the projects from a technical aspect. A total of 7 million 518 thousand Turkish liras was provided as financial support to bike lane projects in Kocaeli, Ordu, Sakarya, Yozgat, Erzurum, Nevşehir, Tokat, Erzincan, Kilis, Malatya and Kahramanmaraş Municipalities, Atatürk University campus and other universities (Hürriyet Gazetesi, 2018).
MINISTRY OF ENVIRONMENT AND URBANIZATION AND ILBANK	100-DAY ACTION PROGRAMME (2018 – 2023)	<p>Within the scope of Presidency's Action Programme:</p> <ul style="list-style-type: none"> 6.000 km long bike trails and walking trails (3.000 km of that will be bike trails) 60 km eco-friendly street and 60.000 m² noise barrier will be erected.

BICYCLE AS A MODE OF TRANSPORTATION IN TURKEY FROM THE PERSPECTIVES OF LOCAL GOVERNMENTS

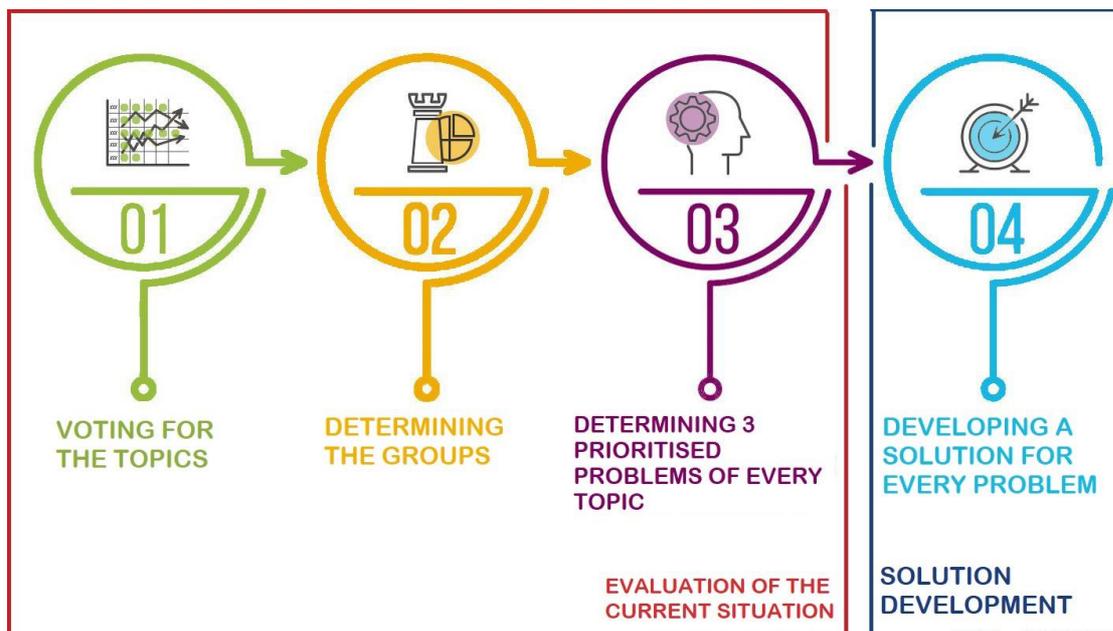
METHOD OF THE WORKSHOP AND PRIORITISING OF THE TOPICS

The workshop started with presentations on the good implementation examples from across the globe and the current situation in Turkey to shape the discussions aiming to identify the problems before cycling and generate solutions for them in the afternoon.



After the presentations, the workshop was implemented in two main stages, “Evaluation of the Current Situation” and “Generating Solutions”.

Implementation steps of the workshop



Within the scope of the Evaluation of the Current Situation, in order to identify the most significant problems before the popularization of cycling according to the participants, the participants were asked to write down on post-it the problems they have faced when developing bicycle as a mode of transportation.

The problems that were written by the participants are distributed under ten topics of the evaluation table which covers bicycle transportation and was prepared by the WRI Turkey Sustainable Cities, based on their experience on cities. The problems detected by the participants and their related main topics are below.

Main topics of the evaluation table and the problems detected by the participants

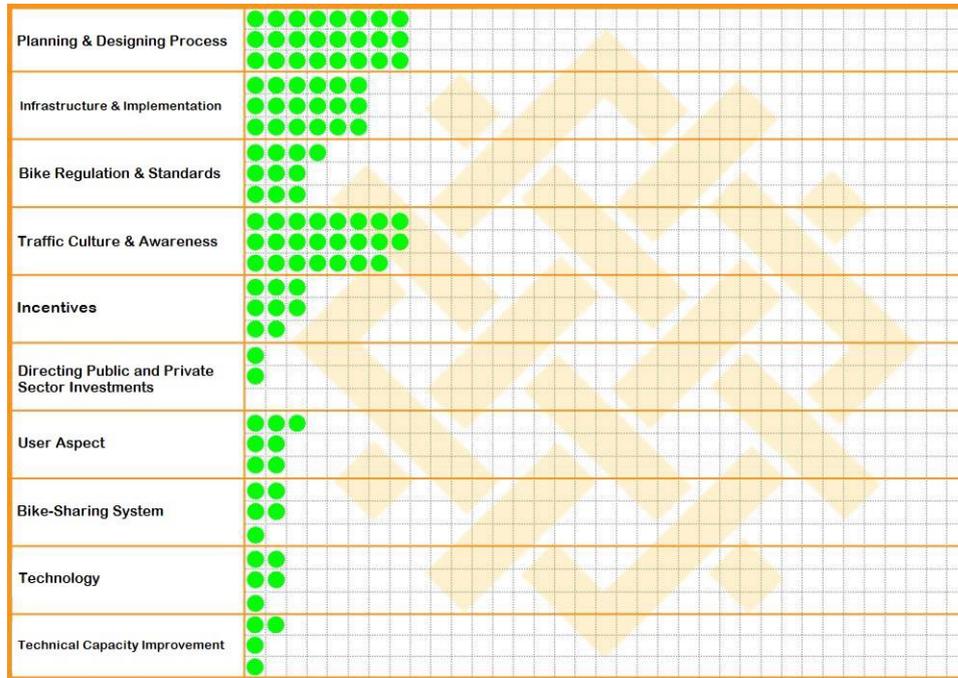
Main Topics	Description	Problems identified by all the participants
Planning & Designing Process	The coordination between local and central governments, determining bicycle as a mode of transportation in an integrated and interactive manner with other modes of transportation and including bike lanes on the plans...	<ul style="list-style-type: none"> ■ Insufficient Common Use Reserve from Re-division rates: The fact that Common Use Reserve from Re-division is at 40-50% is a negative feature. This rate can go up to 60-70% at the Northern European countries. The rate should be higher for us as well. ■ Transport engineers and urban planners don't work on the planning process together. ■ Failure to provide integrity in planning. There is a lack of an elaborate guideline on the topic. ■ The ambiguity on who is the authority on bicycle transportation.
Infrastructure & Implementation	Continuity of road infrastructure, intersection design, integrated design, lighting, material selection, traffic signs and maintenance works...	<ul style="list-style-type: none"> ■ Lack of arrangement in paint, color, traffic signs and markings. ■ Expropriation prices are exceptionally high, especially in city centers. ■ Bike parks are not planned well. ■ Barriers are not placed in front of the garage entrances. ■ Boxes of infrastructure systems such as electric and communication, lighting poles and trees on the sidewalk constitute problems regarding bike lane implementation on available sidewalks. The irregular placement of the aforementioned items on the sidewalk. ■ Single lane roads get narrower when bike lanes are implemented on available roadways. As a result, implementing one-way bike lanes, and also on double lane roads, the necessity of reducing the roadway to a single lane because of narrowing.
Bike Regulation & Standards	Regulation and standards developed for bike lanes, bike stations and bike parks...	<ul style="list-style-type: none"> ■ Bike Regulation is not visible enough on the Internet. ■ The non-applicability of bike lanes in every part of the city in compliance with the regulation. ■ Law on Land Development, Planning and Control numbered 3194 does not cover all types of residences/settlements. ■ The necessity of a revision of the shared bike lane-roadway standards.

		<ul style="list-style-type: none"> ■ The ambiguity of which type of barrier shall be used in regulations of bike-pedestrian and bike-vehicle. ■ The diagrams in the Bike Regulation are inconsistent and not explanatory enough. ■ The inconsistencies between road sizes and standards. ■ In some cases, it's necessary to think bike lane design in line with pedestrianization projects, however, there are no guiding instructions for this. ■ The necessity of being flexible on the Regulation's articles that can change with technological developments (such as Parking Facility Standards etc.)
Traffic Culture & Awareness	Integration with education, communication campaigns, large scale activities to raise public awareness...	<ul style="list-style-type: none"> ■ Bike lanes are used as parking areas by vehicles. ■ Nearly all road users, especially vehicle drivers, have negative opinions on cycling infrastructure. ■ Lack of awareness of not only drivers but also cyclists and pedestrians in traffic.
Incentives	Grants/Incentives for cycling infrastructure, supplementary technical education for incentives, reward systems for people who prefer cycling/bike-sharing system over motor vehicles...	<ul style="list-style-type: none"> ■ There are no incentives for education. ■ There is no public transportation discount for cyclists. ■ There are no dressing rooms or showers for people who intend to commute by bikes. Lack of interest shown on the topic by the employers. ■ The incentives are not inclusive enough, for example, projects cannot be prepared for places that have problems with housing.
Directing Public and Private Sector Investments	Development of an economic model concerning cycling (bicycles' role as a first and last mile connection, the increase in the demand of the main transportation systems and the evaluation of the impact that it has on the economy and investments) ...	
User Aspect	Factors that promote cycling, climate and topographical conditions, factors that discourage cycling and traffic control...	<ul style="list-style-type: none"> ■ Lack of investments to discourage the citizens from using private motor vehicles. ■ The speed bumps on the roads hinder cycling and pose dangers for cyclists. ■ Unsafe roads. ■ Vehicle parking on the roadsides and lack of audit to prevent this.
Bike-Sharing System	Bike renting system, its integration with public transportation ticketing system and the placement of the bike-sharing stations...	<ul style="list-style-type: none"> ■ Bike-sharing system isn't considered integrated with the transportation system, and therefore it is not planned in an integrated way. ■ Lack of conveniences provided with the pricing for changes between transportation modes. ■ Bikes within the sharing system are damaged by the users and there is a lack of enforcement on this issue. ■ Bike stations are tourism and recreation oriented.

Technology	The place of technology in the development of bicycle as a mode of transportation, new implementations...	<ul style="list-style-type: none"> ■ Lack of development in bike technology such as hybrid bikes which ease the use when the topography is inclined.
Technical Capacity Improvement	Supplementary technical education for local governments (decision makers/technical staff) and private sector (implementers), field works and experience sharing through peer learning...	<ul style="list-style-type: none"> ■ Lack of information sharing platforms that can bring municipalities' implementation units both from the country and abroad that are working on this topic. ■ Lack of support for the local governments on the preparation of technical projects.

The purpose of the evaluation table is to determine the prioritized topics on cycling. In accordance with this purpose, all participants were asked to vote on the ten topics of the evaluation table in an order of priority and as a result of the voting, the order of priority below has ensued.

Evaluation table



According to this, the most significant topics for the participants that are opened up to discussion are in order below:

- Planning & Designing Process (24 votes)
- Traffic Culture & Awareness (23 votes)
- Infrastructure & Implementation (18 votes)
- Bike Regulation & Standards (10 votes) and
- Incentives (8 votes)

Non-prioritized topics with less votes are: User Aspect (7 votes), Bike-Sharing System (5 votes), Technology (5 votes), Technical Capacity Improvement (4 votes) and Directing Public and Private Sector Investments (2 votes)

EVALUATION OF THE TOPICS

Afterwards, groups of 6-7 people were formed for the prioritized five topics of the evaluation table. In every group, there was a moderator from WRI Turkey Sustainable Cities and a reporter from the participants. The groups first discussed the problems determined by all of the workshop participants that are under their topics and then, from these problems, determined 3 prioritized problems and generated solutions for these problems.

PLANNING & DESIGNING PROCESS	
	
PROBLEMS	SOLUTIONS
<p>Impact/ Intention/ Demands of political decisions on planning</p>	<ul style="list-style-type: none"> ■ “Champions” should be selected from political leaders that pay attention to cycling. These champions can be selected from mayors or from transportation department directors. ■ A share should be reserved from the transportation investments for cycling. These investments should aim to make the citizens prefer not to use private vehicles in their daily lives. ■ Policies on cycling should become an “obligation”. For example, an obligation to cities to “implement 30 km long cycling infrastructure every year.” ■ In the upper scale, policies should be developed in inclusive topics such as “road safety” and the implementations should be associated with these inclusive policies.
<p>Plans don’t correspond to each other. A conflict of powers ensues because of this.</p>	<ul style="list-style-type: none"> ■ Central and local governments should be coordinated. ■ Masterplans, transportation master plans, implementation plans should correspond to upper scale plans, the plans should be prepared in an integrated way. ■ Cycling infrastructure shall be planned to constitute an integrated network. Ministry and municipality units should be involved in the planning process and afterwards, the projects should be created in compliance with this plan. ■ The implementation of the Bike Regulation should be ensured. Furthermore, typical projects should be created according to the street cross sections for the team that prepares the bike project.
<p>Plans and implementations don’t correspond to each other</p>	<ul style="list-style-type: none"> ■ A lot of problems are encountered during the planning process and there is a lack of audit in the implementation process. Therefore, “audit units” like transportation commissions should be created. If possible, the members of this unit should be from different stakeholders and municipal staff shouldn’t be included in this unit. ■ During the planning process, from lighting to drainage system, everything should be planned down to the last detail.

INFRASTRUCTURE & IMPLEMENTATION



PROBLEMS

SOLUTIONS

Lack of knowledge in implementation

- A cycling infrastructure and implementation guide should be prepared specifically for Turkey.
- A workgroup should be formed with experts from different municipalities that are working on this topic. Union of Turkish Municipalities o (UoTM) can undertake the financing and the organization of this workgroup.
- Several institutions and research organizations can be used as intermediaries for this.

Lack of coordination in in-house and among institutions

- Metropolitan municipalities and district municipalities work separately and as a result, this creates a disconnection, especially in implementation. For this, necessary and related units should come together and form an approach regarding the organizational structure.
- Pedestrian and cycling unit should be formed in municipalities.

Lack of an integrated design approach

- Implementation plans and transportation master plans should be coordinated and interdisciplinary work should be conducted.

TRAFFIC CULTURE & AWARENESS



PROBLEMS

SOLUTIONS

Lack of education

- Both drivers and cyclists don't know the rules of cycling.
- Other road users don't notice the bike lanes. Especially pedestrians use the bike lanes.

- Education on this topic should be given not only in traffic education parks but also in schools. There should be applied bike lessons, just like traffic lessons, starting from primary school.
- An education action plan on cycling rules and culture should be prepared and implemented.
- Education and informing works should be supported with audits and enforcements.
- Education programmes on cycling rules and culture should be prepared for all ages across the country.
- Modules on how to act in traffic towards other road users should be added to driver trainings (which should also have cycling).
- Road users should be given an education on empathy.

Lack of activities for raising awareness on bicycle transportation

- Telling people to "ride bikes" without educating them on bikes.
- Lack of awareness regarding education and bike tracks.
- Lack of cycling infrastructure hinders the development of awareness regarding bikes.

- Public bodies and institutions should regularly (monthly etc) support campaigns such as "Cycle to work day". Bike-sharing system could be free of charge for 1 day of every month.
- Public service ads should be prepared to inform people across the country and ensure respect towards cyclists in traffic. Studies on the importance of bicycle as a mode of transportation should be broadcasted/published on radio, TV and the Internet.
- Informing videos on cycling should be played on the screens of public transportation vehicles.
- Mass campaigns should be conducted for safe bike lanes.
- Bike lanes should be supported with extra warning and information signs. (For example: Don't walk on the bike lane, don't ride your motorcycle on the bike lane, etc)

Lack of coordination between public institutions and NGOs

- Lack of coordination between the public institutions
- Lack of coordination between the organizations
- The topic is not adopted city wide.

- It is necessary to ensure that the topic is adopted city wide (Municipality, Governorship, Directorate of Security, Ministry of National Education).
- A bicycle transportation platform should be formed, including all the public bodies/institutions and NGOs under the leadership of the governorship (giving the coordination to municipalities)
- This platform should meet regularly and should create a public opinion on cycling.

INCENTIVES



PROBLEMS

SOLUTIONS

The topic of incentives isn't gathered under one institution

- Incentives should be gathered under one institution and become one topic nationwide.
- Regarding the incentives, ministries, other public bodies/institutions, NGOs and similar entities should be included in a common organization chart.

Lack of standards concerning incentives: Insufficiency on raising awareness and knowledge-education on this topic.

- A standard and a guide should be prepared on incentives.
- The staff that prepares the user aspect of incentive file should be educated on tenders, budgeting, implementation process of building/construction, preparing a file/application.
- After the incentive, the last user should be educated on incentives (awareness, education).

The incentives on the current structure is not integrated with the technological infrastructure

- Technology should be considered in the topic of incentives and should be allocated a budget within this scope.
- While preparing incentive programmes and documents, technological infrastructure should be evaluated within this scope.

BIKE REGULATION & STANDARDS



PROBLEMS

SOLUTIONS

Revision of the regulation: It has several problems such as it isn't in compliance with the technological developments, the obligation of painting isn't very clear.

- In case of a request from the municipalities, only separation lines should be drawn beside the bike lanes.
- Changes should be made in the regulation when specific examples are given.
- It should be determined whether electric bikes with under 25 kw speed can use the bike lanes or not.
- The problems surfacing from different opinions of several ministries should be solved with coordination between said ministries.
- Bike lanes should be painted with different colors at the intersection transitions to enhance the visibility and there should be color codes determined for this.

Minimum standards regarding the physical barriers are not clear.

- The size standards of the physical barriers and their colors in terms of visibility should be determined.

The ambiguity of who has the right of way at the shared roads in the regulation.

- Right of way should be determined with using horizontal and vertical signing.
- It should be ensured that the audit teams carry out the necessary audits.
- Pedestrian crossings should be determined and necessary signing should be implemented on the bike lanes.
- Field audits should be carried out and the results should be shared to implement the regulation.

RESULTS AND EVALUATION

Through A Roadmap for Municipalities on Bicycle Transportation Workshop:

- Current situation of bicycle transportation, legal regulations and incentives were discussed,
- Problems regarding the current situation of bicycle transportation were determined,
- The users' opinions and suggestions on the Bike Regulation were asked,
- Solutions were generated for the problems detected on the previous topics.

Problems determined within the scope of the workshop and five main topics that should be prioritized are:

- Planning & Designing Process
- Traffic Culture & Awareness
- Infrastructure & Implementation
- Bike Regulation & Standards
- Incentives

Problems detected at the workshop

Planning & Designing Process	Infrastructure & Implementation	Traffic Culture & Awareness	Incentives	Bike Regulation & Standards
<ul style="list-style-type: none">• Effect/Intention/ Demands of political decisions on planning• Plans don't correspond to each other. Plans should be prepared in an integrated way.• Plans and implementations don't correspond to each other.	<ul style="list-style-type: none">• Lack of knowledge in implementation• Lack of coordination in in-house and between institutions• Lack of an integrated design approach	<ul style="list-style-type: none">• Lack of education• Lack of activities for raising awareness for bicycle transportation• Lack of coordination between public institutions and NGOs	<ul style="list-style-type: none">• The topic of incentives are not gathered under one institution• Lack of standards concerning incentives: insufficient knowledge-education• The incentives on the current structure is not integrated with the technological infrastructure	<ul style="list-style-type: none">• Revision of the regulation: It isn't in compliance with the technological developments• Minimum standards regarding the segregation lines are not clear• The ambiguity of who has the right of way at the shared roads in the regulation

“Bike Regulation & Standards” topic from the five prioritized topics of the participants clearly focuses on the Regulation and for this reason, it is separated from other four topics regarding problems and solutions.

With this in mind, “**Lack of coordination**”, which can be defined as the main problem determined at the workshop, is discussed under the “Bike Regulation & Standards” topic within the scope of “the ambiguity of who has the right of way at the shared roads in the regulation”. Other groups have objectified this problem as “Producing plans that don't correspond to each other”, “Lack of coordination in in-house and between institutions”, “Lack of coordination between public institutions and NGOs” and “The topic of incentives is not gathered under one institution”. “Forming pedestrian and cycling units” and “Adopting the topics citywide with the support of stakeholders such as the Municipality, Governorship, Directorate of Security, Ministry of National Education” as a solution to this problem. Therefore, “**Forming coordination units or platforms**” is essentially recommended.

The second problem after this is “**The defects of the planning process**”. Groups have defined this as “Plans and implementations don’t correspond to each other” or “Lack of an integrated design approach”. “**Forming audit units**” is the fundamental solution of this problem.

Solutions proposed at the workshop

Planning & Designing Process	Infrastructure & Implementation	Traffic Culture & Awareness	Incentives	Bike Regulation & Standards
<ul style="list-style-type: none"> In the upper scale, cycling infrastructure should become an “obligation” with being associated to policies such as “road safety”. Central and local governments should be in coordination. “Audit units” should be formed in order to prevent inconsistencies between the plans and implementation. 	<ul style="list-style-type: none"> Several institutions and research organisations can be used as intermediaries. A cycling infrastructure and implementation guide should be prepared specifically for Turkey. Workgroups should be formed. Coordination between plans should be ensured. 	<ul style="list-style-type: none"> An education action plan on cycling rules and culture should be prepared and implemented. Education and informing works should be supported with audits and enforcements. A bicycle transportation platform should be formed which includes all of the public bodies/institutions and NGOs under the presidency of the governorship. 	<ul style="list-style-type: none"> Ministries, other public bodies / institutions, NGOs and similar entities should be included in a common organisation chart. A standard and a guide should be prepared on incentives. While preparing incentive programs and files, technological infrastructure should be taken into account. 	<ul style="list-style-type: none"> The problems surfacing from different opinions of several ministries should be solved with coordination between said ministries. In order to implement the regulation, field audits should be carried out. Changes should be made in the regulation when specific examples are given.

“**Lack of knowledge and education**” is the third main problem determined at the workshop. The solutions generated for the problem defined as “Lack of knowledge in implementation” or “Lack of education” are “Preparing and implementing an education action plan regarding cycling rules and culture” and “Preparing a cycling infrastructure and implementation guide specifically for Turkey”. Therefore, general expectation from nearly all topics is on “**preparing a guideline**”. Another prominent solution suggestion is **getting the support of NGOs and research organizations that are experts of the topic**.

Solving these three problems detected within the scope of the workshop, to a large extent, provides the elimination of the main barriers before the popularization of bicycle as a mode of transportation.

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ANNEX 1: WORKSHOP SCHEDULE

Hour	Content
09.00 – 09.30	ENROLMENT AND BREAKFAST
09.30 – 12.30	<p>OPENING SPEECH AND PRESENTATIONS</p> <p>09.30-10.00 – Opening Remarks <i>Dr. Güneş Cansız - Director, WRI Turkey Sustainable Cities</i></p> <p>10.00-10.20 – Cities Safer by Design for Bicycling: Key Principles and Aspects of Creating a Safe and Healthy City for Bicyclist <i>Ben Welle - Health & Road Safety Manager, WRI Ross Center for Sustainable Cities</i></p> <p>10.20-10.40 – Bicycle Transportation in the Netherlands: Cycling in The Netherlands: How the Netherlands Became Known for Cycling <i>Bart Van Bolhuis – Consul General of the Netherlands in Istanbul, The Netherlands Istanbul Consulate General</i></p> <p>10.40-10.50 – Q&A</p> <p>10.50-11.10 – Overview to Cycling Infrastructure in Turkey: Current Situation, Incentives and Legal Frame <i>Merve Akı - Urban Mobility Director, WRI Turkey Sustainable Cities</i></p> <p>11.10-11.30 – Cycling Regulation in Turkey <i>Rukiye Özden - Civil Engineer, Ministry of Environment and Urbanization</i></p> <p>11.30-11.50 – Incentives Provided for Cycling Infrastructure in Turkey <i>Ali Rıza Demirel - Manager of Geographic Information Systems, İlbank</i></p> <p>11.50-12.00 – Q&A</p>
12.00 – 13.00	LUNCH BREAK
13.00 – 14.00	<p>WORKSHOP I: PREPARATIONS</p> <p>13.00-13.10 – Presentation of the Method of Workshop I</p> <p>13.10-13.20 – Voting for the Topics</p> <p>13.20-14.00 – Forming the Groups and Determining the 3 Main Topics</p>
14.00 – 14.20	COFFEE BREAK
14.20 – 15.40	<p>WORKSHOP II: GENERATING SOLUTIONS</p> <p>14.20-14.40 – Presentation of the Method of Workshop II</p> <p>14.40-15.00 – Proposing Solutions for the First Problem</p> <p>15.00-15.20 – Proposing Solutions for the Second Problem</p> <p>15.20-15.40 – Proposing Solutions for the Third Problem</p>
15.40 – 16.15	PRESENTATIONS AND CLOSING

ANNEX 2: LIST OF PARTICIPANTS

City	Institution	Title	Name
DENİZLİ	Denizli Metropolitan Municipality	Head of Transportation Department	Niyazi TÜRLÜ
DENİZLİ	Denizli Metropolitan Municipality	Planning and Implementation Branch Office Unit Supervisor	Hasan ARKUN
EDİRNE	Edirne Municipality		Ersin AL
EDİRNE	Edirne Municipality		Ersan MEŞHUR
ESKİŞEHİR	Eskişehir Metropolitan Municipality	Civil Engineer	Fulya PİNİCİ
ESKİŞEHİR	Eskişehir Metropolitan Municipality	Urban Planner	Gülden BOZBAY
GAZİANTEP	Gaziantep Metropolitan Municipality	Industrial Engineer	Duygu KARABAY DOĞAN
GAZİANTEP	Gaziantep Metropolitan Municipality	Urban Planner	Burcu KOÇ
İSTANBUL	İSPARK / UoTM	Transportation Administration Expert	Sedat BAYTAK
İZMİR	İzmir Metropolitan Municipality	Urban Planner	Dr. Özlem TAŞKIN ERTEN
İZMİR	İzmir Metropolitan Municipality	Urban Planner	Burak TÜMER
İZMİR	İzmir Seferihisar Municipality	Transport Expert	Doğukan ALKAN
KIRKLARELİ	Lüleburgaz Municipality	Deputy Mayor	Gökhan Kaya ATAY
KIRKLARELİ	Lüleburgaz Municipality	Director of Technical Works	Mehmet İBRİKÇİ
KIRKLARELİ	Lüleburgaz Municipality	Head of Municipal Police	Raif BIYIKTAŞ
KIRKLARELİ	Lüleburgaz Municipality	Mapping Technician	Alper DİNÇER
KONYA	Konya Metropolitan Municipality	Urban Planner	Aişe İÇLİ
MARDİN	Mardin Metropolitan Municipality	Head of Transportation Department	Erol BEŞE
MERSİN	Mersin Metropolitan Municipality	Urban Planner	Pelin Özserin ARUNDAR
SAKARYA	Sakarya Metropolitan Municipality	Branch Manager of UKOME	Bekir GÜNGÖR
SAKARYA	Sakarya Metropolitan Municipality	Director of Housing and Urban Development	Murat KARA
SAKARYA	Sakarya Metropolitan Municipality	Urban Planner	Fuat ÖZKAN
ŞANLIURFA	Şanlıurfa Metropolitan Municipality	Architect	Müslüm BİNGÖL
TEKİRDAĞ	Tekirdağ Metropolitan Municipality	Branch Director of Public Transportation and Planning	Fırat AKALTUNTAŞ
YALOVA	Yalova Municipality	Director of Transportation Services	Kaan DUMANTEPE
YALOVA	Yalova Municipality	Technical Team Manager	Tunç GÜNGÖR
ANKARA	İbank	Manager of Geographic Information Systems	Ali Rıza Demirel
ANKARA	Ministry of Environment and Urbanization	Civil Engineer (m.sc)	Rukiye Özden
ANKARA	Ministry of Environment and Urbanization	Geological Engineer	Özlem DOĞAN

	Institution	Title	Name
SPEAKER	WRI Ross Center for Sustainable Cities	Health & Road Safety Manager	Ben Welle
SPEAKER	The Netherlands Istanbul Consulate General	Consul General of the Netherlands in Istanbul	Bart VAN BOLHUIS
SPEAKER	İlbank	Manager of Geographic Information Systems	Ali Rıza DEMİREL
SPEAKER	Ministry of Environment and Urbanization	Civil Engineer (m.sc)	Rukiye ÖZDEN
SUPERVISOR	Ministry of Environment and Urbanization	Geological Engineer	Özlem DOĞAN
SUPERVISOR	The Netherlands Istanbul Consulate General	Senior Commercial Officer	Sirel Ceren ERTEN
SUPERVISOR	The Netherlands Istanbul Consulate General	Innovation, Technology and Science Attache	Rory NUIJENS
SUPERVISOR	GIZ Turkey	Advisor Energy Efficiency in Buildings	Christian Borchard
SUPERVISOR	Bloomberg Initiative for Global Road Safety	Road Safety Coordinator for Road Design and Transportation	Samuel Boamah DANQUAH
	Institution	Title	Name
EVENT COORDINATOR	WRI Turkey Sustainable Cities	Director	Dr. Güneş Cansız
EVENT COORDINATOR	WRI Turkey Sustainable Cities	Urban Mobility Director	Merve Akı
EVENT COORDINATOR	WRI Turkey Sustainable Cities	Strategic Communications Coordinator	Hande Dönmez
EVENT COORDINATOR	WRI Turkey Sustainable Cities	Transport and Road Safety Manager	Celal Tolga İmamoğlu
EVENT COORDINATOR	WRI Turkey Sustainable Cities	Transport Engineer	Yunus Emre Yılmaz