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Opening ceremony

Chair: Christian Philip, Secretary General, CODATU
Panelists:
Bernard Rivalta, Vice President of CODATU, President of SYTRAL, Lyon, France
Mehmet Karaca, Rector of ITÜ (İstanbul Teknik Üniversitesi), İstanbul, Turkey
Laurent Bili, Ambassador of France in Turkey
Mehmet Emin Birpinar, Deputy Undersecretary at Ministry of Environment and Urbanisation, Turkey
Kadir Topbas, Mayor of Istanbul, President of UCLG, Turkey

Christian Philip, the General Secretary, introduced the Opening Session by paying tribute to Jean Claude Ziv, Vice-President of CODATU who passed away in 2013. In his role of Vice-President of Lyon Metropolis, Mr. Bernard Rivalta is the general manager of the second transport network in France. With this experience, he explains the need to consider two levels of intervention, local and international, to integrate all stakeholders. In this way, the COP21 meeting in Paris about climate and air pollution in December 2015 is crucial: France has a huge mission because shared solutions between all partners need to be developed (private, institutional and scientists). To conclude, Mr. Rivalta reminded us about the important aim of CODATU: to promote exchange of knowledge and know-how, between developing and developed countries.

According to Mehmet Karaca, climate change is an important challenge and Istanbul is a concrete evidence in this matter: A lot of ships cross the Bosphorus and contaminate the environment. This CODATU conference is, indeed, a place to develop knowledge and find solutions. Civilizations are undergoing every day climate change and adaptations are unavoidable.

According to Laurent Bili, the aim of this CODATU Conference is to make arrangements for climate change. In the same way, the purpose of COP21 in Paris will have to have flexible postures in order to take common decisions. The role of France will be to make an agreement possible, an ambitious agreement and to include companies, institutions and civil society. Urban transport policies are a priority and it is not an obligation but a responsibility to change the mindset about mobility and to create sustainable cities.

Mr. Mehmet Emin Birpinar stressed on the importance of developing models, especially to develop alternative projects for the Bosphorous. The aim is to attain the model of the “Sustainable City” to enable future generations to live on our earth. In Istanbul, we can see those efforts by projects of bicycle infrastructures and vegetation.

According to Kadir Topbas, this CODATU meeting is useful for everyone because the world is a village which the fate is shared. We are citizens of the world and our actions have impacts on the surroundings. Problems in cities are increasing and all the stakeholders are responsible for it. We cannot force people to take urban transports but we can offer a high-quality service. We must aim for a sustainable city in a sustainable environment.

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1 The report of this session has been written by Jessica LEMAIRE and Anna QUEMENER.
Panel session “cities’ actions for mitigation”

Monday, February 2nd, 11.15 am – 12.50 pm

Chair: Ayla Jean Yackley, Journalist at Reuters, Istanbul

Panelists:
- Pam O’Connor, Mayor of Santa Monica, California, US
- Louis Nègre, President of GART and Vice President of Nice Metropolitan Municipality, France
- Michel Tindano, General Director of SOTRAL, Société des Transports de Lomé (SOTRAL), Togo
- Mümin Kahveci, General Manager of IETT, Istanbul, Turkey

Michel Tindano: Lomé’s transport situation is characterised by the existence of a variety of modes of transport. Most people rely on walking, but this mode of transport is the most dangerous one because there is no pedestrian infrastructures planning and because pedestrians are not given the right of way. Paratransit is widespread. This sector is regulated and organized through transport unions. However it remains “chaotic”. The city is trying to develop public buses but it faces two hurdles. First, there is no Public Transport Authority but several supervisory authorities. And second, the ticket price is too expensive for the people who cannot afford to live downtown. Last but not least, there are more and more private cars. Mr. Tindano highlights the key challenges for his city. He insists on the fact that it is critical to set up a Public Transport Authority despite political reluctance. It is also necessary to have a global vision in order to frame a Transport Master Plan. Precisely, Mr. Tindano wants bus-only lanes to be the priority of this document. We can see that there is no precise target in terms of cutting greenhouse gases; which can be explained by the fact that Togo lacks means to conduct surveys.

Mümin Kahveci: Transport is high on the agenda of Istanbul. Mr. Kahveci points out that “mobility is one of the most important competitive points”. Istanbul public transport is well-developed: all modes of transport considered -metro, tramways, minibuses- there are 721 lines. In addition, a quality management is ensured thanks to a smart ticket system and the Istanbul cards, which are used by 15 million people. Due to increasing population, the number of private vehicles is growing, thus causing pollution and congestion issues. The city heavily invests in order to tackle these issues. There is a will to “redefine the function of roads” through promotion of car sharing, limiting the use of cars and the set-up of a pedestrian action plan.

Louis Nègre: A city cannot tackle the issue of congestion without a global vision, which explains the need to link the land use master plan and the transport master plan together. Public transport authority has a major role to play since elected representatives head it. Thus, they enjoy public support. For instance, Nice city could implement a single pricing system in which the 1€ ticket price does not cover the operating costs. As a consequence, 70% of the cost is paid by companies and taxpayers. Mr. Louis Nègre also emphasises on the role of the French State, which remains fundamental as proven by the numerous laws dedicated to climate change. The last one, that is the “Loi sur la transition énergétique”, tackles the impact of urban transport on climate change and several measures are meant to implement green transport. A considered solution is the possibility for mayors to compel the State, local authorities, taxis and bus companies to own a certain percentage of green vehicles.

Pam O’Connor: The United States is often held as the “land of free ways” as well as the “land of free parking”. California is a case in point since this region is “known for the cars”. Beyond these stereotypes, there are facts: roads in California are congested but efforts are made to change mentalities. There are indeed more and more LRT and several other pilot programs. For example, lanes dedicated to bicycles have been created, along with a pilot program waiving toll fees for people who share cars. Ms. Pam O’Connor is also currently

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2 The report of this session has been written by Valérie MARIE YAPAGGA and Claire GALESNE.
3 Energy Transition Bill
working on developing smart cards. Last but not least, she added that highlighting the health benefits of clean air, water and environment is a powerful argument to convince people to modify their transport habits. In a word, she hopes that her efforts would enable her country to “move away from the stereotypes of the land of automobiles”.

Discussion

The audience is mainly concerned about the fact that the speakers did not mention the role of the civil society. However, Ms. Pam O’Connor replies that associations - advocates for bicycles and public health communities - regularly attend meetings in order to influence politics. According to the mayor of Santa Monica, they are “shaping the future of Southern California”. Mr. Michel Tindano agrees with the audience’s remark. He explains that, in Sub Saharan countries, the civil society is more concerned about water. Transport is not a main concern for associations; all the more that there is no specific university to train transport experts. Nonetheless, a master degree on urban transport will be created next September in Lomé. Mr. Louis Nègre rather emphasises on the importance of political will in France. At first glance, a part of the population was opposed to the tramway in Nice. But a majority a people, environmental associations and the elected representatives supported this transport solution and it was implemented. Mr. Nègre admits that as a local representative, his role is also to go on the field, to speak with inhabitants, and to try to convince them of the positive impacts of such innovations. In the long run, not a single inhabitant was opposed to the tramway in Nice. Bernard Soulage, the vice president of the Rhône-Alpes Region (France) and GART, gives a similar example. Grenoble has been the first city in which a mayor has initiated a ban on cars downtown. 40 years ago, all the shop keepers were opposed to it. 20 years later, they fully changed their minds.
Urban transport and climate change

Monday, February 2nd – 2pm–3.30pm

Chair: Mary Crass, Head of Policy and Summit Preparation, International Transport Forum (ITF)
Panelists:
Suzana Kahn Ribeiro, Vice-Chair of WG III of IPCC and Sub secretary of Green Economy, Rio de Janeiro Environment State Secretary, Brazil
Michael Reploge, Managing director for policy and founder, ITDP
Dario Hidalgo, Director of Research and Practice, EMBARQ-WRI
Martin Stucki, Head of International Operations, Transitec, Consulting Engineers Ltd, Switzerland/France

Mrs. Kahn Ribeiro first reminds that CO2 emissions and greenhouse gases (GHG) are increasing. Transports are a main cause of these emissions, they are responsible for approximately 23% of the total energy related CO2 emissions. Transportation is the fourth cause of direct CO2 emissions and transport related emissions are expected to increase in an important extent within the next decades. Climate change is mainly an issue related to energy use and consumption, but economic, lifestyle and cultural changes will be insufficient to mitigate global increases. That is why, according to Mrs. Kahn Ribeiro, the solution lies in technology improvements and new technologies. She highlights possible pathways towards stabilization: economic tools, innovation and deployment of low carbon technologies, behaviour changes and cultural incentives.

Michael Reploge: Transportation, driven by rapid growth, may be one of the fastest growing source of CO2. We know that vehicle use is function of income but it is not the only variable. It also depends on political decisions and incentive instruments. The Global High Shift Scenario, led conjointly with ITDP and UC Davis, examines how major changes in urban transport investment worldwide would affect urban passenger transport emissions and mobility. Bringing specific changes in walking and cycling habits, increasing the use of public transport and lowering car use could significantly decrease the amount of CO2 emission and be a way to address public health issue.

Martin Stucki: Three major axes came out of a study entitled “Policies for sustainable accessibility and mobility in urban areas of Africa”: Avoid - Shift - Improve (ASI).

- Avoid: Urban transport policies need to minimize the need for individual motorized travels through adequate and coordinated land use and transport planning. Urban transport and urban development are linked, they need to be studied together.
- Shift: Multi-modal transport system has to be efficient to increase and maintain shares of more socially and environmentally sustainable modes (public transport, walking, cycling).
- Improve: It is necessary to develop efficient and safe transport modes and services with minimized environment footprint, as well as to work on traffic and parking management.

This study stresses out another important and determining axis: E for ENABLE (from ASI to EASI). It is primordial to establish an effective and responsible governance system with adequate institutions.

Mr. Hidalgo reminds us of the necessity to tackle the issues on an adapted scale level. Climate change should not only be considered at a global scale, but also at the local level. Temperatures will rise if we don’t do anything, that is why a tool was put in place to measure the actions required: the Global Calculator. This tool intends to enable a better visibility of the change that is needed and the impact of our actions, concerning different crucial sectors such as transport, land use, energy sector, etc. Mr. Hidalgo rises a question: “Can we improve the quality of life globally and reduce GHG emissions?” and he answers “yes”.

Mr. Hidalgo presents the Global Calculator as a tool proving that “we can still grow” if we choose a sustainable growth. Some common myths must be busted. There are growing opportunities (India, Turkey, China, Brazil...) but a lack of action!

4 The report of this session has been written by Lucile BOUDET, Marie-Bénédicte ADJAHO and Alice KUTTLER.
Financing and Optimizing Benefits from Low Carbon Urban Transport

Monday, February 2nd, 3.30 pm – 4.30 pm^5

Chair: Mary CRASS, Head of Policy and Summit Preparation, International Transport Forum (ITF)

Panelists:
- Cornie HUIZENGA, Secretary General, Sustainable low carbon Transport (SLoCaT) Partnership.
- Ian JENNINGS, Senior Urban Transport Specialist, European Bank for Reconstruction and Development (EBRD).
- Rima LE COGUIC, Head of Transport, Energy and sustainable development, unit, Agence Française de Développement.
- François BEGEOT, Head of Economic and Social Development Section, Delegation of the European Union in Ankara

Chaired by Ms. Mary Crass, this plenary session was the occasion to highlight and discuss the growing and ever more decisive question of the financing of urban transport in developing countries in a context of an increasing scarcity of public resources. It was also the opportunity to bring face-to-face representatives of some of the major multilateral and bilateral funding institutions.

Mr. Cornie Huizenga’s contribution primarily aimed at getting back to some of the major evolutions urban transport development is presently exposed to. This change notably involves a quite radical change of paradigm, a switch from an old model – that resulted in congestion, air pollution, a lack of security as well as a restrictive access – to a new model based on the Avoid-Shift-Improve (ASI) System that aims at reducing the impact of negative externalities of urban transports on the local and national economies. Thanks to the development of a large range of new tools and indicators, one question is from now on likely to be raised: how to finance this both paradigmatic and practical shift?

Mr. Ian Jennings gave an interesting presentation of the EBRD activities. He especially highlights the financial support his institution regularly provides to municipalities as well as to central governments in the urban transports area. These activities include financial support, but also planning, management and juridical aid. He eventually expressed doubts about the validity of a funding system based on carbon credits as far as the urban transports domain is concerned and he argued that there is a need to encourage the search for alternatives such as those developed by the EBRD.

Ms. Rima Le Coguic insisted on the opportunities climate can offer in terms of financial solutions for urban transport. In this respect, AFD, as well as other financial institutions, increasingly take into account the environmental qualities and impacts in their assessment of the financed projects. A second crucial point concerned the growing necessity for cities to set-up a unique entity in order to provide a coherent urban transport system, enabling a better governance and cost reduction.

Mr. François Begeot’s contribution offered the audience a synthetic and clarifying overview of the EU transport policy. He especially highlighted the increasing role of urban transport in the global transport network. Although urban transport do not belong to the EU competence, it becomes more and more relevant to consider them as part of a whole.

The second part of Mr. François Begeot’s contribution focused on the current transport projects of the EU in Turkey. These ones mainly include railway projects and especially the future high-speed railway line between Istanbul and Ankara.

Discussion

Some participants underlined the gap between the donors’ rhetoric and the reality of the transport projects in developing countries, where the civil society and the local authorities are frequently bypassed. Recognizing the relevance of this issue, the present contributors evoked their commitment to tackle these limits and to develop new inclusive and democratic mechanisms such as the direct financing of local authorities. The case of the Bosphorus sub-sea tunnel emerged as a concrete example of a divisive project, illustrating the complexity and the rather large opacity of the donor’s choices towards projects having strong cultural and environmental impacts.

^5 The report of this session has been written by Steve EL KAFSI and Romain BRESELEC.
According to Mr. Smadi, building actions for a city only through climate change perspectives is not a driving force. The real challenge is to match with people’s urgent needs, in terms of access to the city, to jobs, and conditions of living. He underlines the risk for climate change issues to be disconnected from local preoccupations, although transport policies do have direct and indirect impacts on climate change.

Mr. Dantec, President of UCLG’s environmental commission, mentioned the two main upcoming negotiations: the summit on Sustainable Development in New York in September 2015 and the COP21 in Paris in December. If there is no general agreement on Sustainable Development Objectives during the first summit, it will be difficult to reach an agreement at COP21. Thus, the challenge is to coordinate negotiations between Climate and Sustainable Development. Mr. Dantec also develops the idea that, at a local level, cities already have tools to coordinate their actions and speak with one voice whereas States have difficulties to overtake their national interests. As a consequence, cities have a key role to play in negotiations, which should be strengthened by reinforcing cooperation with non-governmental organisations. Finally, the funding issue is introduced as a major challenge for the COP21 negotiations.

Mr. Mongin, President of RATP, raises the idea that the response of an operator such as RATP depends on public sector decisions and policies, which play a key role in giving an adequate response to citizens’ needs. Mr. Mongin takes the example of RATP plan for 2025 in order to show that big cities such as Paris can pursue energetic transition and green transportation. The ambition is to renew the entire bus fleet for 2025, and to get rid of CO2 emissions, fine particles and noise. By using this example, he highlights the fact that the private sector has the know-how and the technology to prove that COP21 objectives are achievable.

Mr. Farandou agrees with Mr. Mongin. He also emphasizes that COP21 must be a success for people, not only for the specialists, as negotiations must gather civil society.

Mr. Flausch underlines the importance of the transport sector in climate change negotiations, as it is a flexible and innovative sector. He fears that UN summits may be “far from the real world”. Hence, the transport sector has to prove that climate change is not only a theoretical issue and a constraint but also a way to generate wealth.

Discussion:
Among the 4 questions addressed, the main concern deals with an appeal to all stakeholders to work together and create actions in the coming weeks and months in order to make COP21 a success. According to Mr. Pierre Mongin, companies have a decisive role to play in this matter and that’s why he announces the organisation of the World Council on Sustainable Business Development in Paris in May. Mr. Ronan Dantec proposes to enable a coalition of actors gathered around common messages and objectives. Ms. Heather Allen says developing countries are missing a lot of opportunities not focusing on sustainable transport. She closes the session on the idea that developing countries can economically benefit from investing in sustainable development.

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6 The report of this session has been written by Clémence LECOINTRE and Camille LOPEZ.
Energy, Climate and Air Quality Challenges: The Role of Urban Transport Policies in Developing Countries and Emerging Economies

Tuesday, February 3rd, 9am – 10.30am

Chair: Ela Babalik-Sutcliffe & Dave Maunder, Co-chairs of the CODATU XVI International Scientific Committee

Keynote speakers:

Christian Philip, CODATU, Secretary General
Sanjivi Sundar, The Energy and Resources Institute (TERI), Distinguished Fellow,
David Banister, University of Oxford, Professor

Mr. Dave Maunder started by welcoming and thanking everyone. “I hope that the conference leads to discussions of highest order”.

Ms. Ela Babalik-Sutcliffe then summed up the different themes that will be addressed, and the CODATU planning. She also announced that there will be prices rewarding the best paper and the best poster at the end of the conference.

Mr. Christian Philip reminded the main goals of the CODATU such as galvanizing the knowledge sharing and boosting ties between Southern and Northern researchers and transportation stakeholders. He announced a partnership between CODATU and the Senghor University, and the creation of an Urban Mobility Master’s degree in Lomé. He finally made the announcement that the next CODATU conference would probably take place in India.

Mr. Sanjivi Sundar’s presentation revolved around transport externalities, focusing on road transport. He talked about regulatory and economic intervention tools. Price signals are a way to change users’ behavior and awareness. Regarding the externalities assessment, there is substantial lack of data in respect to road traffic in most developing countries. The congestion issue is often being wrongly handled: “The congestion in most developing countries leads to more road building instead of better traffic management”. Mr. Sundar mentioned the example of the Singapore’s Electronic Road Pricing as a way to deal with congestion. He also reminded the important energy stakes, regarding climate as well as security. He concluded by urging developing countries to take their responsibilities: “Developed countries must provide energy and resources to the developing world and build capacity to adopt the ASI approaches”, “Developing countries must recognize that transport externalities can be contained without affecting economic growth”.

Mr. David Banister began with a strong statement: “Cities can only operate with public transportations”. He highlighted the unprecedented rate of urbanization that the world is currently experiencing. This frantic rate raises global city resilience issues. Mr. Banister insisted on the fact that the quality of a city’s public transportation system is a major indicator of its quality of life. Mr. Banister also made suggestions in order to develop a better use of the space.

Discussion:

Q: “How far should we go with the integration of the transportation and energy sectors?”
A: D. Banister: “We should play the cards in the way which we’ll get the best results. If losing the “transport exclusive” label can help getting results, then be it.”

Q: “We’ve been talking about externalities for many years but it doesn’t seem to affect politics. How could we put together some new and compelling arguments in order to make the politics build some better and more efficient infrastructures?”
A: S. Sundar: “This sort of conference will help. There is very little attempt made in developing countries to educate politics about these questions.”

D. Banister: “The language issue is hugely important, we tend to slip into jargon very easily. We have to try to find the language and words that people can actually understand. People know about the problems, but the way we talk about them is not a way that they can relate to.

7 The report of this session has been written by Pierre AUDEGIL and Louis GENDREAU.
Planning Urban Mobility in Turkey

Tuesday, February 3rd, 11.00am-12.30pm

Chair: Azuz Tekir, Embarq Turkiye, Turkey Director

Speakers:
Abdulmuttalip Demirel, Koccaeli Metropolitan Municipality
Ilker Bektas, IETT, Istanbul
Sönmez Alev, IZBAN, Izmir Metropolitan Municipality
Göktug Kara, EU Delegation of Turkey, Ankara
Abdullah Keskin, Sanliurfa Metropolitan Municipality
Roland Ries, Mayor of Strasbourg and President de Cités Unies France

Göktug Kara: The Transport Commission of the UE Delegation in Ankara focuses its action on the railway project in Ankara. Urban transport is not only vital for the dynamics and economy of the city; it is also a crucial question today as Turkish cities are experiencing a severe deterioration of their air quality, as well as their quality of life. Political stakeholders tend to have reactionary visions rather than long-term visions. Nevertheless, we need to high-shift the model. For this purpose, the €4 billion Transport Sector Operational Program of UE Commission aims at developing sustainable, efficient, inclusive and a unique transport system in 10 Turkish cities.

Ilker Bektas: Transportation inefficiency can be a barrier to the economic growth. With this in mind, the IETT’s operates to regulate public transport and to have a stabilizing role in the sector. Istanbul counts 14 million inhabitants and 12 million individual trips per day. If we could reduce by one minute only each one of these trips, we could save TL4 million per year in terms of economic efficiency. In response to the increasing demand for transportation and the deterioration of the comfort level, the railway network will be expanded and further developed from 2013 to 2023.

Abdullah Keskin: Sanliurfa, an ancient city, is the 6th most populated city in Turkey, and is constantly growing because of its attractiveness. However, the public transport system is defective and, in 2010 only, 1 inhabitant out of 7 will be using it. The metropolitan municipality modernized the bus company by introducing some measures, including: one single transport card, traffic information available on mobile devices, better accessibility, and an emergency hotline. It was a great success and the number of users went up from 86 000 in 2011 to 220 000 in 2014.

Sönmez Alev: Izmir is a large metropolis in the western extremity of Anatolia and the third most populous in Turkey with 4 million inhabitants. In 1999, while the city’s transport system relied on buses and an electric tramway, a metro line was constructed and linked the main neighborhood areas to the center. Later on, more railway networks were added and integrated to the system. This increased mobility. Izmir now counts 81 million passengers on a weekly basis, including 30% via the railway network.

Abdulmuttalip Demirel: Koccaeli is a medium-sized Turkish city that is experiencing a tremendous rise of its motorization rate due to the lack of public transportation facilities. The Municipality invested in new buses as well as in the construction of a tramway and a high-speed regional train. The most innovative solution that was recently launched is a new network of cycling tracks and a bicycle sharing scheme.

Roland Ries: Strasbourg is a French city of 400 000 inhabitants with an important LRT network. The municipality achieved a radical and positive change in public transportation within the last 30 years by gaining the support of merchants in the city, and hence setting an example for similarly congested cities. Although it is a difficult challenge to implement bold changes in our transportation systems, we must find a way to communicate with stakeholders to change their way of thinking. It is essential to have and to maintain a global

8 The report of this session has been written by Marianne BEGLIN and Quentin MARCHAND.
vision through time. The French mobility system relies on the distinction between the transport organization authority and the operating companies. French stakeholders also consider that the war between individual and public modes is over: modal shift is the new paradigm.

Discussion

Question asked to Mr. Sönmez Aley: Is the IZBAN project expandable to other neighborhoods of Izmir including Manisa? There is an ongoing “banlieue” project for IZBAN but no line reaching Manisa has been planned yet.

Question asked to Mr. Roland Ries: How did you communicate with the citizens on the modal shift in Strasbourg? In 1980, internet did not exist, but it is now a fundamental way to communicate with our citizens.

Question asked to Mr. Abdullah Keskin: Why isn’t there any bus linking Sanliurfa’s industrial zone to the city center for the thousands of workers concerned? Such a bus line actually exists. It may not be sufficient in terms of service but we nevertheless have improved access to transportation quite a lot these years, in terms of transport fees and service availability. The cost of energy is hindering progress and we cannot consider increasing the level of service for this line at the moment.
Transport Policy (Sustainable Mobility policy assessment and challenges)

Tuesday, February 3rd, 2pm – 3.30pm

Chair: Dario Hidalgo, Director of Research and Practice, EM-BARQ-WRI

Panelists:
Anthony D. May, University of Leeds (UK), Sustainable Urban Mobility Plans for Developing Cities
Carlos Alberto Moncada Aristizabal, Universidad de Los Andes (Colombia), Application of quasi-experimental designs for assessing transport policies in developing cities
Pablo Salazar Ferro, Center for transport studies university of Cape Town (South Africa), The challenge of finding a role for paratransit services in the Global South
Oliver Lah, Wuppertal Institute for Climate, Environment and Energy (Germany), Transferability of sustainable urban mobility solutions

Anthony D. May: Urban transport causes 80% of congestion and represents an important problem for urban mobility. Mr. Anthony May insisted on tackling problems of congestion through Sustainable Urban Mobility Planning (SUMP). He also focuses on the barriers that prevent urban transport from being more efficient such as hesitant political commitment, the lack of governance or also the dominance of experts. It seems important to understand these barriers in order to find efficient solutions for better mobility in cities.

Carlos Alberto Moncada Aristizabal: Congestion and sustainable mobility are the main problems in Latin American cities. Mr. Carlos Alberto Aristizabal took the example of transport policies in Bogota and Medellin that aimed at reducing congestion based on number plates schemes. The evaluation of this policy showed the negative externalities: to get round this car restriction, people bought a second vehicle and the number of cars in these cities increased instead of improving urban mobility. This case highlights the fact that it is important to discuss about successful policies but also to talk about failures in order to avoid the reproduction of contentious transport policies.

Pablo Salazar Ferro: Mr. Pablo Salazar Ferro focused his intervention on paratransit services or in other word, on informal transports that are not planned in the city. He highlighted examples of transformation of paratransit systems into BRT-type service, from radical changes to progressive evolution of operators, depending on the transport policy of different cities.

Oliver Lah: As the other speakers, Mr. Oliver Lah insisted on planning for urban and sustainable mobility. Nevertheless, he added that transport policies could take advantages of public participation that can represent a useful tool for decision-makers. Moreover, there is a need to understand why political processes do not work, in order to find long-term solutions.

Discussion:
All the speakers agreed on the fact that the example of car restriction in Bogota and Medellin illustrates that it is very important to highlight good practices but mistakes as well. Concerning paratransit and formal systems, it is important to insist on the fact that both systems have advantages and disadvantages and that complementarity seems to be the best way for transport policy. There is no perfect solution and the challenge is to develop alternatives suitable to various contexts.

9 The report of this session has been written by Jessica LEMAIRE and Anna QUEMENER.
**Bus Rapid Transit (Issues and Applications)**

**Tuesday, February 3rd, 2.07pm – 3.35pm**

Chair: **Rosario Macario**, Professor, Instituto Superior Técnico - Lisbon Technical University

** Speakers:**
- **Daniel Oviedo Hernandez**, University College of London (UK) - BRT Ahmedabad and Bogota
- **Sittha Jaensirisak**, Faculty of engineering (Thailand) - Integrated Road Pricing and Bus Rapid Transit: an Assessment of Acceptability and Effectiveness
- **Güneş Uyaniker**, Urban Planner, Transportation Planning Department, İETT, (Turkey) - An Optimization Model for BRT Systems: Istanbul Metrobus Case
- **Romano del Mistro**, University of Cape Town Centre for Transport Studies Cape Town (South Africa) - Appropriate operating environment for feeder-trunk-distributor or direct road based public transport services in cities of developing countries

Mr. **Daniel Oviedo Hernandez** compares two BRTs: the Transmilenio in Bogota and Janmarg in Ahmedabad through the perspective of governance. His main hypothesis is that transport infrastructures are “drivers of development”. While Bogota featured a very disorganised public transport sector, the Transmilenio has been a genuine “revolution” in the sense that it increased speed, transport capacity and had positive social impact. The Transmilenio had a substantial national and international influence. Ahmedabad enjoyed a better institutional set up regarding public transport but it faced a decline in utilisation rate. As it has been the case in Bogota, the BRT was successful in reorganising transport supply. Mr. Oviedo Hernandez however concludes by opening a debate: is BRT a response to longstanding weaknesses and difficulties for the provision of public transport or an instrument for further development?

Mr. **Jaensirisak** led a study aiming at integrating road price to change mode choice attitudes and behaviours: how to persuade people to shift from private vehicles to BRT? His case study was the Thai city of Chiang Mai. His model assessed the impact of BRT fares and road charging on people who resort to private vehicles before considering any alternative. It shows that, without charging road prices, no one shifts to the BRT network. By contrast, by increasing the road pricing and decreasing the BRT fares, people are shifting to BRT. To sum up, the development of a public transport needs to consider personal psychology factors affecting mode choice behaviours.

Mrs. **Uyaniker** work focused on optimizing Metrobus routes in order to solve the issues of overcrowded buses. She firstly calculated the density per segment before setting up a model aiming at optimizing routes. This theoretical work was then implemented in Istanbul. As a result, the number of passengers has increased by 15%.

Mr. **Del Mistro** compared Feeder-Trunk-Distributor road based public transport services and Direct services so as to determine under which circumstance BRT system is applicable. He highlighted the key advantages of Feeder-Trunk-Distributor service - saving in cost, in energy consumption amongst others – as well as its disadvantages – transfer and longer travel distance. His spatial model based on data collected in several South African cities showed that Feeder-Trunk-Distributor services are more competitive than Direct Services under some operating conditions. It is thus necessary to adapt the BRT to the context and place.

**Discussion:**
The main concern of the audience was the relevance of the BRT as a solution to public transport difficulties. Mrs. Rosario Macario indicated that it was better to integrate BRT to the whole public and private transport network – as it is done in Ahmedabad - than to be a single system, which is one of the main criticism of the Transmilenio. A BRT should have a special role in a mobility system.

**Keywords:** BRT, integration, model, benchmarking.

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10 The report of this session has been written by Valérie MARIE YAPAGGA and Claire GALESNE.
Accessibility & Traffic analysis (techniques & application)

Tuesday, February 3rd, 2pm – 3.30pm

Chair: Charles Rivasplata, SFMTA, San Francisco, USA

Speakers:

Yves D. Bussière, Benemerita Universidad autonoma de Puebla (Mexico), researcher
Sabahat Topuz Kiremitçi, Istanbul Technical University, PhD student
Marianne Vanderschuren, University of Cape Town (South Africa), researcher
Diego Escobar Garcia, Universidad Nacional de Colombia, PhD
Harold Hurel, Systra (France), project manager.

In a context of galloping growth and rising inequalities, accessibility and traffic often appear as tremendous challenges among southern cities. This workshop was in this regard the occasion for the participants to discuss these specific issues in a comparative perspective, in the light of the recent publications and works of the diverse contributors.

French-Canadian scholar Dr. Yves Bussière firstly came back on the notion of peak travel. Based on 25 years of research work, his contribution proposed a comparative overview of the changes in demand for different types of transport. According to him, these evolutions originate both in structural and behavioural factors. Comparing the situation of a large range of Southern and Northern cities, his presentation finally gave some relevant examples of modelling tools allowing policy makers to anticipate the saturation of traffic as well as the emergence of a peak period. The differentiated evolution of transport demand, partially correlated to the population growth, eventually underlie the likely future coexistence of divergent strategies in developing and developed countries.

Mrs. Kiremitçi introduced the distinction between accessibility and affordability. Focused on Istanbul, her work primarily aims at attempting to provide a clear and operational modelling tool, hence allowing to benefit from an integrated approach of urban transport planning, taking into account costs as well as social and environmental dimensions. Based on the analysis of a large variety of sociological and economic variables, her model allows its user to assess the impact that a rate reduction or an optimization policy can have on the accessibility of Istanbul transport system. Applied to the case of Istanbul, Mrs. Kiremitçi especially highlighted the significance of an affordability effect as well as the relative inelasticity of the demand for a small portion of the middle or high income Turkish male population.

Based on the postulate that the achievement of Africa’s MDG are deeply dependent on accessibility, Mrs. Vanderschuren’s work aimed at providing an accessibility mapping of a certain number of South African regions and communities. The original aspect of this survey consisted in identifying a large number of detailed key performance indicators. Beyond the development of a synthetic performance index, her work merely offered the possibility to identify investment and geographical priorities. By isolating some variables, such as access to education or healthcare, Mrs. Vandershurens reminded that accessibility do not only include transports but also involves the necessity to develop and disseminate essential infrastructures and services among the most disadvantaged territories.

Mr. Escobar Garcia presented the results of a mobility and traffic survey recently conducted in the Colombian municipality of Rio Sucio. This small-scale study, based on the GPS analysis of the trajectories of different modes of urban transport, finally enabled the development of several scenarios and options, including different road signal systems and organizational models of traffic lanes. Aiming at optimizing the access to the city centre, the implementation of the chosen solution eventually reduced the average travelling time and significantly opened up several periphery zones by providing a faster and better access.

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11 The report of this session has been written by Steve EL KAFSI and Romain BRESELEC.
toward the city centre to their inhabitants. This study model, whose main goal was initially to tackle the problem of traffic congestion, could thus be transposed and adapted to other South-American cities in the future.

Through this presentation, Mr. Hurel provided a synthetic review of the various existing mobility policies on a global scale. He pointed out that these policies principally aim at reducing individual transport demand while improving the public transport supply.

Whatever the field (economy, technology, politics, behaviour) concerned, institutional parameters always appear as essential: any transport project requires a strong political commitment. Besides, Mr. Hurel emphasized the crucial role of public acceptance in the achievement and the success of a transport project. That is why the contributor eventually calls for more efforts on communication and encouraged stakeholders to opt for simple and easily understandable transport systems.

Keywords: Accessibility – transport affordability - traffic modelling– peak travel – mobility demand management
CODATU, WCTRS & EASTS: Aiming at further collaboration between societies with focus on capacity building of young researchers and practitioners in developing countries

Tuesday, February 3rd, 2pm – 3.30pm

Chair: Kazuaki Miyamoto, Member of CODATU, WCTRS and EASTS & Professor at Tokyo City University, Japan

Speakers:
Cheng-Min Feng, President of EASTS & Professor at National Chiao Tung University, China.
Yoshitsugu Hayashi, President of WCTRS & Professor at Nagoya University, Japan.
Ali Huzayyin, Vice-president of CODATU & Professor at Cairo University, Egypt.

The conference was held by the representative of CODATU and the presidents of EASTS and WCTRS. The three groups act in favor of transportation development and promote studies and researches about transportation. For instance, CODATU recently created a new master about transportation in Lomé, Togo. They all continuously publish articles and studies from scientists.

Many discussions emerged from this panel. Among these, the idea that the CO2 production should be well researched by specialized groups, transport and climate change groups. Hereafter are some reflections that we wanted to underline in this report.

Q/A: How do those organizations find a way to get founding to support such programs?

EASTS gets revenue sources via several ways. The first source is the individual and country membership fees that are paid every year. Secondly, a conference organized by the country of one of the members, takes place every other year and the event is entirely financed by the welcoming country. Moreover, 10% of these conferences’ revenues are transferred to EASTS. On the other hand, EASTS uses these funds to give awards to the best research publications. The next EASTS conference will take place in Cebu, Philippines in September 2015.

CODATU roughly follows the same membership-financing pattern. They get financed by cities-member but also by consultants and professionals and finally by engineering companies. What is important to underline is the involvement of some of CODATU members to support educational programs such as particular researches or master degrees.

WCTRS’ only income is the membership fee up to 40 euros. Moreover, some publishers financially sponsor them, in order to feed their scientific magazines with the studies and researches done.

In addition to this short and modest list of revenues, an important point to be raised is the fact that none of these organizations is making commercial deals. Therefore, punctual participations and mainly membership fees finance them. Funding remains one of the major issues for these organizations and, unfortunately, limits their scope of intervention.

As a conclusion, each speaker as well as the audience agreed on the importance of the existence of such organizations and programs in order to improve the efficiency of future professionals in their struggle against global climate change. An incredible quantity of knowledge is available and waiting to be passed down.

Regarding the schedule of the next 2 years, EASTS is organizing the next conference in Cebu, Philippines in September 2015. WCTRS is planning on creating a similar event in Shanghai in 2016. Finally, CODATU XVII will most probably take place in India in 2017.

Everyone agreed on the large scope that CODATU reached and aimed at following its example. Someone in the assembly even proposed that the 3 presidents invite each other to the next conferences, or better, to co-organize a new conference in the future.

Keywords: EASTS, WCTRS, CODATU, financing, perspectives.

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12 The report of this session has been written by Gabriel AYGALINC and Léaud LE BACQ.
Roundtable on Sustainable Urban Mobility Plans

Tuesday, February 3rd, 4.20pm – 6.05pm

Chair: Thierry Gouin, CEREMA, Project Manager
Panelists:
Roland Ries, Mayor of Strasbourg Metropole (France)
Bernard Gyergyay, Rupprecht Consult (Germany)

Mr. Gouin, Project manager at CEREMA, opens the session asking guiding questions: how can sustainable mobility projects be conceived in a global perspective? How can we plan a sustainable urban mobility?

Mr. Ries, Mayor of Strasbourg Metropolis, takes the floor and presents the Sustainable Urban Mobility Plan (SUMP) of his city, which has been first implemented in 2000 and renewed in 2010. Both SUMPs are seen as a success and examples in the area. He insists on the fact that urban planning has to be flexible as it may adapt to the non-predictable evolutions of a city.

Before turning over the stage to Mr. Gyergyay, Mr. Gouin reminds that French SUMPs (PDU) are a reference in urban planning but he wonders how the European Union (EU) deals with this question.

Mr. Gyergyay evokes the ambitious targets of the European Commission for sustainable urban mobility, such as the ban on conventionally fuelled cars in urban transport by 2050. SUMPs are considered as a strategic tool in order to achieve these targets and that is why the EU is actively promoting its use at the European scale. However, he raises 4 challenges in implementing SUMPs: citizens’ participation, institutional cooperation, measure selection and monitoring evaluation. To sum up, he insists on the necessity to coordinate local and European legal frameworks, as well as to promote exchange and learning process for SUMP. He reminds that the EU is financially committed to helping cities for SUMPs development, and calls for private sector investments.

Third panellist is asked to widen the perspective and to tackle the subject of local and national coordination. Mr. Merforth first ensures that GIZ is willing to strengthen international cooperation around sustainable mobility issues. He insists on the fact that national level should have natural interest in supporting cities in sustainable transport options and that this national commitment is crucial for the success of local planning. Plus, this two-level coordination should also be effective for funding. Programs at national level are essential but local level should mobilise funding options too. He finally evokes the use of NAMAs (Nationally Appropriate Mitigation Action) as a tool for the transport sector as they offer a broad base for international cooperation.

Regarding this concept, Mr. Gouin invites Mr. Allaire and Mr. Martinie to present what CODATU proposes for the implementation of this concept for urban planning in the developing countries.

Mr. Martinie explains that NAMA is a tool of great flexibility and that it can be combined with SUMPs in order to encourage the implementation of mobility projects that articulate transport and climate issues. Mr. Allaire calls for partners, especially medium-sized cities in developing countries that are willing to participate in this project as pilot cities. NAMAs are very important to build a more favourable national context, as States must play a supporting role to ease the implementation of SUMPs at local scale. Both panellists insist on gathering partners around this proposal. Indeed, the exchange between cities from different countries will aim at reinforcing developing countries capacities.

Mr. Gouin thanks CODATU for putting light on this necessary link between global scale and local action. A representative of Transitec consulting group states that developing cities have the duty to clarify finalities and means before implementing a SUMP.

13 The report of this session has been written by Clémence LECOINTRE and Camille LOPEZ.
Round Table: Financing Low Carbon Transport

Tuesday, February 3rd, 4pm – 5.30pm

Chair: Cornie Huizenga, SLoCaT, Secretary General

There is about 1.2 to 1.5 trillion dollars spent each year in transportation globally. The public sector is the backbone and concentrates most of the spending. This is a substantial amount of money but this is obviously not working.

What are the ways to finance transportation projects?

There are different scenarios.

1. Use climate finance to develop pipeline projects;
2. National Government supports development of city-based project, but the money might often be allocated to other projects;
3. Re-allocate public money towards more sustainable (Example of Shanghai where the car fleet is regulated and a license to own a car costs about 15,000$. There are 100,000 licenses issued each year, which generates 1.5 billion dollars each year relocated towards sustainable projects. Example of London and the congestion charges)
4. “Transport funds transport” The transportation sector is so big that it should be able to generate enough money in order to fund itself.

The fuel subsidies question is particularly important in developing countries such as Nigeria. Who benefits from fuel subsidies in countries like Nigeria? Will suppressed fuel subsidies benefit to the public?

The audience is divided on the subject. Some state that it will penalize the poorest people who won’t be able to afford transportation due to the price increase. Some say that the fuel subsidies already mostly benefit to the rich and upper middle class, and suppressing it might allow the government to directly subsidize the poor. However, a Nigerian member of the audience reminds us that the question of corruption is central in Nigeria and is jeopardizing the realization of such projects.

Symmetrically, fuel tax can generate important amounts of funds; Europe and countries such as France are a prime example of this. Another French example is the tax that every employer pays proportionally to its number of employees in order to fund public transportation. The old vehicles tax has also worked in several places, and the green-freight can be effective.

In some countries (ex. South Africa), it is impossible to ring-fence the money, which means that even if we come up with ways to collect public funds, it may not be spent in the transportation sector.

PPP (Public-Private Partnership) might also be an effective way to finance projects. But the regulatory framework and the political and economic stability can be an impediment, especially in developing countries.

“We need to find a way to unleash the human capacity to make sustainable urban mobility plans”. Before looking for funding, we should make sure that we are able to develop well-elaborated plans.

Keywords: Finance, Fuel subsidies/tax, Customer cost, PPP, Green-freight

14 The report of this session has been written by Pierre AUDEGIL and Louis GENDREAU.
Energy, climate and air quality

Monday, February 2nd – 4pm – 5.30pm

Chair: Olivier Lah, Project coordinator, Wuppertal Institute for Climate, Environment and Energy, Germany

Speakers:

Zia Wadud, University of Leeds Centre for Integrated Energy Research, UK
Thaned Satiennam, Khon Kaen University (Thailand)
Dominique Breuil, Ecole d’Ingénieurs en Génie des Systèmes Industriels (France)
Peter Mock, International Council on clean transportation (ICCT, Germany)

The city of Dhaka has an increasing level of GHG and CO2 emissions, mainly caused by the use of motorcycles fuelled by petrol. In order to address this issue, the government took various initiatives aiming at increasing the use of Compressed Natural Gaz (GHG). The objectives of this policy are to bring improvements in air quality and energy security. Studies were made by Dr. Wadud seeking to understand the impacts of the use of CNG in Dhaka. The results are very promising. The use of CNG can actually improve air quality and therefore have benefits on public health. With GHG incentives, the emission of CO2 decreases. However, the emission of SO2, organic carbon and methane decreases. In a nutshell, energy transition is possible. Political decision-makers are invited to encourage the use of CNG through a differentiation of the prices of CNG and petrol, to address congestion by other means for an increased efficiency.

In many Asian developing countries, gas emissions due to the use of motorcycle can reach critical values. The study of Dr Satiennan focuses on estimating the emissions and fuel consumption of motorcycle. To do so, an onboard measurement system was built in order to collect data during the morning peak hour. On-road emission and fuel consumption models could be developed and correlated to instant speed and acceleration/deceleration rate. Two strategies of traffic management could yield from that study. Those strategies can be used by political decision-makers in order to guide the discussion and move to a cleaner transportation in Asian developing country.

In Atlantic Area territories, improvements can be brought in order to reduce the carbon footprint. Professor Breuil’s reflection focuses on four topics: land planning, energy, mobility of people and goods, and change in behaviour. This study was conducted in the framework of CLIMANTIC project. The first step was to understand the specificities of those territories, to understand the mobility and to propose instruments and indicators to decision-makers. The outcome of this study was to provide policy-makers and stakeholders advice on specific real actions, taking into account the characteristics of the territories.

G20 countries are responsible for about 90% of electric vehicles sales. The study of Mr Mock aims at understanding the mechanisms which drive the EV technology into the market and to see whether there is a pattern which would allow to extend the sales and use of EVs. He concludes that in many countries, CO2 regulations, for example, can foster innovation and push EVs into the market. Furthermore, fuel taxation and CO2 based vehicle taxation can be a good trigger to change consumer’s behaviour and encourage the use of non-polluting vehicles. Decision-makers are called upon to implement more effective taxations.

Keywords: Carbon, taxation, GHG, air quality, fuel consumption, emissions.

15 The report of this session has been written by Lucile BOUDET, Marie-Bénédicte ADJAHOU and Alice KUTTLER.
Urban Transport in developing countries

Tuesday, February 3rd, 4pm – 5.30pm

Chair: Kazuaki Miyamoto, Professor, Tokyo City University (Japan)

Speakers:
Yoshitsugu Hayashi, Nagoya University (Japan)
Rosario Macario, Instituto Superior Técnico, Lisbon (Portugal)
Ashish Verma, Indian Institute of Science of Bangalore (India)
Nuwong Chollacoop, National metal and materials technology center (Thailand)

Yoshitsugu Hayashi: We can base transport and urban development on the assessment of the Quality Of Life (QOL). It consists in the appreciation of various utilities’ accessibility to different groups of people and how it impacts their lives according to their specific needs and preferences. For instance, older people would have a high preference level for the proximity to a hospital, and people in their 20s would rather prefer to have an excellent access to education. The survey-based QOL study, conducted in Nanjing, revealed that the 20s generation and the over 50s generation have a low QOL and that the city should develop and decentralize its facilities.

Rosario Macario: In the EU, more “polluter pays” initiatives are being taken each time. A 40 years transport corridor network project has been announced. However, it seems that today we need to adopt a “zero growth paradigm” to address resource depletion and deterioration of the environment. Energy will be the next main focus of our society and economy, after communication in the past decades. We need to coordinate actions and invest in quality governance and decision-making. Among the most promising and impacting measures to reduce GHG emissions is the shift to alternative and renewable sources of energy.

Nuwong Chollacoop: Thailand’s energy needs increased in the last decade due mainly to transport (36%) and industry (36%). One of the measures for the National Alternative Energy Development Plan (2012-2021) for energy independence would be to replace fossil fuels with bio-fuels, gasohol, and alternative diesels. This would reduce considerably the trend evolution of the energy demand and for all types of vehicles, therefore reducing massively GHG emissions for the next decades. But, if we want to be sustainable and not threaten the global food security, we need to consider bio-fuels coming only from agricultural by-products – like molasses instead of sugar cane.

Keywords: energy independence, biofuels, zero growth paradigm, urban planning, quality of life

16 The report of this session has been written by Marianne BEGLIN and Quentin MARCHAND.
Plenary on Megacities

Wednesday, February 4th, 9am – 10.30am17

Chair: Haluk Gerçek, Professor, Istanbul Teknik Universitesi (ITU), Turkey
Keynote speakers:
Pan Haixiao, Professor, Tongji University, China
Krishna Rao, Professor, Indian Institute of Technology Bombay, India

Haluk Gerçek: Originally, Istanbul was a coastline city located on both sides of the Bosphorus. Urban growth raised over 3% during the past 50 years. To improve mobility between both sides of the city, two bridges and transport infrastructure were built. The objective was the decongestion of the European coast. Consequences are way different. Job location stayed on the European side while residential places have increased from 24% in 1954 to 53% today on the Asian side, leading to enormous congestion issues during peak hours. The reasons for congestion are directly linked with the inefficiency of public transport, even if it represents half of the motorized trips. Plus, half of the trips are made by foot, which is surprising in a built-for-car city. Efforts made, ultimately, worsened the initial situation. Regarding those experiences, future North motorway should have the same consequence. To decongest the city, master plan and environmental recommendations will not be sufficient, perspectives on the north could also make the situation worse. All those decisions are taken at the top level, with no dialogue with the population; it will not help to improve mobility in this “Endless City”.

What is your position on the dilemma around building transport infrastructure, car ownership growth/attractiveness of the city and impact on climate?

Krishna Rao: Congestion in Mumbai is originally due to the urban form of the city. It is located on an island; in the north there is a residential zone while the south is dedicated to business and jobs. Mumbai is equipped with a wide railway network but with a capacity load which is not adapted to the users (>15personns /m²). Concerning traffic, Mr. Rao says there is no policy possible to control car ownership. In Mumbai, the growth in the number of private motorized vehicles (motorcycle, car, etc.) is due to the insufficient public transport offer. Mumbai authorities plan the urbanization at a regional level because of the regional growth. Those elements offer new perspectives. The direct consequence is the reduction of travel time and it involves a reduction of congestion at the regional level. This is a new phenomenon: the city is still growing and travel time is reducing.

Pan Haixiao: In Shanghai, to avoid a strong congestion, authorities have imposed a strong policy about car ownership since the mid 80’s. In comparison with other Chinese cities, advantages are clear. Shanghai is also growing by following master plans. The answer of Mr. Haixiao was focused on climate impact. Transport infrastructure in lower and middle cities involves a lot of variation in GHG emission while it is more stable in Megacities. Infrastructures are shared by more people, and impacts are more distributed citywide.

In each of the three cities, does a master plan or an authority rules transport?

In Mumbai, transport is managed at a regional level by an authority. The master plan used to be revised every 20 years, now it will be done every ten years. During intermediate period, studies are conducted by researchers, academic experts and consultants. At the national level, a transport-funding plan to promote sustainable transport has been settled and Indian cities support those initiatives. In Chinese cities, a master plan drives all transport modes, ruled by strict standards. Mr. Haixiao agrees that master plans are important, but it is only a step. Authorities must communicate around those plans and explain them in order to federate the population. Without the population, master plans cannot be followed. In Turkey, there is no such national master plan but a RFP process seems to be launched to get one.

Keywords: Megacity, congestion, urban development, masterplan

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17 The report of this session has been written by Gabriel AYGALINC and Léaud LE BACQ.
**Poster session**

**Exhibitors:**
- Geanina Elena Suditu, Metrou SA (Romania)
- Mirko Goletz, Institute of Transport Research (DLR, Germany)
- David Nelson, National Center for Arts and Crafts (CNAM, France)
- Baartarzorig Mandkhai, Kyushu University (Mongolia)
- Romano del Mistro, University of Cape Town, Center for Transport Studies Cape Town (South Africa)

Ms. Suditu highlighted the necessity of an effective marketing policy for the public transport image in Bucharest agglomeration (Romania). The aim of this paper is to explain the importance to “focus on citizens’ needs and communication” and not only focus on the passengers. This problem comes from the presence of two operators with their own area and their own events in the city.

Mirko Goletz, Lucas Elsner, Nadmian Ndadamoum, Barbara Lenz (Informal transport services in Bogota and N’Djamena: Actors, interactions, and characteristics); The work done by those three researchers aims at comparing the system of informal transport services in two cities, Bogota (Colombia) and N'Djamena (Chad); both cities having similarities and also differences. Indeed, they have almost the same stakeholders (drivers, owners) and the same relationships with state stakeholders but their organisation structures differ according to who has the power. In this way, Bogota has a “bottom-up” structure (dominated by owners) and N’Djamena a “top-down” structure (dominated by unions). However, in these two cities, drivers are the “poor men”.

David Nelson (Imagining Complete Streets for Developing Africa). The work of Mr. Nelson seeks to show that the way of building streets has to change in order to avoid supremacy of cars in city centres, especially in Africa. In fact, African cities are following old occidental standards for streets shaping but they are not sustainable and they are not made for pedestrians and alternative mobility. Mr. David Nelson focuses on Addis Ababa, the capital of Ethiopia, to put in place the concept of “complete street” which includes all forms of mobility. The idea is that the street belongs to everyone and it is necessary to think about slower and alternative mobility.

Baartarzorig Mandkhai (An Analysis on Rapid Urbanization Issues in Mongolia and its Externalities. A Case of Study on Apartment and Ger Residential Areas in Ulaanbaatar City). Mr. Mandkhai worked on the capital of Mongolia, focusing on rural immigration to the fringe of the city, in informal houses. He studies the satisfaction of people living in apartment and in residential areas: the results shows that the level of satisfaction between the two groups of population is quite similar even if there is a lack of urban services in informal areas. This study illustrates how people are not asking for better housing but for better urban services such as urban transport in order to access the city centre for work opportunities.

Romano del Mistro (Sufficient accessibility as a policy to inform urban patterns appropriate to mitigate climate change, air quality and energy challenges in developing countries). The pattern of cities is quite similar all over the world: city centres rule activities and job opportunities. Mobility and access to the centre are substantial stakes for cities. Mr Del Mistro studied the accessibility of city centres and showed that poor people have to travel long distances to work in the centre of Cape Town. Indeed, he developed the idea of multicentre in order to decentralize all the activities: it could be relevant to encourage companies to employ people who live near their activities. Such solution could mitigate congestion and improve the quality of life of the poorest inhabitants who are the first victims of insufficient access to mobility.

**Keywords:** marketing policy, informal transport, Complete Streets, urban services, multicentre cities

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18 The report of this session has been written by Jessica LEMAIRE and Anna QUEMENER.
**LRT & MRT (Feasibility and Impact)**

*Wednesday, February 4th, 11am – 12.30am*

*Chair: Ali Huzayyin, Profesor, University of Cairo and Co-chair CODATU Permanent Scientific and Technical Committee (PSTC)*

*Panelists:*
- Tahar Baouni, Ecole Polytechnique d’architecture et d’urbanisme d’Alger (Algeria)
- Riadh Haj Taieb, President of Association pour le Développement Solidaire de Sfax (ADSS, Tunisie)
- Ionut-Sorin Mitroi, Codatu from Romania / Metroul SA (Romania)
- Eugenia Alina Roman, Codatu from Romania / Metroul SA (Romania)

Mr. Baouni firstly presented the latest transport innovations in the city of Algiers, Algeria. He especially emphasized the progress made in the field of low carbon transport modes. Indeed, Algiers was recently equipped with a 9 km metro as well as a 23 km tramway line, and is currently planning the extension of both lines. As part of this project, a survey was carried out with a total of 1000 passengers. This study highlighted in particular the need to consider the relationship between subway and bus systems as well as addressing fare integration issues. During the discussion with the audience, Mr. Baouni pointed out institutional and political obstacles and limits currently hindering the development of the subway.

Mr. Haj Taieb particularly emphasized the role of the civil society in Sfax tramway project, in Tunisia. He firstly pointed out the reasons and motivation for such a medium-city project: Sfax public transport capacity has indeed tremendously decreased during the last decades, provoking major negative externalities and encouraging the use of individual motorised vehicles. According to Mr. Haj Taieb, Tunisia should therefore benefit from a very active and educated civil society likely to promote the development of low carbon transport in the country in the future. After a long lobbying process with the political leaders and stakeholders, Sfax tramway project has been eventually planned and should be implemented in 2019. Advocacy work is also done in schools in order to raise climate change awareness among the future generations. The president of the ADSS emphasized the need to establish a unique transport authority as well as a general urban mobility plan.

Mr. Mitroi shared the results of his recently conducted study on the intermodal station Eroilor in Bucharest, Romania. According to him, the success of intermodality is highly conditioned by the good management and planning of traveller’s moving within the stations connecting multiple networks. In order to enable Eroilor – as well as other comparable intermodal stations – not to become a traffic bottleneck, Mr. Mitroi underlined the necessity of mapping and quantifying the different existing pedestrian flows. The main results of his study led him to provide a certain number of recommendations such as widening corridors, arrangement of curved passages and additional escalators. The next step of his study will, in the near future, address the issues of a better connection of the underground station to the surface.

Mrs. Roman presented the results of her study on intermodal traffic in the city of Bucharest, Romania. Giving evidence of the current lack of control of Bucharest urban expansion, her work mainly consisted in isolating key-elements understood as responsible for urban congestion within a certain number of zones and roads. Mrs. Roman also identified the lack of coordination between the regional bus network and the urban network, increasing traffic density. Her study therefore led her to identify an insufficient integration of Bucharest intermodal system at three different levels (technical, fares and institutional). Indeed, this situation currently reduces public transport attractiveness and encourages the use of private cars. She finally insisted on the crucial establishment of a moderating transport authority, to avoid competition between several operators.

**Keywords: Intermodality – connectivity — LRT – MRT – pedestrian spaces**

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19 The report of this session has been written by Romain BRESELEC and Steve EL KAFSI
Assessment of Public Transport Projects and Quality of Service

Wednesday, February 4th, 11am – 12.30am

Chair: Etienne Lhomet, Des villes et des hommes, Director

Speakers:
Abdullah Önder Turkoğlu, Transportation Planning Department (IETT)
Pelin Alpkokin, Istanbul Technical University

Ms. Pelin Alpkokin presented an assessment of current operation and policies for Istanbul rail systems. The 21st century might be described as the “Renaissance of Urban Rail Systems”. Where does Istanbul stand on this Renaissance? She discussed three major projects:
- Istanbul Bosphorus Strait Rail Tunnel & Upgrade of Commuter Lines – MARMARAY: Some questions remain unanswered: How well will land use be developed around the Stations along corridor? How effectively will the highway based network re-organized?
- Istanbul Bosphorus Crossing Third Highway Bridge: It is destroying some green parts of the city.
- Asian Side Underground Metro (K – K Line): Station access problems create a gap between the projected and the actual daily ridership.

“We need more design/implementation policy in order to have a real effective Urban Rail Renaissance”.

Mr. Ved Mani Tiwari discussed the paradigms of the transit quality of service assessment. The conventional paradigm revolves around criteria such as affordability, availability, punctuality, reliability, safety, security, convenience and comfort. However, a new paradigm is emerging. It revolves around the following aspects:
- Efficiency: Transit is not an objective in itself, it is a mean to an objective.
- Productivity: Many stakeholders expect more and more in terms of time and money.
- Connectivity: Real time information, geo-localization...
- Experience: Differentiated experience instead of mass transit.
- Sustainability: Energy intensity, resource usage, and communication.
- Profitability: Financial sustainability, multi-sided markets, profitability for all.
- Trust.

The Kochi metro vision also focuses on the connectivity (mobility apps, social networking, smart ticketing, e-wallets, smart advertising, loyalty and rewards programs).

Discussion

Q: Don’t you think that in developing countries there should be a gradual evolution, starting from modes such as BRT before upgrading to more expensive systems such as LRT or metro?

A: Mr. Harold: I’m not in favor of graduality from BRT to LRT system, I think we need a clear planning choice from the beginning.

20 The report of this session has been written by Pierre AUDEGIL and Louis GENDREAU.
Disaster resilience in transport

Wednesday, February 4th, 11.05am – 12.45pm

Chair: Huapu Lu, Tsinghua university (China) & Ashish Verma, Indian institute of Science (India).

Speakers:
Yoshitsugu Hayashi, Nagoya University (Japan)
Huapu Lu, Ashish Verma, Ruimin Li, Institute of Transportation Studies, Tsinghua University
Takayuki Akiyama, Hitachi Ltd (Japan)

Mr. Lu and his co-chair Mr. Verma open the session. They present the 14th World Conference on Transport Research Society (WCTRS) that will take place in Shanghai in July 2016 and introduce professor Hayashi from Nagoya University.

Mr. Hayashi presents his research on sustainable urban mobility and disaster resilience. In his work, he established a map where he identifies different areas according to their eco-sufficiency. These areas are locations for retreatment and they can be useful to policy makers as it can help action for sustainable mobility. To enhance resilience, Mr. Hayashi gives 3 concepts that are adaptability, network redundancy and compact-connected.

Mr. Lu lets his assistant present their research work: Analysis of traffic management strategy under emergency. They explain their methodology and how they led the research by doing a simulation. In case of emergency, they identify 4 strategies to adopt: lane closure, traffic diverging, vehicle type restriction and speed limit. For each strategy, they established potential consequences in order to create different scenarios. In conclusion, they insist on the fact that pre-arranged plans are crucial for traffic management in case of accident.

Mr. Verma first reminds that India is particularly vulnerable to natural hazards, such as floods and earthquakes. Although there is a Disaster Management Act institutionally effective since 2005, it doesn’t take into account the transport sector. In order to overcome this obstacle, he proposes to build a traffic modelling for post-earthquake situations. This model should include at least capacity and demand for effective emergency traffic management.

Mr. Li presents his work on the impact of inclement weather on urban traffic conditions. Although he is still at the initial stage of his research project, Mr. Li introduces his methodology and the first conclusions he can draw from his data. By combining traffic flow data and rainfall data, he argues that, under rain condition, the traffic volume and the speed decrease from 6% to 14% whereas the occupancy rate (congestion) increases. He notices that there is no obvious regularity of the impact of different rainfall intensity on the traffic volume, speed or occupancy. He underlines a limit to his work, as there is a lack of accurate data for traffic flow and occupancy.

Mr. Akiyama presents an ITS application based on people flow data that enables analysis of demand for different transportation modes and that can be used for transport regulation and better planning. Data is collected via people’s smartphones and there is an automatic extraction of trip information which gives time periods for each trip and the transportation mode used. At the end of the presentation, Mr. Hayashi underlines that, in this ITS application, there is no direct link with the resilience issue. Indeed, Mr. Akiyama acknowledges that no people flow data exists on period of disaster, as it is the beginning of the application.

Mr. Lu closes the session and invites young researchers to join the WCTRS group on disaster resilience and transport.

Keywords: resilience, disaster, eco-sufficiency, traffic management, transportation model

21 The report of this session has been written by Clémence LECOINTRE and Camille LOPEZ.
Public Transport in Asia (Planning and Impacts)

Wednesday, February 4th, 2pm – 3.30pm

Chair: Rao Krishna, Professor, Indian Institute of Technology Bombay (IITB), India

Speakers:

Abdul Azeez Kadar Hamsa, International Islamic University Of Malaysia (Malaysia) - Planning of Transit-oriented Development Cities for Greater Mobility

Atsushi Fukuda, Professor, Kasetsart University (Thailand) - Determinants of Land Use Change MRT Purple Line in Bangkok Metropolitan Region

Ravi Gadeppalli, Shakti sustainable energy foundation (India) - Parking policy as a countermeasure to promote public transport usage: Case study of Nehru Place district centre in New Delhi, India

Abdul Azeez Kadar Hamsa: Kuala Lumpur is experiencing a rapid urbanization which has an impact on travel demand and leads to a high rate in the use of private vehicles and a strong congestion. Malaysian authorities are now promoting the use of public transport (today, it represents only 15% of the travel mode). The study reveals the relationship between city density, mixed-land use and passenger ridership. Based on the volume of passengers which enters/exits at 3 representative stations (terminus, central and intermediary) of the line, Mr. Kadar Hamsa concludes that density and mixed-land uses (commercial buildings, pedestrian zones, residential areas…) increase the use of public transport. Some comments have been made about the methodology. The choice of the 3 stations is questionable. It might be more interesting to do the study on all stations.

Atsushi Fukuda: Bangkok congestion is high. Authorities have developed a wide railway network in order to contain the urban development of the city. The extension of the Bangkok’s purple line is contested and 30% of concerned population affirm they will not use it. The study seeks to determine the influencing factors of land use change in the adjacent areas of MRT Purple line through different regression methods. Results allow Mr. Fukuda to conclude that undeveloped or vacant land parcels being located near stations attract more developers than those closer to the main road. Other factors, commercial areas or land price reveals also the varying relationship to land development. Some comments have been made about the proximity of the city centre as an important factor. It appears to Mr. Fukuda that it has a global influence but in Bangkok the CBD is spread across the city, and these factors are not that impacting.

22 The report of this session has been written by Gabriel AYGALINC and Léaud LE BACQ
Freight transport: characteristics

Wednesday, February 4th – 2pm – 3.30pm

Chair: Laetitia Dablanc, Director of Research, French institute of Sciences and Technology for Transport, Development and networks (IFSTTAR), France

Speakers:

Sanjay Gupta, School of Planning and Architecture (India)
Binh Nguyen Thi, Vietnamese German University (Vietnam)
Dominique Breuil, Ecole d’Ingénieurs en Génie des Systèmes Industriels (France)

Sanjay Gupta: The agro supply chain used to be very fragmented with many neighborhood stores, and is now being replaced by a more organized system. However, the walking environment has deteriorated, resulting in a drop in the proportion of the walking mode for shoppers. Retail outlets have the potential to impact the shopper’s behavior and resultant mobility levels. Moreover, the lack of efficient non-motorized transport networks within the immediate catchment of stores can result in the use of motorized personal vehicles for short-distance trips, which impacts negatively the neighboring environment and causes congestion. These non-motorized transport networks must become a priority in the urban development in India.

Binh Nguyen Thi: We can compare the carbon efficiency of two comprehensive supply chains for the yogurt industry, in France and Vietnam, and draw conclusions. Generally speaking, logistic chains are similar in both countries.

There is less energy consumed in transportation from the factory to the platforms in Vietnam because distances are shorter and the logistics topography is better. This is compensated by the fact that transportation capacity and storage efficiency are better in France. However, because of the nuclear origin of electricity production in France, the CO2 coefficient per unit is globally much lower than in Vietnam where electricity comes mainly from fossil fuel combustion. An efficient logistical topography is an important lever for sustainable freight transport, but energy choices are paramount.

Dominique Breuil: In order to achieve sustainable freight transport systems, we need to realize impact evaluations and process evaluations of the freight logistics. One successful example is Vercelli, Italy, where objectives were to improve delivery facilities and parking availability to enable efficient freight logistics.

Keywords: facilities accessibility for non-motorized modes, energy efficiency, freight transport, logistics topography

23 The report of this session has been written by Marianne BEGLIN and Quentin MARCHAND.
Road Safety and Security in Cities (i)

Wednesday, February 4th, 2pm-3.30pm

Chair: Ramzi Salame, Rector, University Saint Joseph, Beirut, Lebanon

Speakers:

Rami Semaan, Consultant and lecturer University Saint Joseph (Lebanon), Case studies on city centers and soft modes plan, Beirut and Zahlé

Rafael Capdevilla, Catalan Society of Geography, Barcelona (Spain), How to develop, organise and exploit a bike network? How to develop comprehensive approach for road safety including pedestrians, bike, motorcycles?

Tolga Imamoglu, Road Safety Projects Manager, EMBARQ (Turkey) - RSLab Projects

Mr. Salame introduces the session by reminding the importance of road safety which is a real public health problem. We need clean and safe transports. There are 1 250 000 people who die on the road every year. The World Health Organization (WHO) claimed that lack of safety on the road is an epidemic we have to fight against. In this context, 2011-2020 was declared the decade of actions for road safety. Mr. Salame points out that this epidemic is the first cause of mortality among young people of 15 to 19 years old. What do cities do to tackle this huge problem?

Mr. Semaan presents the issue of road safety in the cities of Beirut and Zahlé. He points out the specificities of the Lebanon context regarding this issue, that is to say the growth of fatal accidents, the lack of consideration for soft modes, the deficiency of collective transport and a general behaviour that hardens cohabitation between modes. Moreover, sidewalks and other road infrastructures face dysfunctions and unsuitability that prejudice the pedestrians.

Despite these assessments, Mr. Semaan stresses out the success of the rare planned projects. According to opinion surveys, there are strong expectations for soft modes in Beirut, but fears about safety on the road prevent them from emerging. Urban projects of street requalification aim at encouraging soft modes and eradicating the fears of the potential pedestrians. Mr. Semaan evokes solutions such as 30km/h zones and recommends various planning orientations: continuity and networking of the soft modes roads, requalification of fast tracks (to be kept out of the city centres), improvement of the connection and reduction of the breaks. The global vision that leads these actions is the construction of a sustainable and multi-projects city, dealing with parking as well as mass transit. The city of Beirut adopted the project but faces financial issues to put it into action.

Mr. Capdevilla presents the global distribution of travels in the city of Barcelona and in its metropolitan region. What comes out is the important part of the soft modes of transport, which represent half of the trips within both the city and the metropolitan region. Mr. Capdevilla emphasizes this continuous growth of soft modes. This can be explained by the crisis, which drove to a diminishing part of private transport, but also with a voluntary policy of the city, that made cycling paths and implemented a bike sharing scheme and e-bikes services.

The prevalence of motorbikes is another point that stands out. In the city of Barcelona, almost half of the trips made with private transport are made by motorbikes. They represent 60% of the accidents, although only 24% of the private trips. Mr. Capdevilla reminds the European objective to divide by half the number of killed persons on the road before 2020 and presents the measures of the Catalan Strategic Plan for Road Safety to achieve this goal. This plan focuses on awareness measures, prevention and education. Its main objectives are road pacification and modal transfer.

Tolga Imamoglu: The Road Safety Laboratory projects works with 5 selected cities in Turkey to help them achieve their targets by 2020 and building local capacities. Mr. Imamoglu explains that the cities are selected regarding

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24 The report of this session has been written by Lucile BOUDET, Marie-Bénédicte ADJAHO and Alice KUTTLER.
their high rates of road accidents and describes the process steps:

- Data collection: Mr. Imamoglu highlights the difficulty to collect data concerning road accidents in Turkey. This can lead to important errors.
- Analysing data and identifying black spots: this implies the creation of heat maps.
- Treating black spots: this is realized in collaboration with the national police department.
- Reporting: this enables prevention.

Mr. Imamoglu gives some recommendations to help preventing accidents, such as road signs, warnings on the road and on the floor.

Discussion

Mr. Salame underlines the necessity of an “evidence based management”, that is to say that each political and legal decision should be based on scientific knowledge.

Mr. Philip points out that control and repression on the road have helped to lower mortality rate on the road, we should take it into account and put it in place in the cities and not only outside the cities. For Mr. Semaan, the urban environment of Beirut is not in a good enough state to implement this type of control and repression measures. To improve road safety, we should work on both aspects: drivers' control and quality of the urban environment. Alone, control and repression cannot have the expected results.

Mr. Salame adds that it is indeed hard to have the law respected in a deteriorated urban environment. Exemplary public spaces are needed to demand exemplary behaviours.

Keywords: soft modes, road accidents, modal distribution, safe transports, pedestrian space, urban planning.
LRT and MRT systems in developing countries

Wednesday, February 4th, 2.05pm – 3.25pm

Chair: Youssef Draiss, Casatransport, Maroc - He was absent, Nicolas Prego replaces him as chair.

Panelists:

Pierre Marx, Egis (France) - De l’importance du plan d’urbanisme sur le choix d’un réseau de tramway: exemples de Sfax (Tunisie) et de Tébessa (Algérie)

Eric Marie, Alstom - Axonis, (France) - Le nouveau système de transport urbain développé par ALSTOM pour les villes des pays en développement

Cécile Féré, Lyon Town-Planning Agency (France) - Les projets de TCSP dans les villes en développement : quelles dynamiques sur la structure urbaine, les projets urbains et le renouvellement de l’espace public?

Nicolas Prego, Artelia, (France) - Outils d’aide à la décision des acteurs publics : quels enjeux pour les transports urbains?

Mr. Marx analyses urban mobility in Sfax in Tunisia and Tébessa in Algeria. Both cities faced similar issues: short distances, isolated stations, unconnected areas and roads in poor conditions. The main challenges were to improve traffic flow, develop mass transport and soft modes. Several scenarios were proposed to reach these goals. In the end, Egis opted for a mix between tramways and BRT. Political support was a must to implement the projects.

Mr. Marie describes the new mass transport designed by ALSTOM for developing countries: Axonis. It is a standardised system, which makes its construction cheaper, easier and quicker: it can be set up within three to four years only. This metro is faster than usual and its operating costs are lower. It is also a flexible system that is well integrated in the urban fabric.

Mrs. Féré presents two cooperation projects led by Lyon Town Planning Agency: Vientiane and Addis Ababa. The purpose of the projects is to provide the two cities with expertise in order to help them plan their development. Particular attention was paid to mobility. Three working groups were set up: the first one focuses on transportation and urban planning, the second one emphasises on operating mass transport and the last group studies urban integration and feasibility. The population was also involved during this process. To conclude, Cécile Féré insists on the fact that these projects required a strong political backing from local governments in Addis Ababa and Vientiane as well as in Lyon.

Mr. Prego is questioning the tools required by local authorities for decision-making. He identifies several tools: diagnostics; data-modelling; simulating and optimizing; infographic; communication; information about regulatory framework. His firm is currently working on a simulator that features all these tools for Santiago de Chile.

Discussion:
A transportation project cannot succeed if it is not embedded in a global vision for the city.

Keywords: LRT, BRT, tools, local governments.

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25 The report of this session has been written by Steeve EL KAFSI and Romain BRESELEC.
Mr. Aluko’s research deals with the problem of commercial motorcycle operation regarding law respect and regulation in Nigeria. He identifies factors that affect drivers’ behaviour: stress at work, corrupt transport system. He concludes with some recommendations. First, a combination of measures could be more effective in reducing violations. Plus, providing incentives without improving sanctions may not generate good behaviour. Before letting Mr. Hemchi talk, Mr. Mbara asks Mr. Aluko what would be a possible solution to corruption issues. He replies that the regulation has to pass through a stronger drivers’ union since they have a powerful influence in Nigeria.

Mr. Hemchi presents the moto-taxis phenomenon in N’Djamena (Chad) that emerged in the capital in 2005. He describes how the practice of moto-taxi appeared in response to the insufficiency of public transport and succeeded in meeting people’s needs. Although moto-taxi are officially forbidden since 2013, there are still 22 000 vehicles estimated in N’Djamena and this practice generates incomes. He gives some advantages of this practice such as the access to mobility for every social class even though moto-taxis generate accidents and increase air contamination. To conclude, he recommends a policy of reorganisation and mobility rationalisation through training, in order to make users less vulnerable.

Mr. Traoré presents the context in which moto-taxis appeared in Bouaké (Ivory Coast) during the crisis period since 2002. Once again, this practice appeared as an emergency reply to a disorganised urban context and to people’s needs. This transport mode provides employments and incomes for stakeholders. However, it also generates various negative. The solutions he proposes are various, like giving a regulatory framework to the practice, urban planning and elaboration of a multimodal urban mobility plan, and integration of this informal transport mode.

Mr. Guezere, from Kara University in Lomé, starts his presentation underlining that CODATU conference could have focused more on the specificity of African cities’ context and he regrets the absence of decision-makers in this kind of event. In his research, he remarks that Togo has the ambition to become an emergent country by 2030, and asks how the urban transport sector can be integrated in that objective. He insists on the idea that two-wheelers, which are prominent today in Lomé, are not suitable to emergent countries and that an alternative has to be found, such as the reinforcement of mass transport like buses. According to him, 3 major actions should be implemented: (I) improve the infrastructure services like roads and car parks, (II) develop public transport, integrating paratransit modes and (III) urgently implement a Sustainable Urban Mobility Plan (SUMP) for Lomé. After the last presentation, Mr. Hemchi raises the problem of SUMPs made by foreign consulting groups, whose planning doesn’t fit totally with the local context. Mr. Tindano, from SOTRAL in Togo, remarks that in a context of political instability, a SUMP is a core document which sets objectives and orientations for the city’s future. Finally, Mr. Traoré reacts about the presence of foreign stakeholders and thinks that good practices from outside is inspiring even though it is important to match it with local realities.

26 The report of this session has been written by Clémence LECOINTRE and Camille LOPEZ.
Motorcycles (Challenges, Strategies and Evaluation)

Wednesday, February 4th, 4pm – 5.30pm

Chair: Dave Maunder, Co-chair of the CODATU XVI International Scientific Committee (in replacement of Rao Krishna)

Speakers: Rebecca Heywood, M.I.T.

Only Mrs. Rebecca Heywood presented her work about two-wheelers in Pune (India). In order to resolve the lack of quantitative information about two-wheelers users, the methodology mainly relied on user surveys.

In Pune two-wheelers represent 55% of the modal share. 67% of the riders switched from public transport to two-wheelers (mainly for comfort reasons). Age and gender are major factors in the use of two-wheelers.

The study led to 5 conclusion points:

Affordability and convenience are two key factors. Users will switch back to mass transport if affordable and convenient. Indeed, the lack of alternative mode is one of the main factors.

Negative externalities are important challenges:

- Emissions and air pollution: There hasn’t been much improvement in two-wheelers vehicles’ emissions.
- Road safety: 50% of road accidents involve two-wheelers users, but 1% of them wore helmets. Developing helmets adapted to tropical climate is a way to address this issue.

Moving forward:

- Investment in alternative mass transit and non-motorized modes.
- Substantial research needs to be done on the technological level (developing adapted helmets, reducing two-wheeler’ emissions...)

Discussion

Q: You said that the main reason for using two-wheelers is the comfort; did your study take into account the tremendous amount of accidents and death?

A: Even if two-wheelers are involved in 50% of road accidents, they are essentially minor accidents. Most fatal accidents involve trucks or buses, and changing modes is a way to reduce fatality rate, especially with the development of adapted helmets.

Q: You made projections on rather or not women would use motorcycles after the age of 50, but the behavior of the new generation might not be the same as their mothers’.

A: This is true, most of the surveys were conducted with young women, but also in households, so the figures have to be considered carefully. Safety is also a major factor, families prefer young women to use two-wheelers because they are afraid of the public transportation, and thus this factor might evolve with the age and the family pressure.

Q (more of a remark): It would have been interesting to consider the distance, destination and financial means criteria in two-wheeler use. These criteria are very determinant in two-wheeler use and they have to be considered in order to develop strategies to bring back two-wheelers users to public transport.

Q: How would the city of Pune use this study?

A: The goal was mainly to start a conversation about two-wheelers.

Keywords: Methodology, Externalities, Users motivations

27 The report of this session has been written by Pierre AUDEGIL and Louis GENDREAU.
Road safety and security in cities (II)

Tuesday, February 3rd 2015 – 2pm – 3.30pm

Chair: Ramzi Salame, Rector, Saint-Joseph University, Beyrouth, Lebanon.

Speakers:
Rayane Wehbé, TMS Consult, Lebanon.
Joel Yerpez, Research director, Head of the Transport, Health and Security Department, IFSTTAR, France.
Ana-Maria Ciobica, CODATU Romania/Metroul SA, Romania.

Mrs. Wehbé presented the methodology and findings of a road safety audit conducted in Lebanon. This audit was commissioned following a previous investigation that concluded that one of the causes of the increase in road accidents in Lebanon was the inappropriate geometry of the road infrastructure. This *a priori* audit consequently aimed both at reducing road insecurity and preventing the expenditures that could be potentially entailed by a necessary deeper modification of an already build infrastructure. Mrs. Wehbé therefore advocated the usefulness of the audit method and recommended to adapt it to each step of the road infrastructure project. Mrs. Wehbé however acknowledged that auditing and improving infrastructures was insufficient. Indeed, human errors, including pedestrian errors, are still responsible for most of the road accident and should be tackled by a better regulation and prevention.

Mr. Yerpez presented some key-figures about the general decrease in road mortality on French roads. However, he also highlighted the need to provide new solutions and policies in order for France to achieve the EU target of 2000 annually killed people by 2020. While recognising the positive effects of the recent initiatives France took in this matter, the researcher recalled that the infrastructure was often inappropriate and as a result, encouraged many drivers to break the law. Mr. Yerpez therefore provided relevant example of inappropriate road configurations such as broad straight lines limited to 50km/h or highly constraining pedestrian crossings. He eventually highlighted the existing tensions between certain standards for economic development and road safety issues, and invited participants to perceive road safety as part of a fully integrated mobility system.

Mrs. Ciobica’s contribution aimed at providing modelling tools in order to measure safety performance of the road. She firstly presented an overview of Romanian road accident statistics and provided a synthetic description of Bucharest’s urban morphology. Based upon 3 levels of modelling, her project allows providing a macroscopic analysis as well as a black spots mapping of Bucharest city network, to then recommend a certain number of road safety improvements and to also test them within the most dangerous zones. Her final findings highlighted the importance of evaluating the behavioural factor as well as the technical failures of the infrastructure.

Discussion:
The final debate gave the opportunity to enter a discussion about the existence of differences in developed and developing countries in the specific field of road safety. Many Southern countries indeed exhibit strong commercial activities on their roads. Roads are not only for travellers but is also a meeting place. Mr. Salamé therefore emphasized that the OECD standards focused on the behavioural factor of risk, while the first concern for emerging and developing countries remains the infrastructure itself.

Keywords: Road safety – Infrastructure – road users’ behaviour

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28 The report of this session has been written by Steve EL KAFSI and Romain BRESELEC.
CODATU PSTC Session: Getting researchers and practitioners closer

Wednesday, February 4th, 4pm – 5.30pm

Chair: Ali Huzayyin & Anthony May, Co-chairs of the Permanent Scientific and Technical Committee of CODATU

Speakers:

Ali Huzayyin, CODATU - Presentation of the Committee
Lorenza Tomasoni, CODATU – How to better link research and practice? Results from the internal PSTC survey
Charles Rivasplata, SFMTA, San Francisco (USA) – Researchers and practitioners: presentation of some success stories and cooperation
Tony May, CODATU & Rao Krishna, Indian institute of technology Bombay (India) – Proposal o future initiatives

Ali Huzayyin: The aim of the PSTC is to develop technical and scientific activities of CODATU apart from the conference. Including mostly the developing countries, the 23 members try to facilitate communication between researchers and policy-makers. The main purpose of the session was to create a dialogue and to have discussions with partners. There is a gap between researchers and practitioners that must be solved in order to implement transport policies.

Lorenza Tomasoni: One of the main problems in urban mobility is the lack of dialogue and mutual understanding between researchers and practitioners. An internal questionnaire was implemented by the PSTC in order to determine the main barriers and to integrate and facilitate dialogue between researchers and practitioners. The questionnaire was submitted in June 2014 and the principal issues were the lack of mutual trust, communication and priorities. This tool is useful to understand the barriers and find solutions such as conference, network and solutions programs.

Like the rest of the speakers, Charles Rivasplata agrees on the fact that it is important to facilitate cooperation between both. Sometimes it is a success, as the project of car sharing in San Francisco Bay Area. Transport planners and researchers worked closely to test car-sharing options and develop policy actions. The benefits are for everyone:

focus work on solving problems enables wider mobility issues and policies.

Rao Krishna focused on a case in Mumbai Metropolitan Region in order to show that researchers and practitioners can be barriers for each other because of the lack of communication. This example of conflicting priorities between the different actors of the Master Plan for the Metro Lines shows that urban transport policies can suffer from stakeholders’ interests and priorities and can affect a transport project.

Discussion

During question time, some participants highlighted the difficulty to understand the researchers’ results and the insufficient vulgarisation of results. Some speakers insisted on that aspect: the political game or the inapplicable aspect of some recommendations. The lack of trust and communication between researchers and decision makers is an important stake and all the participants agreed on this. Research results and information are sometimes difficult to find and it is important to tackle this lack of communication. Better links between researchers and practitioners will enable best transport policy because both of the stakeholders need each other to take good decisions.

To conclude this debate, the central question was who has the information, who owns the data?

Keywords: dialogue, researchers, practitioners, data

29 The report of this session has been written by Anna QUEMENER and Jessica LEMAIRE.
Non-motorised transport and sustainable transport policies (Access and user attitudes)

Thursday, February 5th – 9am–10.30am

Chair: Valerie Ongolo Zogo, Professor, University of Yaoundé, Cameroon

Speakers:
Paulo Anciaes, University College of London (UK) – Mapping pedestrian accessibility and quality of walking in an African city: Praia, Cape Verde
Dilek Çol Yılmaz, Istanbul Metropolitan Municipality (Turkey) – Priorization of the bicycle network clusters integrated with the public transport system in Istanbul Metropolitan area
Tatenda Mbara, University of Johannesburg (South Africa) - Achieving sustainable urban transport in Harare, Zimbabwe?

What are the required milestones?
Yao Godefroy Konan, Ministry of transport (Ivory Coast) – Integrated planning of transport and land-use in Greater Abidjan

Mr. Anciaes presents the walking environment in Praia, the fast-growing city of Cape Verde. Walking becomes marginal because infrastructures are adapted to motor vehicles. The study shows how the walking environment reproduces inequalities of income in the city. Its objective is to identify the neighbourhoods at disadvantage and to determine if this disadvantage is related to income levels and to the degree of urban consolidation. Mr. Anciaes analyzes two aspects of walking: availability of destinations (jobs, shops, services, leisure, bus stops) and quality of walking (pedestrian space, protection from traffic, personal safety, etc.). To conclude, Mr. Anciaes sums up priorities for each type of neighbourhood, taking into account their income and consolidation’s level.

Mrs. Yılmaz works on a study to build up bicycle network clusters around public transport centers in the Istanbul Metropolitan area. Surveys were conducted to produce a decision support model to plan a citywide bicycle network plan integrated with public transport.

Mr. Mbara presents the case of Harare in Zimbabwe. The city of Harare concentrates 16% of Zimbabwean population, that is to say 2 million people. Mr. Mbara points out an important problem of the city, explaining that it receives lots of cheap second hand motor vehicles coming from Asia and creating big problems of congestion. Surveys were led to address requirements. Mr. Mbara gives the main requirements: mass transit, institutional capacity, infrastructure improvements, governance, and travel demand management.

Yao Godefroy Konan: Ivory Coast is working on a document gathering both urban planning and urban transport planning for the first time. This project is financed by the JICA in order to create a compact city. This document has three points: mass transit, pedestrian mobility and freight transit. Mr. Konan stresses out the desire to develop mass transit solutions and to lower the number of minibuses and municipal taxis that will have the role of feeders towards the mass transport.

Discussion

Mr. Anciaes points out that the study of walkability in Cape Verde addresses the problems of a specific context, which is the one of a small country. The results are therefore not necessarily applicable to other contexts. He recommends to apply specific standards to the different environments.

How are researches informing and influencing policy makers?

For Mrs. Yimaz, we have to start from some points and the academic studies can help to prioritize. Mr. Anciaes highlights the growing importance of urban planning for policy makers, and researches help making maps accessible to everyone. People realize that walking and cycling create more space.

Mrs. Ongolo Zogo wonders how to prioritize actions in Sub-Saharan Africa and with which pillar African cities should start to improve mobility. For Mr. Mbara, the situation should be looked at holistically and decisions should be taken by locals. For Mr. Konan, mass transit is the answer for African cities, but it should be adapted to the economy.

Keywords: walkability, pedestrian environment, bicycle clusters, urban planning, governance.

30 The report of this session has been written by Lucile BOUDET, Marie-Bénédicte ADJAHO and Alice KUTTLER.
The objective of the study was to give recommendations on urban transport at a continental level. The pool of cities studied represents a good sample of African cities. Based on the ASI (Avoid, Shift, and Improve) concept, Mr. Stucki has given some recommendations to set up the urban mobility access in very different cities. He added one pillar to the classical ASI concept, the “Enable”. It is the most innovating proposition, articulated around 7 recommendations. He also re-uses the classical ASI and completed it with new recommendations to better fit with Africa’s specificities. The presentation showed the integration of paratransit in Cape Town, South Africa. The share of paratransit was high and the will was to integrate it officially in the transport offer. Mr. McLachlan described the work done around public transport in Cape Town. It includes a BRT, NFC accesses, re-use of public derelict space, traffic signal improvement... Above all, Cape Town has decided to substitute Minibus taxi fleet to paratransit, using a long dialogue process. Finally, 3 official bus companies are now held by former paratransit owners. A long process of education, license upgrading has been set up to integrate all former drivers in the new official system. Mr. Atiou and Mrs. Dols presented their project in Ouagadougou. There is a real need to reorganize the roads. Buses and cars represents 16% of the traffic, instead of 82% for the motorcycles and bicycle. However, the road gives 3 meters width for the cars traffic instead of 1 meter for the bicycles and motorcycles. The idea now is also to depolarize the city center by creating new surrounding itineraries based on land occupation. In addition, the government’s plan and local services’ plan go opposite ways. The decentralization is incomplete and financial means are very restricted. In spite of all the hurdles, the project is progressing and the partnership between the city of Ouagadougou and the city of Lyon is a real asset in this large-scale project.

CODATU Session: Urban mobility in Africa

Thursday, February 5th, 9am – 10.30am

Chair: Nico McLachlan, Managing Director of ODA, Cape Town (South Africa)

Panelists:
Martin Stucki, Transitec Engineering & Consulting (Switzerland) - A policy paper for urban mobility in Africa.
Nico McLachlan, ODA (South Africa)
Antoine Atiou, City of Ouagadougou (Burkina Faso), & Marie Dols, Lyon Town-planning Agency (France) –
Matthias Nuessgen, EURIST (Germany)

The objective of the study was to give recommendations on urban transport at a continental level. The pool of cities studied represents a good sample of African cities. Based on the ASI (Avoid, Shift, and Improve) concept, Mr. Stucki has given some recommendations to set up the urban mobility access in very different cities. He added one pillar to the classical ASI concept, the “Enable”. It is the most innovating proposition, articulated around 7 recommendations. He also re-uses the classical ASI and completed it with new recommendations to better fit with Africa’s specificities. The presentation showed the integration of paratransit in Cape Town, South Africa. The share of paratransit was high and the will was to integrate it officially in the transport offer. Mr. McLachlan described the work done around public transport in Cape Town. It includes a BRT, NFC accesses, re-use of public derelict space, traffic signal improvement... Above all, Cape Town has decided to substitute Minibus taxi fleet to paratransit, using a long dialogue process. Finally, 3 official bus companies are now held by former paratransit owners. A long process of education, license upgrading has been set up to integrate all former drivers in the new official system. Mr. Atiou and Mrs. Dols presented their project in Ouagadougou. There is a real need to reorganize the roads. Buses and cars represents 16% of the traffic, instead of 82% for the motorcycles and bicycle. However, the road gives 3 meters width for the cars traffic instead of 1 meter for the bicycles and motorcycles. The idea now is also to depolarize the city center by creating new surrounding itineraries based on land occupation. In addition, the government’s plan and local services’ plan go opposite ways. The decentralization is incomplete and financial means are very restricted. In spite of all the hurdles, the project is progressing and the partnership between the city of Ouagadougou and the city of Lyon is a real asset in this large-scale project.

Discussion:
To Mr. Stucki: There was a strong motorization in the 50's, 60's, and 70's in Europe and North America. Africa, in particular, didn't reach the same point and didn't use either the same path as its history is way different from colonizing countries. Then, as a northern concept, how is the EASI model seen from Southern countries?
To Mr. Atiou: How does the democratic evolution of Burkina Faso manifest itself toward a stronger decentralization effect? Can it be considered as a catalyst of effectiveness in Ouagadougou’s administrative organization?
To Mr. Stucki: Which link could you make between the EASI model and urbanism in African countries? African culture of the “modern city” is different from the European cities spirit, with their historical city centers built in the Middle Age. With this particular growth, what are the consequences on transport in such African cities?
To Mr. McLachlan: How was this transportation system restructuration financed? How did you handle this operation with the 3 transportation companies present in the project area? Which kind of control do you keep on such companies? How were the funds used to process this transfer?
Mr. Stucki said that he understood the audience’s concern about the notable cultural differences between our continents. He underlines that this particular theme was the whole purpose of the evolution of the model from ASI to EASI.

31 The report of this session has been written by Gabriel AYGALINC and Léaud LE BACQ.
Young Academics Turkey

Thursday, February 5th, 9am-10.30am

Chair: Ela Babalik-Sutcliffe, Associate Professor, Middle East Technical University, Turkey

Speakers:

Ezgi Kundakçı, Integrated Systems and Systems Design, Ankara (Turkey) - Safe Urban Speed Management
Başar Özbilen, Middle East Technical University, Ankara (Turkey) - Public Transport Smart Card Systems in Turkish Cities: The Challenge of Paratransit
Cihan Erçetin, Middle East Technical University, Ankara (Turkey) - Planning and management of bike-sharing: lessons from the Turkish case studies
Hıfzı Aksoy, Istanbul Technical University, (Turkey) - The change of regional transport accessibility over time by using spatial analyses
Ahmet Baş, Istanbul Technical University, (Turkey) - How New Urban Settlements can Effect the Urban Transport Demand in Istanbul: A Case Study of Kayaşehir

Mr. Kundakci is currently working on a safe urban speed management project in Istanbul: the advocacy for activation of local authority for safe urban speed management. The aim of the project is to foster a legislative change in Turkey in this sector.

Mr. Özbilen works on public transport smart card system in Turkish cities and how to integrate paratransit to this system. He particularly focuses on Ankara. Smart card systems present two main benefits: free transfer opportunity and multimodal travel opportunity. Smart ticketing programs have been developed in Turkey since 1995. In Istanbul, the smart card system includes not only public and private buses but also urban rail and sea lines. Discussions are currently held to include paratransit transport to this system. However, it is a challenge since paratransit represents a high share in the modal split in most of the cities. Users enjoy their flexibility and distance based pricing. If dolmuş were included into smart card programs, these advantages would disappear. In addition, paratransit operators fear that they might lose profits. By contrast, the government would benefit from such a change since it would provide an integrated system, eliminate competing services and reduce congestion. In a word, the users, the dolmuş operators and the State have contending interests. The main goal of Başar Özbilen is to find a solution in order to reach a consensus between the three stakeholders.

Mr. Erçetin studies bike sharing as an urban transport mode since it is a sustainable mode.

Bike sharing is growing all around the world but it is only an emerging concept; it started in July 2014. Mr. Erçetin analyses these experiences in three pioneering cities: Konya, Kayseri, Istanbul. He noticed that in Konya and Kayseri, the bike sharing scheme is considered as an urban transport while it is only viewed as a recreational mode in Istanbul. He also mentioned the lack of bicycle lanes. As a consequence, his main recommendations are: to make bike sharing scheme a genuine urban transport mode; and to build bicycle lanes. Last but not least, he added that bike sharing should be a part of a sustainable transport policy package.

Mr. Aksoy works on change of regional transport accessibility over time by using spatial analysis. He focuses on road provision. His methodology consists in comparing accessibility levels of a base network with a modified road network. He wants to assess network connectivity and topology effects on accessibility level, climate change impact on accessibility and network robustness.

Mr. Baş explains how urban settlement can affect the urban transport demand in Istanbul. In order to tackle the accommodation crisis, the local authorities are building new settlements; Kayaşehir is one of those. Ahmet Baş shows that most people living in this area have to resort to their private cars to go to work, to study, and to shop, due to the lack of convenient public transport alternatives in this neighbourhood. Although transport is one of the main concerns of the government, its investments in transportation could not meet

32 The report of this session has been written by Valérie Marie YAPAGGA and Claire GALESNE.
the demand. This leads to congestion. Wrong land use decision is identified here as a cause of traffic congestion.

Audience’s remarks
The audience notices that several new settlements are under construction in Istanbul and all share the same features: they do not provide neither jobs and schools nor hospitals for their inhabitants; thus forcing them to travel long distances. The audience wants to know whether these services will be available in the settlements in the future. Mr. Baş explains that construction work is not over in Kayasehir. When it will be over in five years, amenities are likely to be provided.

Keywords: urban speed management, smart card system, transport modes, accessibility.

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