



AFRICA CLEAN MOBILITY WEEK

An Africa wide forum aimed at providing solutions towards cleaner
mobility in the African continent

12 - 16 March 2018

UN Environment Headquarters, Nairobi, Kenya

CONFERENCE REPORT



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CLIMATE & CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS



ASIAN CLEAN FUELS ASSOCIATION



BACKGROUND



Africa is undergoing a mobility revolution. This revolution is characterized by an unprecedented motorization rate spurred by high rates of urbanization and economic growth, which at over 10% in most countries are the highest in the world. In fact, some African cities experience a doubling of their vehicle fleet every six to ten years. As a result, the transport sector in most African cities is unable to provide affordable, accessible, clean and efficient transport to meet this growing demand for mobility.

It is fundamental that Africa plans to meet the mobility demands of rapidly growing cities and integrate sustainable and inclusive transport into the regions development pathway, as well as ensure a transition to clean fuels and vehicle technologies, as part of achieving the much-needed improved connectivity and a healthier environment. At present, problems associated with the high cost of traffic congestion, air pollution and its negative impacts on health, road fatalities, inadequate transport infrastructure, and exclusion of the most vulnerable are increasingly taking a toll on Africa's society, economies and environment.

Some African countries have made significant steps in improving their overall vehicle fuel economy; improve fuel quality; enforce vehicle standards and regulations; address their aging vehicle fleet; and support inclusive public and non-motorized transport. However, these efforts need to be significantly upscaled as they implicate greatly on the sustainable development of the continent.





As the total number of vehicles in Africa is still low, it is critical for the continent to intervene now, while opportunities still exist to leapfrog to a cleaner, more sustainable, low carbon mobility path and breakaway from the current business-as-usual scenario. This is because decisions made today on infrastructure development and choices of vehicles will lock African cities into mobility behavior patterns and influence emissions and air quality for decades to come.

THE AFRICA CLEAN MOBILITY WEEK

The ***Africa Clean Mobility Week*** was held at the UN Environment Headquarters in Nairobi, Kenya on 12-16 March 2018. The week brought together stakeholders from within and outside the region to address challenges and map out a cleaner mobility pathway for the continent. The broad objective of the ***Africa Clean Mobility Week*** was to provide a platform for countries to share their experiences and learn from other regions opportunities that exist to shift to cleaner and more equitable mobility. At the end of the week, recommendations that will propel Africa into a more sustainable mobility pathway were made (see Annex 1).

A total of forty-two (42) African countries were represented in the meeting. The countries in attendance included: *Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cote d' Ivoire, Democratic Republic of Congo, Egypt, Ethiopia, Gabon, Ghana, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Nigeria, Republic of the Congo, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Sudan, Swaziland, Tanzania, The Gambia, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.* Participants were drawn from government agencies responsible for transport, environment, energy and finance, donor partners, oil and vehicle industry, the academia, civil society, media, the East Africa Community (EAC) Secretariat and the Economic Community of West African States (ECOWAS) Commission. Also, in attendance were UN Environment partners supporting the implementation of some of the transport programs in the region namely the International Climate Initiative (IKI), the International Council on Clean Transportation (ICCT), International Energy Agency (IEA), International Transportation and Development Policy (ITDP) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). See Annex 2 for the full list of participants.

The ***Africa Clean Mobility Week*** builds on the outcomes of the 2014 Africa Sustainable Transport Forum (ASTF) that was held on the 28- 30 October 2014 at the UN Headquarters in Nairobi Kenya. The event was hosted by the Kenyan Government with support from UN Environment, the World Bank, the SSATP program based in the World Bank, and UN-Habitat. A 13-point Action Framework, which outlines a harmonized roadmap for achieving sustainable transport in Africa was adopted. The Action Framework is a compilation of priority areas and supporting and enabling conditions to ensure the success of the actions outlined within the Framework. The





Action Framework is included as Annex 4 in this report.

The **Africa Clean Mobility Week** had four main themes (see Annex 3 for the week's agenda).

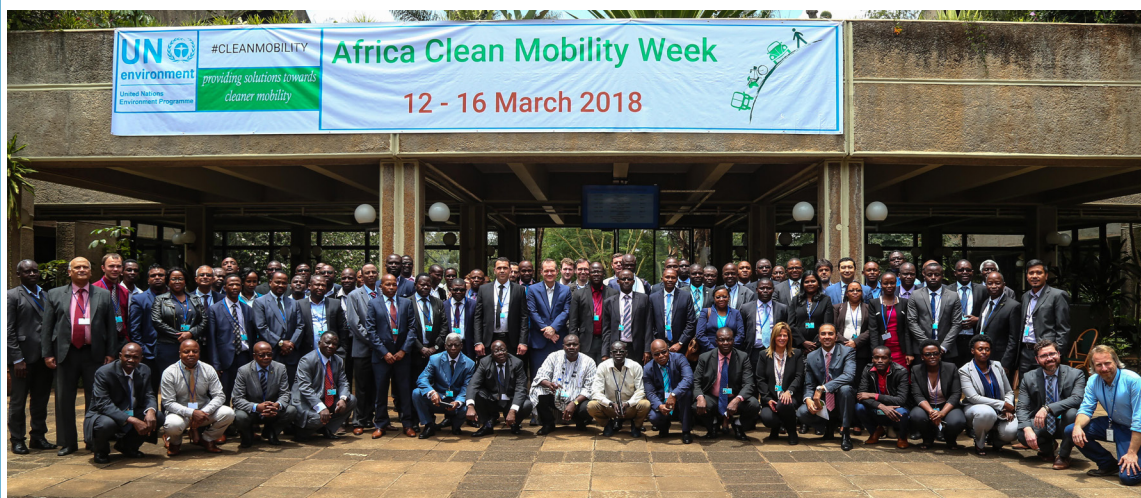
1. Strategies to promote the import of *cleaner, more fuel-efficient vehicles*.
2. Promotion of *electric mobility* in the region.
3. Mechanisms to regulate the import of *clean used vehicles*.
4. Integrating *sustainable transport policies* into the wider transport agenda including planning and financing of non- motorized transport and public transport.

Below is a summary of the discussions based on these four themes.





1. IMPORT OF FUEL-EFFICIENT VEHICLES IN THE REGION



Day 1 – Moderator: Rob de Jong, Head - Air Quality and Mobility Unit, UN Environment

Session 1: Developing Fuel Economy Baseline and Trends

1. The International Energy Agency made a presentation on the *Current Global Fuel Economy Levels and Projections* followed by the UN Environment's *Overview of Fuel Economy Activities and Impacts*. It was noted that the goal of the Global Fuel Economy Initiative (GFEI) is to double the average fuel economy of newly registered vehicles by 2030. The ideal is to reach Euro 6 or equivalent vehicle standards with hybrids and/or electric vehicles forming part of the solution to improve fuel economy. This is necessary as there is evidence to show high global growth rate of passenger car sales. Vehicle fuel economy policies enable best technologies to be viable choices/options to consumers without necessarily increasing the cost of the vehicles. The possible benefits of fuel economy policies were estimated to result in US\$ 8 trillion savings between 2015-2050.

2. During discussions, it was observed that consumer choices could influence vehicle manufacturers towards production/assembly of more fuel-efficient vehicles. In addition, fiscal incentives and policies have been observed to result in improvements in fuel economy even in countries that predominately imported used vehicles. Participants noted that Africa could become a technology chooser versus the current situation where the continent is a technology taker. The continent will have to shift from the current priority of “mobility first” with cleaner mobility delegated to a secondary priority.





3. A Panel Session on the Experience of African Countries in Developing Fuel Economy Baselines and Trends took place with Egypt (North Africa), Ghana (West Africa), Uganda (East Africa) and Malawi (Southern Africa) sharing their fuel economy inventories findings. It was evident from the country presentations that there was no improvement in the average fuel economy over time and in some countries, the fuel economy worsened due to import of older vehicles.

4. During the discussions, it was noted that only light duty vehicles were to be included in the fuel economy analysis as 2&3 wheelers would distort the average levels. The analysis also targeted newly imported vehicles - used or new - and not vehicles already in the country. Malawi informed participants that the country was looking into vehicle recycling programs and policies. Egypt shared their experience on vehicle replacement, where fiscal incentives were provided by the government for replacement of taxis more than 20 years. These older taxis were replaced with those using compressed natural gas. This was meant to reduce the number of old vehicles by 200,000 each year and thus emissions. The need for demonstration or pilot projects was also emphasized.

5. Participants recommended that: fuel economy measures be included as part of broader transport policy development that includes vehicle fleet renewal schemes, vehicle inspection programs etc.; there is need to find ways of creating value to consumers with progressive and not restrictive fuel economy policies; governments would be keen to implement fuel economy policies provide there are quantifiable social and economic gains; policy proposals need to be accompanied by public awareness campaign to ensure buy-in from consumers; and countries that have not carried out fuel economy baseline analysis were encouraged to do so as this would also support regional harmonization of policies.

Session 2: Assessing Policy Choices and Target Setting

6. Various presentations were made during this session starting with the International Council on Clean Transportation on Fuel Economy Policy Options and Target Setting. This was followed by a Panel Session on Development of Fuel Economy Policies with Ethiopia and Mauritius presenting their experiences in policy setting. Lastly the UN Environment presented on Fuel Economy Policy Impact Tool (FEPIT).

7. The presentations highlighted the need for countries to carry out fuel economy baseline studies to understand the current situation; use some of the tools already developed under the GFEI program like the FEPIT to analyze the impact of fuel economy policies on future new vehicle fleets; and quantifying the impact of improved vehicle fuel economy on future transport energy use, emissions and costs using some of the existing tools like the ADB Transport Databank Model. It was noted that fuel economy labeling could be a starting point in the introduction of fuel economy policies as consumer awareness was key for a successful fuel economy program.





8. During the discussions, participants sought clarification as to why the fuel economy of vehicles produced in South Africa was comparatively higher. Egypt raised concerns with the anticipated fuel economy improvement using the FEPIT due to the assumptions of the model. Togo noted the difference between the fuel economy provided by the vehicle manufacturers and real-world situation. Participants were informed that the FEPIT was meant to guide policy makers on possible outcomes of various policy interventions and that the fuel economy at the time of vehicle production was a good basis to inform countries on their fuel economy trends. The issue of technical expertise of mechanics to repair hybrid and electric vehicles was discussed and participants were informed that countries that had introduced these vehicles found that there was adequate expertise.

9. The need to link the fuel economy national activities to the Nationally determined contributions (NDCs) was emphasized.

Day 2 - Moderator: Urias Goll, Deputy Executive Director, Environmental Protection Agency

Liberia

Introduction

10. Two case studies, on Kenya and Uganda, on the use of the Fuel Economy Policy Impact Tool (FEPIT) were presented. The presenters noted that the fuel economy trends in Kenya and Uganda were getting worse mainly due to lack of fiscal incentives and regulatory measures to attract cleaner vehicle imports. The countries were currently using the FEPIT tool to look into the various policy interventions, hence impacts of these policies could not yet be determined. The presenters recommended the inspection of imported vehicles based on the fuel economy and emission levels, dual labeling of vehicles on fuel economy and emissions, a ban on vehicles older than 20 years, as well as an incremental levy for imported vehicles based on vehicle age and engine capacity.

11. Discussions touched on the challenges of introducing a feebate system in an African setting due to budget considerations and revenue neutrality of the system, and the need to constantly revise the feebate threshold level. Also noted was the issue of reconciling the fuel economy of vehicles produced in Japan and those from Europe which were tested using difference drive cycles. Participants noted that the health and environment costs of old vehicles was high hence the urgency to put in place policies to attract cleaner, more fuel-efficient vehicles. The International Council on Clean Transportation proposed an age limit of 6 years justified by the fact that by the 8th year the catalytic converter is degraded, as well as a fuel consumption limit (e.g. Saudi Arabia 9 l/100km limit for LDV, 12 L/100km limit for trucks).





12. The need to communicate the effectiveness of fiscal incentives on auto fuel economy improvements worldwide was noted. Mauritius informed participants that the feebate scheme had been effective in improving the average fuel economy in the country. However, there had been challenges with its implementation hence was suspended and a new tax structure to encourage cleaner vehicles import, including electric vehicles was introduced in 2016. This has led to a significant increase in the import of electric and hybrid vehicles.

Session 3: Developing Fuel Economy Policies

13. The UN Environment presented on Practical Examples of Fuel Economy Policies in Other Regions, including the case examples of Sri Lanka and Thailand. The Department of Transport of South Africa also gave an Example of Fuel Economy Standards. It was evident from the presentations that policies do impact consumer choices. There is also a need to link vehicle fleet CO₂ emissions standards and vehicle emission standards. The relevance of multi-stakeholder engagement, government intervention and consumer sensitization were emphasized.

14. During the discussions, it was noted that governments need to be encouraged to buy more fuel-efficient vehicles given the size of government vehicle fleet as compared to the total fleet. Vehicle labelling was again emphasized as well as the need to include fuel economy achievements in a country's NDCs. Participants called for the inclusion of fuel economy work in national transport and/or energy action planning process and promotion of public transport and non-motorized transport. Regional harmonization of vehicle regulation was noted and the fact that in some regions, more motorcycles were being imported than vehicles, hence the need to integrate motorcycles in the analysis. Participants also called for a better understanding in the region between fuel economy and the health impacts in terms of accidents and emissions from older vehicles imported into the region.

Session 4: Integrating Electric Vehicles and Heavy- Duty Vehicles

15. The International Energy Agency presented on Advancing Improvements in Fuel Economy specifically looking at the role of heavy duty vehicles and electric vehicles. This was followed by a Panel Session on Financing Mechanisms to Support Fuel Efficient Vehicle Uptake by UN Environment representatives involved in The Global Environment Fund (GEF) and The Green Climate Fund (GCF). The IEA noted that emissions from trucks are a significant source of greenhouse gases, accounting for much more emissions than aviation, industry and power generation. The GEF and GCF as financing options for countries to support vehicle fuel economy activities were discussed.





16. During the discussions, the issue of natural gas as an alternative fuel was raised. It was noted that natural gas could be part of the solution but is not enough to achieve the commitments on under the Paris Agreement. The need to link electric vehicles growth to renewable energy sources was highlighted. There were discussions on whether electric vehicles should be promoted if the energy source was coal. It was noted that electric vehicles presented a net gain in terms of emissions savings as they were more efficient. Another consideration is that vehicles procured today would remain on the roads for even 20 years when the energy mix would have changed. Infrastructure development for electric vehicle charging was discussed. Such infrastructure is deemed necessary for long distant travel otherwise for short distances within the city, charging could be done at homes.



2. ADVANCING ELECTRIC MOBILITY IN AFRICA



Day 3 - Moderator: Gerald Banaga - Baingi, Assistant Commissioner-Ministry of Energy and Mineral Development, Uganda

Opening Session

17. In his opening remarks, Erik Solheim - the Executive Director of UN Environment - called on Africa to follow the path of sustainable mobility by emulating success stories from other rapidly urbanizing regions, such as South-East Asia. He noted that in Africa the highest number of deaths were because of road accidents and air pollution, hence the urgent need for the region to act now and adopt a clean mobility roadmap. These remarks were followed by a presentation by Rob de Jong of UN Environment on the reality of mobility in Africa. He stated that the current business as usual trajectory of increasing traffic related air pollution and road fatalities are taking a massive toll on Africa. He noted that decisions made today on infrastructure development and choices of vehicles will characterize African cities for decades to come and that an alternative roadmap that prioritizes clean fleets, zero & low emission mobility, walking and cycling and public transport is fundamental for Africa.

18. Jonas Bleckmann of International Climate Initiative (IKI) spoke of the support that Germany was proving to the region towards cleaner mobility. He spoke of the 2-wheeler project that IKI was funding in 3 countries in Africa to switch to electric mobility. IKI is also providing funding to Kenya, Uganda and Rwanda on public transport linked to non-motorized transport.





ADVANCING ELECTRIC MOBILITY IN AFRICA

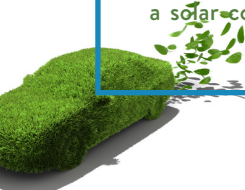


19. The UN Environment made a presentation on Electric Vehicles development and the need to advance the electric mobility agenda in Africa. The steady vehicle fleet growth rates coupled with the fact that the region was still developing its infrastructure provided opportunities for the region to promote electric vehicles especially when linked to renewable energy and local manufacturing. Two and three wheelers provided a good entry points for electric mobility in the region. The need to incentivize the purchase of used electric vehicles through tax breaks was reiterated.

Session 1: Using Policy to Shift Markets

20. The Panel Session on Electric Mobility in Africa discussed how Africa can put in place the right policies to attract electric mobility; demonstrated the viability of electric vehicles in the region; and financing options to transition to electric mobility. It was noted that only a few African countries have put in place policies and regulations to promote the introduction and shift to electric mobility. The International Energy Agency spoke of how Africa can engage with existing platforms - like the Electric Vehicles Initiative and the EV 30@30 Campaign - and global funds (Global Environment Facility) to exchange knowledge and build capacity on introducing electric vehicles.

21. Knights Energy, demonstrated that Nairobi's roads are ready for electric vehicles. Knights Energy, a solar company turned electric vehicle startup, imports used Nissan Leaf (at USD \$6000) and tests



their performance on Kenyan roads. The lower speeds, stop and go traffic and shorter distances prove that electric vehicles are competitive to the conventional vehicles in congested African cities.

22. The Mohammed VI Foundation for Environmental Protection made a presentation on how outreach and awareness raising is essential to driving policy and creating an enabling environment for Electric 2-wheeler deployment in Marrakesh. The UYILO Emobilty Programme of South Africa presented on the company's efforts to further the shift of electric mobility in South Africa.

23. During discussion, the absence of technical capacity and the need to train local engineers and mechanics was stressed. Issues around grid reliability and electricity cost were also raised. It was noted that the transition to electric mobility was gradual and cost of charging electric vehicles was cheaper when compared to fuel, and that payback on investment for solar charging was estimated at 2 years. The issue of the life time of batteries, range anxiety and electricity access were further questioned, and participants were informed of the continuous improvements in electric vehicle performance to address some of these concerns.

Session 2: Advanced Bus Technologies

24. The Panel Session on Clean Bus Technologies looked at clean and efficient technologies for buses, the regulatory framework to deploy them on Africa's roads and the role of the private sector. The International Council on Clean Transport advocated for the elimination of diesel buses due to their tailpipe emissions being greatly detrimental to air pollution and health. The Global Industry Partnership on Soot- Free Clean Bus Fleets has documented, from global case studies, that even with high carbon intensity grids, battery-electric- buses have lower CO₂ emissions compared to diesel buses. Scania spoke of the need to create a regional and sub-regional industry partnership with engine manufacturers and suppliers of commercially available soot-free engines, including electric versions.

25. The discussions centered on the necessity of designing electric buses suitable for the African context. Some participants advocated for manufacturers to provide smaller buses like the matatus/minivans found in many African cities. The presenters noted that the focus is on zero-emission high occupancy vehicles as fewer vehicles not more are needed in Africa's congested cities. Options of retrofitting buses were discussed and the involvement of local representation and authorities in stipulating their needs in procuring buses. The integration of electric buses into public transport routes, the case of hybrid buses and the lifespan of batteries was also discussed.





CLEANER MOBILITY DISPLAY: ELECTRIC MOBILITY AND BIKE SHARING



26. The Cleaner Mobility Display was open to participants during the lunch hour. Participants were encouraged to try-out and see the various electric vehicle/motorcycle models on display: Nissan Leaf, Toyota RAV4EV and KJING. The display was the first time some participants had the opportunity to experience electric vehicles rides. The bike sharing scheme within the UN compound was also explained as a sustainable mobility solution in some African cities.

Session 3: Switching to Electric Motorcycles

27. The UN Environment made a presentation on Integrating Electric 2&3 Wheelers into Existing Urban Transport Modes in Africa. 2&3 wheelers were identified as a low- hanging entry point for electric mobility



in Africa and could serve to improve air pollution, mitigate climate change and offer major economic gain. The presenter noted that motorcycles are projected to become the major mode of transport in Africa, second only to walking and cycling.

28. The Panel Session on Opportunities for Leapfrogging to Electric 2&3 Wheelers underlined why electric motorcycles are cost competitive and require little investment in charging infrastructure compared to electric cars. The University of Tennessee kickstarted the session by showing the success of electric bikes in China (200 million including electric assisted bicycles) driven by enabling policy, infrastructure provision and the development of an indigenous industry. TailG, a private company manufacturing 2&3 wheelers in China provided experiences of China and advocated for African countries to engage the private sector in the transition to electric mobility. Another private company, Ampersand Solar, spoke of how it is also working to bring the electric bike revolution from China to Africa. The company had just carried out field-tests of its electric motorcycles in Rwanda. Spike Mobility also spoke of how it is investigating the prospect of electric 2-wheeler local manufacturing in Kenya, and option of battery ownership versus swapping/leasing, and models to guide their entry point into the local market. Spike Mobility has estimated that electric motorcycles could reduce transport costs by 50 per cent in Kenya.





3. REGULATING USED VEHICLES IMPORT INTO AFRICA



Day 4 - Moderator: Wanjiku Manyara, General Manager, Petroleum Institute of East Africa

Introduction

29. UN Environment commenced the Session with a presentation on Regulating Import of Used Vehicles in Africa. It was noted that the issue of regulating the import of used vehicles is of paramount importance in Africa. With the right policies and fiscal measures, used vehicles are an opportunity for Africa to affordably leapfrog to cleaner and more efficient vehicle technology. Of flagged importance, is the preliminary evidence of the removal of vehicle emission control devices in some cases (both in light and heavy-duty vehicles), which serves to negate the benefits of advanced technology in African markets where clean fuels are now available. The UN Environment's new Global Used Vehicle Program and Fund is meant to work towards supporting import of quality used vehicles in Africa and the shared responsibility of ensuring this for exporting countries. A crucial outcome of the Africa Clean Mobility Week would be to establish a direction and harmonized approach on how African countries address used vehicle flows and mitigate their climate, air pollution and road safety impacts.

30. Other presentations were made by Sustainable Transport Africa on the draft report by Partnership for Clean Fuels and Vehicle Used Vehicle Working Group - a multi-sectoral group looking at policy, financing and regulatory strategies on the international trade of used vehicles - and UN Environment to Launch of the Africa Used Vehicles Report. Both presentations spoke of a) A direct correlation existing between basic





import restrictions and a less outdated and technologically advanced fleet b) The need for harmonization of vehicle standards at regional and sub-regional level c) The need for a systems approach that matches fuel quality and vehicle standards d) The necessity to address illegal practices and e) Awareness raising.

31. The discussions featured on the issue of used vehicles as a contentious development issue. Overall, countries expressed acknowledgment of the opportunities used vehicles present and thanked the UN Environment on the collection and analysis of used vehicle data. Participants requested UN Environment to develop and circulate to countries a uniform data collection questionnaire that could guide the analysis. Regional harmonization of standards (including border corridor management) was highlighted. Also highlighted was the fact that some countries like Cote d'Ivoire were already introducing vehicle age limits. The significance of incentivizing the import of used hybrid and electric vehicles was noted even in countries that have banned import of used vehicle like Egypt. The Nissan Group of Africa noted the importance of engagement with the private sector in the development of used vehicle policy, as they have invested in both vehicle sales and after sale services. The issue of a combined responsibility between importing and exporting countries is necessary to ensure cleaner used vehicles are exported into the region.

Session 1: Used Vehicles in Africa

32. A Panel Session on Policy and Regulatory Framework looked at measures that would ensure that imported used vehicles are an asset to Africa's fleet. The Ministry of Works and Transport - Uganda countered the focus on age restriction, and instead highlighted the need for vehicle emission standards and the functioning of exhaust/emission reduction technology. The Economic Community of West African States spoke on used vehicle management efforts in the sub-region where 80% of vehicles are imported as used (2005-2017), hence the need to prioritize the issue of used vehicles and work towards regional harmonization. The Nissan Group of Africa expressed how used vehicles are of increasing importance to the vehicle manufacturers due to brand reputation, and as additional sales outlets for the companies. It was noted that in developed countries like the US, vehicle manufacturers are involved in sale of both new and used vehicles.

33. The discussions saw several West African countries commenting on their support of regional harmonization and acknowledging that success is hinged on the actions of their individual governments. The need for the regional economic bodies to collaborate was emphasized. Participants agreed that age limits were a convenient starting point to a longer-term solution to controlling the flow of used vehicles into the region. It was noted that Africa has solutions hence the need for information sharing among countries and review of national auto scrappage and recycling schemes. Countries and regions were encouraged to create information sharing portals where vehicle data, standards, policies interventions would be uploaded for easy access.





Session 2: Fuel and Vehicle Standards

34. This Session encompassed a Panel Session on Cleaner Fuels and Vehicle Progress in Africa and Engagement of the Private Sector. At the session on Cleaner Fuels and Vehicle Progress in Africa, UN Environment spoke about the progress on cleaner fuels and vehicle emission standards in Africa from the phase-out of leaded petrol in January 2006 to recent progress on desulfurization fuels (e.g. West and Southern Africa) as well as current emission and auto fuel standards. Stratas Advisors analyzed Africa in the global context. Attention was paid to gaps between current vehicle emission standards and fuel quality, as well as the lag in implementation of commitments to 50 ppm fuel in West Africa (with only Ghana complying to date). It was noted that the East Africa Community leads the way in terms of implementing low sulfur fuels, with actual import specifications at 10 ppm. The Rwanda Environment Management Agency presented on Rwanda's experience with vehicle inspection. This was followed by the Vehicle Emission Control Center of China that gave the Chinese experience in vehicle and fuel environmental management.

35. The discussion centered on fuel adulteration, the call for public-private partnerships for vehicle emission inspections, and the need to disclose to the public vehicle emission information.

36. The Panel Session on Engagement of the Private Sector investigated the role of the private sector in the import and production of cleaner fuels as well as the role of lubricants. Isuzu East Africa presented on the production of cleaner vehicles in Kenya, the current state of fuel quality and the revision of Kenya's vehicle standard. The South African Petroleum Industry Association spoke on South Africa's refining capacity, plans to reach clean fuels and benefits to the country/region. The benefits of cleaner fuels to the economy far outweigh the costs. The significant role lubricants play in protecting engines, reducing fuel costs and cutting CO₂ emissions was highlighted by the Lubrizol Corporation.

37. Questions from the floor centered on why vehicle emission and fuel quality in Africa have not improved apace with the rest of the world? And if there is a 'conspiracy between policymakers and automakers to keep standards in Africa low? The need for countries to introduce cleaner fuel and vehicle standards would ensure that the region gets the latest vehicle technologies and matching fuel quality.



4. INTEGRATING SUSTAINABLE TRANSPORT STRATEGIES



Day 5 - Moderator: Winnie Mitullah, Director, Institute for Development Studies, University of Nairobi

Session 1: Integrated Sustainable Transport

38. The Integrated Sustainable Transport Session focused on the importance of investment in non-motorized transport (NMT) and public transport in Africa. The session centered around the fundamental question of “Who does Africa design their cities for?” questioning why African cities are designed for the car and not for its people, contrary to the fact that in Africa most of the population walk or cycle and rely on public transport over other modes.

39. The University of Cape Town kickstarted the Panel Session on Walking and Cycling Facilities by stressing the importance of solutions that are inclusive of the most vulnerable road users (i.e. women, elderly, disabled, youth and the poor). By 2050, staggering 5,223,295 children are estimated to die of road fatalities. This presents immense opportunities for cities to integrate child friendly design into their urban planning. The UN Environment drew on the issues of social injustice and asserted that Africa is ready for bike share. Bike shares have exploded worldwide (present in 1400 cities) as a clean, inclusive and sustainable solution to the mobility needs of rapidly growing cities. The example of Mobike’s bike share scheme that is already





working in the UN offices in Nairobi was given. The Institute for Transportation and Development Policy spoke of the need for a people focused planning approach to sustainable transport solutions. African cities need a holistic approach to street design, that integrates various transport modes and works to reconcile the tensions between vehicle speeds and the safety of the pedestrians and cyclist.

40. The discussions centered on a) The need for baseline data on non-motorized transport (NMT) transport in Africa in order to help facilitate the introduction of NMT country programs b) The skewed perception of walking and cycling and its connotation to being 'uncool' or for the poor rather than an indicator of progress and efficiency c) The need for a contextual approach that encompasses African cities geography and climate d) The acceptance that NMT is smart in that it prioritizes those who choose the cleanest mode of transport e) That advocacy and capacity building on NMT need to be scaled up to ensure that governments shift attention and budgets away from traditional car- oriented infrastructure projects towards a focus on NMT in their transport agendas, and f) how a street is designed speaks a lot about the city and its decision makers.

41. GIZ made a presentation on Public Transport & Urban Mobility. It was noted that Africa already exhibits usage of the Avoid- Shift-Improve model and that countries should look at Johannesburg, Dar-es-Salaam, and Lagos public transport systems amongst others, and adapt similar practices and policies. It is equally important to integrate the informal transport operators into new public transport systems.

Session 2: Financing the Clean Mobility Agenda for Africa

42. The European Investment Bank (EIB) spoke to how major donor funding exists (i.e. grants, loans) for clean mobility projects in Africa- they just need to be rightly leveraged. African cities and national governments need to be equipped with the right capacity to engage with financiers. African countries can obtain EIB financing for clean mobility and the examples of Senegal's Bus Rapid Transit (BRT) system and the Nairobi BRT were given. Similarly, the Vehicle Emission Control Center of China highlighted the plentiful opportunities between China and Africa in relation to Clean Mobility, in particular The Belt and Road Initiative.

43. The discussion revolved around a) The need to focus on bottom up solutions rather than sole dependency on donor driven funding b) To look and learn from the successes of financing for renewables in Africa c) The issue is not only about access but on Government priorities- what makes it on their transport agenda? d) How African countries can get assistance from such huge entities and funds e) Ensure that African governments are proactive in stipulating their needs and aspirations to donors f) Stress the need for donor agencies to invest in NMT, and g) The need to enable cities, not only national governments, to have capacity and engage with financiers.





44. The closing remarks of the Africa Clean Mobility Week were given by the Deputy Executive Director of UN Environment, Ibrahim Thiaw. He spoke of the need for Africa to change the narrative about cleaner mobility in the region as there were good examples of sustainable mobility in the region including river transport, walking etc. that should be valued. He noted that Africa can produce and generate cleaner technologies locally hence the continent needed to invest in such technologies. Current policies that are fossil fuel based needed to be changed to see any transformative change in the region. There are benefits to investing in sustainable infrastructure today as 40% of Africa's population is young. This calls for governments to create more incentives for private sector to invest in sustainable transport.

45. Stakeholders came up with sets of recommendations on various aspects of mobility. The key recommendations include how Africa will: improve the fuel efficiency of the continent's vehicle fleet taking advantage of technological advancements in the vehicle industry; advance the electric mobility agenda which presents an opportunity for the region when linked to renewable energy and local manufacturing options; regulate the import of used vehicles as a means for the continent to quickly shift to cleaner mobility; and promote sustainable transport infrastructure as today the majority of the population in the continent walk or use public transport which is already a cleaner alternative. These recommendations now form a roadmap for the region to integrate cleaner mobility in their national and regional strategies. See Annex 1 for the full list of the recommendations.





ANNEX 1: RECOMMENDATIONS FROM THE AFRICA CLEAN MOBILITY WEEK

Introduction

Africa is undergoing a mobility revolution. This revolution is spurred by rapid urbanization and rising population, significant economic and technological growth, as well as increasing rates of motorization; one of the highest in the world. In many African countries the transport sector is not able to provide affordable, accessible and clean mobility to meet the growing demand for connectivity. Some African countries have made significant steps in improving their overall vehicle fuel economy; improving fuel quality; enforcing vehicle standards and regulations; addressing their aging fleets; and supporting inclusive public and non-motorized transport. However, these efforts need to be significantly up scaled as they implicate greatly on the health, environment and economy of the continent.

Forty-two (42) African countries met at the UN Environment Headquarters on 12 -16 March 2018 for “The Africa Clean Mobility Week” to explore opportunities for Africa to leapfrog to cleaner and more efficient mobility solutions. Delegates from government agencies responsible for transport, environment, energy and finance; donor partners, oil and vehicle industry, the academia, civil society, media, the East Africa Community (EAC) Secretariat and the Economic Community of West African States (ECOWAS) Commission attended the meeting. The African countries in attendance include: Algeria, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cote d’Ivoire, Democratic Republic of Congo, Egypt, Ethiopia, Gabon, Ghana, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Nigeria, Republic of the Congo, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Sudan, Swaziland, Tanzania, The Gambia, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.

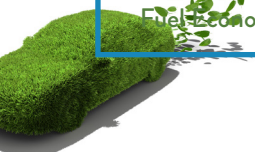
The following are the recommendations from the Africa Clean Mobility Week:

1. **To Improve the Fuel Efficiency of the Vehicle Fleet in Africa:**

African countries have an opportunity to put in place cleaner and efficient vehicle policies before motorization fully takes off. Motorization levels today in the region are not high but annual vehicle sales are increasing rapidly, at over 10% in most African countries. A business-as-usual scenario will not be sustainable.

Recommendations:

- a) Countries are encouraged to carry out fuel economy baseline analysis and monitor the fuel economy trends to understand the vehicle fleet status of their countries.
- b) Fuel economy policies have been proven to shift vehicle import toward more energy efficient vehicles. Countries are encouraged to review their policies to attract import of more efficient vehicles, using Global Fuel Economy Initiative tools.





- c) Countries agree to share information on baseline development and other fuel economy activities.
- d) There is need to integrate fuel economy programs into national sustainable transport policies.
- e) Countries are encouraged to include fuel economy policies as part of their nationally determined contributions reporting since fuel economy policies support national and global climate change targets.
- f) Countries are encouraged to quantify and communicate the benefits and impacts of fuel economy policies, such as fiscal policies. Vehicle labelling was identified as a starting point.
- g) There is need for a regionally harmonized approach to fuel economy policy development and implementation.
- h) Donor agencies are requested to provide guidance on accessing global funds such as GEF and GCF funding to support transport projects in the region.

2. On Advancing Electric Mobility in Africa:

Very few African countries have put in place policies and regulations on electric mobility. Electric mobility presents an opportunity for African countries to shift to cleaner transport in terms of reduced climate emissions, improved air quality, economic growth, etc.

Recommendations

- a) Countries are encouraged to explore the two low-hanging entry points into electric mobility, that is public transport (electric/hybrid buses) and electric 2&3 wheelers.
- b) Some African countries have adopted measures to support the uptake of electric vehicles. Other countries can learn from early adopters on their experiences (south-south cooperation). Regional harmonization of policies is also encouraged.
- c) Countries are encouraged to include electric mobility policies as part of their nationally determined contributions reporting, as they support national and global climate change targets.
- d) There is need to understand Africa's unique mobility challenges when it comes to electric mobility. This calls for tailor-made products for African countries e.g. electric motorcycles capable to run long distance, high load and rough roads, local manufacturing capacities etc. Countries are encouraged to set aside resources to better investigate these issues and learn from other countries/regions.
- e) Countries are encouraged to develop appropriate regulatory, fiscal, and institutional policy interventions to create a favorable environment for electric mobility uptake (including used electric vehicles). These policies need to be integrated into the wider urban transport system planning, including non-motorized transport and need to consider issues relating to end-of-life and recycling of batteries.
- f) Countries are called to invest in robust consumer awareness raising campaigns on the benefits of electric mobility and its impacts on everyday life including road safety (more so with electric 2&3 wheelers).
- g) Governments are encouraged to engage the private sector as they will play a key role in the successful





transition to electric mobility.

- h) Countries are encouraged to make the link between electric mobility and renewable energy. Due to their smaller batteries, electric 2&3 wheelers provide a particularly interesting opportunity for solar charging.
- i) Pilot projects are a crucial element to familiarize the countries and consumers to electric vehicles and evaluate performance of electric vehicles. Development partners are encouraged to support electric mobility programmes in countries/regions.


3. On Regulating the Import of Used Vehicles:

In most African countries, a large proportion of vehicle imports are used or secondhand. And while only 1 in 10 vehicles imported into the region is new, used vehicles can be an opportunity to access clean technology in an affordable way. This is an opportunity for the region to renew and improve the emissions of its vehicle fleet by encouraging the import of low emission, clean used/secondhand vehicles with the right policies and incentives.

Recommendations

- a) Countries are encouraged to introduce regulations that support and guide the import of low emissions vehicles. A comprehensive strategy is encouraged that combines -
 - i. age restrictions and/or emission standards for imported vehicles for example 5 years and at least Euro 4/IV vehicle emission standards),
 - ii. mandatory inspection and maintenance programs for in-use vehicles, and
 - iii. end of life programs including vehicle scrappage to enable the renewal of the fleet and eliminate heavy polluters.
- b) Regional harmonization of fuel and lubricants quality, vehicle emission standards and vehicle labelling through the regional economic bodies would help to close policy gaps.
- c) Countries are encouraged to develop clear and informative campaigns that guide consumer choices to cleaner vehicles and promote a policy shift towards low emission vehicles.
- d) UN Environment is requested to develop and share a common methodology to gather data for used vehicle imports to Africa and to help make data analysis and comparison among countries easier.
- e) Countries are encouraged to engage the private sector in support of the introduction and maintenance of cleaner mobility in Africa.
- f) Research studies linking transport emissions to air pollution and health are encouraged and should be translated into action through policy.
- g) Countries are encouraged to include cleaner fuel and vehicle standards in their comprehensive urban traffic management and planning, also taking into account traffic control measures and infrastructure improvements for reducing congestion and emissions.



- 
- h) Governments are encouraged to provide incentives for local manufacturing and/or assembly of cleaner vehicles, effectively creating capacity and jobs for cleaner technology here in Africa.
 - i) Countries and regions are encouraged to enhance their capacity for vehicle inspection to ensure lasting benefits of cleaner, more energy efficient technologies.
 - j) Countries and regions are encouraged to enhance their capacity for fuel testing to ensure compliance with all specification parameters.

4. On Promoting Sustainable Transport Infrastructure:

It was noted that a large proportion of the population in Africa walk or cycle. The infrastructure for walking and cycling in the region is largely inadequate leading to the majority of road accidents being witnessed in the region.

Recommendations

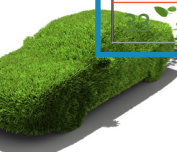
- a) Countries are encouraged to promote well integrated modal transport. Mobility policies and planning need to put people first (including vulnerable groups), prioritizing walking, cycling, and public transport over other modes. Where other modes are unavoidable, they should be low carbon (electric mobility).
- b) Best practices on sustainable and equitable transport infrastructure are already showcased in African urban areas. Countries are encouraged to leverage and adopt similar practices and policies in line with their contextual situation.
- c) The inclusion of gender, child and other vulnerable groups is critical to ensure transportation is accessible to all.
- d) There is a significant lack of baseline data on walking and cycling in Africa. Urban areas are encouraged to invest in data gathering to allow for critical evaluation of the cost benefit of non-motorized transport infrastructure taking road safety and public health into account, especially for vulnerable groups.
- e) There are already many existing financing mechanisms and partnership opportunities to support mobility today in African cities. Policymakers are encouraged to look at innovative ways of shifting these mechanisms to promote cleaner mobility pathways. Development partners are urged to mainstream financing of public transport, walking and cycling infrastructure into road investment projects.
- f) African transport corridors are highly mixed use, also serving as commerce corridors (e.g. street vendors). Urban areas are encouraged to look at innovative designs that integrate this mixed use in a suitable way so as to increase buy-in from all stakeholders.





ANNEX 2: PARTICIPANTS TO THE AFRICA CLEAN MOBILITY WEEK

No.	Country	Name	Organization
1	Uganda	Gerald Banaga Baingi	Ministry of Energy and Mineral Development
2	Uganda	Mercy Kanyesigye	Ministry of Energy and Mineral Development
3	Uganda	Ronald Amanyire	Ministry of Works and Transport
4	Uganda	Beatrice Busingye	Ministry of Energy and Mineral Development
5	Uganda	John Mutenyo	Makerere University
6	Ethiopia	Kasahun Hailemariam	Transport Authority- Ethiopia
7	Rwanda	Remy Nobert Duhuze	Rwanda Environment Management Authority
8	Rwanda	Clay Bonishuli	Ministry of Infrastructure
9	Tanzania	Silanda Geoffrey Lawrence	Surface and Marine Transport Regulatory Authority, Ministry of Works, Transport and Communications
10	Burundi	Edouard Nyandwi	Ministry of Transport, Public Works and Equipment
11	South Sudan	Geoffrey Amoko	Ministry of Transport
12	Sudan	Alamin Ali Mohamed Ahmed	Ministry of Environment, Natural Resources and physical development
13	Kenya	Martin Eshiwani Onyango	Ministry of Transport and Infrastructure Kenya
14	Kenya	Wanjiku Manyara	Petroleum Institute of East Africa
15	Kenya	Henry Kamau	Sustainable Transport Africa
16	Kenya	Carey Mbaraka	Kenya Association of Bus Manufacturers
17	Kenya	Zacharia Kareng'e	Isuzu/ General Motors Corp
18	Kenya	Mwai Muitungi	National Environment Management Authority
19	Kenya	Michael Mwai	Strides Ltd
20	Kenya	Ayub Njoroge Gitau	University of Nairobi
21	Kenya	James Nyangaya	University of Nairobi
22	Kenya	Winnie Mitullah	University of Nairobi
23	Kenya	Clifford Akumu	Media for Environment, Science, Health and Agriculture in Kenya (MESHA)
24	Kenya	Joel Opere	National Transport and Safety Authority
25	Kenya	Fredrick O. Onyango	Environment Compliance Institute
26	Kenya	Gerphas Opondo	Environment Compliance Institute
27	Netherlands	Pieter Buikema	Twende
28	Kenya	Bill Mike	Twende
29	Netherlands	Tim Dost	Twende
30	Kenya	Nyaga Kebuchi	Sustainable Transport Africa
31	Kenya	Brian Mutie	Kibo
32	Kenya	Eric Kimathi	Kibo
33	Kenya	Tim Smyth	IDS Fund



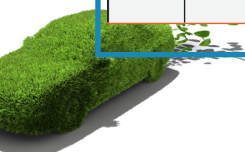


No.	Country	Name	Organization
34	Kenya	Bobby Achoge	Pfoofy Power and Light Ltd
35	Kenya	Chris Kost	Institute for Transportation and Development Policy
36	Kenya	Benjamin Musyimi Muindi	Simba colt
37	Kenya	Romano Frank	Knights Energy
38	Kenya	Mercy Naimutie Lunkisa	Knights Energy
39	Kenya	Anne Wacera Wambugu	Stratmore (SERC)
40	Kenya	Mohammed Shidiye	Boda Boda Safety Association of Kenya
41	Kenya	Kevin Mubadi	Boda Boda Safety Association of Kenya
42	Kenya	Kenneth Guantai	Anto Truck
43	Kenya	Per Holmstrom	Scania East Africa Limited
44	Kenya	Tamara Nerima	Scania East Africa Limited
45	Nigeria	Ianna Philip	National Automotive Design and Development Council
46	Nigeria	Emmanuel Olukunle Ojo	Federal Ministry of Environment Nigeria
47	Nigeria	Anthonia A. Ekpa	Federal Ministry of Transportation
48	Senegal	Ousseynou Dione	Ecole superieure polytechnique de Dakar
49	Senegal	Modou Kane Diao	Direction des Transports Routiers
50	Ghana	Daniel Essel	Policy Planning & Research Department Ministry of Transport
51	Ghana	Dacosta Adjei	Environmental Quality Department, Environmental Protection Agency, Ghana
52	Mali	Oumar Diaouré CISSE	Direction Nationale de l'Assainissement et du Contrôle des Pollutions et des Nuisances
53	Cameroon	Zacharie Ngoumbe	Ministry of Transport
54	Liberia	Urias Goll	Environment Protection Agency Liberia
55	Liberia	Arthur R.M. Becker	Environment Protection Agency Liberia
56	Cote d'Ivoire	Etien N'dah	Ministry of Environment and Sustainable Development
57	Cote d'Ivoire	Nagnonta Koné	Ministry of Transport
58	Togo	Kpenglame Kpassemon	Ministry of Mines and Energy
59	Togo	Koffi Volley	Direction de l'environnement, MERF
60	Benin	Wabi Marcos	Direction Generale de l'Environnement et du Climat
61	Burkina Faso	Sawadogo Dramane	Ministère de l'Environnement et du Développement Durable
62	Burkina Faso	Hyacinthe Naré	Energy and Sustainable Transport Consultant
63	The Gambia	Omar Bah	National Environment Agency of Gambia
64	Guinea-Bissau	Viriato Cassama	Ministry of Environment and Tourism





No.	Country	Name	Organization
65	Mauritania	Fatimetou Abed	Minister of Environment and sustainable Development
66	Niger	Moussasoumey Boubacar	Ministère de l'Environnement, de la Salubrité Urbaine et du Développement Durable
67	Sierra Leone	Alie Dukuray Jalloh	Environment Protection Agency Sierra Leone
68	Botswana	Kesetsenao Molosiwa	Department of Energy, Botswana
69	Botswana	Tendai Mugoni	Department of Energy, Botswana
70	Zimbabwe	Ndovorwi Man'arai	Zimbabwe Energy Regulatory Authority
71	Zimbabwe	Herbert Ngonidzashe Mataruka	Zimbabwe Energy Regulatory Authority
72	Zimbabwe	Washington Zhakata	Ministry of Environment, Water and Climate, Zimbabwe
73	Zambia	Maxwell M. Nkoya	Zambia Environmental Management Agency
74	Malawi	Khumbolawo Lungu	Department of Energy Affairs
75	Malawi	Chimwemwe Kaunda	Ministry of Finance Economic Planning and Development, Malawi
76	Mozambique	Natalia Simango	Ministry of Mineral resources and Energy, Mozambique
77	South Africa	Stuart Rayner	National Association of Automobile Manufacturers of South Africa
78	South Africa	Nilesh Bhana	National Association of Automobile Manufacturers of South Africa
79	Mauritius	Dharamdev Nathoo	Ministry of Transport, Traffic Management and Road Safety Unit, Mauritius
80	Mauritius	Deepnarain Prithipaul	Ministry of Environment, Sustainable Development, Disaster and Beach Management, Mauritius
81	South Africa	Bopang Khutsoane	Department of Transport, South Africa
82	South Africa	Happy Mathebula	Department of Transport, South Africa
83	South Africa	Mactavish Makwarela	Department of Environmental Affairs, South Africa
84	Lesotho	Leballo Thabiso Joseph	Ministry of Tourism Environment and Culture (Department of Environment), Lesotho
85	Swaziland	Charlazi Dlamini	Ministry of Natural Resources and Energy, Swaziland
86	Madagascar	Rakoto Claude	Direction Général du Ministère de l'environnement, Ministère de l'Environnement, de l'Ecologie et Des Forêts, Madagascar



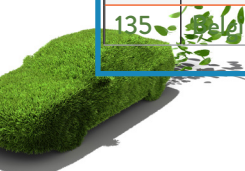


No.	Country	Name	Organization
87	Seychelles	Cynthia Alexander	Seychelles Energy Company
88	Seychelles	Jane Larue	Department of Land Transport Ministry of Habitat, Infrastructure and Land Transport, Seychelles
89	Democratic Republic of Congo	Donat M. Bagula	Ministry of Transport and Communication, Democratic Republic of Congo
90	Republic of the Congo	Joël LOUMETO	Ministry of Forest Economy, Congo (Rep.)
91	Gabon	Ogombe Elvis Davy	Ministry of Economy, Employment and Sustainable Development, Gabon
92	Sao Tome and Principe	Abenilde Tomé Pires dos	Direção Geral do Ambiente, Sao Tome and Principe
93	Algeria	Ouazene Mourad	Algerian National Agency for the promotion and rationalization of Energy Use
94	Morocco	Omar Lemsioui	Fondation Mohammed VI pour la Protection de l'Environnement
95	Tunisia	Abdelhamid Ganouni	National Agency for Energy Conservation, Tunisia
96	Egypt	Ghada Moghny	Centre for Environment and Development for the Arab Region and Europe
97	Egypt	Ahmed El-dorghamy	Centre for Environment and Development for the Arab Region and Europe
98	Tanzania	Stella Apolot	East African Community Secretariat
99	Ghana	Johnson Boanuh	Economic Community Of West African States
100	Nigeria	Bernard Koffi	Economic Community Of West African States
101	France	Pierpaolo Cazzola	International Energy Agency Clean Energy Ministerial- Electric Vehicles Initiative
102	United States of America	Chris Cherry	University of Tennessee Expert in electric 2-wheelers in Asia
103	South Africa	Sean Cooke	University of Cape Town
104	United States of America	Francisco Posada	International Council on Clean Transportation
105	Germany	Urda Eichhorst	Deutsche Gesellschaft für Internationale Zusammenarbeit, Advancing Transport Climate Strategies





No.	Country	Name	Organization
106	Kenya	Carol Mutiso	Deutsche Gesellschaft für Internationale Zusammenarbeit, Advancing Transport Climate Strategies
107	Kenya	Herman Kwoba	Deutsche Gesellschaft für Internationale Zusammenarbeit, Advancing Transport Climate Strategies
108	Germany	Jonas Bleckmann	International Climate Initiative
109	South Africa	Siva Konar	Lubrizol Corporation
110	South Africa	Kevin Lein Peter Baart	South African Petroleum Industry Association (sapia)
111	China	Dong Ma	Ministry of Environmental Protection VECC
112	Kenya	Anne Chaussavione	European Union Delegation_ Kenya
113	Kenya	Catherine Collin	European Investment Bank
114	Kenya	Juliet CHELIMO	European Union
115	Rwanda	Joshua Whale	Ampersand UG
116	Kenya	Faith Chege	Factore
117	China	Jiangsong Huang	TAILG
118	China	Dongwen Hu	TAILG
119	China	Rong Xu	Shenzhen Shenling Car Co.,Ltd
120	China	Can Peng Huang	TAILG
121	Kenya	Kinya Washington	Toyota Tsusho East Africa Ltd.
122	South Africa	Moonsamy Resmun	SA National Energy Development Institute SANEDI
123	South Africa	Maletlabo Handel	United Nations Industrial Development Organization
124	South Africa	Kassier Conrad	United Nations Industrial Development Organization
125	South Africa	Hiten Parmar	UYILO Emobility programme
126	Kenya	Calvin Kiplangat Tiony	Mobius Motors
127	Kenya	Claude O. Mwendu	Urysia Ltd/ Peugeot
128	Kenya	Zelda Kerubo	Kenyatta University
129	Kenya	Robert Mathenge	Environmental and Biosystems Engineering; University of Nairobi
130	Kenya	Anne Aol	Kenyatta University
131	Kenya	Luke Odera	Kenyatta University
132	Kenya	Dan Putar	Independent Consultant
133	Kenya	Ken Osano	Ekorent
134	Finland	Juha Tapio Suojanen	Ekorent
135	Belgium	Anas Abdoun	Stratas Advisors





No.	Country	Name	Organization
136	Rwanda	Felix Sebanyana Rubanda	FERU Energy
137	Kenya	Eric Trel	NTU International
138	Kenya	Joshua Nyangau	Engineer
139	France	Laurence Ullmann	Michelin Group
140	Kenya	Steven Terblans	Nissan Kenya
141	Netherlands	Jeroen Bleker	SPIKE Mobility
142	Netherlands	Bas Verkaik	SPIKE Mobility
143	South Africa	Jim Dando	Nissan Group of Africa
144	South Africa	Nthabiseng Motsepe	Nissan Group of Africa
145	South Africa	Maxim de Wit	Regional Office Nissan Sub Sahara Africa
146	France	Étienne Saint-Sernin	E- Zem
147	Kenya	Zahra Kassam	KUWA
148	Kenya	Martha Oduka	Academia
149	Kenya	Dorcas Nthoki Nyamai	Institute for Housing and Urban Development Studies (IHS), Rotterdam
150	Kenya	Dishon Kinyua Munene	Jokagi
151	Kenya	Ochieng' Ogodo	SciDev.net
152	Kenya	Samuel Otieno	SciDev.net
153	Kenya	Henry Ochieng	Kenya Alliance of Residents Associations
154	Kenya	John Kennedy Oluoch	Xinhua News Agency
155	Kenya	Zyneb Wandat	Nation Media
156	Kenya	Duncan Mboya	Media
157	China	Lyu Shuai	Xinhua News Agency
158	China	Xiaopang Wang	Xinhua News Agency
159	United States of America	Susan Goodwillie	Flone Institute
160	Kenya	Sellina Omollo	Ubabi Vanpooling
161	Kenya	Gladys Gatiba	Green Africa Foundation
162	Kenya	Edna Odhiambo	University of Nairobi
163	Kenya	Alicia Olago	Stockholm Environment Institute
164	Kenya	Mikko Leppanen	Trade Mark EA
165	Kenya	Ruth Baru	Xinhua News Agency
166	Kenya	Naftali Mwaura Muigai	Xinhua News Agency
167	Kenya	Lucie Murangi	China Daily
168	Kenya	Robert Kunga	BHP
169	Kenya	Benjamin Oluga	Autovault
170	Kenya	Mik Njoroge	Autovault
171	Kenya	Charles Onyango	Xinhua News Agency
172	Kenya	Eric Nzioki	Xinhua News Agency





No.	Country	Name	Organization
173	Kenya	Anne Macharia	Media
174	Kenya	Joseph Ombuor	The Standard Media
175	Kenya	Michael Ojudi	University of Nairobi
176	Kenya	David Njagi	PAMAAC News Agency
177	Kenya	Michelle Jerotich	Industrial promotion Services
178	Kenya	Jackson Wambua Mutonga	Deutsche Gesellschaft für Internationale Zusammenarbeit
179	Kenya	Stephen Mbuti	People Daily
180	Ghana	Joyce Gyekye	Media
181	Nigeria	Michael Simire	EnvironNews
182	Nigeria	Atâyi Babs Opaluwah	Climate Reporters
183	Kenya	Hemini Vrontamitis	UN Environment
184	Kenya	Geordie Colville	UN Environment
185	Kenya	Priscilla Muchibwa	UN Habitat
186	Kenya	Andriannah Mbandi	UN Environment
187	Kenya	Rob de Jong	UN Environment
188	Kenya	Bary Abdouraman	UN Environment
189	Kenya	Soraya Smaoun	UN Environment
190	Kenya	Carly Koinange	UN Environment
191	Kenya	Veronica Nguti	UN Environment
192	Kenya	George Maina	UN Environment
193	Kenya	Ariadne Baskin	UN Environment
194	Kenya	Diana Odero	UN Environment
195	Kenya	Tatiana Romero	UN Environment
196	Kenya	Jane Akumu	UN Environment
197	Kenya	David Rubia	UN Environment
198	Kenya	Alexander Koerner	UN Environment
199	Kenya	Bert Fabian	UN Environment
200	Kenya	Veronica Ruiz Stannah	UN Environment
201	Romania	Elisa Dumitrescu	UN Environment
202	Kenya	Amos Mwangi	UN Environment





MONDAY, 12 MARCH 2018

THE GLOBAL FUEL ECONOMY INITIATIVE (GFEI)

Moderator: Rob de Jong, Head - Air Quality and Mobility Unit, UN Environment

● 08:30 - 09:00 Registration

● 09:00 - 09:20 Welcome and Objectives

Session 1: Developing Fuel Economy Baseline and Trends

● 09:20 - 09:40 Current Global Fuel Economy Levels and Projections
Pierpaolo Cazzola, International Energy Agency

● 09:40 - 10:00 Overview of Fuel Economy Activities and Impacts
Elisa Dumitrescu, UN Environment

● 10:00 - 10:30 **Discussions**

● 10:30 - 11:00 **Coffee Break**

● 11:00 - 13:00 Panel Session: Experience of African Countries in Developing Fuel Economy Baselines and Trends

- North Africa

Ahmed El-Dorghamy, Centre for Environment and Development for the Arab Region & Europe, Egypt

- West Africa

Dacosta Adjei, Environmental Protection Agency, Ghana

- East Africa

Gerald Banaga-Baingi, Ministry of Energy and Mineral Development, Uganda

- Southern Africa

Chimwemwe Kaunda, Ministry of Finance, Economic Planning and Development, Malawi

● 13:00 - 14:00 **Lunch and Group Photo**

Session 2: Assessing Policy Choices and Target Setting

● 14:00 - 14:30 Fuel Economy Policy Options and Target Setting
Francisco Posada, International Council on Clean Transportation

● 14:30 - 15:30 Panel Session: Development of Fuel Economy Policies

- Ethiopia

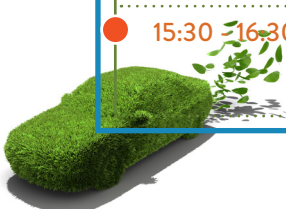
Kasahun Hailemariam, Federal Transport Authority, Ethiopia

- Mauritius

Deepnarain Prithipaul, Ministry of Social Security, National Solidarity, Environment and Sustainable Development, Mauritius

● 15:30 - 16:30 Fuel Economy Policy Impact Tool

Alex Koerner, UN Environment



TUESDAY, 13 MARCH 2018

THE GLOBAL FUEL ECONOMY INITIATIVE (GFEI)

Moderator: Urias Goll, Deputy Executive Director, Environment Protection Agency Liberia



- 09:00- 09:30 Fuel Economy Policy Impact Tool Case Study 1 – Kenya

James Nyang'aya, University of Nairobi, Kenya

- 09:30- 10:00 Fuel Economy Policy Impact Tool Case Study 2 – Uganda

John Mutenyo, Makerere University, Uganda

- 10:00- 10:30 **Discussions**

- 10:30 - 11:00 **Coffee Break**

Session 3: Developing Fuel Economy Policies

- 11:00 - 11:30 Practical Examples of Fuel Economy Policies in Other Regions

Bert Fabian, UN Environment

- 11:30 - 12:00 Example of Fuel Economy

Bopang Khutsoane, Department of Transport, South Africa

- 12:00 - 12:30 **Discussions**

- 12:30 - 14:00 **Lunch**

Session 4: Integrating Electric Vehicles and Heavy-Duty Vehicles

- 14:00 - 15:00 Advancing Improvements in Fuel Economy [Heavy Duty Vehicles, Electric Vehicles]

Pierpaolo Cazzola, International Energy Agency

- 15:00 - 16:00 Panel Session: Financing Mechanisms to Support Fuel Efficient Vehicle Uptake

- The Global Environment Fund

Geordie Colville, UN Environment

- The Green Climate Fund

Ermira Fida, UN Environment

Discussions

- 16:00 - 17:00 **Discussions and Next Steps**

Moderator's Summary: Urias Goll, Environment Protection Agency Liberia





WEDNESDAY, 14 MARCH 2018

AFRICA CLEAN MOBILITY PRIORITY ACTION AREAS: DAY 3 - 5

Moderator: Gerald Banaga - Baingi, Assistant Commissioner-Ministry of Energy and Mineral Development, Uganda

- 08:30 - 09:00 Registration
- 09:00 - 09:15 Opening Address
Vision and program of the Africa Clean Mobility Week priority areas
Erik Solheim, Head - UN Environment
- 09:15 - 09:20 Decarbonising Transport in Developing and Transitional Countries
Jonas Bleckmann, International Climate Initiative
- 09:20 - 09:40 The Clean Mobility Agenda for Africa
The reality of clean mobility in Africa and future revolutions
Rob de Jong, UN Environment

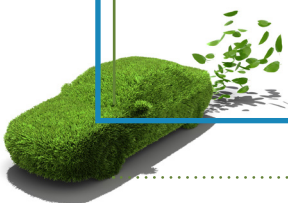
ADVANCING ELECTRIC MOBILITY IN AFRICA

- 09:40 - 10:00 Electric Vehicles - International Trends
Alex Koerner, UN Environment

Session 1: Using Policy to Shift Markets

- 10:00 - 11:00 Panel Session: Electric Mobility in Africa
 - Policy and regulatory framework for electric mobility
Pierpaolo Cazzola, International Energy Agency
 - Financing mechanisms and Infrastructure provision
Frank Romano, Knights Energy
 - Outreach and awareness raising
Omar Lemsioui, Mohammed VI Foundation for Environmental Protection
 - Promoting an enabling environment for electric mobility
Hiten Parmar, UYILO Emobility Programme

Discussions





Session 2: Advanced Bus Technologies

- **11:00 - 12:00** **Panel Session: Clean Bus Technologies**
 - Clean and efficient technologies for buses
Francisco Posada, International Council on Clean Transportation
 - The role of the private sector in promoting electric buses
Maged Yosef Nassar, Alexandria Passenger Transport Authority
 - Regulatory framework for clean bus technologies
Mikael Schuer, Scania

Discussions

- **12:00 - 14:00** **Cleaner Mobility Display: Electric Mobility and Bike sharing**

[12:30- 13:00: Press Conference: On the Future of Africa Clean Mobility]

Lunch

Session 3: Switching to Electric Motorcycles

- **14:00 - 14:30** **Integrating Electric 2&3 Wheelers into Existing Urban Transport Modes in Africa**
David Rubia, UN Environment
- **14:30 - 16:00** **Panel Session: Opportunities of leapfrogging to electric 2 & 3 wheelers**
 - Policy Setting
Christopher Cherry, University of Tennessee
 - Regional standardization
Joshua Whale, Ampersand Lod Huang, TailG Company
 - Local manufacturing**
Jeroen Bleker, SPIKE Mobility
 - Experiences in China
Lod Huang, TailG Company
- **16:00 - 16:30** **Recommendations and Next Steps**
Moderator's Summary: Gerald Banaga-Baingi, Ministry of Energy and Mineral Development, Uganda





THURSDAY, 15 MARCH 2018

REGULATING THE IMPORT OF USED VEHICLES

Moderator: Wanjiku Manyara, General Manager, Petroleum Institute of East Africa

● 09:00 - 09:30 Regulating Import of Used Vehicles in Africa

Rob de Jong, UN Environment

● 09:30 - 10:00 Brief on the Partnership for Clean Fuels and Vehicle Used Vehicle Working Group

Henry Kamau, Sustainable Transport Africa

● 10:00 - 10:30 Launch of the Africa Used Vehicles Report

Ariadne Baskin, UN Environment

● 10:30 - 11:00

Discussions

● 11:00 - 11:30

Coffee Break

Session 1: Used Vehicles in Africa

● 11:30 - 13:00 Panel Session: Policy and Regulatory Framework

- Strategies for importing African nations

Ronald Amanyire, Ministry of Works and Transport, Uganda

- Strategies for exporting countries

Miquel Nadal, Fédération Internationale de l'Automobile Foundation

- Policy and Regulatory Framework

Jim Dando - Nissan Group of Africa

- Regional used vehicle management

Bernard Koffi, Economic Community of West African States

Discussions

● 13:00 - 14:00

Lunch

Session 2: Fuel and Vehicle Standards

● 14:00 - 15:00 Panel Session: Cleaner Fuels and Vehicle Progress in Africa

- Progress towards cleaner fuels and vehicles

Jane Akumu, UN Environment

- Overview and outlook of fuel specifications and vehicle emissions

Anas Abdoun, Stratas Advisors

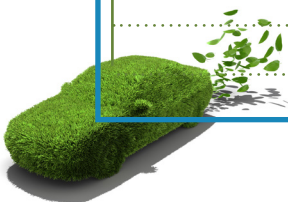
- Vehicle inspection, compliance and enforcement

Remy Duhuze, Rwanda Environment Management Authority

- Experience of China

Ma Dong, Vehicle Emission Control Center, Ministry of Environmental Protection, China

Discussions





● 15:00 – 16:00 **Panel Session: Engagement of the Private Sector**

- **Import/Production of cleaner vehicles**

Zachariah Mungai, Isuzu East Africa

- **Introducing cleaner fuels**

Kevin Baart, South Africa Petroleum Industry Association

- **Role of lubricants**

Siva Konar, The Lubrizol Corporation

Discussions

● 16:00 – 16:30 **Recommendations and Next Steps**

Moderator's Summary: Wanjiku Manyara, Petroleum Institute of East Africa





FRIDAY, 16 MARCH 2018

PROMOTING SUSTAINABLE TRANSPORT INFRASTRUCTURE

Moderator: Winnie Mitullah, Director, Institute for Development Studies, University of Nairobi

● 08:00 - 09:00 Refreshments and Networking

Session 1: Integrated Sustainable Transport

● 09:00 - 10:30 Panel Session: Walking and Cycling Facilities

- Policy development and Street design

Chris Kost, International Transportation and Development Policy

- Child health and mobility

Sean Cooke, University of Cape Town

- Bike share

Carly Koinange, UN Environment

Discussions

● 10:30 - 11:00 Public Transport & Urban Mobility

Urda Eichhorst, Deutsche Gesellschaft für Internationale Zusammenarbeit

● 11:00 - 11:30

Coffee Break

Session 2: Financing the Clean Mobility Agenda for Africa

● 11:30 - 12:30 Panel Session: Financing Mechanisms and Partnerships

Public Private Collaboration

Stephen Mogere, Japan International Cooperation Agency

Catherine Collin, European Investment Bank

South-South Cooperation

Ma Dong, Vehicle Emission Control Center, Ministry of Environmental Protection, China

Discussions

● 12:30 - 13:00 Recommendations and Next Steps

Moderator's Summary:

Winnie Mitullah, University of Nairobi

● 13:00 - 14:00

Lunch





Closing Session

● 14:00 - 15:00 **Closing Session: Recommendations from the Africa Clean Mobility Week Discussions**

Moderator: Rob de Jong, UN Environment

- Promoting clean and fuel efficient vehicles

Urias Goll, EPA Liberia

- Advancing electric mobility

Gerald Banaga-Baingi, Ministry of Energy and Mineral Development, Uganda

- Regulating used vehicles

Wanjiku Manyara, Petroleum Institute of East Africa

- Facilitating non-motorized and public transport

Winnie Mitullah, University of Nairobi

● 15:00 - 15:15 **Closing Remarks and Next Steps**

Ibrahim Thiaw, UN Environment (TBC)



ANNEX 4: THE AFRICA SUSTAINABLE TRANSPORT FORUM ACTION FRAMEWORK



ASTF Action Framework		
Priority Action Areas		
Priority Area	Actions	Time-Bound Target
Road safety	Implement the African Action Plan for the Decade of Action for Road Safety 2011 – 2020	
	Set up dedicated institutions for road safety and allocate funding	2017
	Insure comprehensive data collection and reporting mechanisms on road safety incidents and trends	2015
	Develop and adopt a Non-Motorised Transport Policy	2015
	Develop and adopt Non-Motorised Transport Design Guidelines	2015
Vehicle Emissions and Energy Efficiency	Ensure air quality monitoring takes place in all main cities	2017
	Develop vehicle emission standards and suitable inspection and testing	2016
	Develop vehicle import regulations at both regional and national levels, based on either vehicle age, mileage or emissions	2016
	Develop regulations for the adoption of cleaner fuels - especially low sulphur fuels - at a national level	2017
	Undertake a country level fuel economy analysis and develop a national level policy to improve fuel economy	2017
Accessibility and sustainable infrastructure	Develop a national policy on sustainable urban transport	2017
	Develop integrated transport plans with a specific focus on multi-modal transport	2018
	Undertake an assessment and develop a national policy on mass-transit systems	2017





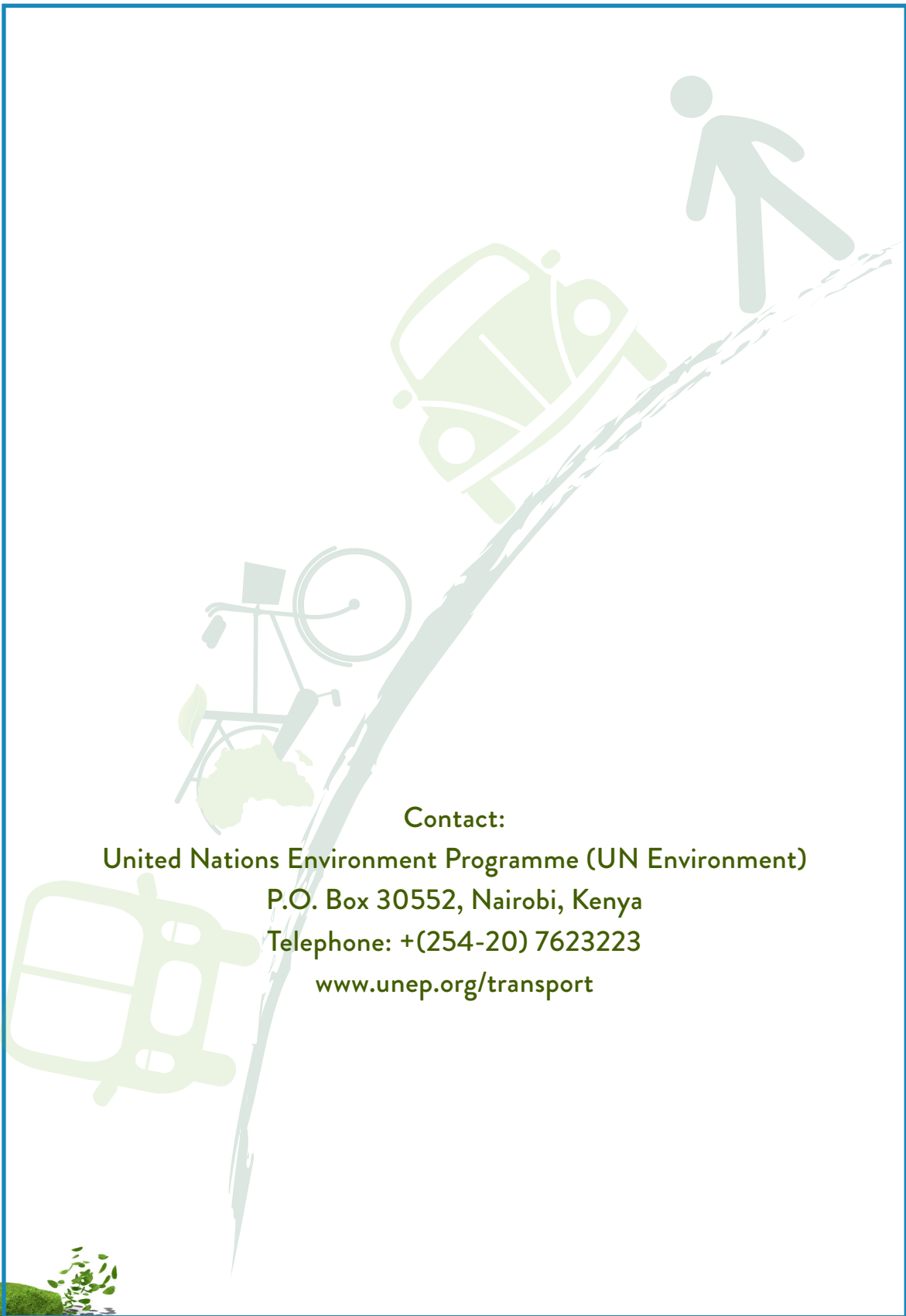
Supporting Activities		
	Data Generation and Monitoring Request the ASTF Secretariat to collect information to create baselines, monitor progress (including on Priority Action Areas) and share best practices in areas such as road fatalities and injuries, air quality, health impacts of poor air quality, non-motorised transport infrastructure, road infrastructure etc.	
	Financing Allocate funding to transport and institutional support	
	Capacity Building Continually share good and bad experiences, lessons learned and best practices	
	Advocacy and Championing Continually undertake advocacy and awareness raising	
Institutional Arrangements		
Timeframe	The agreed institutional arrangements for ASTF are interim	
	Institutional arrangements for the ASTF are understood as interim until the next ASTF conference (proposed end 2015), at which time a formal decision will be taken regarding the permanent institutional structure. Options should be disseminated to member states for consideration well before the next Forum session	
Political Ownership of ASTF	Political ownership of the ASTF should lie with the African Union	
	The African Union Commission will have a critical role to play in the ASTF. African Governments will make proposals for this to the African Union Commission	
Key Supporting Institutions	The supporting institutions to the ASTF should include the World Bank and UN Agencies	
	Key supporting institutions that should be providers of support to the ASTF and also kept informed on activities and progress should include the World Bank, the Africa Transport Policy Program (SSATP), UNEP and UN-Habitat	
Hosting Country	Kenya, as the hosting country of ASTF will cooperate with the Secretariat and its supporting institutions, and lead the dialog the Africa Union Commission	





Role of Africa Regional Communities	Africa's Regional Economic communities will be consulted	
	Africa's Regional Communities, including SADC, EAC, EGAD and ECOWAS, will be consulted on the development and implementation of the ASTF Action Framework	
2nd Ministerial and Experts Meeting	It is proposed that the next continental meeting will be held towards the end of 2015	
	The 2nd Ministerial and Experts Conference will be planned for a date towards the end of 2015 when activities and progress on Priority Action Areas will be addressed, and the institutional arrangements of ASTF finalized	





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