

United Nations Expert Group Meeting on Transport and Sustainable Development
16-17 October 2000, New York

Report of the Meeting

I. Opening of the Meeting

The meeting was opened by the representative of the Department of Economic and Social Affairs (DESA) who highlighted the importance of transport in the forthcoming deliberations of the Commission on Sustainable Development (CSD) in its ninth session in 2001. It was noted that this expert group meeting is an important part of overall preparations for CSD-9, and will contribute to the analysis of the problems and possible solutions and options available for the international community for the promotion of sustainable development goals in the transport sector. The representative of DESA noted that all relevant issues related to transport and sustainable development should be included in the discussions, and that recommendations should have a global scope, and not be confined to a specific country or region.

II. Background Papers on Transport and Sustainable Development

A. Background paper on Transport and Sustainable Development prepared by the Global Initiative on Transport Emissions (GITE)

Mr. Roger Gorham, of the World Bank/GITE, presented a brief overview of the comprehensive background paper prepared for CSD-9 that focuses on the harmful effects of polluting emissions, distinguishing between impacts at the local and global levels. It was noted that there are five main causes of air pollution, namely excessive vehicle use; poor maintenance of vehicles; prevalence of old, outdated technology; poor quality of available fuels; and atmosphere, topology, and climate. The three different types of solutions are technical, systemic, and behavioral. In order to create suitable tactics for combating the problem, it is important to identify groups that can be influenced which range from consumers to suppliers to planners and households. It was noted that one should be skeptical of overly a technical approach because it is based on the presumption that the cost of reducing transportation emissions should be spent on technical means rather on consumers preference to take less trips. Even with a plethora of technology, reduction of emissions is most effectively achieved through a change of attitudes and behavioral patterns. Possible actions on the international level include harmonization of data tracking/reporting; preventing fragmentation of markets in standards/regulation setting; facilitating regional investment and private sector; identifying agenda and resources for South specific Research and Development; and knowledge sharing and analytical support.

B. Background paper on Transport and Sustainable Development in Developing Countries

Mr. Ranjan Bose of TERI presented the background paper on Transport and Sustainable Development in Developing Countries including an analysis the goals of sustainable mobility and impediments to attaining this objective. It was noted that growing economies inevitably led to greater urbanization and motorization. Recommendations for making public transport more

attractive, as well as policy options to encourage non-motorized transport while discouraging motorized transport were highlighted. It was further emphasized that there exists a need for a credible database of transport statistics. The Urban Transport Model used by TERI for scenario construction and recommendation of possible policy options was also highlighted. National and international policy options include the importance of financing and popular awareness of the issue at hand. Furthermore, cooperation between ministries and other organizations on both the national and international levels is very important for the creation of a viable and sustainable solution to the problem of transport emissions.

C. Discussion of the Background Papers

Discussions centered around the question of how best to encourage a modal shift to more energy efficient vehicles that are also more costly given the constraint of limited budgets especially in urban areas. An obvious solution is to invest in mass transit especially in cities that are growing at a high rate. Other options for reducing costs include land planning and restricting development. No single solution can be applied and be effective, but a dynamic multi-faceted approach is needed. It is more appropriate to try and shift the current growth patterns of a city by encouraging low emission modes of transport rather than trying to move people from one mode of transport to another.

It was noted that the dilemma of how to obtain clean air is irrelevant because of severe poverty. When even a basic subsistence level is not achieved, one cannot expect the population to use cleaner vehicles or fuels - the vehicle becomes a means to livelihood, and there is no room for standards because the cost would be unbearable. If the program is to be successful it must focus on the small minority that can afford the change. This problem has nothing to do with whether a nation is developed or not, but is directly related to behavior and the way people think about public transportation. The use of motorized transportation results from a combination of distorted cost structures and psycho-social factors.

There is a distinction between emission levels and emission concentrations that is related to atmospheric conditions. Priorities must be set before a program can be chosen.

Promising technologies range from better engine design and calibration to improved exhaust after-treatment. In choosing technologies it is important to consider feedstock sources, market susceptibility of fuel prices, and speed of technology adoption. In choosing a plan of action, one must consider a dynamic analysis of options and resources considering not just what the technology can do today, but in the long term as well.

The possibility of the internet decreasing the need for any transportation in the future was also discussed. Little research has been done in the field of telematics and the potential of information technology to reduce the need for transport is unclear.

III. United Nations Agency and Regional Commission Reports

The representative from UNDP presented its new approach to transportation which is undertaken within the context of UNDP's four priority areas: poverty, gender, governance, and environment. Transport is related to all of these areas and the main goal of UNDP is people-

centered planning. Projects include improving capacity to participate in decision making, feasibility studies, technical support for ride sharing, motor vehicle registration schemes, and mediation between street vendors and traffic schemes. UNDP also provides technical support for land use planning as well as pricing. In terms of reducing poverty UNDP promotes identification of beneficiaries, mitigation of adverse impacts, analyses of cost effectiveness, and expansion of support for labour-based road construction. In terms of the environment, UNDP assists in air quality monitoring, development of emission models, ambient air quality policy and enforcement. Finally, in terms of gender, the UNDP supports training for female owned firms as well as technical and financial support to women who want to create para-transit alternatives. The UNDP also encourages non-peak travel public transit to meet the needs of women. All projects have to be demand driven, and are started at the request of governments. UNDP does not attempt to challenge government priorities and works in line with existing political will.

The representative of the Economic Commission for Europe (ECE) highlighted progress made in identifying and solving problems faced by the ECE countries in the transport sector. Transport is vital to economic growth and social vitality in the ECE region, accounting for 8% of GDP and 10% of employment. In Europe, road transport accounts for 80% of transport and will continue to dominate the sector in the future. Old vehicles are being replaced and leaded fuel is being phased out in Western Europe, while in Eastern Europe problems of leaded fuel and old vehicles as well as an insufficient road network remains. In order to abate the problems of transport emissions, the ECE has created a number of resolutions and conventions as well as legally binding treaties that guide national policy. The impact of each treaty was discussed and it was noted that they resulted in a reduction of emissions, thus implementation of ECE-like regulations could result in lower emissions in other regions. For the ECE region, the importance of fiscal incentives, improved use of existing infrastructure, more efficient land use and partnerships with the private sector were stressed.

The representative of the Economic Commission for Africa (ECA) emphasized the importance of transportation for development, especially for land locked countries, and stated that transportation and the subsequent exchange of goods was the driving force of development. He further noted that for land locked countries, it is important to emphasize the development of air transport both for bypassing conflicts at borders and for promoting tourism. The ECA has embarked on a Transport Decade Program in an effort to address the problems of transport development. The importance of promoting unleaded fuel was stressed as well as coordinating on the issue of second-hand vehicle importation, creation of a comprehensive database, and environmental policy. Furthermore, there is a need to be mindful of the impact on poverty when creating policy.

The representative from the Economic Commission for Latin America and the Caribbean (ECLAC) discussed the trends in traffic flows and transport patterns in several Latin American cities. It was noted that the initiatives made in the region to encourage shortened trips, such as those in Havana (limiting the city size) and Curitiba (land use planning), are exceptions and that little has been done in most major Latin American cities in this regard. Social and demographic tendencies have also contributed to increased trips per person as compared to trips per household, e.g. by 79% and 38% respectively in Santiago, between 1977 and 1991. Traffic management and the existence of suitable road networks varies from city to city. Little has been

done by governments to decrease car usage. Attempts have been made to use less polluting energy sources for buses, but those buses cannot be sold to smaller towns because fuel stations do not exist outside of the metropolis. Thus, the depreciation value of these vehicles is high, and there is no widespread use. However, there has been some effort to reduce pollution through the use of catalysts and license restrictions. Although license restrictions are successful initially, many people buy a second car to drive on the days that the primary car is restricted. It was recommended that cities base strategies on those identified by ECLAC, using a transport model calibrated for Santiago, whereby restrictions and incentives are simultaneously applied.

The representative of the United Nations Environment Program (UNEP) noted that transport is the largest sector in the world in terms of financial turnover, workforce and resources used. It is responsible for 25% of current energy used, it is dependent on fossil fuels, and it contributes 30% of Green House Gas (GHG) emissions. Furthermore, current growth patterns are unsustainable. Some steps have been taken to mediate the problem such as legal frameworks, voluntary initiatives, fiscal measures and technological improvements. UNEP contributes to the move toward sustainability through a system of reporting that aims to take environmental reporting to the same level of detail and vigour as financial reporting. Knowledge sharing is encouraged through publications, and networks are built with governments, NGOs and the private sector. UNEP also has created an Automotive Industry Forum that will allow private manufacturers to meet and set priorities for research and development. A list of policy options on both the national and international level was provided, stressing the need for raising awareness of decision makers, promoting a co-ordinated approach, disseminating best practices examples, and encouraging public-private partnerships.

Transport is among the priority areas of the Economic and Social Commission for Western Asia (ESCWA), according to its report. The main objective of the Commission is to promote coordination among member states for the harmonization of standards. Comparisons of vehicle ownership, annual rate of growth in vehicles, and total gasoline consumption among member countries show that the region compares favourably with industrial countries. Also, there is a decreasing trend in CO₂ emissions in the region. Noise standards are being implemented and accidents and fatalities have declined. Although lead is being phased out in Saudi Arabia and there has been some technology transfer, increased knowledge sharing with developed countries is necessary. The ESCWA representative provided some policy options, emphasising the need for the UN agencies and regional commissions to work in tandem on this issue.

Changing consumption patterns, the third chapter of Agenda 21, was highlighted by a representative of DESA, and along with the goal of changing consumption and production patterns, which is an overarching theme at each session of the Commission for Sustainable Development. It was noted that changing transport behavior as discussed in this expert group meeting can contribute to the overall goal of changing consumption patterns. DESA is working to develop a core set of indicators of consumption patterns and mobility indicators are included in the list. DESA is also creating methodology sheets for the collection of data on energy intensity. The indicators will be available on the DESA website when they are completed. DESA is also working in collaboration with the International Institute for Sustainable Development to create a compendium of instruments. The participants were requested to send successful case studies to be placed on the website. In response to a question, the DESA

representative indicated that DESA would not gather data but aims to provide a common methodology to each government to ensure compatibility of indicators.

IV. National Reports

Mr. Alfredo Villegas Camil of Mexico presented a brief overview of the pollution problem in Mexico City and the ethanol program developed there. He indicated that the geo-climatic characteristics of the city contribute to the pollution. Because of its location, Mexico City has 23% less oxygen than a city at sea level making pollution problems worse than they might be otherwise. He stated that transport is responsible for 80% of fuel consumption, 77% of pollution and 99% of CO emissions in the city. More than 60% of vehicles are over 10 years old, further contributing to the problem. Although efforts have been made to curb pollution, little success has been achieved. However, the use of ethanol as a fuel or additive to gasoline could prove to be a solution. Also, emissions would decline if ethanol was used as a substitute for MTBE. There would be an added benefit of supporting agro-business in Mexico if the ethanol is produced within the country. An ethanol bus program has been initiated in Mexico as a pilot project, and results have been favorable.

Mr. Krzysztof Olendrzynski of Poland noted that the economic changes that have taken place in Poland and other Eastern European countries over the last two decades have led to a 70% increase in car ownership, an 80% increase in trade transport, and a decline in trucking and rail transport. Traffic on roads and trans-border freight has increased by 100% and air travel has increased by 50%. He stated that the increase in congestion, degradation of infrastructure, and increasing emissions are reasons for concern. The main priorities of the Poland are to decrease the demand for transportation, maintain and support different means of transport (i.e., support modal split), and promote public transit in cities. Olendrzynski concluded that there is reason for optimism because a recent study done in conjunction with the Institute of Sustainable Development shows the possibility of moving toward a scenario of Sustainable Development.

Mr. Oyuko Onyang Mbeche of Kenya described the environmental problems faced by the transport industry in Kenya. He stressed the importance of air travel as a link with other African nations, as previously mentioned by Koumare. During the early 1980s, Kenya made tremendous headway in terms of infrastructure for transport, yet much of this progress has been degraded in the last two decades. The vehicle fleet grows by 5% each year but maintenance of roads does not keep up with this pace. Pollution is also a large problem, but there is a tremendous amount of indifference in the government ministries. Mbeche emphasized the impact of erosion of the natural environment on transport facilities, stating that soil erosion and floods were the cause of not only accidents but deterioration of roads and bridges. Other impediments include lack of proper land use planning as well as lack of proper disposal of solid waste. He further stated that if transport is to become sustainable, care must be taken to protect the natural environment from degradation and contamination of the soil and water must be stopped.

Mr. Dennis Baloyi of South Africa indicated that South Africa faces problems similar to those of both developed and developing countries. The segregation during the era of apartheid has created a divergence between different areas of the nation that has determined the current transport system. Furthermore, although pollution data is collected, the environment is not

directly linked with transport in policy. The granting of power to local governments (through the Constitution of 1996) creates problems of coordination, and creating environmental policy will be difficult. Problems of violence have interrupted the use of public transport in the past. Another problem is the lack of training of operators, often exacerbated by illiteracy. Illiteracy is also an issue when trying to promote public transportation. Pretoria is initiating a color coding scheme for buses and taxis to indicate routes. High speed rail links are being created for higher income groups that consider public transport to be for the poor. Yet the largest obstacle is that ministries do not work in tandem when planning for the city. The department of transport is trying to densify city centers to create more viable public transit systems while the department of housing builds settlements far from the center. Without coordination, sustainability is impossible. Financing for such projects is also necessary.

Claudio de Senna Frederico of Brazil noted that public transport in Brazil is dominated by buses, which carry more than 54 million passengers per day. Problems with transport in Brazil include low mobility, slow average speeds, high ozone pollution, and high cost (the average person spends more on transport than on housing). Ironically, it is the lower income groups that are more apt to use private vehicles while higher income groups are using public transportation more and more. Politically, sustainable transport is difficult to achieve because long range solutions are in conflict with immediate political payback. In the end, it is most important to show that transportation is not an end in itself, but a means to an end. Furthermore, it is not the mode of transportation that is chosen but a mode of life. One way of doing this is to create a flexible plan that is based on the perception of a desirable city. One must ask constituents what they would want the city to be in 20 years and plan accordingly. This strategy has been used in Sao Paulo successfully and has been able to garner political support for expanded transportation planning. Frederico also proposed three declarations: that public transport is the only way to transport all people safely at a reasonable price with known technology; public transportation is an absolute necessity to some, and in low income situations must be provided independently of its costs and welfare; and, while private transportation is immediately attractive in a simple 'gimme' way, public transportation depends on a more sophisticated lifestyle as well as a broader social, community, and environment perception. He concluded by emphasising the need to link transport and the desirable city.

Ms. Paimaneh Hasteh of Iran stated that the main problem for Tehran has been irregular population growth that has exceeded the ability of government to provide adequate transportation systems. Pollution in the city is two to three times that of average recommended levels. Climatic factors further exacerbate the problem by creating smog and tropospheric ozone. Transport is the main focus of the emission reduction strategy. An extensive study was done with the assistance of the World Bank that established an air pollution monitoring system, recommended appropriate standards, tests, and certification procedures, and developed an evaluation framework for new projects. Public awareness campaigns played a key role in gathering political support. A National Action Plan was derived from the study that includes phasing out of lead, park and ride programs, inspection and maintenance programs, etc.

V. Options for Consideration by the International Community

It was suggested that it would be useful to find five or six points of common concern. These could be technology, training and education, the role of the manufacturer, the need for partnership, and the role of the private sector. It was further suggested that the group create a vision of the future as well as a mechanism to pre-empt the conferences. A number of issues including the need for a credible database, co-ordination of transport systems, the phasing out of lead, ensuring financing, and providing international guidelines for setting standards were discussed. The importance of a database and the issue of financing was stressed. It was suggested that a special sideline of financing could be created especially for transport projects that are environmentally friendly. The need to address issues of gender and poverty as well as public-private partnerships was added. The need for public awareness and participatory governance was addressed. Rural development should be considered as a means of decreasing the burden of the city. Education should not only include public awareness but training for drivers and fleet managers. Recycling could be added to the list of national options as well as driver behaviour training. The issue of safety needs to be addressed. By 2010 transportation will be the third largest cause of death globally. Although many studies are done to consider automobile safety, inter-modal safety is never considered. In other words, relative safety is not seen as a reason for building subways or adding buses. Measures recommended to increase sustainability should not adversely affect low income groups. The issue of health should not be overlooked and should not only be considered from the perspective of breathing polluted air but also obesity, lack of exercise, etc. It is important to make a distinction between trade facilitated transport and urban transport.

It is important to encourage UN agencies and regional commissions to co-ordinate a plan of action. In many developing countries, large bureaucracies impede the dissemination and use of cutting edge technology since by the time the project proposal is written and approved, a newer, better technology comes into favour internationally. UN agencies and regional commissions should take this point into consideration when allocating funds for projects.

There was some discussion of the style of the Secretary General's Report on Transport and Sustainable Development. It was suggested that the tone of the paper should be empowering, providing a sense of purpose and hope. Policy makers should have the attitude that they can take control and action is not completely restrained. This may be achieved through reporting of best practices. The language of the Report should not be overly technical and easy to follow by the lay person.

It was agreed that the plan of action proposed to CSD-9 would include awareness, information, data, a move toward informed policy making and, perhaps, standards. Financing would be a main point as well as rural development to take stress off of urban areas. Harmonization of legislation would also be a major goal as well as the continued push for universal elimination of lead in fuels. Participation of communities in all policies taken is another important aspect of a transport policy aimed at promoting sustainable development. It was further agreed that case studies could be presented as background papers if so desired by UN agencies and regional commissions.

VI. Participants

1. Mr. Dennis Baloyi
Senior Public Passenger Transport
Planner
Greater Pretoria Metropolitan Council
PO Box 6338/6339
0001 Pretoria, South Africa
Tel: +27 12 337 4074
Fax: +27 12 328 5137
E-mail: dbaloyi@gpmc.org.za
2. Mr. Ranjan Kumar Bose
Tata Energy Research Institute (TERI)
India Habitat Centre, Darbari Seth
Block
Lodi Road, New Dehli 110003
India
Tel: (+91 11) 468 2100 / 468 2111
Fax: (+91 11) 468 2144 / 468 2145
Email: rbose@teri.res.in
3. Mr. Alfredo Villegas Camil
Director of Ethanol Programme, Ciudad
de Mexico
Av Cuauhtemoc No, 898 3er Col.
Narvarte
Mexico City, Mexico
Phone: +52 5 292-1612/523-8889
Fax: +52 5543 3798
alfredovillegas@prodigy.net.mx
4. Mr. Jose Capel Ferrer
UNECE
Palais de Nations
1211 Geneva 10 Switzerland
Tel: +41 22 917 2400
Fax: +41 22 917 0039
Email: jose.capel.ferrer@unece.org
5. Mr. Ahmed Farahat
UN ESCWA
P.O. Box 11-8575
Riad El-Solh Square
Beirut, Lebanon
Tel: +961 1 981 301 x 1516
Fax: +961 1 981 510
Email: afarahat@escwa.org.lb
6. Mr. Claudio de Senna Frederico
Sao Paulo State Secretary for
Metropolitan Transportation
Sao Paulo, Brazil
Tel: +55 11 281 6006
Fax: +55 11 283 2299
E-mail: csenna@attglobal.net
7. Mr. Roger Gorham
World Bank, Room H8-256A
1818 H Street NW
Washington, DC 20433
Tel: +1 202 458 0394
E-mail: rgorham@worldbank.com
8. Ms. Paimaneh Hasteh
Ministry of Foreign Affairs
Tehran, Iran
Tel: +98 21 321 2371
Fax: +98 21 672 0007
E-mail: p_hastaie@yahoo.com
9. Mr. M H Koumare, SEAO
Regional Cooperation and Integration
UN ECA
Africa Hall
PO Box 3001
Addis Ababa, Ethiopia
Fax: +251 1 51 3038
E-mail: hkoumare@uneca.org
10. Mr. Oyuko Onyang Mbeche
University of Nairobi
Nairobi, Kenya
Tel/Fax: +254 2 57 0488
E-mail: oyuko@nbet.co.ke
11. Mr. Krzysztof Olendrzynski
National Center for Emission
Inventorying
Institute of Environmental Protection in
Warsaw
Kolektorska 4
01-692 Warszawa, Poland
Tel: 48 22 833 4241 x41, 833-8037
Fax: + 48 22 833 69 28
E-mail: debski@ios.edu.pl

12. Ms. Martina Otto
Director of Technology, Industry, and
Economies
UNEP
39-43, Quai Andre Citroen
75739 Paris, Cedex 15 France
Tel: +331 44 37 1450
Fax: +331 44 37 1474
Email: martina.otto@unep.fr

13. Mr. Jonas Rabinovitch
UNDP
FF-964 United Nations
New York, NY 10017
Tel: +1 212 906 5780
Fax: +1 212 906 6471
Email: jonas.rabinovitch@undp.org

14. Ms. Jessica Rockwood
4019 Byrd Rd.
Kensington, MD 20895 USA
Tel: +1 301 807 0399
E-mail: jessicarockwood@aol.com

15. Mr. Essam Sharaf
Professor of Highway Engineering
Public Works Department
Faculty of Engineering
Cairo University
Cairo, Egypt
Tel: +749 748 25/ 360 1174
Fax: 20 2 360 1614
E-mail: esmakmh@intouch.com

16. Mr. Ian Thomson
UN ECLAC
Casilla 179-D
Santiago, Chile
Tel: +56 2 210-2281 / 210-2280
Fax: +56 2 208-0252 / 208-1946
E-mail: ithomson@eclac.cl

DESA Participants

17. Mr. Kui-Nang Mak, Chief
ETB/DSD/DESA
DC1- 0880 United Nations
New York, NY 10017
Tel: 212-963-8798
Fax: 212-963-9883
E-mail: makk@un.org

18. Ms. Kathleen Abdalla
DC2-2280 United Nations
New York, NY 10017
Tel: 212-963-8416
Fax: 212-963-1795
Email: abdallak@un.org

19. Ms. Ghazal Badiozamani
DC2-2280 United Nations
New York, NY 10017
Tel: +1 212 963 4661
Fax: +1 212 963 1795
Email: sandoval@un.org

20. Mr. Walter Shearer
DC1- 0872 United Nations
New York, NY 10017
Tel: +1 212 963 8444
Fax: +1 212 963 9883
E-Mail: shearerw@un.org

21. Mr. Kyaw Kyaw Shane
DC2-2264 United Nations
New York, NY 10017
Tel: +1 212 963 3264
Fax: +1 212 963 1795
Email: shanek@un.org

22. Ms. Chikako Takase
DC2-2248 United Nations
New York, NY 10017
Tel: +1 212 963 8774
Fax: +1 212 963 4260
Email: takasec@un.org