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Workshop 1

Advances in Energy-efficient Transport Technologies

Workshop 1: Energy-Efficient Technology - 1/2

- Guarded optimism: 30% reductions in road transport CO₂ emissions available at low cost; 50% reductions at reasonable cost longer term.
- Attaining these reductions requires intervention, including a fuel economy standard.
- New business models, e.g. leasing, can accelerate the market penetration of advanced efficient cars, spreading the cost of better fuel economy over time.

Workshop 1: Energy-Efficient Technology - 2/2

- Differentiation of car ownership taxes is a quick way of steering vehicle choices to more fuel efficient rather than more powerful models.
- Achieving the full emissions potential of electric vehicles is dependent on how the electricity is generated.
- OECD countries must show a lead but efforts to reduce emissions should not be limited to the OECD. Public policies to promote and fund technology collaboration with developing economies required.



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Workshop 2

Changing Behaviour in Passenger Transport

Workshop 2: Changing Behaviour in Passenger Transport – 1/3

Economic and Political Framework

- Governments have to address travel behaviour as well as technology if CO₂ emissions are to be reduced below current levels.
- Although daily travel behaviour is determined by habit, it does change when people change jobs or houses or buy cars.
- The long-term (>5yrs) impact of policies to change behaviour can be twice the short-term impact.



Workshop 2: Changing Behaviour in Passenger Transport – 2/3

Empirical Evidence

- Reducing car use in cities by up to 20-30% is possible through a combination of measures.
- Parking management, charging or limiting car access to city centres, reducing congestion in public transport, work well.
- The main consumer response to fuel price increases is to increase fuel economy rather than decrease car travel.



Workshop 2: Changing Behaviour in Passenger Transport – 3/3

Policy Packages

- Policies should be comprehensive, consistent and cover all tiers of government, with integrated cross-sectoral planning
- Involving citizens in the planning process can lead to spontaneous behaviour change.
- Voluntary policies only have a limited effect – enforceable regulations (e.g. parking restrictions) are also needed
- Road pricing may be easier to introduce when coordinated between competing cities.
- Many behavioural policies result in more competitive and attractive cities.





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Workshop 3

Reducing CO₂ Emissions in Goods Transport

Situation and trends

- Freight transport is responsible for one third of the carbon footprint of transport and is growing
- Decoupling from GDP is difficult but not impossible
- Although firms plan their logistics efficiently there still is a potential to reduce carbon emissions individually and through cooperation
 - DHL aims to cut CO₂ emissions 30% by 2020 compared to 2007



Potential Actions

- Technology – engines, aerodynamics, tyres
- Ecodriving
- Improving logistic operations – planning, load factors, consolidation
- Modal shift
- Improved logistics
 - Consolidation of supply chains
 - Cooperation of forwarders, haulage companies and shippers

Policy Strategy

- Ideal: global CO₂ emission trading system
 - Distribution of emission allowances per capita
 - Market deciding on least cost strategies
 - Aviation, maritime and inland waterways (subject to international agreements)
- Alternative strategy
 - Taxes, charges, standards, regulations, investment in alternative modes
 - Supporting voluntary actions: Carbon certificates (ISO 14064), Carbon auditing

Policy Instruments

- Short-term measures
 - Voluntary agreements, ecodriving, reinforcing business strategies to save energy and fuel, transfer of best practices
 - “Top Runner“ fuel economy regulation
- Longer-term measures
 - City road pricing
 - Extension of interurban road pricing
 - Vehicle technology innovation



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Workshop 4

Transport CO₂ Emissions in Emerging Economies

Workshop 4: Emerging Economies – 1/3

- As developing countries grow, transport activity will grow. This should be welcomed but steered to take a more sustainable path.
- Air quality, safety and congestion are priorities; addressing them will also curb CO₂ emissions.
- Curbing CO₂ requires:
 - Demand management in the cities
 - Ending fuel subsidies (\$14 billion in Indonesia)
 - Auto fuel economy regulation and tax incentives



Workshop 4: Emerging Economies – 2/3

Demand management in cities requires

- Land use planning integrated with transport plans
- Quality public transport – bus, BRT, rail
- Charging for road space essential through:
 - Parking charges with enforcement
 - And/or road pricing

International Finance Institutions can assist with

- Investment in public transport
- Technical assistance for:
 - Institutional capacity building
 - Fuel efficiency regulation
 - Fuel efficiency testing, labelling and information



Workshop 4: Emerging Economies – 3/3

Cars

- Ownership growing rapidly
- Small vehicles, relatively good fuel economy
- Technology for improvement different from OECD
 - Idle stop-start cost effective in congested cities
 - Small short range electric cars longer term

Curbing car emissions growth requires

- Regulatory standards for fuel efficiency
- Differentiated standards and taxes to discourage increase in power and weight as incomes grow
- End to fuel subsidies

