Keeping climate change solutions on track

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Copenhagen: The way to Copenhagen

Keeping Climate Change Solutions on Track:

The Role of Rail

A Global Position Paper

www.traintocopenhagen.com
Copenhagen: The window of opportunity will not get bigger

Saturday 19th
2009
Plenary 4 am
The Copenhagen Results

- No legally binding agreement
- No mention of targets (for anyone)
- “Taking note of” the Copenhagen Accord
- Extension of AWG LCA and AWG KP

- Next steps COP 16 (Cancun) and COP 17 (Johannesburg)
- Climate change will remain a key driver
“Given the role that transport plays in causing greenhouse gas emissions, any serious action on climate change will zoom in on the transport sector”

Yvo de Boer, Executive Secretary UNFCCC, January 2009
Transport CO₂ emissions

- Transport responsible for **20% of global energy demand**, of which 80% derived from fossil fuels
- Consequently, the sector is responsible for **23% of global CO₂ emissions** from fuel consumption
- **Rail is responsible for 2%** global transport CO₂ emissions
Transport Sector CO₂ Emission by Mode and Region
WEO Reference Scenario, Changes 2006-2030

Source: IEA 2008
Transport energy-related CO₂ emissions are predicted to increase by 1.7% a year from 2004 to 2030 (IEA)
Strategies towards sustainable low carbon transport

AVOID
- Reduction in total distance travelled

SHIFT
- Modal shifts to lower carbon emitting options

IMPROVE
- Technological
  - Operational
Sustainable low carbon transport systems

- Fundamental role for rail as a low carbon mode of transport
- Shift transport demand from air and road to rail
- Improve energy efficiency of rail
Increase modal share of rail

- Investments in technology and infrastructure
- Strong policy measures
- Behaviour change
Influencing modal choice

Clearly communicate the role of rail as a low carbon transport option

• Internet tools such as EcoPassenger and EcoTransIT

(EcoPassenger calculation for the Brussels to Copenhagen route)
Influencing modal choice

Urban transport demand – London case study

- upgrading and extension to Underground
- congestion charge and low emission zones on city road network

Impact on modal share
Cars 5% decrease
Underground & Docklands rail 7% increase
Influencing modal choice

High speed passenger services – Madrid to Seville case study

The new high speed line saw a move from air travel to rail market share of rail increased from 33% to 84%

Source: UNIFE
Influencing modal choice

Freight movements – Danone case study

The project studied the removal of 10,000 trucks by replacing the road transport of 200,000 pallets for supply and 100,000 pallets for return, with rail between Volvic and Hockenheim.

Using the Estia-VIA®1 method, estimated modal shift saved;

11,818 tons of CO₂ eq. per year

55,636,000 kWh of non-renewable energy per year
Increase energy efficiency

Technology – hybrid, hydrogen, regenerative braking, electrification

Operations – efficient driving, signalling, network management

Technology & Operations - High Speed Rail

Source: DfT (UK)

Source: JR East
2010 and beyond

Setting the right policy framework

Integrate these elements into policy regulation (e.g. Transport White Paper for the EC 2010)

- internalisation of external costs
- increase energy efficiency (R&D)
- influence modal shift to rail (Taxes, prices)
International agreements – Climate negotiations did not work for rail so far...

UNFCCC Kyoto protocol mechanisms have not supported transport development

- Only 2 transport projects out of 1834 registered CDM projects
- However, one of the projects is in rail – Delhi Metro

Source: DMRC
The millions, the billions and the trillions

Global transport investments by source of finance

- Domestic finance: 582.56 billions of USD
- Foreign Direct Investment: 148.73 billions of USD
- International Debt Finance: 149.62 billions of USD
- ODA: 8.09 billions of USD

Climate finance:
- GEF w. co-financing: 0.57
- GEF: 0.03
- CDM: 0.05
- CTF: 0.60

[TRL logo]
The appetite for low carbon transport and rail is there

- Based on analysis of NAMA submissions to Copenhagen Accord by May 2010

>25 out of 36 submissions mention transport

- 7 specific inclusion of rail;
  - Ethiopia, Jordan, Macedonia, Madagascar, Mexico, Morocco and Ghana

Subsector Shares of ADB Transport Lending – Actual, Pipeline and Target (%). Source: ADB, 2010
2010 and beyond

International mechanisms

- Promote railways in Climate Negotiations and dialogue with multilaterals and governments as a low carbon sustainable options and enable large potential in developing countries
- Make use out of existing new carbon funding: CIF, CTF
- Make climate negotiations work for rail: e.g. Nationally Appropriate Mitigation Actions (NAMAs) as an option for rail under a new agreement
- EU Make kick-start finance work for rail
- EU Revenue out of Aviation ETS
- Shift of investment from multilaterals (e.g. Sustainable Transport Initiative from ADB)
‘Bridging the Gap’ Initiative and Partnership on Sustainable Low Carbon Transport (SLoCaT) are engaged in communicating the role of land transport in climate change solutions

www.transport2012.org

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