Copenhagen Accord NAMA Submissions
Implications for the Transport Sector

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The Copenhagen Accord,[1] an output of the 15th Conference of the Parties under the UNFCCC that was held in December 2009, invited the 151 developing countries Parties to submit Nationally Appropriate Mitigation Actions (NAMA) in Appendix II of the Accord. Developing country Parties were requested to submit mitigation actions by the 31st of January 2010 but submissions have continued at a steady rate from January, with the latest submitted on 25th August. There are now 43 submissions,[2] 26 of which make explicit reference to the land transport sector. The number of Annex I submissions of economy-wide targets has also increased from 42 to 43 (as of September), indicating widespread commitment to reduce and limit GHG emissions by 2020.

The Bridging the Gap Initiative has undertaken two reviews of the NAMA submissions as of:

- February 2010[3] which identified 25 NAMA submissions, 14 of which refer to land transport.
- May 2010[4] which identified a further 11 NAMA submissions, 9 of which refer to land transport.

This summary document has been compiled to combine and update Bridging the Gap's two preceding analyses of NAMA submissions and to accompany their Guidance Note for Parties for formulating NAMA in the transport sector.[5]

Overview of the NAMA submissions to the UNFCCC

Seven developing country Parties[6] made a NAMA submission between early May and the end of August. As with the initial submissions their content, structure and level of detail contained continues to vary widely, although none of the submissions contain detailed proposals for the NAMA actions outlined.

Three[7] of the seven developing country Party submissions make direct reference to the transport sector. All three submissions refer explicitly to NAMA actions in the land transport sector, which brings the total NAMA submissions that mention land transport to 26 out of 43.

Table 1 overleaf contains a summary of the transport actions proposed by all of the 28 Parties that have made explicit reference to the transport sector in their submissions (two of which referred to the transport sector as a whole, without directly mentioning land transport).

Table 2 in the Appendix contains a more detailed overview of the contents of each of the 43 submissions both in relation to land transport and to wider sectors of the economy.

1 http://unfccc.int/files/meetings/cop_15/application/pdf/cop15_cph_auv.pdf.
2 See http://unfccc.int/home/items/5265.php for a list of all submissions.
3 http://www.transport2012.org/bridging/ressources/files/1/586,NAMA-submissions_080210_final.pdf.
4 http://www.transport2012.org/bridging/ressources/files/1/720,NAMA-submissions_additional-submissi.pdf.
5 http://www.transport2012.org/bridging/ressources/files/1/615,567,Guidance_on_Transport_NAMA.pdf.
6 Antigua and Barbuda, Cameroon, Chad, Chile, Colombia, Peru and Tunisia.
7 Chad, Colombia and Tunisia.

Table 1: Transport measures proposed in NAMA submissions.

Developing country Party	Strategy approach	Infrastructure development/ enhancement						Land use planning	Awareness campaigns (TDM)	Vehicle or fuel technology	Regulatory policy measures	Energy Efficiency	Other unspecified
		Rail/ light rail	Non-motorised	Road	Other (or unspecified) public transport	Waterborne	Unspecified						
Republic of Armenia	Improve												✓
Benin	Shift				✓								
Botswana	Shift and improve			✓									✓
Central African Republic	Avoid, shift and improve							✓					✓
Chad	Shift and improve									✓			✓
Colombia	Shift and improve						✓			✓			✓
Cote d' Ivoire	Avoid and shift								✓	✓			
Costa Rica	Not specified												✓
Republic of Congo	Avoid and shift					✓		✓			✓		
Eritrea	Avoid, shift and improve												✓
Ethiopia	Shift	✓											
Gabon	Shift and improve				✓						✓		
Ghana	Shift and improve	✓	✓	✓	✓	✓				✓	✓		✓
Indonesia	Shift												✓
Jordan	Shift and improve	✓			✓		✓				✓		✓
Macedonia	Shift and improve	✓	✓	✓			✓			✓	✓		✓
Madagascar	Shift and improve	✓											✓
Marshall Islands	Shift and improve						✓				✓		✓
Mauritania	Shift				✓								
Mexico	Shift and improve	✓	✓	✓							✓		
Mongolia	Improve												✓

Developing country Party	Strategy approach	Infrastructure development/ enhancement						Land use planning	Awareness campaigns (TDM)	Vehicle or fuel technology	Regulatory policy measures	Energy Efficiency	Other unspecified
		Rail/ light rail	Non-motorised	Road	Other (or unspecified) public transport	Waterborne	Unspecified						
Morocco	Avoid, shift and improve	✓		✓				✓			✓		
Papua New Guinea	Not specified												✓
San Marino	Unclear								✓				✓
Sierra Leone	Shift and improve			✓	✓						✓		✓
Singapore	Shift and improve			✓			✓		✓		✓		✓
Togo	Shift and improve				✓					✓			
Tunisia	Avoid, shift and Improve	✓			✓			✓		✓		✓	

A positive response to the NAMA concept

The level of response to the call for NAMA actions has been positive, with a high initial response followed by a steady submission of additional proposals that are continuing seven months after the initial deadline. Twenty-eight of the 43 submissions have made explicit reference to the transport sector, indicating widespread recognition of the role of the sector in climate change mitigation. They also mirror the wider paradigm shift being pursued in the sector, namely to avoid unnecessary journeys, shift travel activity to low carbon modes, and improve the energy efficiency of each mode. NAMA actions proposed have, for example, ranged from land-use planning to increasing the energy efficiency of vehicles and fuel and research into the impacts of different strategies. This endorses the value of the work being conducted by initiatives such as the Bridging the Gap partnership, demonstrating the demand on the ground for better integration of the two sectors and for support for doing so.

The wide-ranging proposals made reflect the open and flexible nature of the NAMA concept. They also, however, highlight that there is a large potential to increase awareness of the different types of land transport measures that can be registered as NAMAs. There is also no indication that transport NAMAs proposed have been developed in the context of wider transport and development strategies, which demonstrates the need for in-depth support if opportunities for realising low carbon mobility in developing countries are to be realised.

There is still uncertainty over how the required technical, financial and technological support for NAMA actions will be delivered, with related frameworks likely to emerge over the coming year under the UNFCCC climate change negotiation process. Bridging the Gap as part of the partnership on Sustainable Low Carbon Transport[8] (SLoCaT) will actively observe and contribute to this process. Bridging the Gap will also seek to support developing country Parties who have and have not yet made any NAMA submissions to develop transport NAMA and to pilot related projects.

[8] See www.slocat.net.

Appendix

Table 2: NAMA actions submitted until 31 August 2010

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction [9]
Afghanistan	No sectors specified	**Indirect potential:** • Preparation of an Initial National Communication (NIC), which will include specific mitigation strategies and activities appropriate for the national context • Development of a National Greenhouse Gas Inventory.	Not specified
Antigua and Barbuda	No sectors specified	No actions specified	25% reduction by 2020 (aggregate).
Republic of Armenia	• Transport • Energy • Buildings • Waste • Forestry	**Direct:** • Expand electrical transport • Increase the proportion of natural gas in motor fuel. **Indirect:** • Improvement of energy efficiency in all sectors of the economy.	-
Benin	• Transport • Forestry • Waste management (specifically in relation to landfills and methane emissions)	**Direct:** • Development of public transport in the city of Cotonou	Not specified
Bhutan	No sectors specified	No actions specified	Not specified
Botswana	• Transport • Forestry • Energy (including energy efficiency and energy performance standards) • Agriculture • Building sector	**Direct:** • Reducing emissions from the burning of petrol in the transport sector • Energy conservation and efficiency projects and programmes targeting mass transport systems and other forms of transport. • Wider policies in the transport sector. **Indirect:** • Energy efficiency programmes.	-
Brazil	• Forestry sector • Land-use • Energy efficiency • Energy sector (in-crease the use of bio-fuels, alternative energy sources and energy from HEP).	**Indirect:** • Energy efficiency, increasing the use of biofuels and alternative energy sources (no mention of any specific sector)	36.1% to 38.9% by 2020 (aggregate).

[9] A number of submissions do not state whether the emission reduction targets are intensity or aggregate. In a small number of cases assumptions have therefore had to be made based on the other information provided within the submissions.

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
Cameroon	• Forestry • Agriculture • Fisheries • Energy • Health	No actions specified	-
Central African Republic	• Transport • Urban planning • Housing (design and energy consumption of) • Renewable energy (hydroelectric, wind and butane) • Agriculture • Forestry • Energy efficiency (lighting) • Waste Management • Residential (cooking)	**Direct:** • Control emissions from vehicles in major conurbations. • Application of land-use planning principles to urban areas to reduce energy consumption and limit urban sprawl. **Indirect potential:** • Integrate principles of energy efficiency and renewable energy into the design of housing programmes in rural villages. • Creation of a National Environmental Observatory	Not specified
Chad	• Transport • Energy • Forestry • Agriculture	**Direct:** • Development of less polluting modes of transport • Promoting and using biofuels **Indirect:** • Energy efficiency in urban and rural areas including reducing greenhouse gas emissions, streamlining the use of renewable energy.	-
Chile	• Energy efficiency • Renewable energy • Land Use • Forestry	No actions specified	20% reduction by 2020 (aggregate).
China	No specified actions.	n/a	40-45% re-duction by 2020 on 2005 levels (intensity).
Colombia	• Transport • Industry • Waste • Renewable energy • Forestry	**Direct:** • Clean Development Mechanism implementation for transport, cited existing successful mass transit project. • Encouraging growth of biofuel 'without threatening forests or food security'.	-
Republic of Congo		**Direct:** • Transport infrastructure rehabilitation • Land use planning • Vehicles emissions control in major urban areas	-

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
Costa Rica	Not specified, although intention stated to: • Create incentives to develop on a low emission pathway • Likely efforts in transport, energy, forestry and waste management.	n/a	-
Cote d' Ivoire	• Transport • Renewable energy • Energy efficiency (lighting and housing) • Agriculture • Forestry	**Direct:** • Campaigns to increase awareness and adoption of sustainable production and consumption patterns in the transport sector. **Indirect potential:** • Increase awareness of industry of sustainable consumption and production behaviours. • Establishment of an environmental monitoring system to control air quality, water and soil.	Unspecified
Eritrea	• Transport • Energy • Industry • Agriculture • Forestry • Waste Management • Environment (protection of ecosystems and habitats)	**Direct:** • Research, develop, demonstrate, apply, diffuse and transfer technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol (MOP) in the transport sector **Indirect potential:** • Develop and implement energy conservation and efficiency projects as well as other regional programmes containing measures to mitigate against climate change. • Promote and co-operate in education, training and public awareness related to climate change, and encourage the widest participation in this process. • Develop, periodically update, publish and make available to the COP national inventories of anthropogenic emissions by sources of all GHGs not controlled by the MOP. • Mainstream climate change considerations in the relevant social, economic and environmental policies and actions of Eritrea to mitigate against climate change. • Promote and co-operate in the creation and exchange of scientific, technological, technical, socio-economic and other research or observation related to climate change, and also to the economic and social consequences of various response strategies. • Develop data archives intended to further understanding and to contribute to the reduction of the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various strategies.	Unspecified

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
Ethiopia	• Transport • Forestry • Agricultural • Waste • Alternative energy (HEP, wind, geother-mal, biofuel, renewable energy).	**Direct:** • Railway projects (8 routes) • Light rail projects (1 route)	-
Gabon	• Transport • Forestry • Agriculture • Renewable energy (solar and hydroelectric) • Energy efficiency (of public buildings and industrial units) • Environment (protection of biodiversity) • Waste management	**Direct** • Development of a high quality public transport (bus) system that runs on gas • Import and sell vehicles that are less than five years old.	Unspecified
Georgia	No specified actions although intention stated to: • support a low carbon growth plan and low carbon strategy • Place emphasis on the use of renewable energy and global co-operation.	**Indirect:** • Low carbon growth and associated strategy.	-
Ghana	• Transport • Energy (including efficiency and renewable) • Industry (production and consumption) • Agriculture • Forestry • Waste • Residential (cooking)	**Direct:** • Expand road and develop and promote infrastructure for rail, non-motorised transport, maritime, air and inland water transportation systems • Develop, improve facilities for public transport • Incentivise the use of public transport and promote car pooling • Enforce road worthiness certification requirements • Substitute the use of gasoline with CNG, LPG and electricity for public transport • Enhance vehicle technology • Promote the production and use of bio fuels as transport fuels **Indirect potential:** • Increase public awareness on energy consumption	Unspecified
India	No specified actions	n/a	20-25% by 2020 on 2005 levels (intensity).

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
Indonesia	• Transport • Forestry • Agriculture • Promotion of energy efficiency • Energy • Waste	**Direct:** • Shifting to low-emission modes of transport. **Indirect:** • Promotion of energy efficiency.	26% by 2020 (aggregate).
Israel	• Energy	**Indirect:** • Reduction of electricity consumption.	20% by 2020 (aggregate).
Jordan	• Transport • Energy • Environment • Waste • Agriculture • Forestry	**Direct:** • Railway project (design and feasibility) • Light rail project (urban transport) • Removal of import duty on hybrid cars • Modernisation of freight transport (including fleet renewal) • Two port construction projects (to reduce congestion and pollution from road freight). **Indirect:** • Energy efficiency projects.	-
Republic of Korea	not specified	n/a	30% by 2020 (aggregate).
Macedonia	• Transport • Energy • Industrial and heating sectors • Waste • Agriculture • Forestry	**Direct:** • 4 projects to improve the overall efficiency of the transport sector, including energy efficiency of vehicles • Improvement of public urban and inter-city transport • Harmonise national transport legislation with EU Directives. **Indirect:** • Enhancing energy efficiency of consumer behaviours. • Awareness raising of consumers.	-
Madagascar	• Transport • Energy • Forestry • Agricultural • Waste	**Direct:** • Promotion of use of biofuels in the sector • Introduce and develop less polluting modes of transport • Urban rail public transport. • Improve transport vectors (difficult to specify, although likely to relate to shifting demand to less carbon intensive modes). **Indirect:** • Techniques to reduce emissions from the energy sector.	-
Maldives	not specified	n/a	'Carbon neutrality' by 2020.

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
Marshall Islands	• Transport • Energy	**Direct:** • Enhance energy efficiency of the transport network for urban and rural areas • Purchase of more efficient vehicles • Establish rules, guidance and training for improved maintenance and operations of vehicles to enhance efficiency • Adjust tax structures to encourage the import and sale of energy efficient forms of transport • Mandate the use of locally produced biofuel in government vehicles by 2015 • Penalties for vehicles that emit above a specified level. **Indirect:** • Capacity building to strengthen public, private, civil society and academic institutions to support initiatives • Developing and disseminating public awareness materials on energy efficiency. • Developing and maintaining appropriate databases on energy production and consumption to support decision making. • Adoption of the user pays principle.	40% on 2009 levels by 2020 (aggregate).
Mauritania	• Transport • Forestry • Energy efficiency (lighting) • Residential (cooking) • Renewable energies (including solar and biogas)	**Direct:** • Promote public transport **Indirect potential:** • Conduct research into the efficient use of renewable energy.	Unspecified
San Marino	• Transport • Energy (efficiency, rationalisation, modernisation, and promotion and development of renewables) • Industry (rationalisation and modernisation) • Housing • Tertiary	**Direct:** • Reduction of energy consumption in the transport sector by saving energy, rationalising use, and information campaigns to support their implementation. **Indirect potential:** • Interventions for energy saving and the use of renewable energy.	Unspecified
Mexico	• Transport • Energy • Waste • Forestry • Residential • Industry • Agriculture	**Direct:** • Increased use of rail for freight transport • Construction of 38 new highways • Scrappage of old motor vehicles • Clean highway cargo and passenger transport program.	Up to 30% by 2020 (aggregate).
Moldova	not specified	n/a	25% on 1990 levels by 2020 (aggregate).

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
Mongolia	• Transport • Energy sector • Building sector • Industry • Agriculture • Forestry	**Direct:** • Use of more fuel efficient vehicles.	-
Morocco	• Transport • Energy • Industrial • Agricultural • Forestry • Habitats • Waste	**Direct:** • Renewal of freight vehicles and taxis fleets • Promotion and development of rail transport • Urban transport projects • Tram projects • Integrated land-use planning. **Indirect:** • Energy efficiency programmes which include awareness raising activities	Indication provided for each NAMA action
Papua New Guinea	• Transport • Forestry • Agriculture • Energy • Mining and fire	No NAMA specified.	50% by 2030 and carbon neutral by 2050 (aggregate)
Peru	• Forestry • Energy • Waste management	**Indirect:** • Changing energy matrix to more renewable sources (hydropower and biofuels).	-
Sierra Leone	• Transport • Forestry • Agriculture • Land-use • Air, water and soil poll. standards • Clean energy (incl. biofuels) • Natural Resource management • Waste • Energy efficiency	**Direct:** • Development and enforcement of regulations on regular maintenance of vehicles • Improving the use of mass transport (e.g. road and water) for passengers and cargo to reduce traffic congestion and GHG emissions. **Indirect:** • Energy efficiency programmes, which include awareness raising activities.	-
Singapore	• Transport • Industry • Energy • Buildings • Waste • Land-use	**Direct:** • Enhancing public transport (focus on integration of modes) • Reducing fuel consumption (road pricing, shifting demand for travel) • Adopting fuel efficient technologies (new technologies, Fuel Economy Labelling Scheme) • Cleaner diesel fuels • Cleaner forms of commuting (encourage walking and cycling). **Indirect:** • Enhancing urban environments • Improving air quality • Building knowledge and expertise • Encouragement of community participation and awareness.	16% by 2020 (aggregate)

Developing country	Sectors covered by NAMA actions	Inclusion of land transport?	Estimated CO_2 reduction
South Africa	No specified actions.	n/a	34% by 2020 and 42% by 2025 (aggregate).
Togo	• Transport • Forestry • Energy (efficiency and renewables) • Energy efficiency (lighting)	**Direct:** • Development of public transport that runs on gas **Indirect potential:** • Increasing energy efficiency in urban and rural areas	Unspecified
Tunisia	• Transport • Energy • Industry • Forestry • Agriculture	**Direct:** • Compressed natural gas in transport sector • Promoting collective urban transport – metro, train and bus priority • Development of urban transport plans in main cities • Land use planning - creating logistical areas and specialised economic poles to bring together transport needs • Development of multimodal transport • Transport of trucks by railways • Consolidating role of rail transport in economic activity • Development of energy efficiency program-contracts in transport sector • Establishment of engine diagnostic plants in the transport sector	-