



International Civil Aviation Organization

**INFORMATION PAPER**

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**GROUP ON INTERNATIONAL AVIATION AND CLIMATE CHANGE (GIACC)  
THIRD MEETING**

**Montréal, 17 to 19 February 2009**

**Agenda Item 2: Review of aviation emissions related activities within ICAO and internationally**

**MINISTERIAL DECLARATION ON GLOBAL ENVIRONMENT  
AND ENERGY IN TRANSPORT**

The attached paper is presented by Japan for the information of the Group on International Aviation and Climate Change.

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**MINISTERIAL DECLARATION  
ON GLOBAL ENVIRONMENT AND ENERGY  
IN TRANSPORT**

1. We, the ministers and relevant representatives, responsible for environment and energy in the transport sector, together with distinguished representatives of prominent international organizations, met in Tokyo, Japan, on the 15<sup>th</sup> and 16<sup>th</sup> of January, 2009, to discuss issues and consider measures on greenhouse gas (GHG) and air pollutant emissions from the transport sector.
2. We are committed to combating climate change, one of the great global challenges of our time, under the United Nations Framework Convention on Climate Change (UNFCCC) and, as relevant, its Kyoto Protocol in accordance with our common but differentiated responsibilities and respective capabilities. In this respect, we welcome and support the comprehensive process to enable the full, effective, and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, in order to reach an agreed outcome in December 2009.
3. Transport is an important foundation of our society, supporting a wide range of human activities, and contributing to economic and social development. It is, at the same time, responsible for considerable emissions<sup>1</sup> of carbon dioxide (CO<sub>2</sub>), which impacts global climate, and air pollutants, which impact public health and the environment of many urban areas. We recognize that urgent actions are required to address these issues while ensuring sustainable development.
4. We share a long-term global vision of realizing low-carbon and low-pollution transport systems, and we commit ourselves to working effectively and collaboratively with international organizations and individual countries in order to fulfill this vision. In this light, we welcome the ongoing efforts by international organizations such as the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the World Forum for Harmonization of Vehicle Regulations of the United Nations Economic Commission for Europe (UNECE/WP.29), and the International Energy Agency (IEA), as well as international initiatives such as the United Nations Partnership for Clean Fuels and Vehicles, the Asian Environmentally Sustainable Transport Initiative of the United Nations Centre for Regional Development,

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<sup>1</sup> According to the IEA estimates, the transport sector accounts for 23% of the world's CO<sub>2</sub> emissions in 2006.

and the International Conference on Environmentally Friendly Vehicles. We also reiterate the key messages from the International Transport Forum (ITF) meeting in Leipzig in May 2008.

5. We recognize the differences in social and economic circumstances of countries. Meaningful actions are needed by all countries to mitigate the climate impacts of domestic transport while respecting the different circumstances and capabilities of each participating country, consistent with the Bali Action Plan.
6. In working towards the shared long-term vision of realizing low-carbon and low-pollution transport systems that also ensure sustainable development, we encourage countries, where applicable, to:
  - (1) Take an integrated or comprehensive approach to national transport strategies, addressing all modes of transport, fuels and vehicles, and using a variety of policy measures and instruments;
  - (2) Improve the accuracy, adequacy and comparability of statistics on environment and energy for transport to support effective policy making and assessment of progress;
  - (3) Apply the concept of cost-effectiveness across sectors, modes and measures in addressing GHG and air pollutant emissions;
  - (4) Broaden diffusion and transfer of existing technologies and encourage research, development and deployment (RD&D) of innovative technologies and measures such as Intelligent Transport Systems (ITS) technologies;
  - (5) Share best practices among countries and enhance capacity building for developing countries;
  - (6) Manage transport demand and induce behavioral change, through an appropriate mixture of measures including regulations, economic/fiscal incentives and consumer information;
  - (7) Recognize the effectiveness of a co-benefit approach where a measure to address climate change may at the same time address other objectives such as air pollution mitigation, congestion reduction, energy savings, health and safety benefits;
  - (8) Encourage efforts by the private sector, such as carbon offsetting and environmental rating systems for firms;
  - (9) Encourage RD&D of sustainable second generation biofuels and other sustainable alternative fuels, and improve fuel quality;
  - (10) Explore opportunities for the transport sector to utilize financing methods, for example, the Clean Development Mechanism, as well as the Climate Investment

Funds provided through the World Bank and other Multilateral Development Banks, and other climate related methods; and

- (11) Promote environmental awareness to enhance human resources capabilities to address the challenges of ensuring sustainable development in the transport sector.
7. We recognize the global nature of the international aviation and shipping sectors, and their importance to global economic growth and sustainable development, as well as the necessity of addressing emissions from these sectors considering the seriousness of the challenge of climate change. We recognize the key role of the ICAO and the IMO as the competent UN bodies on aviation and maritime issues, respectively, and encourage them to continue to lead in developing globally effective measures to address GHG emissions from international aviation and shipping. We will also work collaboratively through the ICAO and the IMO to foster frameworks of action to appropriately address emissions from their respective industries.

### **Inland Transport**

8. To limit or reduce GHG emissions from inland transport<sup>2</sup>, in addition to the aforementioned measures, we encourage countries to:
- (1) Improve fuel/energy efficiency of motor vehicles, railways, and domestic aircraft and ships, through approaches such as: introducing fuel efficiency or GHG emission standards and improving vehicle components, noting IEA's energy efficiency policy recommendations and its development of energy efficiency indicators; strengthening international cooperation to develop and harmonize procedures for testing fuel efficiency or measuring GHG emissions through the UNECE/WP.29 and other regional or international fora; and facilitating, as appropriate, the introduction of energy-saving equipment and advanced technologies into ports and other transport facilities;
  - (2) Use strategic transport policies to reduce emissions, such as coordination of transport planning with urban spatial planning to realize, where applicable, more compact urban forms, transport demand management, enhanced modal integration, improvement of road and railway networks, and promotion of non-motorized means of travel; and

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<sup>2</sup> "Inland transport" refers to transport activities excluding international aviation and shipping.

- (3) Facilitate behavioral changes, including eco-driving, the use of public transport, and, where applicable, modal shifts, taking the environmental impacts of each mode into consideration.
9. To limit or reduce air pollutant emissions from inland transport, recognizing the fact that some countries have significantly reduced air pollutants such as carbon monoxide (CO), hydrocarbons (HCs), nitrogen oxides (NO<sub>x</sub>), sulfur oxide (SO<sub>x</sub>) and particulate matters (PM), in addition to the aforementioned measures, we encourage countries to:
    - (1) Review and strengthen, as necessary, their regulations on exhaust emissions from motor vehicles, railway locomotives and ships, both for new and in-use vehicles; and promote both low sulfur diesel and gasoline accordingly;
    - (2) Strengthen international cooperation to develop and harmonize procedures for testing exhaust emissions through the UNECE/WP.29 and other regional or international fora; and
    - (3) Work to incentivize the production and use of environmentally friendly vehicles (EFV) and clean fuels, and promote public transport.

### **International Aviation**

10. To limit or reduce GHG emissions from international aviation, reaffirming the importance of expeditious discussions in the ICAO, we in particular:
  - (1) Support the ICAO to develop preferably by the end of 2009 an implementation framework that involves a comprehensive approach, consisting of work on technology and standards, and on appropriate operational and market-based measures to reduce GHG emissions from international aviation, as was resolved at the 36<sup>th</sup> Session of the Assembly of the ICAO;
  - (2) Support the efforts by the ICAO to identify possible global aspirational goals, including in the form of fuel efficiency, for GHG emission reduction; encourage manufacturers to produce aircraft with further improved fuel efficiency; and call on the ICAO to consider effective measures to facilitate the introduction of more fuel efficient aircraft;
  - (3) Promote the introduction by the ICAO Contracting States of improved navigation systems to shorten flight routes, and of air traffic management that enables more efficient air traffic flows and air space management;
  - (4) Encourage RD&D by the ICAO Contracting States of improved environmental aircraft technology and sustainable alternative fuels to reduce aviation emissions;

- and welcome ICAO's initiatives to promote discussion of sustainable alternative fuels for aviation on a global scale;
- (5) Support the efforts of reporting, estimation and prediction by the ICAO on GHG emissions from international aviation as well as its evaluation of the technological feasibility, environmental benefits, economic reasonableness, and environmental trade-offs of policies and measures; and
  - (6) Encourage the ICAO Contracting States to collect information on progress of their industries with regard to fuel efficiency improvement and provide it to the ICAO so it can communicate the performance of the international aviation sector.
11. To limit or reduce air pollutant emissions from international aviation, we in particular:
- (1) Welcome ICAO's consideration of the feasibility and potential benefit of more stringent standards, in particular for NO<sub>x</sub> emissions from aircraft engines; and
  - (2) Encourage the ICAO to continue the development of emissions certification standards for other emissions which contribute to aviation's negative environmental impact.

### **International Maritime Transport**

12. To limit or reduce GHG emissions from international maritime transport, reaffirming the importance of expeditious discussions in the IMO, we in particular:
- (1) Recognize the IMO as the relevant organization for developing technical, operational and appropriate market-based measures to improve the energy efficiency of ships;
  - (2) Support current initiatives by the IMO and call on the organization to deliver a package of appropriate mechanisms for reducing emissions preferably by the end of 2009;
  - (3) Encourage the IMO to work toward finalizing, in 2009: the Energy Efficiency Design Index for new ships so that they are designed and built for maximum energy efficiency and an Energy Efficiency Management Plan comprising an Operational Index and Guidance on best practices for fuel-efficient operation of all ships;
  - (4) Support IMO's efforts to gather and publish data on GHG emissions from international maritime transport; and
  - (5) Pursue, as appropriate, further improvements in the energy efficiency of international maritime transport and encourage RD&D of new technologies to that end.

13. To limit or reduce air pollutant emissions from international maritime transport, we in particular:
  - (1) Welcome the amendments to MARPOL Annex VI and the NO<sub>x</sub> Technical Code to significantly reduce air pollutant emissions from ships;
  - (2) Encourage RD&D of new technologies for ships to meet the more stringent IMO regulations; and
  - (3) Encourage studies and pilot projects on the feasibility and implementation of systems that supply onshore power to ships, with emphasis on the cost-effectiveness, the net environmental impacts and the formulation of international standards.

### **Next Steps and Beyond**

14. We recognize that fulfilling the long-term vision of low-carbon and low-pollution transport requires communication and cooperation among all countries and relevant organizations in the transport sector.
15. In this respect, we continue our dialogue, with a view to enhancing international cooperation in the inland transport sector within the existing frameworks, especially on further enhancing capacity building and other support for developing countries.
16. We believe that it is the challenge and the opportunity of our generation to pave the way for a new development path leading to a low-carbon and low-pollution future for transport. We call on all countries to participate in our collective endeavors throughout all modes of transport, to achieve sustainable mobility for all.

16 January 2009

Ministers and Relevant Representatives from:

Australia; Brunei Darussalam; Cambodia; Canada; France; Germany; India; Indonesia; Italy; Japan; Republic of Korea; Lao People's Democratic Republic; Myanmar; Philippines; Russian Federation; Singapore; Thailand; United Kingdom; United States; Vietnam, and the European Commission

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