



**ICAO AVIATION AND SUSTAINABLE
ALTERNATIVE FUELS
WORKSHOP**

ICAO Headquarters, Montréal, Canada

18 to 20 October 2011



Legal and Regulatory Framework

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Policies at 2 levels



Global / International



National / Local



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Not exclusive to Aviation



- As with many aspects of alternative fuels, their legal considerations can be not exclusive to aviation
- Policies and legal/regulatory instruments related to energy, agriculture and other areas can affect our operations
- Strong cooperation on policies at all levels is needed



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ICAO and Climate Change



ICAO's work in the field of environmental protection, and notably climate change activities, involves cooperation with a number of other United Nations bodies: UNFCCC, WMO, UNEP, IMO, FAO, UNCSD, CSD, IPCC, UNDP



RIO+20
United Nations Conference
on Sustainable Development

INTERNATIONAL
RENEWABLE
ENERGY AGENCY **IRENA**



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Rio+20
June 2012



Rio+20 is expected to set clear objectives and establish strong frameworks to address the new energy challenges in the context of the transition to a new green economy and poverty eradication

In this regard, the role of **renewable energies** will be critical in meeting both world's and aviation's sustainable development objectives



RIO+20
United Nations Conference
on Sustainable Development

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**ICAO's expectations from
Rio+20**



**Clear policy direction on renewable energies
which takes into consideration sectoral
challenges, in particular specific constraints
for the aviation sector**



RIO+20

United Nations Conference
on Sustainable Development



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Rio+20 Preparatory Process



- Common UN message currently being developed
 - This workshop contributes directly to ICAO's input
- 10 official regional preparatory meetings through June 2012
- Discussion also take place in other venues



INTERNATIONAL
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ENERGY AGENCY **IRENA**

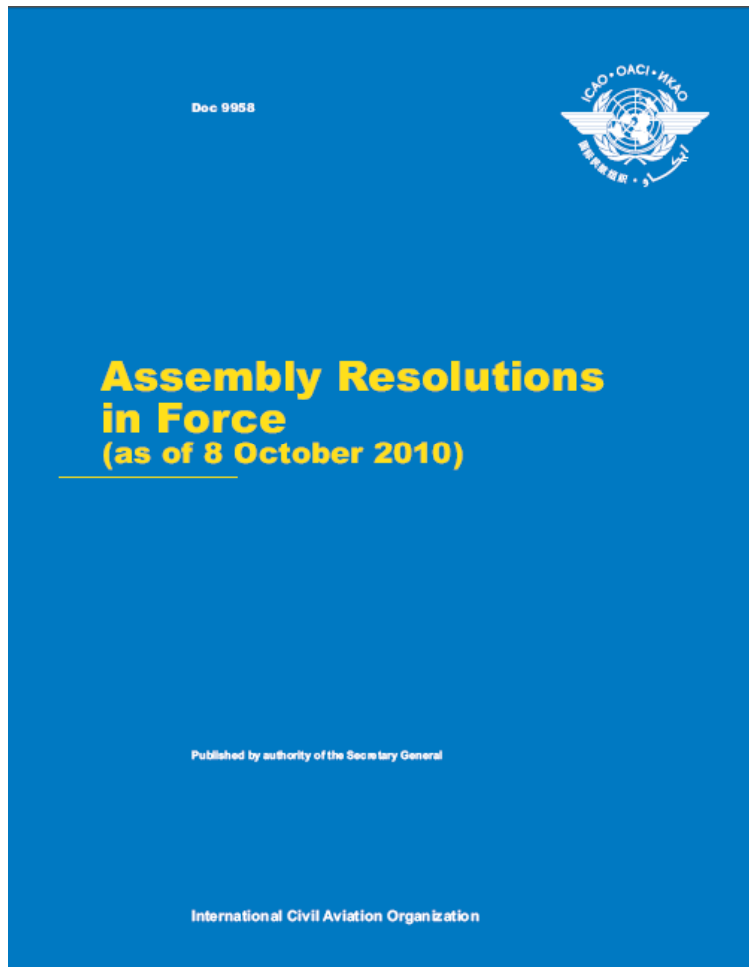
- Plus World Bank, IMF, Climate Fund, etc.



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ICAO Climate Change Policy



A37-19:

Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change, adopted by 37th ICAO Assembly in October 2010



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Key elements of Assembly Resolution A37-19



Resolution A37-19 adopted by 37th ICAO Assembly in October 2010 builds on ICAO's past achievements, and goes one step further by incorporating following key elements:

1. **Global aspirational goals** for the international aviation sector of improving 2% annual fuel efficiency and stabilizing its global CO₂ emissions at 2020 levels, and further work to explore the feasibility of a long-term global aspirational goal
2. Development of a global **CO₂ certification Standard** aiming for 2013
3. Facilitation of developing and deploying **sustainable alternative fuels** for aviation



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Sustainable Alternative Fuels



Sustainable alternative aviation fuels considered as an important means of reducing aviation emissions

ICAO, as a facilitator, has a role to compile and disseminate the information to other States





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Legal and Regulatory Frameworks



Legal and Regulatory Frameworks can address :

1- Supply
available to
aviation

2- Sustainability
requirements

3- Price



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Legal and Regulatory Frameworks



Legal and Regulatory Frameworks can act as incentive or enforcement mechanisms, but... we need to discuss how far they should reach, not to become barriers ...





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Assembly Resolution A37-19



Paragraph 23, g:

Requests States to “develop policy actions to accelerate the appropriate development, deployment and use of sustainable alternative fuels for aviation”



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New Role of ICAO



- ICAO as a facilitator can compile and share best practices from States or Organizations
- Need for ICAO to respond policy questions from States – new role of ICAO needs to be defined
 - Harmonization of sustainable criteria ?
 - Model legal /regulatory framework for supply ?
 - Model Cooperation scheme ?
 - others ?



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Examples raised during Workshop



- (Mexico) Flight plan - analyze the legal framework, raw materials availability, refining facilities, supply processes and economic viability / The availability of suitable sustainable feedstocks is the most important bottle neck in the supply chain / The legal framework in Mexico poses significant challenges
- (China) Will the incentive policies adopted by governments lead to a market distortion? - Various incentive measures adopted in different countries / R&D subsidies / Tax reduction / Direct subsidies: production or consumption
- (UAE) Additional ICAO role: ICAO could draft guidance materials or a model legal framework that would assist Member States in ensuring that alternative fuels are earmarked in sufficient quantities for the aviation sector / Designing cooperation schemes



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Examples raised during Workshop



- (ATAG) Government needs to help – Foster research, De-risk investments, Provide incentives, Establish global sustainable criteria, Understand local opportunities, Support supply-chain collaboration
- (Ethihad Airways) Challenges - Land requirements & ability to scale up
- (SWAFEA) A determined policy is required: Define a sectoral goal for 2020 / Promote a number of end-to-end projects / Combine incentive policies / Use ETS revenue to fund the initial deployment plan / Support research and innovation / Harmonization of sustainability rules at international level



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Examples raised during Workshop



- (EC) Sustainable criteria: deserves international approach / Investments: agreement between biofuels producers and airlines possible: MOUs ?
- (Boeing) Recommendations – Stable, long-term policy to attract investment / State and local support of infrastructure and training
- (Imperium Renewables) The importance of coordinated policy that is focused on success of the industry on a global basis is mandatory – Fragmented and uncoordinated efforts will hinder progress and prevent success



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Examples raised during Workshop



- (Virgin Australia) Engage with Governments to identify and remove impediments to facilitate development and uptake of sustainable aviation fuels / Support the establishment of a fuel sustainability standard tailored to our region's conditions
- (ATA etc.) Importance of harmonization of the sustainability criteria



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Future Work



- There are many areas where policies and legal/regulatory frameworks can facilitate the development and deployment of sustainable alternative fuels for aviation
- A variety of expertise is necessary for further work under ICAO – needs to be built upon experience and practices
- A possible group to help determine what policies and legal/regulatory frameworks need to be developed ?



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THANK YOU



For more information on our
activities, please visit ICAO's website

<http://www.icao.int/env>

ICAO
ENVIRONMENTAL
REPORT 2010



AVIATION and
CLIMATE CHANGE

