

航空分野における地球温暖化対策

Countermeasures against Global Warming in Aviation Sector

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京都議定書 Kyoto Protocol

第2条

2. 附属書 I に掲げる締約国は、国際民間航空機関及び国際海事機関を通じて活動することにより、航空機用及び船舶用の燃料からの温室効果ガス（モントリオール議定書によって規制されているものを除く。）の排出の抑制又は削減を追求する。

Article 2

2. The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.

全世界のCO2排出量

Volume of CO2 emissions in the world

International aviation 1.5%

International maritime 2.1%

1.5%

2.1%

国際航空

1.5%

国際海運

2.1%

非附属書 I

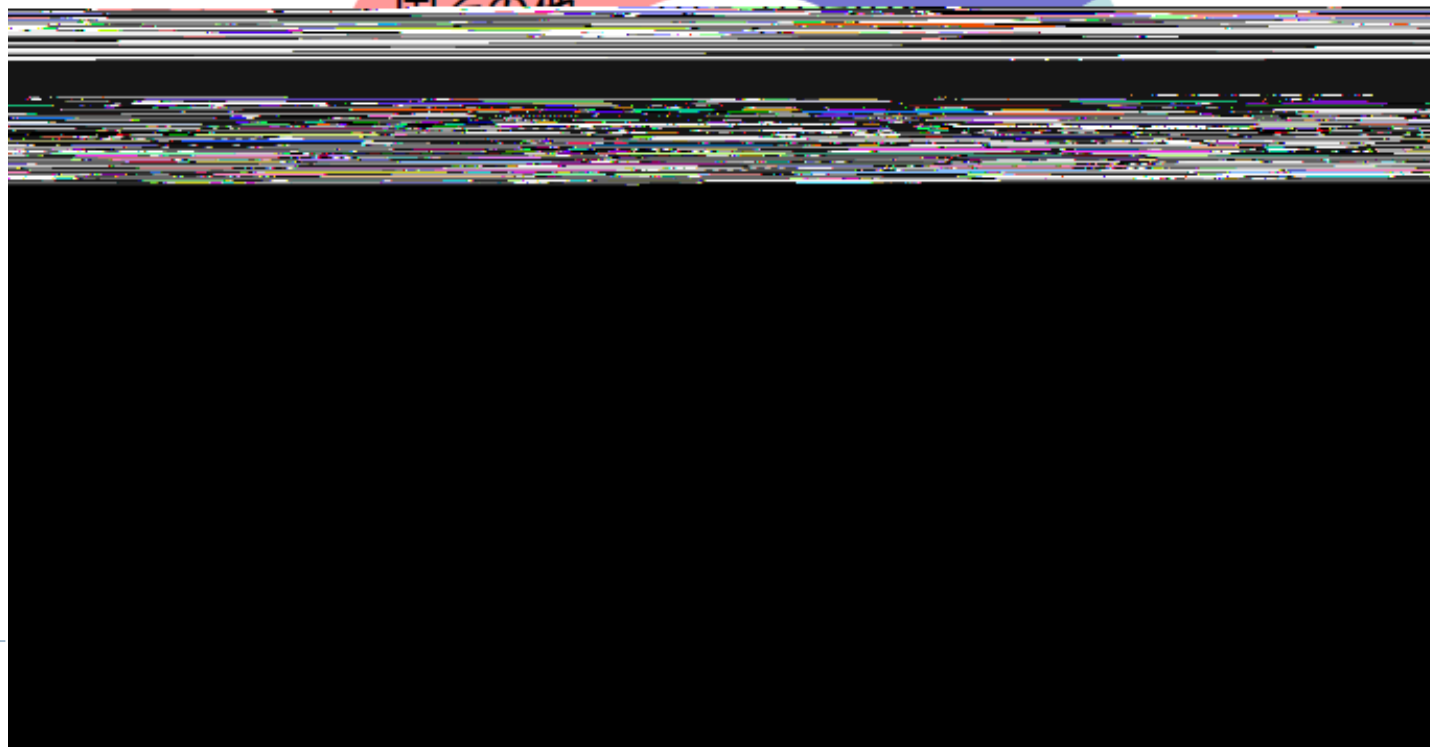
国の他

アメリカ

16.9%

附属書 I 国

42.6%



交通省資料

Ministry of

Structure,

and Tourism

Assembly Resolutions of ICAO in 2010

- ▶ グローバル削減目標
- ▶ 上記目標は、先進国のみならず途上国も含めた目標
 1. 2050年まで、燃料効率を毎年2%改善する
 2. 2020年以降、国際航空からのCO2排出を増加させない

- ▶ Global Aspirational Goal
- ▶ ICAO and its member States will work together
 1. An aspirational global fuel efficiency improvement rate of 2 per cent per annum to 2050
 2. Keep the global carbon emissions from international aviation from 2020 at the same level: Carbon Neutral Growth 2020 (CNG2020)

ICAO and Kyoto Protocol

▶ ICAO

- ▶ 非差別原則: The principles of non-discrimination
- ▶ SCRC
Special Circumstances and Respective Capabilities

▶ Kyoto Protocol / UNFCCC

- ▶ CBDR
Common But Differentiated Responsibilities

Assembly Resolutions of ICAO in 2013

▶ グローバル削減目標に向けてあらゆる施策に取り組むことに合意

Resolves that many actions that ICAO member States intend to take in support of the achievement of the collective aspirational goals.

(参考)G8 ロック・アーン サミット コミュニケ

国際民間航空機関(ICAO)において、我々は、航空による排出の増加に対処するための経済的及び非経済的双方の手法に関連する野心的なパッケージにつき、2013年9月の総会において合意することを求める。

the International Civil Aviation Organisation (ICAO), where we call for the agreement at the Assembly in September 2013 on an ambitious package related to both market-based and non-market based measures to address rising aviation emissions

Assembly Resolutions of ICAO in 2013

▶ 主要施策

1. 燃費効率の高い機材の導入

Acceleration of the use of fuel-efficient aircraft technologies

2. 航空管制技術の高度化

Air traffic management modernization

3. 航空代替燃料の導入

Development and deployment of sustainable alternative fuels

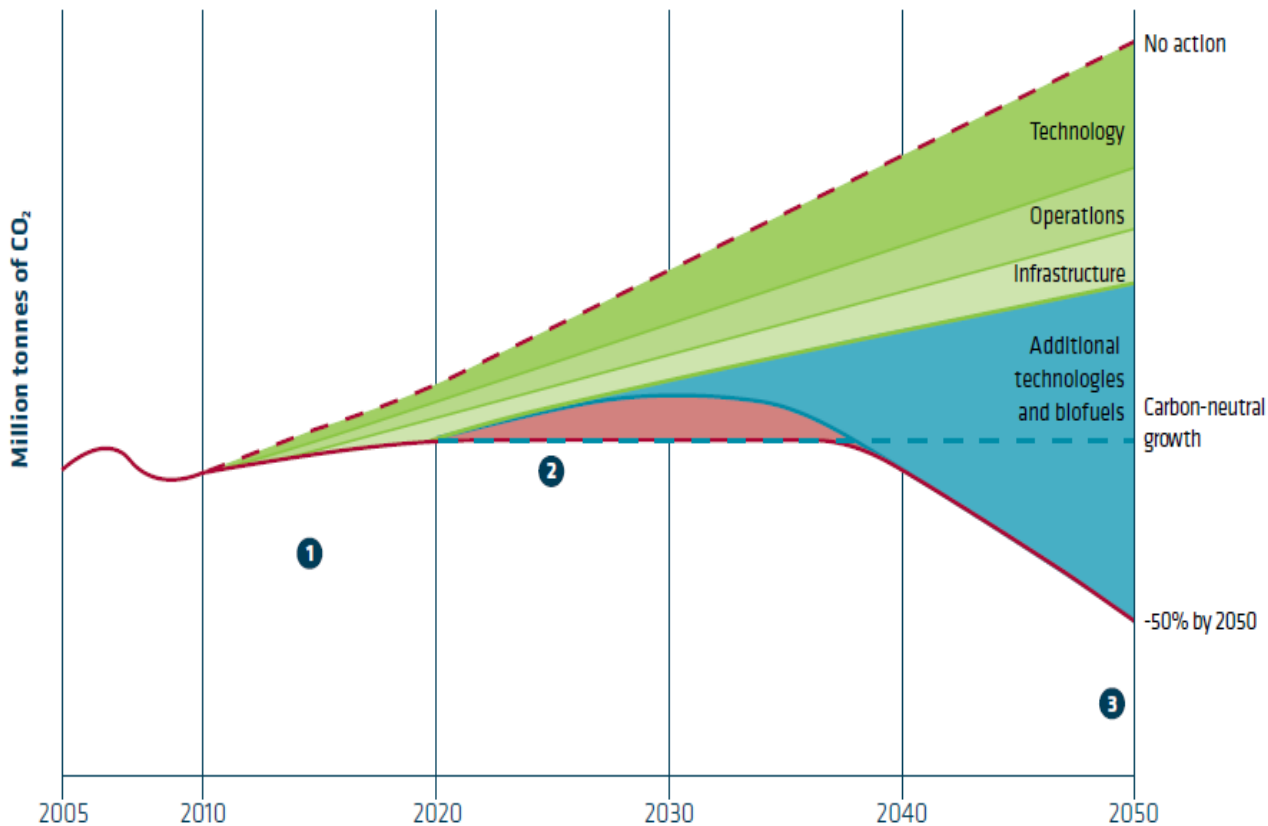
4. 経済的手法の導入

▶ Develop a global MBM scheme for international aviation

(MBM: Market Based Measure)

CO2排出量の今後の見通し

MAPPING OUT THE INDUSTRY COMMITMENTS



1 Improve fleet fuel efficiency by 1.5% per year from now until 2020

2 Stabilise net emissions from 2020 through carbon-neutral growth

3 By 2050, net aviation carbon emissions will be half of what they were in 2005

■ Known technology, operations and infrastructure measures
 ■ Economic measures
 - - - "No action" emissions
■ Biofuels and additional new-generation technology
 - - - Net emissions trajectory

(Schematic, indicative diagram only)

2013年ICAO総会決議（代替燃料各論）

- ▶ 加盟国に対するリクエスト（パラ32）
 - ✓ Coordinated Approach
 - ✓ Support R&D:
 - processing technology, feedstock production
 - ✓ Assess the sustainability of alternative fuels
 - Life cycle basis
 - Biodiversity
 - Competition with food and water
 - ✓ Adopt measures to ensure the sustainability
 - ✓ Exchange information and best practices