



## **CONFERENCE ON AVIATION AND ALTERNATIVE FUELS**

**Mexico City, Mexico, 11 to 13 October 2017**

### **Agenda Item 2: Financing and assistance programmes for aviation alternative fuels**

#### **DEVELOPMENT OF A NEW DEDICATED CDM METHODOLOGY FOR THE PRODUCTION AND UTILIZATION OF AVIATION ALTERNATIVE FUELS IN DOMESTIC AVIATION**

(Presented by the ICAO and UNFCCC Secretariats)

##### **SUMMARY**

This paper identifies opportunities for possible generation of carbon credits through alternative fuel production and utilization. The paper notes the opportunities for the possible generation of certified emission reductions through AAF projects, and identifies the potential benefits of developing a dedicated Clean Development Mechanism (CDM) methodology for the production and utilization of AAFs in domestic aviation.

Action by the Conference is in paragraph 4.

### **1. INTRODUCTION**

1.1 The production and utilization of aviation alternative fuels (AAFs) in replacement of conventional aviation fuels (CAFs) can lead to a reduction of greenhouse gas (GHG) emissions, contributing to the mitigation of climate change. Under the framework of the Clean Development Mechanism (CDM) in the context of Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), these emission reductions can be certified and traded as credits in the carbon markets, providing additional revenue that can facilitate the deployment of AAF projects.

1.2 A CDM methodology dedicated for the production and utilization of AAFs would allow the emission reductions to be calculated by AAF consumers, regardless of whether AAFs are used for international aviation or domestic aviation. However, due to the nature of CDM in the context of UNFCCC Kyoto Protocol, carbon credits as a result of emissions reductions can be generated from the implementation of CDM projects when AAFs are used for domestic aviation (not for international aviation). Therefore, this CDM methodology could complement the CORSIA scheme, which is focused on international aviation.

1.3 It is noted that Assembly Resolution A39-3, para 25, *“requests the Council to explore further development of aviation-related methodologies for use in offsetting programmes, including mechanisms or other programmes under the UNFCCC, and encourages States to use such methodologies in taking actions to reduce aviation CO<sub>2</sub> emissions, which could further enable the use of credits generated from the implementation of such programmes by the CORSIA, without double-counting of emissions reduction;”*.

1.4 In this regard, this working paper presents, for the Conference consideration, an initial proposal for development of a CDM methodology for AAF use, considering broadly measures that safeguard environmental integrity.

## 2. **ALTERNATIVE FUELS IN EXISTING CDM METHODOLOGIES**

2.1 In accordance with the CDM procedure for the “Development, revision and clarification of baseline and monitoring methodologies and methodological tools”, there are two alternatives to address the use of AAFs in domestic aviation: a) request a revision of an approved CDM methodology; b) develop a new dedicated CDM methodology, following the approach taken for the recently developed methodologies for the aviation sector (AM0116 “Electric taxiing systems for airplanes” and AMS-I.M. “Solar power for domestic aircraft at-gate operations”). The CDM requires the application of a baseline and monitoring methodology in order to determine the amount of Certified Emission Reductions (CERs) generated by a mitigation CDM project activity in a host country.

2.2 The existing approved CDM methodologies on alternative fuels cover two main types of projects: a) projects that produce diesel utilizing vegetable oil in a mixture with gasoil; b) projects that produce biofuel (bioethanol and biodiesel) from renewable biomass (biomass residues, waste oil/fat and biomass sourced from dedicated plantations).

## 3. **ISSUES TO BE ADDRESSED IN A CDM METHODOLOGY FOR AAF**

3.1 The approved CDM methodologies cover the use of biofuels for in land (road/rail) transport applications, however there are several specificities of the aviation sector needs to be incorporated in the approved CDM methodologies. This includes issues associated with, but not limited to, additional feedstock types, quality requirements of AAF, project emissions, leakage emissions specific to new production pathways and aviation application, boundary of biofuel utilization (road transport to air transport) and procedures in-relation to the avoidance of double counting<sup>1</sup>. These issues could be properly addressed if ICAO develops a new dedicated methodology for the use of AAF by domestic aviation, in collaboration with the UNFCCC Secretariat. The methodology to be developed by the ICAO and UNFCCC Secretariats will not pre-empt the ongoing discussions under the UNFCCC process related to the development of new mechanisms.

## 4. **ACTION BY THE CAAF/2**

4.1 The CAAF/2 is invited to:

- a) recognize the opportunities for possible generation of certified emission reductions through AAF projects for domestic aviation, as a possible means to mitigate the projects’ investment cost; and
- b) agree on the potential benefits of developing a new methodology for domestic use of AAF.

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<sup>1</sup> CDM methodologies limit the emission reduction claim to only the producers of the biofuel.