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## ASSEMBLY — 42ND SESSION

### EXECUTIVE COMMITTEE

#### Agenda Item 15: Environmental Protection – General provisions, Aircraft Noise and Local Air Quality

#### INNOVATIVE PRACTICES IN CIVIL AVIATION PLASTIC POLLUTION GOVERNANCE OF CHINA

(Presented by China)

#### EXECUTIVE SUMMARY

Plastic pollution control is a key issue in global environmental governance. Although single-use plastic products are widely used in the aviation sector due to their characteristics of high strength, light weight, safety and hygiene, they cause severe environmental impacts due to their difficulty in degradation and low recycling rate. Currently, States are using different policy tools to reduce the use of plastic products or manage and recycle plastic waste, but there are still challenges in areas such as the construction of regulatory systems and the selection and use of alternative products. Based on China's current efforts in plastic pollution governance, this paper mainly focuses on continuously promoting the reduction of single-use plastic products, intelligent and standardized recycling and transportation of plastic waste, and summarizes the achievements of China's civil aviation in plastic pollution governance as well as the key directions for the future.

<i>Strategic Goals:</i>	This working paper relates to the Strategic Goal – <i>Aviation is Environmentally Sustainable</i>
<i>Financial implications:</i>	None
<i>References:</i>	

<sup>1</sup> English and Chinese versions provided by China

## 1. INTRODUCTION

1.1 Plastic pollution governance is a critical issue in global environmental governance. With over 430 million tonnes of plastic produced annually, 2/3 of which quickly become waste. Under a business as usual scenario, plastic could emit 19% of global greenhouse gas emissions allowed under a 1.5°C scenario by 2040<sup>2</sup>. In 2017 it is estimated that the airline industry produced up to 5.7 million tonnes of cabin waste which costs the sector US\$ 927 million<sup>3</sup>. Therefore, the aviation industry needs to explore approaches to reduce the use of plastic products, as well as managing and recycling plastic waste.

1.2 China is fully advancing the building of ecological civilization, striving to achieve harmony between human and nature. Under the guidance of the carbon peaking and carbon neutrality goals of China, it is synergistically promoting pollution reduction and carbon reduction<sup>4</sup>, comprehensively advancing the building of Beautiful China<sup>5</sup>, and conduct full-chain governance of plastic pollution. China has made steady progress in plastic pollution governance, advancing governance across the whole cycle of plastic product production, circulation, consumption, recycling, and end-of-life disposal. In 2024, China's waste plastic recycling volume reached 19.5 million tonnes, while recycled plastic production grew to 16.4 million tonnes. Carbon reduction, pollution mitigation, ecological expansion, and economic growth are being jointly promoted in a coordinated manner.

1.3 Under the guidance of top-level policies, China's civil aviation sector has promoted plastic pollution governance through coordinated measures, including reducing the use of single-use plastic products, changing consumer behaviour, strengthening plastic waste recycling, improving government supervision and incentive mechanisms, and enhancing communication and coordination among airports, airlines, and other stakeholders, and achieving remarkable results. Since 2022, airports with an annual passenger throughput of over 2 million and domestic passenger flights have fully stopped providing disposable non-degradable plastic bags, straws, stirrers, tableware/cups, and packaging bags. By 2023, this practice has been further extended to all airports across the country and international passenger flights.

## 2. DISCUSSION

2.1 CAAC has strengthened policy guidance by issuing domestic flight plastic restriction policy in 2021, namely *Civil Aviation Plastic Pollution Governance Work Plan (2021-2025)*, aiming to focus on airports and airlines plastic pollution governance, and setting clear goals and approaches for controlling single-use non-degradable plastic products in the civil aviation industry.

2.2 Measures to reduce the use of plastic products are as follows.

2.2.1 Adhere to origin control--China is gradually reducing the use of disposable plastic products on flights. By 2024, domestic flights and airport terminals in China had basically stopped providing disposable non-degradable plastic tableware, packaging bags, and other items. The refined management of aviation waste has been continuously carried out. Meanwhile, domestic flights are actively promoting the

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<sup>2</sup> UNDP. Plastics 101. <https://www.undp.org/plastics-101>

<sup>3</sup> IATA. IATA Cabin Waste Handbook. <https://www.iata.org/contentassets/821b593dd8cd4f4aa33b63ab9e35368b/iata-cabin-waste-handbook.pdf>

<sup>4</sup> In June 2022, the Ministry of Ecology and Environment, the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Housing and Urban-Rural Development, the Ministry of Transport, the Ministry of Agriculture and Rural Affairs, and the National Energy Administration jointly issued the *Implementation Plan for Synergistically Promoting Pollution Reduction and Carbon Emission Reduction*.

<sup>5</sup> In January 2024, the *Opinions of the Communist Party of China Central Committee and the State Council on Comprehensively Promoting the Building of Beautiful China* was released.

substitution of in-flight supplies with biodegradable materials. For instance, since 2023, Air China, China Southern Airlines, etc have provided disposable biodegradable in-flight supplies on all domestic and international flights it operates. Xiamen Airlines are also actively exploring the substitution of plastic with bamboo and introducing a full range of green cabin service supplies made from bamboo pulp.

2.2.2 Adhere to standardization in advance--China is actively promoting standardization construction. The *Specification for Disposable Non Degradable Plastics Alternative on Domestic Departure Passenger Flights (T/CATAGS 78-2024)* issued by China Air Transport Association provides basic guidelines for civil aviation's plastic restriction. In accordance with this standard, Chinese airlines have gradually replaced disposable non-degradable plastic cabin supplies such as cup, tableware, stirring rod, straw, cleaning bag, and garbage bag with biodegradable or recyclable materials on domestic flights, aiming to create green cabins.

2.2.3 Strengthen efforts in technological breakthroughs--China is also increasing scientific investment. Aviation transportation enterprises and air catering enterprises have increased investment in scientific research, collaborating with relevant research institutions to accelerate the development of advanced and applicable plastic substitute products and intelligent cabin waste recycling equipment, so as to meet the needs of safe, green, and intelligent cabin services.

2.3 Measures to conduct intelligent and standardized recycling and transportation of plastic waste are as follows.

2.3.1 Promote system improvement--China is strengthening infrastructure construction. Waste recycling facilities have been deployed in terminals, parking buildings, office areas, and staff canteens. Airports with an annual passenger throughput of over 2 million have basically achieved reasonable placement of waste classification and recycling facilities.

2.3.2 Promote smart applications--Airports in China also set waste collection frequency in a scientific manner to eliminate mixed collection and transportation. By leveraging advanced digital technologies, the professionalism, intelligence, and harmlessness of waste collection, transportation, and storage have been significantly improved.

2.3.3 Standardized transportation and disposal--Airlines are promoting in-flight waste sorting in an orderly manner. They have strengthened communication and coordination with airports and local governments to properly handle waste sorting and transportation for flights. For example, China Eastern Airlines adopts the principle of "front-end limited sorting", equipped with three-color garbage bags. Cabin crew members are responsible for sorting cabin waste, which is handed over to waste transportation service providers with the qualification for three-category waste sorting and transportation for processing.

2.4 As for strengthening supervision and promoting advocacy and guidance, CAAC has established a monthly work inspection mechanism to strengthen daily patrols and coordination in handling issues, and have integrated plastic pollution governance into the civil aviation industry's regulatory enforcement information database. Meanwhile, the industry has leveraged various channels and platforms to intensify publicity on the achievements and best practices in plastic pollution governance, further promoting industry communication and mutual learning, and enhancing public awareness of civil aviation's efforts to plastic pollution governance.

### 3. CONCLUSION

3.1 At present, the consumption intensity of single-use non-degradable plastic products in China's civil aviation sector has dropped significantly compared with 2020. The application level of alternative products has been significantly improved, an intelligent and standardized recycling and disposal system for plastic waste and other garbage has been established, and the collaboration between the civil aviation industry and industries related to plastic pollution governance has become deeper and more effective.

3.2 Governments, airlines, airports and other stakeholders around the world are increasingly attaching importance to the plastic pollution governance in civil aviation. In the future, China's civil aviation sector will further actively promote the reduction of plastic product usage at the source, as well as the standardized recycling and transportation of plastic waste.

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