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ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

**FEASIBILITY OF SUSTAINABLE AVIATION FUEL IN
THAILAND**

(Presented by Thailand)

INFORMATION PAPER

SUMMARY

Thailand stands at the pivotal junction in its pursuit of sustainable aviation. The adoption of Sustainable Aviation Fuel presents a compelling opportunity to balance economic growth with environmental responsibility. While challenge exist, strategic policy formulation, technical cooperation, and collaboration can pave the way for greener aviation sector in the region.

FEASIBILITY OF SUSTAINABLE AVIATION FUEL IN THAILAND

1. INTRODUCTION

1.1 The aviation industry is a critical driver of economy growth and connectivity. It transports people from around the world to visit Thailand as tourists or for business. It also moves agriculture products from Thailand to other countries. Though it may not be the main contributor of carbon dioxide emission, all the stakeholders in the country are working to further reduce the carbon footprint. There are many possible solutions to achieve such goal. However, Sustainable Aviation Fuel (SAF) is offering a viable pathway to decarbonize aviation and align the sector with national and international sustainability objectives.

1.2 Thailand's commitment to Paris Agreement and its effort to achieve carbon neutrality through Bio-Circular-Green Economy (BCG) Scheme creates a great environment for SAF. Advances in ethanol and palm oil productions provide Thailand an opportunity to develop a domestic SAF industry. Molasses and cassava are the main feedstocks to produce ethanol. These are very good candidates as they are non-food crops. Moreover, ethanol has been used as fuel mixtures for land transport since 2001. Thus, there are 26 ethanol distilleries operating in Thailand with capacity up to 6 million liters per day. Palm oil is also used as an alternative energy source too. The production capacity is up to 7.68 million liters per day of biodiesel from 13 plants. At this point, the production outpaces the demand from the land transport side. Therefore, there is an opportunity to use this excessive capacity to produce feedstock for SAF.

1.3 SAF adoption can stimulate economic growth through investment, development and research. Developing a domestic supply chain of SAF can create jobs and enhance security in the energy sector through diversification of energy sources.

1.4 However, organizing such an endeavor requires a very good cooperation among agencies. There may be possible to classify them into three groups through function of the organization. The first group comprises of the producers of SAF. This group is the suppliers of feedstock for SAF and the distilleries or production plants. The second group is the one on the demand side which is composed of airlines, fuel distributors. The last group is the supporting who may provide the financial support to SAF producers or the users.

1.5 Thailand is working on the SAF policy to ensure that all three parties are working in a coherent manner. The policy will address the direction of SAF and to provide the role for each group to support each other. The policy shall need to direct the regulatory incentive to accelerate the transition. This has to be very important.

1.6 If both public and private sectors are working together, Thailand should have SAF ready within the next two years. The first production unit from used cooking oil is already under construction. The capacity is up to one million liters per day. The other feedstocks are also in the pipeline.

2. DISCUSSION

2.1 There are still some obstacles to achieve the goal. Firstly, the understanding on SAF is not universal among the stakeholders. Raising awareness about SAF's benefits among airlines, passengers and the general public can foster demand and support for its adoption. Educational campaigns can dispel misconceptions and highlight SAF's role in reducing aviation emissions. Sharing knowledge among each sector in the region can help accelerate the process.

2.2 Secondly, the fewer certifying bodies and the limited knowledge certification process may defer some capacity away for some time. There may be some need to increase the number of certifying bodies within the region. This is not only help taking more requests but also spread knowledge on how the producers can be certified in time. Thailand is looking forward to work with other states to set up

more certify border and also be able to share all the knowledges.

2.3 Technology can also be very important as it can help reducing cost. Having the production facility near the sources can avoid transportation cost of feedstock. Thus, having the right technology in the region shall contribute to more reasonable SAF price. The cooperation of research and transfer of technology would be a great leap to realize the SAF in the region faster.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the progress of SAF adoption process in Thailand. Cooperation on research, policy and infrastructure development with Thailand are welcome.

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