

AVIATION EMISSIONS REPORT
REPORTING YEAR : 2022

Data Acquired and Processed by CAAT's Aviation Emissions Data Management System (EDMSTH)

Contribution of 9 Aeroplane operators

TOTAL SERVICE		
FUEL	FUEL CONSUMPTION (Tonnes)	1,628,374
	FUEL CONSUMPTION (M.LITRE)*	2,035,467.88
TRAFFIC	ATK (Thousand)	8,934,742
	RTK (Thousand)	5,964,934
EFFICIENCY	Fuel Consumption/ATK (Kg/ATK)	0.1823
	Fuel Consumption/RTK (Kg/RTK)	0.2730
EMISSIONS	CO ₂ Emissions (Ton CO ₂)*	5,145,662.80
	CO ₂ Emissions per ATK (KgCO ₂ /ATK)	0.5759
	CO ₂ Emissions per RTK (KgCO ₂ /RTK)	0.8627

INTERNATIONAL AVIATION		
FUEL	FUEL CONSUMPTION (Tonnes)	1,081,176
	FUEL CONSUMPTION (M.LITRE)*	1,351,469.99
TRAFFIC	ATK (Thousand)	6,683,293
	RTK (Thousand)	4,389,200
EFFICIENCY	Fuel Consumption/ATK (Kg/ATK)	0.1618
	Fuel Consumption/RTK (Kg/RTK)	0.2463
EMISSIONS	CO ₂ Emissions (Ton CO ₂)*	3,416,516.13
	CO ₂ Emissions per ATK (KgCO ₂ /ATK)	0.5112
	CO ₂ Emissions per RTK (KgCO ₂ /RTK)	0.7784

* Note: Density = 0.8 kg/L (ref: ICAO)

Emissions calculated by ICAO's methods where emissions factor is 3.16 Ton CO₂ per Fuel (ton)

DOMESTIC AVIATION		
FUEL	FUEL CONSUMPTION (Tonnes)	547,198
	FUEL CONSUMPTION (M.LITRE)**	698,848.42
TRAFFIC	ATK (Thousand)	2,251,449
	RTK (Thousand)	1,575,734
EFFICIENCY	Fuel Consumption/ATK (Kg/ATK)	0.2430
	Fuel Consumption/RTK (Kg/RTK)	0.3473
EMISSIONS	CO ₂ Emissions (Ton CO ₂)**	***
	CO ₂ Emissions per ATK (Kg CO ₂ /ATK)	***
	CO ₂ Emissions per RTK (Kg CO ₂ /RTK)	***

** Note: Density = 0.783 kg/m³

Emissions** calculated by IPCC 's method where;

Density = 783 kg/m³ (IPCC special Report on Aviation and Global Atmosphere)

NCV = 34.53 MJ/litre (Thailand's Energy Conservation Report, DEDE)

Emission Factor = 71,500 kg CO₂/TJ

(Default CO₂ Emission Factor for Combustion of Jet Kerosene from 2006 IPCC Guideline for National Greenhouse Gas Inventories)

*** The result will be evaluated by ONEP as for National Inventory