



AVIATION EMISSIONS REPORT
REPORTING YEAR : 2023

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

Contribution of 8 Aeroplane operators

TOTAL SERVICE		
FUEL	FUEL CONSUMPTION (Tonnes)	2,433,276
	FUEL CONSUMPTION (M.LITRE)*	3,041,595
TRAFFIC	ATK (Thousand)	13,487,418
	RTK (Thousand)	9,662,470
EFFICIENCY	Fuel Consumption/ATK (Kg/ATK)	0.1804
	Fuel Consumption/RTK (Kg/RTK)	0.2518
EMISSIONS	CO ₂ Emissions (Ton CO ₂)*	7,689,151
	CO ₂ Emissions per ATK (KgCO ₂ /ATK)	0.5701
	CO ₂ Emissions per RTK (KgCO ₂ /RTK)	0.7958

INTERNATIONAL AVIATION		
FUEL	FUEL CONSUMPTION (Tonnes)	1,929,849
	FUEL CONSUMPTION (M.LITRE)*	2,412,311
TRAFFIC	ATK (Thousand)	11,187,936
	RTK (Thousand)	7,893,494
EFFICIENCY	Fuel Consumption/ATK (Kg/ATK)	0.1725
	Fuel Consumption/RTK (Kg/RTK)	0.2445
EMISSIONS	CO ₂ Emissions (Ton CO ₂)*	6,098,322
	CO ₂ Emissions per ATK (KgCO ₂ /ATK)	0.5451
	CO ₂ Emissions per RTK (KgCO ₂ /RTK)	0.7726

* 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 (Ton)	503,427
	FUEL CONSUMPTION (M.LITRE)**	642,946
TRAFFIC	ATK (Thousand)	2,299,482
	RTK (Thousand)	1,768,976
EFFICIENCY	Fuel Consumption/ATK (Kg/ATK)	0.2189
	Fuel Consumption/RTK (Kg/RTK)	0.2846
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 Inventor

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