**Exercise 1-A**

**Assumption Table 1: Voluntary participating States from the pilot and the first phase (illustrative example)**

|  |  |  |
| --- | --- | --- |
| **State** | **Pilot phase (2021-2023)** | **First phase (2024-2026)** |
| A | Voluntary Participant | Voluntary Participant |
| B | Voluntary Participant | Voluntary Participant |
| C | - | - |
| D | Voluntary Participant | Voluntary Participant |
| E | - | - |
| F | - | Voluntary Participant |
| G | - | Voluntary Participant |
| H | - | - |
| I | Voluntary Participant | Voluntary Participant |
| J | - | - |

**Assumption Table 2: Emissions of Individual Airlines in selected years (illustrative example)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **State** | **Airline** | **From** | **To** | **CO2** (2019) | **CO2** (2020) | **CO2** (2021) | **CO2** (2024) |
| A | A1 | A | B | 52 | 54 | 55 | 60 |
| A | A1 | A | C | 52 | 54 | 55 | 60 |
| A | A1 | A | D | 52 | 54 | 55 | 60 |
| A | A2 | A | E | 53 | 56 | 58 | 68 |
| A | A2 | A | F | 53 | 56 | 58 | 68 |
| A | A2 | A | G | 53 | 56 | 58 | 68 |
| A | A3 | A | H | 54 | 59 | 63 | 80 |
| A | A3 | A | I | 54 | 59 | 63 | 80 |
| A | A3 | A | J | 54 | 59 | 63 | 80 |
| B | B1 | B | A | 52 | 54 | 55 | 60 |
| B | B1 | B | C | 52 | 54 | 55 | 60 |
| B | B1 | B | D | 52 | 54 | 55 | 60 |
| B | B1 | B | E | 52 | 54 | 55 | 60 |
| B | B2 | B | G | 54 | 59 | 63 | 80 |
| B | B2 | B | H | 54 | 59 | 63 | 80 |
| B | B2 | B | I | 54 | 59 | 63 | 80 |
| B | B2 | B | J | 54 | 59 | 63 | 80 |
| C | C1 | C | A | 53 | 56 | 58 | 68 |
| C | C1 | C | D | 53 | 56 | 58 | 68 |
| D | D1 | D | E | 32 | 34 | 35 | 41 |
| E | E1 | E | F | 9 | 10 | 11 | 14 |
| F | F1 | F | A | 7 | 8 | 9 | 12 |
| G | G1 | G | B | 5 | 6 | 7 | 10 |
| H | H1 | H | I | 2 | 3 | 3 | 5 |
| **Total international aviation CO2** | **1062** | **1132** | **1181** | **1402** |

State’s participation in the pilot phase (2021 - 2023) and in the first phase (2024 - 2026) of CORSIA is voluntary, as per Resolution A39-3, paragraph 9. For simplicity purpose, under this exercise, we assume that there are only 10 States in the world – States A to J. States A, B, D and I are voluntary participants from the pilot phase, and additional States F and G from the first phase (see Assumption Table 1). Assumption Table 2 includes CO2 emissions generated by different airlines on different routes in different years. As per Resolution A39-3, paragraph 10, CORSIA applies to international routes between States, both of which participate in the scheme.

**Instruction for Exercise 1-A:** Based on the Assumption Tables 1 and 2:

a) Identify the routes that are covered by CORSIA in the pilot phase (2021) and first phase (2024)

b) Identify CO2 emissions covered on these routes

c) Calculate the total CO2 emissions covered by CORSIA in 2021 and 2024

|  |  |  |
| --- | --- | --- |
| **Route based approach** | **Pilot Phase** | **First Phase** |
| **From** | **To** | **Covered?** **(Tick** ✓ **if YES)** | **CO2** (2021) | **Covered?** **(Tick** ✓**if YES)** | **CO2** (2024) |
| A | B | ✓ | 55 | ✓ | 60 |
| A | C |  |  |  |  |
| A | D | ✓ | 55 | ✓ | 60 |
| A | E |  |  |  |  |
| A | F |  |  | ✓ | 68 |
| A | G |  |  | ✓ | 68 |
| A | H |  |  |  |  |
| A | I | ✓ | 63 | ✓ | 80 |
| A | J |  |  |  |  |
| B | A | ✓ | 55 | ✓ | 60 |
| B | C |  |  |  |  |
| B | D | ✓ | 55 | ✓ | 60 |
| B | E |  |  |  |  |
| B | G |  |  | ✓ | 80 |
| B | H |  |  |  |  |
| B | I | ✓ | 63 | ✓ | 80 |
| B | J |  |  |  |  |
| C | A |  |  |  |  |
| C | D |  |  |  |  |
| D | E |  |  |  |  |
| E | F |  |  |  |  |
| F | A |  |  | ✓ | 12 |
| G | B |  |  | ✓ | 10 |
| H | I |  |  |  |  |
| **TOTAL CO2 COVERED BY CORSIA** | — | **346** | — | **638** |

— — — — — — — —

**Exercise 1-B**

**Assumption Table 3: Revenue-Tonne Kilometres (RTKs) per State in 2018 (illustrative example)**

|  |  |  |
| --- | --- | --- |
| **State** | **RTK (2018)** | **Note** |
| A | 450 |  |
| B | 400 |  |
| C | 100 | SIDS |
| D | 30 |  |
| E | 8 |  |
| F | 6 |  |
| G | 4 |  |
| H | 2 | LLDC |
| I | 0 | LDC |
| J | 0 |  |

From the 2nd phase (from 2027), CORSIA applies to all States that have an individual share of international aviation activities in RTKs in year 2018 above (higher than) 0.5 per cent of total RTKs or whose cumulative share in the list of States from the highest to the lowest amount of RTKs reaches (up to) 90 per cent of total RTKs, except Least Developed Countries (LDCs), Small Island Developing States (SIDS) and Landlocked Developing Countries (LLDCs) unless they volunteer to participate in this phase (as per Resolution A39-3, paragraph 9).

For simplicity purposes, under this exercise, we assume that there are only 10 States in the world – States A to J, with respective RTK levels of their airlines. Some States are assumed as LDCs, SIDS and LDCs (see Assumption Table 3).

**Instruction for Exercise 1-B**: Based on the Assumption Table 3, calculate the individual RTK share for each State and cumulative RTK shares, as well as identify States that are exempted from the CORSIA in the 2nd phase and reasons why those States are exempted.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **State** | **RTK (2018)** | **Individual RTK share (2018)** | **Cumulative RTK share (2018)** | **Exempted (YES/NO)** | **If Exempted, Why?** |
| A | 450 | 45.00% | 45.0% | NO |  |
| B | 400 | 40.00% | 85.0% | NO |  |
| C | 100 | 10.00% | 95.0% | YES | SIDS |
| D | 30 | 3.00% | 98.0% | NO |  |
| E | 8 | 0.80% | 98.8% | NO |  |
| F | 6 | 0.60% | 99.4% | NO |  |
| G | 4 | 0.40% | 99.8% | YES | Ind. RTK < 0.5%, Cum. RTK > 90% |
| H | 2 | 0.20% | 100.0% | YES | LLDC, Ind. RTK < 0.5%, Cum. RTK > 90% |
| I | 0 | 0.00% | 100.0% | YES | LDC, Ind. RTK < 0.5%, Cum. RTK > 90% |
| J | 0 | 0.00% | **100.0%** |  | Ind. RTK < 0.5%, Cum. RTK > 90% |
| **Total** | **1000** | **100.0%** | — | — | — |

— END —