

28. International aviation

International Aviation is a major source of emissions worldwide.

The last decade

Passenger aviation is slowly developing in Bangladesh. There is limited potential for domestic travel due to the small size of the country and the central position of Dhaka. A large expansion of international travel would require an expansion of the airport.

Assumptions of model

The GDP is used to generate a travel demand, including travel demand for air travel. 95% of this is assumed to be international air travel since distances within Bangladesh are low. A typical, medium size plane is used to model the energy needed to meet this demand. A fixed amount of energy is needed for take off and landing, so an increased number of flights needs more energy. By improving ticketing services and management to maintain high occupancy, the number of flights can be reduced, saving a considerable amount of energy. It is assumed that the very high occupancies can be met by switching to larger but equally efficient aircraft. These may require larger runways.

Levels

Level 1

By 2050, occupancy per flight has increased from 53 to 110.

Level 2

By 2050, occupancy per flight has increased from 53 to 145.

Level 3

By 2050, occupancy per flight has increased from 53 to 178.

Level 4

By 2050, occupancy per flight has increased from 53 to 220.

Interaction with other levers

The GDP lever controls travel demand and at higher levels will also increase the aviation share of the travel demand. If the transport policy lever is set to 'rail' some of the aviation traffic is shifted into high speed intercity rail, reducing overall demand in this sector.

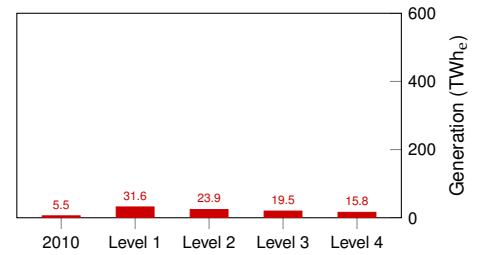


Figure 28.1: Projected in 2050,

— Level 1 — Level 2 — Level 3 — Level 4

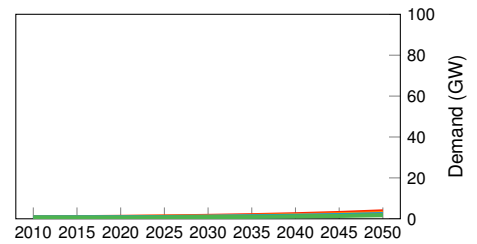


Figure 28.2: Demand from Aviation scenarios



Figure 28.3: A passenger plane, Bangladesh