

Chapter 2

Selection of Study Target Countries

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Chapter 2

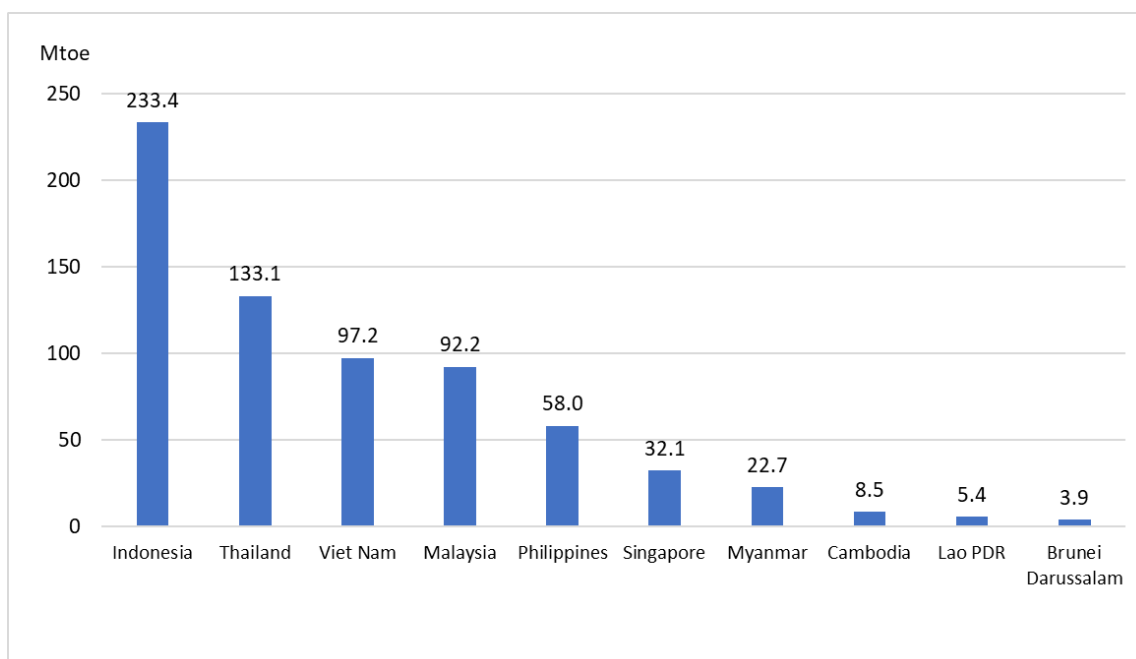
Selection of Study Target Countries

This chapter identifies the ASEAN countries that have a significant impact with respect to energy and CO₂ emissions and selects those to be studied for this report.

1. Current Status of TES

Figure 2.1 shows a graph of the countries in order of the absolute amount of TES as of 2020. The top five countries account for 89% of the absolute TES share (Figure 2.2).

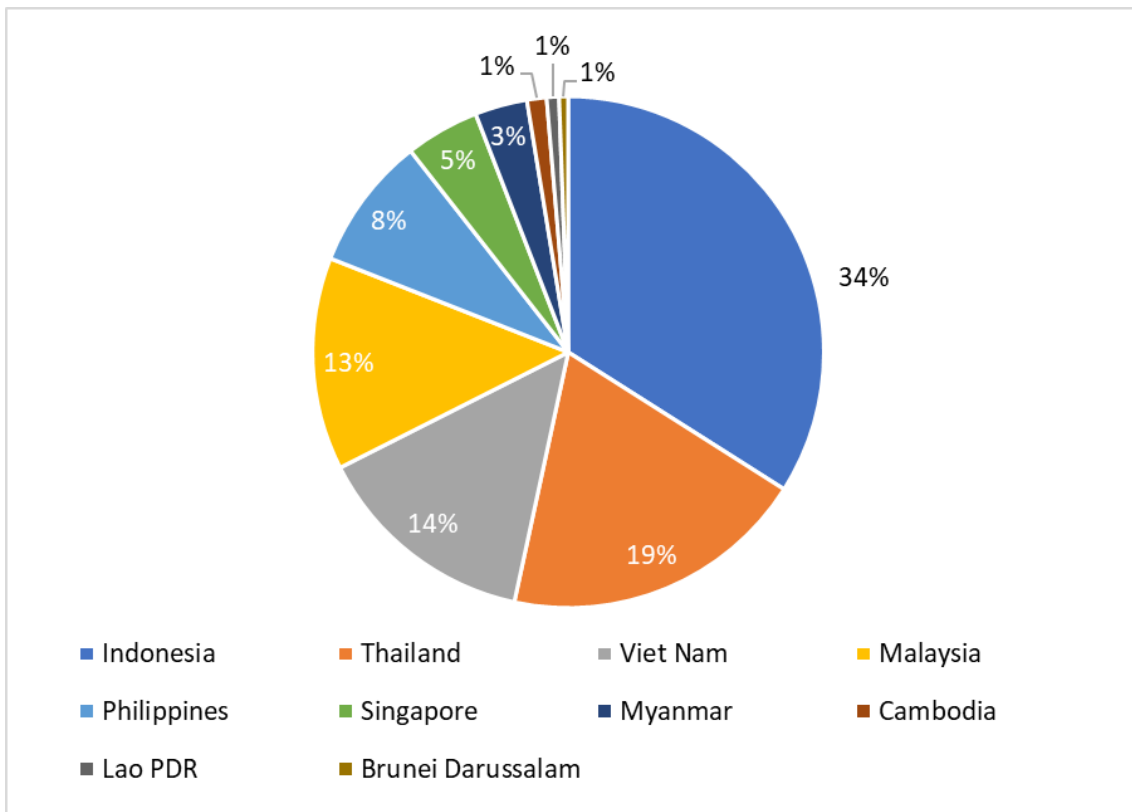
Figure 2.1. ASEAN TES (2020)



ASEAN = Association of Southeast Asian Nations, TES = total energy supply.

Source: IEA (2022).

Figure 2.2. Country Share of TES (2020)



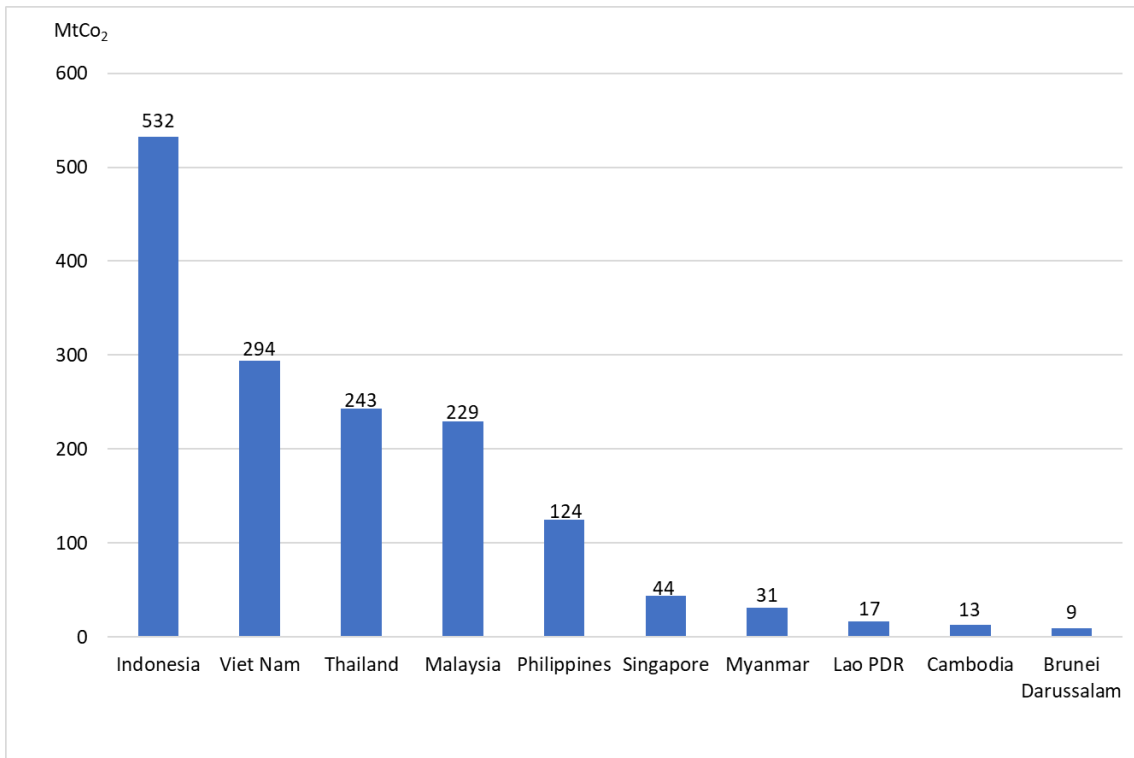
TES = total energy supply.

Source: IEA (2022).

2. Current Status of CO₂ Emissions

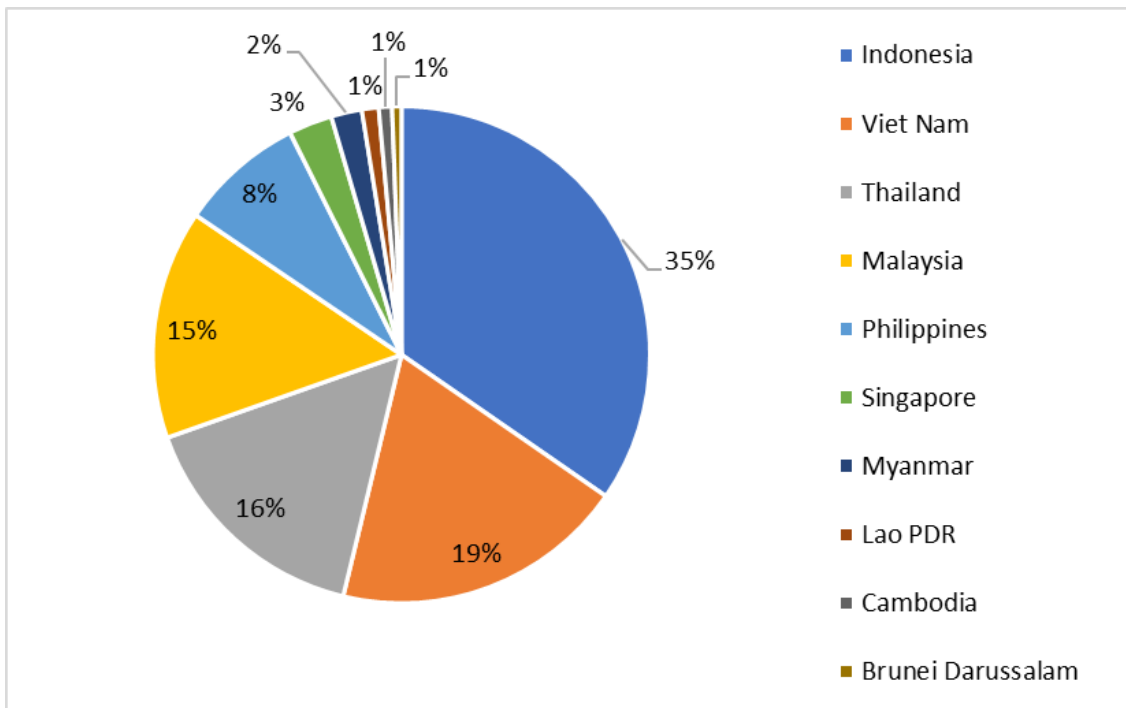
Figure 2.3 shows a graph of the countries in order of CO₂ emissions as of 2020. The total CO₂ emissions of the 10 ASEAN countries in 2020 are 1,538 MtCO₂. The top five countries account for 92% share of CO₂ emissions (Figure 2.4).

Figure 2.3. ASEAN CO₂ Emissions (2020)



ASEAN = Association of Southeast Asian Nations.
Source: IEA (2022).

Figure 2.4. Country Share of CO₂ Emissions (2020)



Source: IEA (2022).

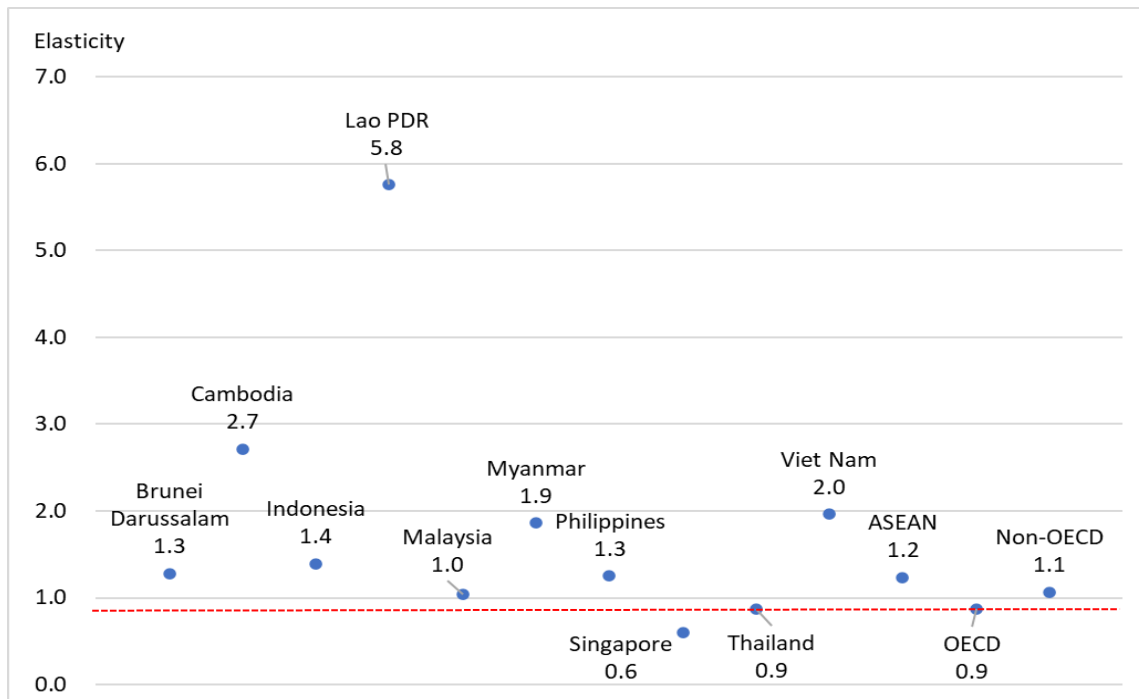
3. Selection of Survey Countries

As of 2020, the top five countries accounting for about 90% of ASEAN’s TES and CO₂ emissions are Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam.

The elasticities for these five countries are 1.4 for Indonesia, 1.0 for Malaysia, 1.3 for the Philippines, 0.9 for Thailand, and 2.0 for Viet Nam.

The OECD’s elasticity, on the other hand, is 0.9. Only Thailand has an elasticity comparable to that of OECD. The elasticities for the other four countries are above 1, indicating that CO₂ emissions have increased more than TES growth (Figure 2.5).

Figure 2.5. Elasticity with Border Line



ASEAN = Association of Southeast Asian Nations, OECD = Organisation for Economic Co-operation and Development.

Source: IEA (2022).

Based on the above, amongst the top five countries that account for about 90% of TES and CO₂ emissions as of 2020, four countries with elasticities of 1 or more, which is higher than the OECD’s elasticity (0.9), are selected for the subject of study (Table 2.1).

Table 2.1. Selected Target Countries

Countries	CO ₂ Emissions	TES	Elasticity
Indonesia	532	233.4	1.4
Malaysia	229	92.2	1.0
Philippines	124	58.0	1.3
Viet Nam	294	97.2	2.0

Source: Author.