

# Qualitative and Quantitative Climate Finance Needs of Southeast Asian countries

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## Quantitative needs of some ASEAN countries (NDCs)

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**Cambodia:** US\$1.27 bn (Pre-2018)

**Indonesia**

- Mitigation: USD 4.5 billion
- REDD+: USD 4 billion
- Adaptation: USD 64 billion

**Malaysia:**

- REDD+: USD 400 million (REDD+)
- Adaptation: USD 104 million
- GHG Inventory: USD 6 million
- RE Prog.: USD 2.94 bn
- Energy efficiency: USD 1.53 bn

**Lao PDR:**

- USD12.5 million for climate change
- LULUCF: USD 220.5 million
- RE/Energy/Transmission: USD 1.14 bn
- Transport/Urban: USD 295 million
- Adaptation: USD 753 million (Agriculture, water)
- Disaster response and Health: 17million



# ASEAN Priority needs (NDCs)

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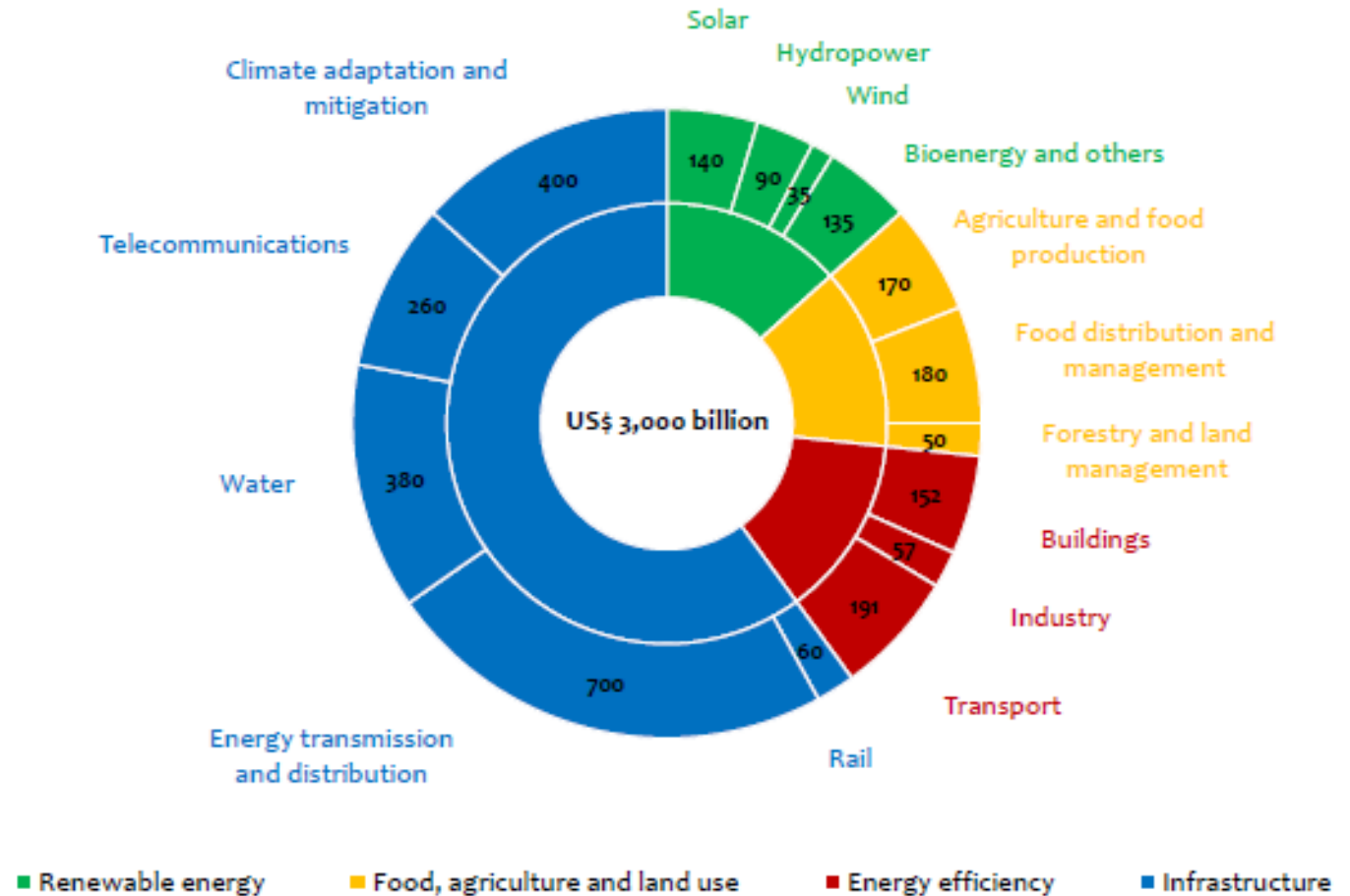
- Ambitious NDC GHG reduction targets in the areas:
  - a) Energy generation (RE, reduction in coal and oil dependency) and energy efficiency
  - b) Forestry and land-use
  - c) Sustainable transportation

*\* Conditional and unconditional NDCs.*
- Adaptation
  - a) Adaptive capacity
  - b) Research and systematic observation (Early warning systems)
  - c) Water security
  - d) Food security and agriculture
  - e) Infrastructure resilience/flood protection



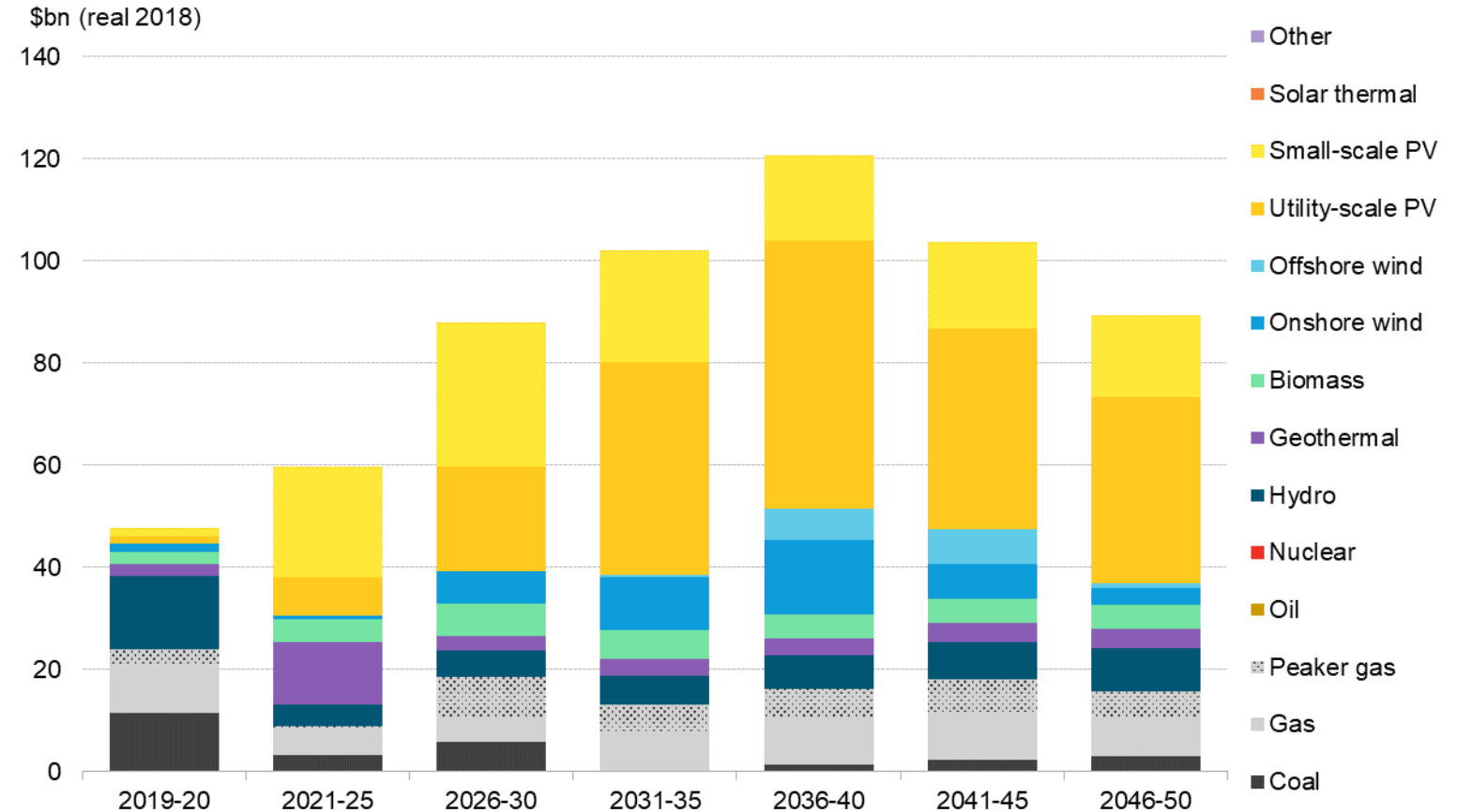
# High level regional needs estimates

- USD 3 trillion in additional green investment from 2016 to 2030 (UNEP & DBS, 2017)
- USD 200 billion per year
- The top sectors are
  1. Electricity grid (700 bn)
  2. RE (400)
  3. Energy efficiency (400bn)
  4. Agriculture, land use (400bn)



# Southeast Asia – energy sector investment projection

- \$600 billion needed in energy sector investments out to 2050,
- \$500 billion in low carbon technologies
- Solar PV requires:
  - \$6 bn/yr to 2025
  - \$10 bn/yr to 2030
  - \$13-\$14 bn/yr to 2040



Source: BNEF New Energy Outlook 2019

