

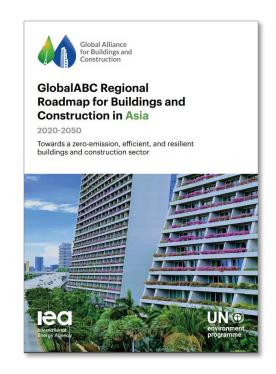
## Roadmaps towards Sustainable and Energy Efficient Buildings and Cooling in ASEAN

Emily McQualter, Energy Efficiency Division of the International Energy Agency 29<sup>th</sup> October 2020, SIEW Thinktank Roundtable



## Reports available to download





https://www.iea.org/areas-of-work/promoting-energy-efficiency/global-alliance-for-building-and-construction



## **Project**

- ASEAN Energy Efficient Buildings and Construction Roadmap
- ASEAN Sustainable Cooling Roadmap
- Capacity building webinars
- Stakeholder consultations

#### Lack of integrated urban Prioritise sustainable urban planning and development Urban planning and sustainable Use planning and development tools to support sustainable development and access to affordable housing, develop collaborative development among planning existing major growth areas national and local urban plans Most construction occuring Prioritise new building energy codes and standards Develop passive and affordable construction strategies, implement in places with some codes mandatory building energy codes, adopt passive designs and reduce and mandatory minimum buildings energy performance cooling need Energy performance and Accelerate action on building retrofits quality of existing buildings Existing Develop and implement affordable low-energy decarbonisation buildings low and few energy-driven strategies, increase renovation rates among high-density retrofits development, and encourage low-energy investment Some use of tools for Develop and adopt operation and maintenance standards Building Develop benchmarking and certification tools, and set performance energy performance, disclosure and standards for systems energy savings, adopt monitoring and energy operations management management systems Stimulate demand for energy efficient appliances Efficiency of appliances and **Appliances** Strengthen and expand existing minimum energy performance systems lower than best requirements, support greater improvement in low-cost efficient and systems available technology cooling technologies Promote the use of low carbon materials Very-high embodied carbon Promote adoption of low-carbon materials in high-density of materials, limited use of Materials development and promote material efficiency, increase energy local materials, little data efficiency in manufacturing to reduce embodied carbon of materials and information over whole life cycle Build in resilience for buildings and communities Lack of planning strategies Develop integrated risk assessment and resilience strategies for Resilience for climate events, and major coastal urban centres and integrate resilience into new limited resilience construction for formal and informal areas Significant use of fossil and Accelerate access to clean energy Develop clear regulatory frameworks, provide financial incentives, biomass fuels. In Asia 43% Clean energy encourage renewable energy procurement, accelerate use of clean no access to clean cooking. 6% no access to electricity cooking fuels to decarbonise electricity and heat ENABLERS: capacity building, finance, multi-stakeholder engagement

Recommended actions

Current status (2020)



## **Energy Efficiency: Cooling**

### **IEA-ASEAN Partnership on Cooling**

### 2019

#### > Publication of the Future of Cooling in ASEAN

- Publication 2019
- ASEAN specific results, within the global context
- Market analysis of room air conditioners: efficiency, price, country of origin, consumer preferences, refrigerants
- Potential energy and emissions savings
- Policy recommendations

#### > Presentation of work at AMEM in September 2019

2020 - 2021

- > Continue data collection and analysis including retail price information using innovative tools
- > Consultation with stakeholders to develop a cooling roadmap for ASEAN



## **Energy Efficiency: Buildings**

### **Buildings**

2019

>Regionalisation process of GABC Global Roadmaps for Buildings and Construction for Asia

> Green Buildings training in Singapore in July 2019

2020 - 2021

#### >ASEAN Energy Efficient Buildings and Construction Roadmap

They will outline improvements to codes and standards over time with specific implementation and compliance goals, targets for energy efficiency within urban planning, and actions needed to improve the efficiency of existing buildings and availability of super-efficient cooling solutions and transitioning towards netzero energy consumption buildings.





# Thank you for listening! For more information or to stay in touch

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