

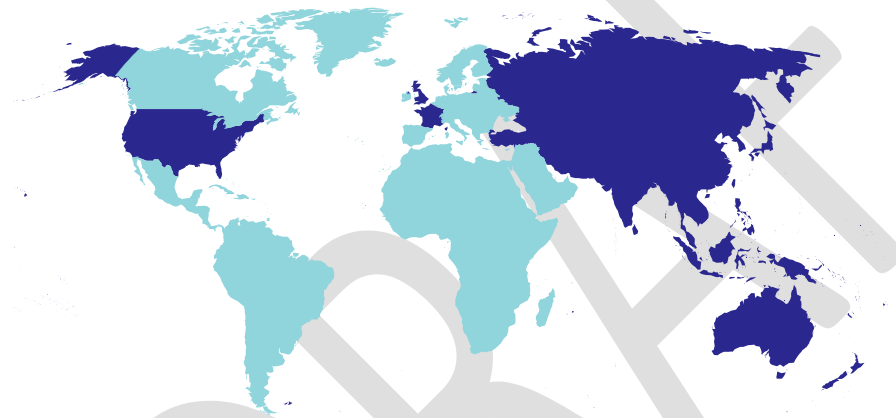
Regional Trends Report on Energy for Sustainable Development in Asia and the Pacific

2016 edition



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United Nations publication

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Printed in Bangkok

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Chapter 1: Energy Scene and Emerging Trends in Asia and the Pacific

Key Messages

- A. Significant changes have taken place in the global economy and the international energy market in 2015. Fossil fuels dominate energy supply in the region. The dependency on fossil fuels will continue to rise in order to meet energy demands for enhanced economic activities for years to come, highlighting the implications on energy security, and the impacts on climate change.
- B. The prevailing low oil prices present both opportunities and challenges for countries in Asia and the Pacific. Oil-importing countries are reforming fossil fuel subsidies, from which government savings could be re-allocated to a more sustainable infrastructure. No evidence has shown there is negative impact on renewable energy development at present due to the declining cost of renewable energy, and concerns over environmental sustainability, climate change and energy security.
- C. Demand for natural gas is likely to increase in Asia and the Pacific through 2020, due to continuous economic growth while transitioning to cleaner fuel sources. Buyers in Asia and the Pacific are paying higher prices for natural gas than customers in other places and pricing structure reform is becoming a critical area of concern for countries in region.
- D. Coal dominates electricity generation in this region and will continue its role in the foreseeable future. It is also a major source for GHG emissions and environmental pollution such as NO_x and SO_x. The challenge of increasing environmental concerns and continuing reliance on coal requires a transition to cleaner coal technologies that are of high efficiency and low emissions.
- E. Renewable energy investment and installation reached historical high in 2015. It also plays an important role in energy access and development of Pacific island countries.
- F. Energy connectivity has potential for optimizing the use of all energy resources, including renewable energy resources, gas and other sources, has been well recognized in the region and could contribute to the energy access in the border areas. Emerging new initiatives on regional energy connectivity is shaping the energy scene of the region.
- G. Energy development needs to take into consideration the social, environmental and economic aspects as they are the fundamental inputs to sustainable development. The newly adopted Sustainable Development Goals in which energy is one of the goals as well as cross-cutting issues and the Paris Agreement under the UNFCCC will shape the future of energy development.
- H. The poor are living without access to affordable, reliable and modern energy services, which are crucial for livelihood improvement and development, thus are deprived of such opportunities.

1.1 Overview

Significant changes have taken place in the global economy and the international energy market in 2015. The global as well as regional economies face declined growth rate of and deflation. The Asian Pacific region grew by 4.5% in 2015, the lowest rate since 2010, and only a modest rebound to 5 percent forecasted for 2016 (ESCAP, 2016). The slowdown is a major factor influencing growth prospects and energy profile of this region.

Fossil fuels have been and will continue to be the primary energy sources in the region, while renewable energy investment and installation reached historical high in 2015. Fossil fuels accounted for 80.0% of TPES in 2000 and 85.6% in 2013, with oil decreased from 30.0% to 23.6%, natural gas kept the same percentage and coal increased from 32% to 44%, nuclear reduced from 4.0% to 1.9%, hydro increased from 1.7% to 2.1% and renewable energy (exclude hydro) decreased from 14.2% to 10.4% (Asia Pacific Energy Portal, 2016). The prevalent low oil prices, demand for a cleaner fuel, and increasing reliance on coal generations all contribute to the continuous domination of fossil fuels in the region, making many developing countries in this region depend on energy imports.

Energy access has remained as the major challenge and the energy poverty is acute in the region impeding development process and economic growth. In this region, there are 455 million populations live without access to electricity and 2.06 billion relying upon solid fuels for cooking and heating. Mostly the rural populations in the region are deprived of energy access due to unaffordability, low per capita consumption, lack of technological capacity and high capital investment required.

On-going regional and subregional initiatives will bring opportunities as well as challenges for regional energy trade and development.

1.2 Emerging Trends on the International Energy Market

1.2.1 Impact of Low Oil Prices

The prevalent low oil prices present both opportunities and challenges for countries in Asia and the Pacific. International crude oil prices have dropped significantly since 2014: Brent crude oil decreased from US\$114.9 per barrel in June 2014 to US\$47.9 per barrel in January 2015, and WTI decreased from US\$100.9 per barrel in June 2014 to US\$43.9 per barrel in January 2015.

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