

Report on the Asia-Pacific Economies



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Energy transition in Southeast Asia and trade agreements with South America

- Southeast Asia presents a rapid growth in renewable energies in the last years. ASEAN aims at supplying 35% of its energy needs with renewables by next year.
- China dominates the global production of solar panels, and the United States has taken strong measures to limit the import of these products.
- In May 2024, the trade agreement between China and Ecuador entered into force. It is the first one signed by this country with the Asian giant. Chile and Peru have played an active role in signing trade agreements with Southeast Asia, developing these markets to their products and attracting FDI.
- MERCOSUR has signed just one agreement (with India), limited in the number of products. Recently has concluded negotiations with Singapore and to become active the agreement must be ratified in the nations' congresses.

Energy transition to renewables in Southeast Asia: solar power generation

In recent years, to accelerate the transition to sustainable energy sources and achieve energy security, Southeast Asian (SEA) countries have committed themselves to adopt strong measures to reach a zero net emission status. With this objective, countries launched their energy plans, like Indonesia (General National Electricity Plan 2019-2038), Singapore (Singapore Green Plan 2030), Malaysia (National Energy Policy 2022-2040), Vietnam (National Energy Masterplan 2021-2030) and Thailand (Thailand's National Energy Plan)

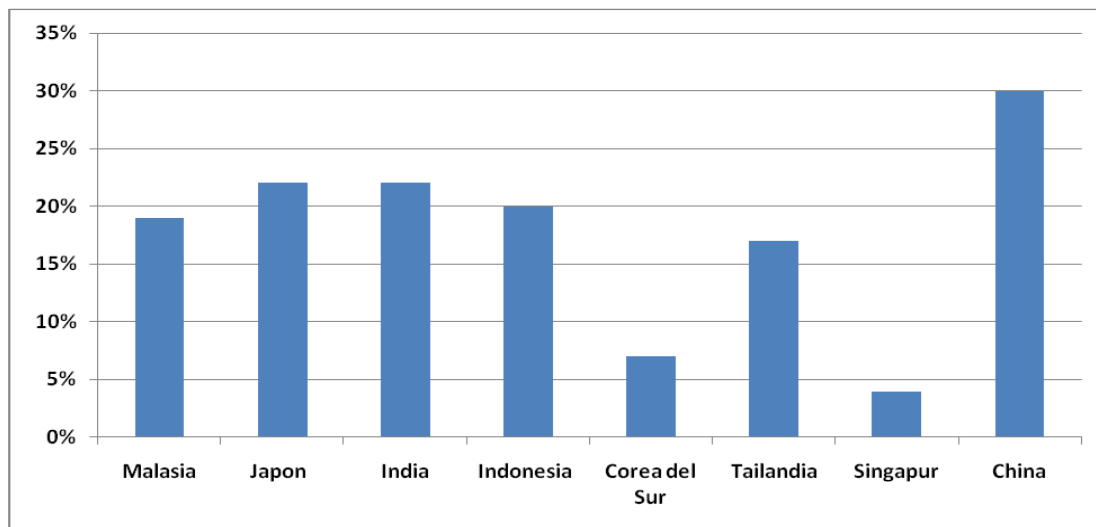
The ASEAN launched its Plan of Action on Energy Cooperation 2021-2025 (APAEC) to achieve 23% in primary energy supply from renewables and a participation of 35% in total installed capacity by next year. As seen in Figure 1, the participation on renewables did not exceed 20% in 2021. Among them, solar and wind power generation represent just 3.7% of total energy production in Southeast Asia.

Table 1: Energy supply by source in Asia Pacific (2021)

Source	Amount (Tj)	Share
Coal	133,309,163	48.8%
Natural gas	31,918,104	11.6%
Nuclear	7,926,441	2.9%
Hydroelectric	6,711,259	2.1%
Eolic, solar, etc.	9,036,209	3.7%
Biomass, biofuels	22,429,636	8.1%
Petroleum	64,498,225	23.4%

Source: Research Institute based on International Energy Agency

Figure 1: Share of renewable sources in electricity generation in AP and India, 2022



Source: Research Institute based on International Energy Agency

One of the advantages of SE Asia for solar power generation is that the region is located near the Equator, so they receive direct, high density solar radiation. Nevertheless, its development is yet limited due to many factors. In the case of Singapore, the country does not have a big surface in which it could install solar panels. In August, a cooperation between Singapore and Australia on a solar power project (AAPowerLink) was announced. It aims at delivering energy from a solar farm in North Australia to Singapore through a submarine cable of 4.3 thousand kilometers long, with a capacity to supply up to 15% of the country's energy demand.

Indonesia does have a large territorial extension, but the regions with the most important potential for solar power production are in areas of difficult access, making it problematic to store and distribute the electricity. Nevertheless, by the end of 2023 Indonesia inaugurated a floating solar power plant in West Java island, being the largest floating plant in SEA -and third largest in the world- with a capacity of 192 MW. In Malaysia, its role as an important exporter of fossil fuels and its dependence on them

have slowed down the development of renewable energy sources. Vietnam is the largest solar energy market in the region, as it has an installed solar capacity of 18.4 GW since 2023, due to the successful implementation of solar and wind energy projects in the period 2016-2022. Thailand has an installed capacity of 4.96 GW, but it aims to reach 15.6 GW of solar energy by 2035. To achieve this, the government is promoting the installation of solar panels in homes, by giving fiscal incentives. Philippines is considered one of the most attractive renewable energy emerging markets, not only for its natural conditions, but also because of the incentives provided by the government.

In Cambodia, solar energy represents 7% of total production, but due to investments by Chinese firms, the sector has become the one with the fastest rate of growth. For example, Hengtong Optic-Electric obtained the rights to build the second largest solar field in the country in 2018, with a capacity of 200 MW, and in 2023 Datang Corporation announced an investment of 600 million USD in solar and wind energy projects. Laos has a strong potential in solar energy, but hydroelectric sources dominate with 73% of all electricity production, and solar represents just 1%. Myanmar has the lowest rate of access to electricity, having a system that is controlled by the military sector and where solar and wind power represent 1% of all their electricity production.

Asia Pacific's location favors the development of renewable energies, but their growth faces many challenges: high initial costs of installation and distribution, and problems in the supply chain due to the anti-dumping measures taken by the USA and the EU.

Solar panels production chain in Asia Pacific

According to IEA, solar energy has become cheaper than that generated from natural gas, thanks to technological improvements. On top of that, solar energy has a wide variety of applications, from small residential uses in rooftops to large scale power plants, thus making it very appealing to diverse types of investors.

The production of solar panels is a growing global industry, in which China dominates with a market share of 80%, a substantial change from the panorama found just a decade ago, when Europe, Japan and the United States were at the center of this industry. China invested over 50 billion USD in new solar energy supply and created over 300,000 jobs in all the value chain since 2011. Even though China produces most components as solar wafers and ingots, neighboring countries as Thailand, Vietnam, Malaysia, and Cambodia have received many investments from Chinese firms to assemble solar modules to avoid the trade barriers imposed by the EU, the USA and India.

The AP region has a potential to produce 125 to 150 GW of solar modules by 2030 and, to achieve this, Chinese firms are expanding their operations outside China and into the AP region. 40% of solar panels outside of China are made in Thailand, Vietnam, Malaysia, and Cambodia. These investments on solar energy are responsible for Vietnam and Malaysia's 5 to 10% of their trade surplus since 2017. Vietnam, Malaysia, and Thailand have big solar power capacities and supply the internal and international demand, while Indonesia has more small-scale companies that supply the huge internal market.

Despite AP has the potential to become a huge powerhouse in renewable energies, production is subject to different limitations imposed by the USA and the EU on Chinese products. For example, last June, when a tariff exemption for solar panes originated from Vietnam, Cambodia, Malaysia, and

Thailand finished in the USA, firms as Long Green Energy Technology and Trina Solar suspended their production in their Thailand and Vietnam plants. The trade disputes between China and the USA could affect the expansion of the production of solar panels in the region, while an increase in import tariffs by the USA could force AP firms to diversify their exports into other markets, not to depend on the ups and downs of the trade dispute mentioned above.

The continuity in solar panel production could supply the growing demand for cheap solar panels, contributing to the achievement of the zero-carbon emission policy implemented by many of AP countries.

Trade agreements between Asia Pacific and South America

The wave of international trade agreements in this century in AP starts when Japan signed the bilateral agreement with Singapore in 2002. Japan decided to start negotiations with Singapore as it predicted there would be very few frictions, due to the particularities of both countries' external trade (both import food and energy, and export technology). Professor Yorizumi Watanabe, from Keio University said at a conference at the Argentine Council for International Relations that "It was a kind of a training: We started with a relatively simple agreement, moving then to more complex ones." Since then, Japan has advanced firmly in the signature of new bilateral and plurilateral agreements, including three with Latin American countries: Chile, Mexico, and Peru.

China bought less than 5% of South American exports at the beginning of this century. By 2023, it bought 25%. This growth can be explained by the increasing needs of the Asian giant, as well as the facilitation of trade between that country and this region. China is not an isolated case: Several AP nations as Vietnam have increased their purchases to South America (SA), becoming important trade partners.

In May 2024, the free trade agreement between China and Ecuador entered into force. It includes 17 chapters and is considered a "last generation" agreement as it deals with issues like E-commerce. The treaty establishes an access without tariffs (be it immediately or in a period shorter than 10 years) to about 99.6% of Ecuador's exports. In 2023, Ecuador exported 5.3 billion USD, importing 5.6 billion. According to ECLAC, the agreement would increase 7% Ecuador exports to China in the short run in three sectors: Agriculture and forestry, food, beverages and tobacco, and wood, pulp, and paper. The same study estimates that the impact on the Ecuadorian GDP would be between 0.39 and 0.47 points.

Peru announced that it has updated the trade agreement it signed with China, to improve the access to the Chinese market of Peruvian SMEs and to add new protocols on e-commerce, value chains and environmental issues. The update is the first after the original signature of the agreement in 2010, which helped Peruvian exports to China to quadruple since then, putting China as the main purchaser of Peruvian products (36% in 2023, compared to 15% in 2010). In the coming months, the port of Chancay will be inaugurated, which will be the most important deep waters port in South America and that was built with Chinese funds. The port will improve logistic operations, decreasing costs and times in the commerce with Asia, and is one of the main investments of the Belt and Road Initiative (BRI) in the region.

The first to sign a trade agreement with China was Chile (that was also the first country to establish relations with the PRC in 1970). The agreement, signed in 2004 and updated in 2019, led to an increase in exports from Chile to China from 2 billion dollars in 2003 to 38 billion dollars in 2023. This increase can be mainly explained by the increase of exports of copper and other minerals, but also to the increased shipments of wine (from 15 million USD in 2003 to 300 million in 2023), fruits (Chile exported close to 2.3 billion USD of cherries to China in 2023, who bought 92% of the total Chilean exports of that product), among others.

Colombia is the member of the Pacific Alliance with the lowest quantity of agreements signed with Asian countries. It only has in force the agreement with Korea (from 2016), which facilitated Colombian exports, which grew from 250 to 850 million USD between 2015 and 2023. The increase is explained by the mining and energy sectors. Colombia is in negotiations with Japan (since 2012) and China (since 2015) to sign new trade agreements, but little advances have been made recently.

Table 2: Trade agreements between AP and South American nations, and the date of entry into force

Country	Counterpart		
Chile	Korea (2004)	P-4 (New Zealand, Brunei, Singapore) (2006)	
	China (2006)	Japan (2007)	India (2007)
	Malaysia (2012)	Hong Kong (2014)	Vietnam (2014)
	Thailand (2015)	CPTPP (2023)	
Colombia	Korea (2016)		
Ecuador	China (2024)		
Peru	Singapore (2009)	China (2010)	Korea (2011)
	Japan (2012)	Thailand (2012)	CPTPP (2022)
MERCOSUR	India (2009)		

Note: CPTPP: Comprehensive and Progressive Transpacific Partnership.

Source: Research Institute, based on WTO

MERCOSUR has signed just one trade agreement, with India. It entered into force in 2009, and it only covers about 450 items, which have a limited reduction of the tariff (between 10 and 20%), and less than 5% of the items have a complete elimination of tariffs. The block subscribed an agreement with Singapore recently, and it must be approved by the congresses for it to be ratified and to enter into force. The question remains whether, as it happened with Japan, the agreement with Singapore marks the start of a new era for the MERCOSUR, or if it is just an exception of its highly protectionist stance.

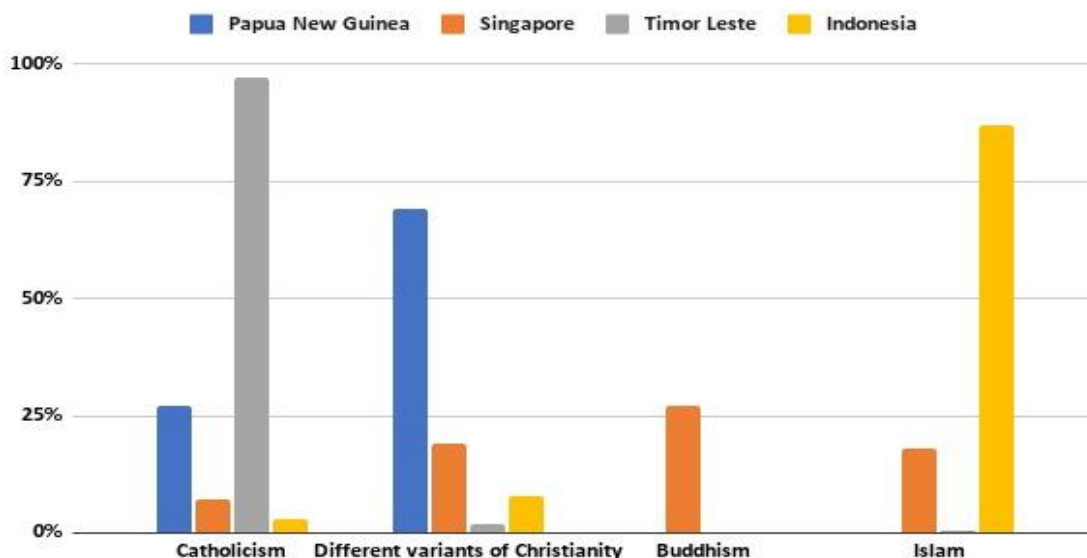
Note: visit of the Pope to Southeast Asia and Oceania

Pope Francis concluded a tour to Indonesia, Papua New Guinea, the Democratic Republic of Timor-Leste, and Singapore, which took place from September 2nd to 13th. Despite it is the longest trip in his popedom, it is not the first to the region as it had visited Thailand in 2019, Myanmar in 2017 and Philippines in 2015, highlighting the importance of the region for the Catholic Church.

In Indonesia, the Pope met the current president Joko Widodo, who said that the visit “transmits a powerful message to the nation, in particular the importance of maintaining harmony in the midst of the diversity of the Indonesian people.” He also met Nasaruddin Umar, the imam of Istiqlal mosque in Jakarta, and signed a joint declaration on interreligious friendship and against religious violence. Indonesia is the country with the largest Muslim population in the world (around 242 million people), while twenty-nine million people practices Christianity, out of which only 8 million are Catholic. Indonesia is not an Islamic country, and in its Constitution, it guarantees religious freedom.

In Papua New Guinea and Timor-Leste, most of their populations is Christian due to the introduction of religion during the colonial era (they were a British and Portuguese protectorates). In the first, 27% of the population is Catholic, while in the latter is 97%. In his short stay in PNG, the Pope was welcomed by a small community of missionaries, some of them from Argentina. He gave mass at Vanimo (where 20,000 people gathered) and distributed humanitarian aid and toys in Timor-Leste. He gave mass in Tasitolu, where 600,000 people attended. A remarkable number considering the population of the country is 1.36 million people.

Figure 2: Main religions in Indonesia, Singapore, Papua New Guinea, and Timor-Leste



Source: Research Institute

Finally, the Pope participated in an interreligious exchange at the Catholic Junior College in Singapore, together with young people from many religions (Hindu, Sij and Catholics). In the City-State, the most important religion is Buddhism, especially among the Chinese ethnic group (74% of the population), while Christianity is practiced by the different ethnic groups that coexist in the country (Chinese, Indian and Malay).