HANOI
HIGH LEVEL DIALOGUE
ON ASEAN ITALY
ECONOMIC RELATIONS

POSITION PAPER

# Enhance resilience in ASEAN: best practices, approaches and matching complementarity with Italy

*High Level Dialogue on ASEAN Italy Economic Relations, Hanoi, June 5-6, 2019*


In light of their sharp economic growth, ASEAN countries are having to face **sustainability and resilience issues** and to handle the trade-off between economic development, on the one hand, and sustainable management of natural resources and socio-economic integration, on the other.

The rising economic dynamism and growth is fueled by energy-intensive carbon emitting production, with energy demand expected to rise accordingly in coming years. Socio-economic growth is also leading to rapid urbanization and motorization, putting all types of ASEAN infrastructure under pressure. Finally, climate change-induced events are likely to exacerbate resilience challenges, since the region's geographic location renders some countries more vulnerable to natural phenomena and disasters.

The need for resilience and sustainability in ASEAN countries is analyzed in reference to **five different dimensions**: the socio-economic system, the energy system, the IT system, the mobility and water infrastructure system and the natural and ecological system.

**Partnership with Italy**, with multiple areas of expertise in pivotal aspects of the resilience and sustainability framework (i.e., aerospace, defense and security, energy and mobility infrastructures and the educational system), could provide ASEAN countries with useful tools and benchmarking for winning the sustainability challenge.


## ASEAN is experiencing a high rate of socio-economic development

1. GDP in the ASEAN region amounted to **$2.9 trillion in 2018** (+5.1% compared to 2017), making it the **3rd largest economy in Asia**, the 5th largest in the world and, with a projected annual growth rate of over 5%, it is predicted to become the 4th largest in 2030. ASEAN's GDP has increased 7 times compared to 1990s levels with 60% of total growth coming from productivity gains. Growth prospects for the ASEAN region are expected to remain robust in the near future: the GDP of all countries is predicted to grow between 32.1% (Singapore) and 70.4% (Philippines) by 2024.

2. Household consumption has made a major contribution to the growth of ASEAN countries. On average, the ASEAN population spent **$4,862 per capita in 2016**, more than China ($2,585) and India ($1,045) and the total level of private consumption is expected to double, reaching $8.6 trillion by 2020. This is also expected to be supported by wage gains and strong labor markets. Moreover, ASEAN countries have one of the highest saving rates in the world (about 30%) and are going to deliver more than $2 trillion in new consumption by 2020.

3. In 2018, the total population of all ASEAN nations was **654 million** (8.5% of the global total) making the region the 3rd largest market in the world after China and India. Population is expected to experience a substantial increase in the future, reaching 795 million by 2050.

4. FDI flows to ASEAN have risen to a record level, from $123 billion in 2016 to **$134 billion in 2017**. ASEAN inward FDI stocks are one of the highest on a global level: the total value, as a share of GDP, amounted to 73% in 2016 (compared to 41% in 2000) as opposed to 34% in the United States, 47% in the European Union and 12% in China.[1]

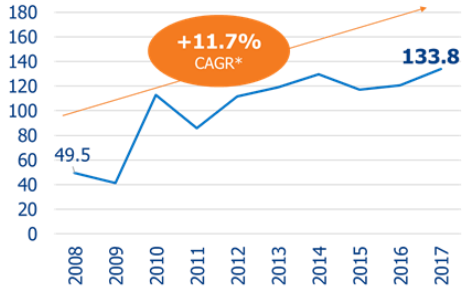


***Figure 1.*** *Flows of inward Foreign Direct Investment (FDI) to ASEAN (billion $, 2008-2017). (Source: The European House – Ambrosetti elaboration on UNCTAD data, 2018)*

5. ASEAN is becoming increasingly integral to international relations. If ASEAN countries were taken as a single entity, they would rank **4th in the world for export and 3rd in the world for import values**. ASEAN countries today export 7% ($1,639 billion, +61% compared to 2007) and import 6% ($1,488 billion, +67% compared to 2007) of total global exports and imports of goods and services, respectively.

[1] Source: UNCTAD, 2018.

## Ensuring a more inclusive, sustainable and resilient system is a key challenge for ASEAN

6. The sharp economic growth in ASEAN countries is raising **concerns about sustainability**, as the region is called on to face the trade-off between economic development, on the one hand, and sustainable management of natural resources and socio-economic integration and equality, on the other. In order to understand the ASEAN progress towards improving sustainability, it is necessary to investigate the issue from a range of perspectives, including the measures needed to improve economic, social and environmental resilience. In particular, the concepts of **sustainability and resilience** refer to different interconnected aspects of the socio-economic and environmental ecosystem: the **socio-economic system** (the ability to promote integration and quality of life within the context of economic growth), the **energy system** (the ability to guarantee sustainable energy production and continuity of energy supply throughout all countries), the **mobility and water infrastructure system** (the ability to provide a systemic and widespread physical connection within and among countries), the **IT system** (the ability to provide an adequate level of IT and digital services, in the face of potential faults and challenges) and the **natural and ecological system** (the ability to manage perturbation or climate changes and resource depletion, including natural disasters).


***Figure 2.*** *Interconnected aspects underpinning the resilience and sustainability framework. (Source: The European House – Ambrosetti elaboration, 2019)*

7. Economic development has required and will continue to require structural transformation, while creating with it opportunities for **socio-economic integration** as well as inclusion issues. In general, in the past, ASEAN countries have made significant progress in improving the quality of life of the population, despite the disparity among ASEAN nations in the proportion of the population living below the poverty line ($1.90 dollars a day), with the median average being about 3.5%.

8. **Unemployment remains low** in comparison with other Asian countries, at an average value of 2.8% in 2017 (down from 3.3% in 2000).[2] Youth unemployment is slightly higher (9.0% in 2017)[3] and has increased from 8.4% in 2000. To manage this phenomenon, ASEAN is putting efforts into improving student retention in its education system (the rate of enrolment in lower secondary school is around 78%). In fact, if the job market is able to include more and higher-skilled young workers, potential youth unemployment concerns would be lessened.

9. ASEAN countries are also paying increasing attention to **gender equality**. Female representation in managerial positions is relatively high (median of 30%), and on the political front there is significant progress in female representation, with a proportion of women in parliament equal to **20%**, a significant result compared with other Asian countries (13%).[4]

10. High economic growth, underpinned by increased population, urbanization and industrialization, has also impacted on the **energy system**. Unlike in OECD economies, where energy consumption is expected to either stagnate or decrease slightly, the robust growth in energy consumption seen in the ASEAN region over the last few decades will continue, with a forecasted average annual growth of 4.3% above the global level between 2017 and 2035.[5]

11. As energy consumption increases, the region's dependence on fossil fuels will remain entrenched in the absence of significant policy intervention. The main energy infrastructure in ASEAN's power sector is **power plants**. In 2014, 76% of ASEAN's total power capacity was generated by fossil fuels. Moreover, in 2015, the total installed capacity in ASEAN reached 206,818.45 MW, compared with just 90,598 MW in 2005. These two phenomena have resulted in increased greenhouse-gas emissions. Between 2000 and 2014 $CO_2$ emissions in the ASEAN region grew by around 82%,[6] posing serious challenges for ASEAN policymakers to address climate change. The Association of Southeast Asian Nations is aware of this concern and has set the ambitious target of securing 23% of its primary energy from modern, sustainable renewable sources by 2025.[7]

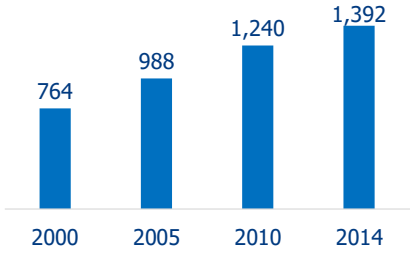


***Figure 3.*** *ASEAN $CO_2$ emissions (thousands of kt, 2000-2014). (Source: The European House – Ambrosetti elaboration on World Bank data, 2019)*

12. In terms of the **transmission and distribution system**, in 2015, the total recorded transmission lines in ASEAN were 230,987 km, with a share of losses along the T&D line of 7.3%. In order to reach the ASEAN Plans of Action for Energy Cooperation (APAEC) 2016-2025 targets in terms of infrastructure resilience, there are plans for **$27 billion in annual investment** (1% of the region's GDP) or $290 billion in total by 2025, with 75% of it allocated exclusively to the power sector.[8]

[2] Source: The World Bank, 2019.
[3] Source: The World Bank, 2019.
[4] Source: International Monetary Fund, 2018.
[5] Source: The Economist Intelligence Unit, 2017.
[6] Source: The World Bank, 2019.
[7] Source: ASEAN Centre for Energy, 2016.
[8] Source: ASEAN Centre for Energy, 2017.

13. All ASEAN countries have experienced rapid and strong **urbanization**, with growth values spanning 0% for Singapore (already at 100% in 1990) and 122.6% for Laos between 1990 and 2017. By 2050, ASEAN cities are projected to add 205 million new urban residents to the current 300 million, creating one of the world's largest emerging middle-income markets after China and India. In 2050, there will be more than 600 small cities compared to the current 390.[9] As a consequence, early and anticipatory **infrastructure planning efforts and investments** are necessary to cope with the evolving challenges in the region.

14. Although ASEAN countries have invested significantly in building infrastructure, there still are gaps. The **road network** has been expanded in ASEAN, reaching around 270 km of road per 1,000 km$^2$ of land area in 2011, from a value of 185 km in 1990, although it remains quite low with notable differences among ASEAN countries. **Railroads** expanded moderately in ASEAN between 1990 and 2011, remaining basically constant at the 1990 level, with 4.2 km of railway per 1,000 km$^2$ of land area.[10]

15. **Air travel** is expected to rise sharply in the next decade, with total passengers expected to reach 7.8 billion by 2036.[11] The Asia Pacific region will be a key driver in this demand, accounting for almost **45% of travelers** by 2036. Two of the reasons behind these impressive numbers are rising consumer affluence, a consequence of the growing middle-class in the region, and continuous efforts to liberalize air traffic regulations. As of 2018, ASEAN's aviation industry consisted of 383 airports, 169 airlines, 1,958 aircraft in service, 169 in storage and 1,619 on order.[12] Moreover, in 2019, three regional airports (Indonesia, Singapore and Thailand) ranked among the top 25 global airports in terms of passenger traffic.[13] According to a number of projections, airport infrastructure investment needs will be around $1.2 and $1.4 trillion to 2030, almost double the current capital invested.[14]

16. Another conspicuous and important aspect to consider is **water infrastructure** and supply of services. With significant numbers of people migrating from rural areas to cities, massive investment in urban water infrastructure including water supply and sanitation is pivotal. As of 2015, the percentage of the population with access to improved water sources in urban areas was quite high (with a median of 97%) despite the fact that differences among ASEAN countries and with rural areas persist.

17. With regard to **IT infrastructure**, the growing influence of digitalization and technology in financial services in ASEAN presents economic opportunities through deeper financial inclusion. In 2016, investment in the ASEAN FinTech market increased to $252 million, compared with $190 million in 2015, a rise of about 33%.[15] As a consequence, cybersecurity weakness could represent a threat to the potential of Fintech and it requires cross-border coordination. Even though statutes pertaining to AML/CFT (Anti-money laundering/Combating the financing of terrorism) are well-developed and cross-border institutional arrangements exist, room remains to enhance legitimate surveillance, monitoring and a dispute resolution framework. In fact, according to the Global Cybersecurity Index 2018,[16] among the ten most committed countries, two are from ASEAN—specifically, Singapore (6$^{th}$, with a normalized score of 0.898) and Malaysia (8$^{th}$, with a score of 0.893). Moreover, Indonesia and Vietnam are also classified as high-level committed.

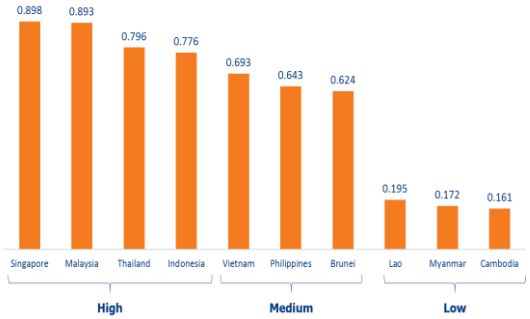


***Figure 4.*** *Global Cybersecurity Index for ASEAN countries (normalized index, 2018). (Source: The European House – Ambrosetti elaboration on International Telecommunication Union data, 2018)*

18. ASEAN experienced rapid and major growth in **telecommunication services**, in particular in cellular phone use, with almost all countries registering more than 100 mobile phone subscriptions per 100 people, increasing on average 20.4% between 2000 and 2015.[17]

19. Finally, the resilience of the overall ASEAN economic system cannot ignore effective **natural disaster** management. All ASEAN countries are affected by calamities, although costs vary substantially depending on the type and size of the disaster. Floods are the most significant calamity, both in terms of cost and frequency, but at the country level the picture is different. The average annual damage as percentage of GDP between 1998 and 2018 in ASEAN was 37%, with the share ranging from 0% for Singapore to 92.8% in Vietnam.[18]

20. In addition to high human costs, natural disasters often inflict marked economic costs by damaging infrastructure, physical capital, inventory, and agricultural and natural resources, and by disrupting normal economic activity. The medium- and long-term impact on growth generally depends on the speed and quality of the prevention policies and rehabilitation of affected sectors. Several multilateral arrangements to improve resilience to natural disasters have been launched in recent years, including the **Disaster Management and Emergency Response (AADMER)** and the ASEAN Vision 2025 built on three strategic elements: institutionalization and communications, finance and resource mobilization, and partnerships and innovation.[19]

[9] Source: United Nations, 2018.
[10] Source: United Nations, 2014.
[11] Source: The International Air Transport Association (IATA), 2018.
[12] Source: Centre for Asia Pacific Aviation (CAPA), 2019.
[13] Source: Airports Council International, 2019.
[14] Source: International Air Transport Association, 2017.
[15] Source: OECD, 2019.
[16] Source: International Telecommunication Union (ITU), 2018.
[17] Source: The World Bank, 2018.
[18] Source: Centre for Research on the Epidemiology of Disasters Emergency Events, 2018.
[19] Source: Disaster Management Research Roadmap for the ASEAN Region, 2017.

## The Italian industrial and socio-economic system can play an important role in supporting the development of a sustainable and resilient system in ASEAN

21. Among the various measures ASEAN should take to promote a sustainable and resilient system, the development and strengthening of the **partnership with Italy** could provide useful tools and benchmarking practices.

22. Firstly, **the Italian Aerospace, Defense and Security (AD&S)** industry can support ASEAN countries in managing issues related to cybersecurity and natural disasters. Its AD&S sector is ranked 4th in Europe and 7th in the world and generates revenues of US$18.7 billion, with more than half coming from exports. The sector directly employs 50,000 highly-qualified workers and almost 200,000, taking into account the entire extended value chain, and represents the second-largest sector for investments in R&D (US$1.8 billion, 12% of all Italian expenditure on R&D). Overall, the Italian AD&S sector includes over 600 specialized SMEs along with large leading companies, with an entrenched international presence.

23. Aware of the role of the **energy infrastructure** for the socio-economic development of a country, renewable energy has developed rapidly in Italy over the past decade and has provided the country a means of diversifying from its historical dependency on imported fuels. As of 2018, 35% of electric generation comes from renewables and the share of renewables in final energy consumption has increased to 18.3% (compared with 17.4% in 2016). All the values are above the EU28 average, allowing Italy to move toward a sustainable energy mix and production. [20] Moreover, Italy has planned to invest around €96 billion in the period 2018-2030.[21] The impact of these investments on the economy has been estimated to have further positive effects on GDP (from 0.3% in 2018 to 0.9% in 2030), on value added (€305 billion) and employment (140,000 employees between 2018 and 2030 and 35,000 post-2030).

24. Italy has extensive expertise in the **construction and infrastructure sectors**. Investment in construction, €116 billion in 2016 (with more than 50% devoted to residential building), represents approximately 9.6% of GDP and 46.7% of the gross fixed investments made in the country.[22] In addition, the sector directly employs 1.4 million workers, adding 0.3 million workers in all indirect activities connected. The industry's production value was €171 billion in 2018 (increasing 2.5% over 2017), accounting for 8.8% of national GDP. [23] Recently, the interventions aimed at reducing seismic risk have increased dramatically. Although the market is still limited, the incentive system proposed by policymakers could create the foundation for future development.

25. Finally, Italy's history and cultural tradition is reflected in its entire **educational system**. In fact, Italy is the no. 1 country in the world in terms of number of citations per researcher. Over the years, the Italian educational system has invested in developing an international approach and favoring cultural exchange. In 2017, foreign university students were 0.5% of the youth population, in constant growth since 2011 and +51.9% with respect to the 2007 percentage.[24] This is a positive sign of openness and, in light of this positive trend, although significant scope for improvement remains, it is strategic for Italy to develop an international network and promote cultural and professional exchanges, including with ASEAN universities and research centers.

[20] Source: Terna, 2018.
[21] Source: Confindustria Energia, 2019.
[22] Source: ISTAT, 2017.
[23] Source: Cresme, 2018.
[24] Source: The World Bank, 2018.