MANILA
HIGH LEVEL DIALOGUE ON ASEAN ITALY ECONOMIC RELATIONS

In collaboration with

POSITION PAPER

Climate finance in ASEAN: state of the art and opportunities

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The **ASEAN region is among the most vulnerable regions in the world** to climate change impacts: according to The Long-Term Climate Risk Index, 3 out of 10 ASEAN countries (Myanmar, Philippines and Thailand) are among the 10 countries most affected by impacts of climate related extreme weather events. Also, challenges are ahead for ASEAN concerning the energy transition, sustainable urban development, water and waste management.

In this context, the goal of ASEAN is to **develop a macro-frame of national long-term roadmap to develop synergies and integrate adaptation and mitigation** by considering the ASEAN's development context and vision, long-term climate goal, and transition pathways (ACCSAP 2025-2030).

In Southeast Asia, most of its around **$15 billion** climate finance yearly funds are publicly sourced, mainly through national, multilateral, and bilateral DFIs, that today play a highly strategic role for climate finance in developing countries. The Asian Development Bank (ADB), the biggest contributor, provides about one-third of total tracked multilateral finance in Southeast Asia. **Philippines**, **Vietnam**, and **Indonesia** receive the bulk of the climate finance (**31%**, **32%,** and **24%** of total climate finance in the subregion, respectively).

On its side, Italy has excellent competencies and know-how to support ASEAN countries in climate finance and in the path towards clean energy transition and net-zero emissions by 2050, also thanks to the role that **Cassa Depositi e Prestiti (CDP)** can play in bringing the relationship between Italy and the ASEAN countries to a higher level.

ASEAN: an economic power-house

1. The Association of Southeast Asian Nations (ASEAN), if considered as a single economy, is the **3rd largest economy in Asia and the 5th largest in the world** after the US, China, Japan and Germany. Established in 1967, ASEAN includes 10 Member States (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam) and, with a population of **660 million people**, is the 3rd largest region globally, after China and India.

2. Today, ASEAN is currently **one of the fastest-growing regions of the world**, reporting in the last decade (2012-2023) a GDP growth of **+53%**. In 2023, the region's GDP reached approximately $3.8 trillion, representing a **3.8%** increase from the previous year. For 2024, a growth rate of **4.5%** is expected, up to 4.7% in 2025. Vietnam and Philippines are the countries with the highest growth rate forecasted for both 2024 (6.0%) and 2025 (6.2%).[1]

3. This growth is expected to be fueled primarily by a surge in tourism and a resurgence in the global semiconductor and electronics industries. Trade performance in 2024 is also projected to be positive, and easing inflation and stabilizing borrowing costs are expected to create a more favorable financial environment, providing additional support to the region's economic activity.[2]

Climate change: current and future impacts in ASEAN

The issue of climate change is a major concern to ASEAN, as Southeast Asia is one of the most at-risk regions in the world to the impacts on climate change.

4. One factor that could harness ASEAN growth is climate change, as the **ASEAN region is among the most vulnerable regions in the world** to its impacts. Indeed, according to The Long-Term Climate Risk Index (CRI),[3] 3 out of 10 ASEAN countries (Myanmar, Philippines and Thailand) are among the 10 countries most affected by impacts of climate related extreme weather events (storms, floods, heatwaves, etc.) from 2000 to 2019.

5. Considering the overall standings (out of 180 countries): Myanmar ranks 2°, Philippines ranks 4°, Thailand ranks 9°, Vietnam ranks 13°, Cambodia ranks 14°, Laos ranks 52°, Indonesia ranks 72°, Malaysia ranks 116°, Brunei ranks 176°, and Singapore ranks 179°.

[1] Source: Asian Development Bank and International Monetary Fund, 2024.
[2] ASEAN Economic Integration Brief, July 2024.
[3] The Long-Term Climate Risk Index (CRI) is a composite index that analyses and ranks to what extent countries and regions have been affected by impacts of climate related extreme weather events (storms, floods, heatwaves, etc.). It scores from 1=most affected to 200=least affected, annual averages

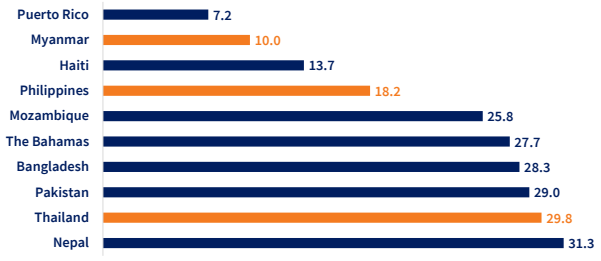

Figure 1. *The Long-Term Climate Risk Index (CRI): the 10 countries most affected from 2000 to 2019 (scores from 1=most affected to 200= least affected, annual averages), 2000-2019. (Source: TEHA Group elaboration on Germanwatch data, 2024)*

For what concerns the first three ASEAN countries:

- **Myanmar** reports an annual average of 57 climate-related extreme events and average annual losses of about 7,000 lives and 0.8% of GDP.
- **The Philippines** reports an annual average of 317 climate-related extreme events and average annual losses of about 860 lives and 0.54% of GDP.
- **Thailand** reports an annual average of 146 climate-related extreme events and average annual losses of about 138 lives and 0.82% of GDP.

6. Aside from the intrinsic fragility of ASEAN countries, for which – as it will be detailed further in this Position Paper – investment both in adaptation and mitigation are needed, ASEAN countries are laggard also concerning the **clean energy transition**.

7. ASEAN energy mix is dominated by **fossil fuels** (coal, gas and oil), and that has allowed access to cheap and reliable energy, boosting its socioeconomic growth. As of 2022, Renewable Energy Sources account only for **14.5%**, with a small quota of biomass (**4%**) and the rest supplied by coal, oil and natural gas (more than 80%).

8. The fast economic growth of the region has pushed the **energy consumption**, but the "traditional" energy mix has caused an increase of the environmental impact of the Region. In 2023, the ASEAN Region (if considered a single country) is **4th** in the world for greenhouse gases (GHG) emissions, only behind China, USA and India.

9. The top four GHG-producing states in ASEAN are Indonesia (the only one in the global top-10), Vietnam, Thailand and Malaysia, which together produce about **83%** of the Region's total emissions.

10. For what concerns **per capita** data, however, the scenario changes: the country with the worst per capita emissions is Brunei Darussalam (26.4 tons per capita), followed by Singapore (12.2), Malaysia (9.5) and Thailand (6.3).

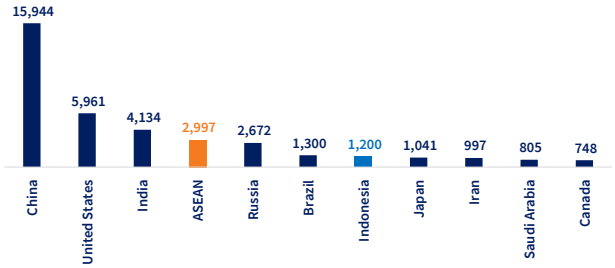

Figure 2. *Top-10 countries + ASEAN for GHG emissions (Mt CO2eq/year), 2023. (Source: TEHA Group on JRC Science for Policy Report, «GHG emissions of all world countries, 2024», 2024)*

11. Looking more at a dynamic view, in the last 10 years, GHG in ASEAN grew by **31.3%**, higher than China (21.3%) and in line with India (33.5%). Considering the single ASEAN Member States, the worst performances come from Vietnam (+71.8%), Philippines (43.2%) and Indonesia (+38.8%). As a consequence, in the last ten years, ASEAN emissions went from 4.7% of global emissions to 5.7%.

12. Another area to look at when considering the overall **sustainability** of ASEAN countries is **Sustainable Urban Development**. In this sense, one of the global trends to watch out for concerns **megacities**, that is cities with more than 10 million inhabitants. As of today, there are 44 of them in the world, of which **4 in ASEAN**: **Jakarta** (2nd in the world, with a population of 35.4 million people), **Manila** (6th in the world, with a population of 24.2 million people), **Bangkok** (16th in the world, with a population of 18.9 million people), and **Ho Chi Minh** (25th in the world, with a population of 15 million people).

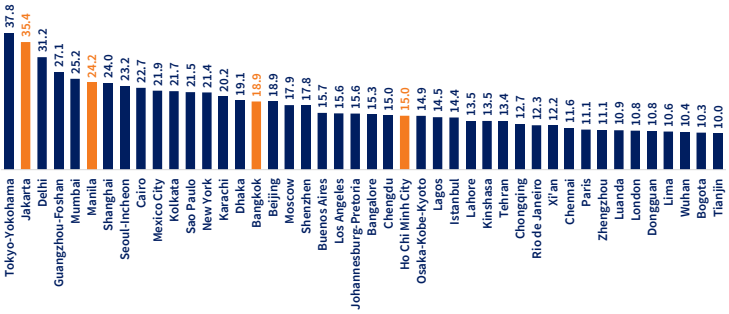

Figure 3. *Population in the «megacities» (millions of inhabitants), 2023. (Source: TEHA Group on "Demographia World Urban Areas", Oxford Economics and United Nations, 2024)*

13. The distribution of people among cities and rural areas has in fact significantly changed in the past two decades, from only **15.6%** of the population who live in urban areas in 1950 to **37.9%** in 2000 and

50% in 2020. This percentage is expected to reach **66%** by 2050.[4]

Figure 4. *Population in ASEAN countries living in urban areas (percentage values), 1950-2050. (Source: TEHA Group on United Nations, «World Urbanization Prospects» (the 2018 revision), 2024)*

14. Looking at ASEAN Member States, the picture looks particularly heterogenous. **Singapore** is the country with the highest quota of urban population (100%), followed by Malaysia (87.3%), Brunei (85.7%), Indonesia (72.8%) and Thailand (69.5%). On the other side, countries reporting below ASEAN average values are the Philippines (61.8%), Vietnam (57.3%), Laos (55.7%), Myanmar (47.1%), and **Cambodia** (41.2%).

15. However, rapid urbanization, if not managed well, could lead to proliferation of **environmental and health issues**, putting under pressure the actual urban infrastructure (water treatment systems, transportation systems, buildings and power plants). This has a negative impact on air pollution, water quality and on slum residents that are often particularly vulnerable to climate change related to extreme events.

16. **Air pollution** is one of the biggest issues in Southeast Asia, varying widely among cities and countries. According to the World Health Organization (WHO), yearly, an estimated **2.4 million premature deaths** are attributed to air pollution in ASEAN countries. In 2021 only **0.4%** of ASEAN cities met the WHO PM2.5 Guideline and among the 15 most polluted regional cities 6 are in Thailand, 4 in Vietnam, 3 in Indonesia and 2 in Malaysia.

17. Moreover, Covid-19 has highlighted the problem of the population living in **slums**. Without adequate access to improved water and sanitation and without a sufficient living area, people living in slums are more exposed to catastrophic event related to climate change and to the spread of the pandemic, without any possibility to have access to the necessary treatment.

18. However, as some countries have shown positive results in the last two decades, such as Vietnam, Cambodia, Lao PDR and Thailand, other countries (Philippines, Myanmar and Indonesia), after a reduction in the percentage of **urban population living in slums** between 2000 and 2010, experienced a worrying increase. In particular, as of 2018[5] only 13.8% of **Vietnamese urban population** lives in slums, a huge improvement if compared with the 48.8% in 2000. In **Indonesia**, after the encouraging results from 2000 (34.4%) to 2014 (21.8%) the trend has worsened dramatically to 30.6% of the population living in slums in 2018, more than 28 million people.

19. Also, the high increase in population observed brings with it problems related to **waste and water management**. First, in ASEAN resource consumption is significantly higher than other areas in the world, putting pressure on natural resources.

20. According to the latest UN Environment Summary Report "Waste Management in ASEAN Countries", ASEAN Countries generate **1.14 kg per capita per day of Municipal Solid Waste (MSW)**, 11% higher than China, 54% higher than global average and 2.4 higher than India.

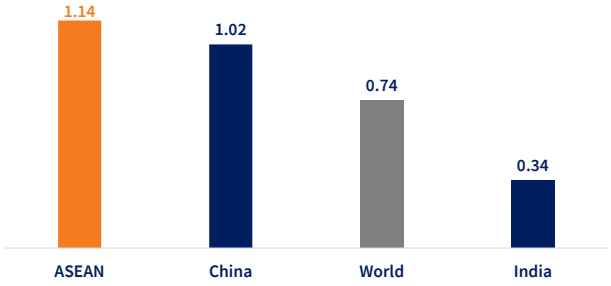

Figure 5. *Municipal solid waste generated in different Countries/Regions (kg per capita/day), latest year available. (Source: TEHA Group on UN Environment Program, "Waste management in ASEAN countries", 2024)*

21. **Municipal Solid Waste** (MSW) has become a serious issue in recent years, since waste creation has risen dramatically as a result of fast urbanization and industrialization, population growth and improved lifestyles.

22. Moreover, there is a high variability among country with Singapore being the worst with 3.76 kg/capita/day, followed by Brunei Darussalam (1.4) and Malaysia (1.17), and Myanmar being the best with 0.53. In terms of annual MSW generation the region produces **150 million tons per year**, with Indonesia, Thailand, and Vietnam accounting for more than 3/4 of the total production.

23. Other important issues are **water pollution** and **water management**. Population growth, rapid urbanization and climate change have put under pressure the natural water resources in Southeast Asia. Many rivers in the region are highly polluted with domestic, industrial, and agricultural waste. The

[4] United Nations, "World Urbanization Prospects" (the 2018 revision).

[5] Latest data available from the World Bank database.

actual wastewater treatment system in urban centers is unable to fulfill the treatment demand, especially due to the rapid increase of population in the urban and peri-urban areas. The region's health, sanitation, and aquatic biodiversity are all threatened by the constant discharge of untreated wastewater due to poor wastewater management.

24. The lack of appropriate recycling facilities has several repercussions on **water pollution and water management**: as a consequence, **46.2 million people** (7% of the ASEAN population) do not have access to at least drinking water services.

25. Increasing use of plastics, unsustainable or even illegal fishing practices and increasing water acidity due to excessive carbon dioxide in the air endangers the **biodiversity of the oceans**, threatening the survival of Southeast Asia's coral reefs, that have one of the highest levels of biodiversity in the world and are also crucial to the countries' economy and in particular to the development of the fishing and tourism sectors. Unfortunately, increasing water pollution has also put human health at great risk due to microplastics entering the food chain.

26. Due to the high concentration of the population along rivers and coastlines much of the resulting plastic pollution ends up in the ocean. Pollution is estimated to cost **$3.1 billion a year** to the Region's tourism, fishing, and shipping industries.

27. Today, five of the top 10 countries in the world for the amount of mismanaged plastic waste that ends in the oceans are ASEAN states. In particular, almost **60%** of the world plastic waste entering the oceans comes from five ASEAN countries: the Philippines, Malaysia, Indonesia, Vietnam and Thailand.[6]

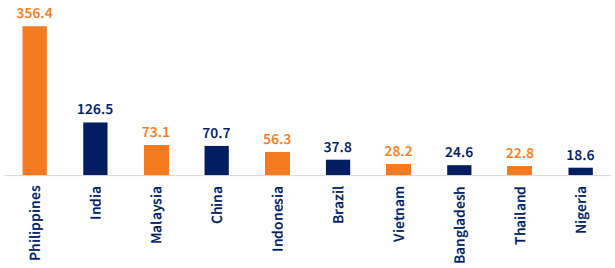

Figure 6. *Top-10 Countries that release the most plastic into the oceans (thousand tons), 2021. (Source: World Population Review Data", 2024)*

28. Philippines alone, for example, generates 2.7 million tons of plastic waste each year, with an estimated **10-15%** of it ending up in the ocean and around **70%** of Indonesia annual plastic waste (6.8 million tons) is considered mismanaged.

29. Without any improvement in the waste management, the mismanaged plastic waste generation in Asia is expected to **double from 52 megatons (Mt) in 2020 to 129 Mt per year in 2060.**[7]

30. On a positive note, Member States in Southeast Asia are developing the **region's first-ever environmental rights framework**, which experts say will provide myriad social, economic and health benefits amid the rising threat of the triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste. The United Nations Environment Programme (UNEP) is providing the Association for Southeast Asian Nations (ASEAN) with technical assistance to support this effort, which follows the historic 2022 UN General Assembly resolution recognizing the right to a clean, healthy and sustainable environment.

Climate policy initiatives and Nationally Determined Contributions (NDCs)

The ASEAN region's process of addressing climate change is essentially based on two key plans: the **Blueprint 2025** e the **Vision ASEAN 2025**

Today, the main aim is to **integrate** the ASEAN climate actions into a broader strategic action plan to **coordinate** and **harmonize** regional strategies and national policies to the direction to achieve a long-term climate goal

The final output will be the realization of **"ASEAN Climate Change Strategic Action Plan 2025-2030"**

31. After having presented the reason why it is important to promote the development of adequate climate policy initiatives in ASEAN, this present section has the goal to sort out the **current framework** that ASEAN and its Member States have in place to counter the effects of climate change.

32. ASEAN has in fact taken **proactive measures at national and regional levels**, as demonstrated in ASEAN Member States' national reports, in regional plans (such as the ASEAN Community Vision 2025), and in ASEAN active involvement in the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement.

Below some of the main initiatives undertaken by the ASEAN Community in recent years are presented.

[6] Asian Development Bank Institute, 2022

[7] Lebreton and Andrady, 2019.

The ASEAN cooperation on environment and its main initiatives: Blueprint 2025 and AWGCC action plan

33. The ASEAN community has been working together since 1977 to promote environmental cooperation for sustainable development and regional integration among its Member States. The **ASEAN Cooperation on the Environment**, an initiative of the Association of Southeast Asian Nations (ASEAN) which aims to promote regional cooperation in environmental management and protection of natural resources, in 2016 adopted the **ASEAN Socio Cultural Community (ASCC) Blueprint 2025**.

34. The ASCC Blueprint 2025 sets guidelines to promote cooperation between ASEAN countries to ensure conservation and sustainable management of biodiversity and natural resources, promotion of environmentally sustainable cities, adaptation to and mitigation of climate change, as well as the promotion of sustainable consumption and production towards a circular economy.

35. 2024 has been a year of significant progress for ASEAN in advancing its AEC Blueprint 2025 goals. Specifically:

- In the **agricultural sector**, ASEAN has 3 main objectives: 1) promote the widespread adoption of sustainable farming techniques and practices; 2) promote practices that protect and restore damaged ecosystems, prevent habitat loss, and maintain biodiversity; and 3) empower small-scale farming communities, enhance their livelihoods, and create investment opportunities.
- In the **transport sector**, ASEAN is developing Guidelines to promote the use of light electric vehicles (LEVs) and ASEAN Urban Freight Transport Guidelines to develop a more sustainable, efficient and environmentally friendly logistics network in Southeast Asian cities. Both should be completed by the end of the year.

36. The **institutional framework of the ASEAN cooperation on environment** is rather complex and operates in accordance with regional strategic priorities. Specifically, it consists of the ASEAN Ministerial Meeting on the Environment (AMME), ASEAN Senior Officials on the Environment (ASOEN), and 7 subsidiary bodies (or working groups).

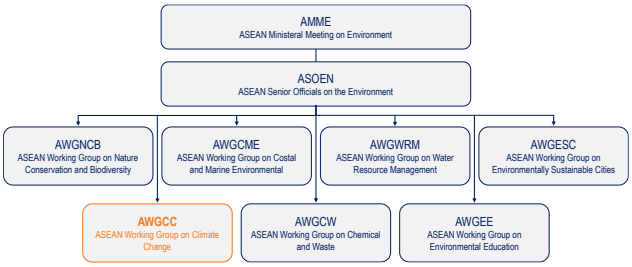

Figure 7. *The institutional framework of the ASEAN cooperation on environment (Illustrative), 2024. (Source: TEHA Group on ASEAN Cooperation on Environment, 2024)*

37. Among them, the **ASEAN Working Group on Climate Change (AWGCC)** is a consultative platform which aims to enhance the coordination and integration of efforts in addressing climate change. In 2019, AWGCC developed an **action plan** consisting of **8 core themes** that reflect the key regional initiatives on climate change activated by ASEAN: **1)** Climate Change Adaptation; **2)** Long Term Planning & Assessment of Nationally Determined Contribution (NDCs); **3)** Climate Change Mitigation; **4)** Climate Modelling and Assessment; **5)** Measurement, Reporting and Verification (MRV) and stock take of GHG emissions; **6) Climate financing and market**; **7)** Cross-sectoral coordination; **8)** Technology Transfer.

The ASEAN Centre for Climate Change (ACCC) and the ASEAN State of Climate Change Report (ASCCR)

38. In 2021, under the chairmanship of Brunei Darussalam, ASEAN identified climate change as one of its regional priorities and established an **ASEAN Centre for Climate Change (ACCC)** in the country, a platform dedicated to facilitating regional cooperation and coordination on climate change initiatives among Member States, disseminate publications on regional outlooks, develop a monitory system and provide policy recommendations on addressing climate change to Member States.

39. In the same year, during COP26, the **goal of achieving net-zero transition by middle of century was declared for the first time** by the ASEAN community.

40. In October 2021, the ASEAN Secretariat Environmental Division released the ASEAN State of Climate Change Report (ASCCR): a report – produced in coordination with the Institute for Global Environmental Strategies (IGES) and with significant contribution from the Japanese government – providing an overview of the climate capacity situation in the ASEAN region and identifying opportunities for cooperation and collaboration among member countries (including mutual

exchange of information and expertise) to achieve the targets of the net-zero transition by 2050.

41. Furthermore, within the ASCCR the **ASEAN Climate Vision 2050** has been developed. It is **the first long-term vision and roadmap to track climate change and achieve the long-term goals of becoming a resilient, zero-emission ASEAN community**.

42. ASEAN Climate Vision 2050 shows recommendations on making the transition toward 2030 and 2050, considering ASEAN's development context and the long-term goals of Paris Agreement. The Vision identifies prioritized climate actions – 29 adaptation and 30 mitigation actions – for 2030 and 2050.

Roadmap to COP30: definition of the ASEAN Climate Change Strategic Action Plan 2025-2030

43. During a side event organized by the ASEAN Secretariat and the Japanese Ministry of the Environment (MOEJ) [8] at the twenty-eighth Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change (UNFCCC), the roadmap for the implementation of the "**ASEAN Climate Change Strategic Action Plan 2025-2030**" was presented and will be released between October and November 2025 (during COP30).

44. The ACCSAP is expected to provide **regional strategic guidance until 2030 to harmonize commitments and accelerate synergized adaptation and mitigation actions toward resilient and net-zero ASEAN Community**.

45. The objective is to develop **synergies between all active regional programs and national policies of each Member States**: ACCSAP will thus be in line with ASEAN's Vision 2050 and will enhance the AWGCC Action Plan to align with the current and cross-sectoral developments of international climate agenda.

46. The development process for the co-implementation of the 2025-2030 plan with the Japanese Ministry of the Environment was launched in 2023 and includes a series of consultation meetings on the integration between adaptation and mitigation and collaboration among AWGCC, ASEAN Economic Community, ASEAN Socio Cultural Community (ASCC), ASEAN sectoral bodies, ASEAN Dialogues, Development Partners, and the ASEAN Centre for Climate Change (ACCC). Its implementation is planned to start in 2026.

47. Meanwhile, in October 2024, ahead of COP29, ASEAN leaders adopted the **"ASEAN Joint Statement on Climate Change to the 29th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP-29)"**, reiterating regional commitment to global climate action at regional, national and sub-national levels.

48. ASEAN recognizes the persistent gaps in the implementation of ambitious agreed climate actions, including mitigation, adaptation and financing, and call attention to the cost of climate change to the economies in ASEAN, representing an **estimated economic loss of $97.3 billion between 2009-2020**, and a **cost of adaptation estimated to be $422 billion until 2030 for the region**.

49. However, the commitment is strong, and ASEAN urges developed countries to fulfill their commitments, including the **annual provision of $100 billion to support developing nations in climate action**. In particular, ASEAN calls for enhanced international cooperation and support to develop zero- and low-emission technologies and solutions and accelerate technology transfer, innovation, and the development of human and institutional capacities.

50. In addition, ASEAN calls on Member States to **enhance climate change mitigation ambition** by integrating air quality mitigation and planning into their action plans and increasing action to address the factors driving short-lived climate change. Finally, ASEAN stresses the need for both mitigation and adaptation efforts, emphasizing climate neutrality, advanced technology adoption, and strategies to cope with the adverse effects of climate change, particularly for vulnerable populations.

ASEAN Member States commitment to climate actions and net-zero emissions targets

51. ASEAN does not have collective climate targets like the European Union's (EU) proposal to cut GHG emissions by at least 55% by 2030. Indeed, according to its territorial needs, **each Member State has chosen and defined different types of mitigation objectives and actions**.

52. Within the South-East Asian region, all ten ASEAN Member States have committed to the Paris Agreement under the UNFCCC and submitted intended NDCs.

[8] The "Accelerating International Collaboration towards a Net-zero and Resilient ASEAN through the ASEAN Climate Change Strategic Action Plan 2025-2030" side event was held on 8 December 2023 at the Japanese pavilion of the COP28.

53. The present Position Paper focuses on three countries in the ASEAN region: Indonesia, the Philippines and Vietnam. First, because they are the most populous ones, with a population of 284 million people, 109 million people, and 101 million people, respectively. Second, because – as it will be explained in the next section – almost 90% of climate finance funds in ASEAN are redirected to those countries.

54. Below is a summary of the targets set and the main initiatives taken by these three Member States.

		NDC Target (2020)		NDC Target (new submission)		
Country	Net-Zero target Year	Unconditional	Conditional	Unconditional	Conditional	NDC Priority Sectors
Indonesia	2060	29% GHG emission reduction by 2030	41% GHG emission reduction by 2030	32% GHG emission reduction by 2030	43% GHG emission reduction by 2030	AFOLU, energy, transport, adaptation (coastal protection, climate-resilient infrastrucure, low-carbon technology)
Philippines	N.A.	2.71% GHG emissions reduction in 2020-2030	72.29% GHG emissions reduction in 2020-2030	N.A.	N.A.	Energy, AFOLU, adaptation (natural resource management, climate-smart industries, marine and coastal ecosystem)
Vietnam	2050	9% GHG emissions reduction by 2030	27% GHG emissions reduction by 2030	15.8% GHG emissions reduction by 2030	45.3% GHG emissions reduction by 2030	Energy, AFOLU, IPPU, waste

Figure 8. *The Snapshot on Climate Change Priorities in Indonesia, Philippines and Vietnam. (Illustrative), 2024. (Source: TEHA Group on ASEAN Accept II and other sources, 2024)*

Indonesia

55. As agreed in the 26th United Nations Climate Change Conference of the Parties (COP26), all parties needed to **revisit and strengthen their climate plans** to meet the Paris Agreement temperature goal. However, only 4 out of 10[9] ASEAN Member States submitted their updated nationally determined contributions (NDCs) in 2022, before and during COP27 convened in Egypt.

56. Among them, on 23 September 2022, Indonesia submitted its enhanced NDC to the UNFCCC, an update that increased the **unconditional target from 29% to 32%** below the business-as-usual scenario (BAU), and the **conditional target from 41% to 43%** below BAU, including emissions from land use, land use change and forestry.

57. In its Enhanced NDC, Indonesia raised its emission reduction target by taking into consideration the recent development of related national policies, especially in the transport sector: these include **100% utilization of biodiesel B40** (40% biodiesel content) and the **Battery Electric Vehicle** (BEV) program acceleration for road transportation — 750,000 units of 4-wheel BEV and 2,450,000 units of 2-wheel BEV — all by 2030.

58. Indonesia bases its climate action on its **Long-Term Strategy for Low Carbon and Climate Resilience 2050**. As of today, Indonesia has not yet communicated an explicit net zero target but is exploring scenarios that could lead to **zero emissions by 2060** or earlier in its long-term strategy. Through the long-term strategy – low carbon and climate resilience scenario (LTS-LCCR 2050) – Indonesia will increase its greenhouse gas reduction ambition by reaching the peak of national greenhouse gas emissions in 2030 with a net well of forestry and land use, reaching 540 $MtCO_{2e}$ by 2050, and with further opportunities to move rapidly towards net zero emission in 2060 or earlier.

59. In its Long-Term Strategy, Indonesia also mentioned several key programs in 3 separate areas related to climate adaptation efforts: Economic Resilience, Social and Livelihood Resilience, and Ecosystem and Landscape Resilience. In addition, the Indonesian Government and International Partner Groups (IPG) also signed the Indonesian Just Energy Transition Partnership to mobilize financing to support the country's energy transition.

Philippines

60. To date, **the Philippines has not set a net zero target and has not updated its NDC following COP26**. Thus, the Philippines' targets remain unchanged at the last update dated April 2021.

61. According to the latest Nationally Determined Contribution (NDC) the Philippines set a target of **reducing greenhouse gas emissions by 75%** below a cumulative business as usual (BAU) pathway for 2020-2030. Most of this commitment is conditional on international support (**72.29%**) and a small fraction (**2.71%**) of the 75% targeted emissions avoidance is unconditional.

62. According to the Climate Action Target,[10] the Philippines' unconditional target is classified as "**insufficient**". By contrast, the Philippines' conditional target is ambitious, and it has been rated as "**1.5°C compatible**" when compared to the level of reductions needed within the Philippines' borders and for which the Philippines will need international support to achieve.

63. In order to achieve a reduction of emissions the Philippines is taking measures in several key areas. In 2022, for example, the **Electric Vehicle Industry Development Act** (EVIDA) was passed to create an environment conducive to the development of the national electric vehicle industry, and in January 2023, Executive Order (EO) No. 12 was issued to **remove import duties on various types of electric**

[9] Indonesia, Singapore, Thailand, Vietnam.

[10] The Climate Action Tracker is an independent scientific project that tracks government climate action and measures it against the globally agreed Paris Agreement aim of "holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C." A collaboration of two organisations, Climate Analytics and NewClimate Institute, the CAT has been providing this independent analysis to policymakers since 2009.

vehicles and suspend taxes on charging and distribution components for the next five years, with the aim of making electric vehicles more accessible to the Filipino population.

64. The Philippines is also considering the goal of achieving a **50% electric vehicle fleet by 2040** as part of the Comprehensive Roadmap for the Electric Vehicle Industry (CREVI), currently under development.

65. Within the **forestry sector**, the Philippines Development Plan 2017-2022 includes strategies to rehabilitate and restore degraded natural resources and protect fragile ecosystems while improving the well-being of resource-dependent communities.

66. Among the initiatives taken by the country, recently the Department of Energy (DOE) has released an updated version of the **Philippine Energy Plan** (PEP) for 2023 to 2050. The new PEP includes plans to develop an ambitious **Philippine Nuclear Energy Program**, which is intended to decrease reliance on carbon-emitting fuels in the country's power generation mix, and to **increase the share of renewable energy** in the country.

67. Considering the nuclear plan, the Filipino DOE aims to have the **first nuclear energy plants become commercially operational by 2032**, with at least 1,200 MW entering the country's power generation mix. Considering the share of renewable energy plan, the DOE projects that renewable energy will contribute **41.45% to the energy mix by 2030** and **56.92% by 2040**.

Vietnam

68. In 2022, Vietnam submitted its updated NDC increasing its emissions reduction target from 9% unconditionally and 27% conditionally in 2020 to **15.8%** unconditionally and **43.5%** conditionally in 2022. The NDC priority sectors include energy, agriculture, forestry, waste, and industrial processes sectors.

69. Vietnam's updated NDC incorporated the country's commitment to the **Global Methane Pledge** (30% methane emissions reduction by 2030 compared to 2020 levels) and net zero emission, for which Vietnam articulated the **National Climate Change Strategy to 2050**, setting the goal of reaching net zero by 2050. The country also lowered the peak emissions target of its electricity system from 280 $MtCO_{2eq}$ down to 240 $MtCO_{2eq}$ by 2035.

70. Since COP27, important policy documents covering the energy sector have emerged, including the long-awaited **Power Development Plan 8** (PDP8) and the **Master Plan for National Energy**, building on the foundations of the Climate Change Strategy.

71. The Power Development Plan 8 (PDP8), adopted in 2023, defines numerous targets for 2030 and 2050 for the power sector and aims at **reducing coal generation from 114 TWh in 2021 to zero by 2050**. The plan also predicts that renewable energy will account for 31 to **39%** of the power generation mix in 2030.

72. The **Master Plan for National Energy** for the period 2021-2030 integrates the PDP8 into a broader roadmap for the energy sector, aimed at reaching Vietnam's development goals while meeting its net zero target by 2050. It sets an energy-related GHG emissions target of 399-449 $MtCO_{2eq}$ by 2030, (51-73% above 2021 levels) and 101 $MtCO_{2eq}$ by 2050 (62% below 2021 levels).

73. In December 2022, Vietnam signed the **Just Energy Transition Partnership** (JETP), which comes as a policy support for achieving the goal outlined in PDP8. Specifically, the partnership will provide **$15.8 billion** in support until 2026-2028, from a group of donor countries to help Vietnam reach its net zero commitment by 2050. Key elements of the agreement include the peaking of power sector emissions in Vietnam at 170 $MtCO_{2eq}$ in 2030, and a targeted share of **47%** of renewable energy generation by the end of the decade.

74. In addition, Vietnam has several action plans and programs related to climate change mitigation and adaptation. Both launched in 2022, the **Methane Emission Reduction Action Plan** to 2030 and the **Action Program on Green Energy Transition and Reduction of Carbon Dioxide and Methane Emissions of the Transport Sectors** encourages the reduction of methane emissions and increase of green vehicles. Other than that, the country also has their National Action Program on **Sustainable Production and Consumption 2021-2030** to decrease resources and materials used for production sectors, as well as improving and implementing legal policies.

State of the art of climate finance on the ASEAN region

Considering the targets of each ASEAN Member State - in particular the targets conditional on international support - and the plans under development in the different sectors of interest, international collaboration and support from developed countries is needed to provide ASEAN countries with the tools necessary to achieve their objectives and facilitate access to climate finance

75. According to the Global Landscape of Climate Finance 2023 of Climate Policy Initiative, at the global level, in the two-year period 2021-2022, climate finance flows reached almost **$1.3 trillion**, nearly doubling compared to 2019/2020 levels.

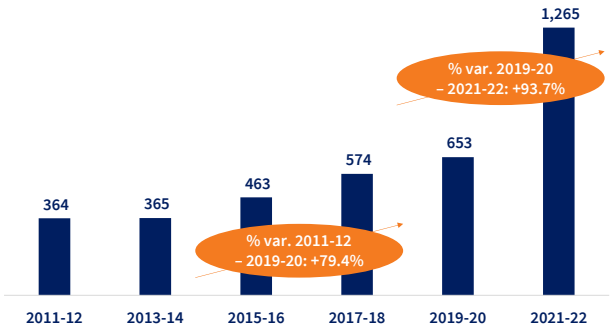

Figure 9. *Global climate finance ($ billion, biennial average), 2011-2022. (Source: Source: TEHA Group elaboration on Climate Policy Initiative, "Global Landscape of Climate Finance 2023", 2024)*

76. As can be observed from the Figure above, the Paris Agreement in 2015 has significantly pushed up the global climate finance investments, stable in the four-year period from 2011 to 2014 and then increased by **27%** in 2015-2016. Overall, in the last two-year period the investments in climate finance doubled compared to 2019-2020 and quadrupled compared to the beginning of the decade.

77. This increase was primarily driven by a **significant acceleration in mitigation finance** (up by $439 billion from 2019/2020). The remainder of the growth observed in 2021/2022 ($173 billion each year) stems from methodological improvements and new data sources, which augment the flows tracked in 2019/2020. Without these data improvements, annual finance flows in 2021/2022 would have amounted to just below $1.1 trillion. Despite the growth in 2021/2022, current flows represent about only **1% of global GDP**.

78. In this context, according to the latest Climate Finance Landscape of Asia and the Pacific published in August 2023 by the Asian Development Bank, Asia and the Pacific spend yearly around **$300 billion** in climate finance.[11]

79. Among the five subregions (Central and West Asia,[12] East Asia,[13] South Asia,[14] Southeast Asia,[15] and the Pacific),[16] East Asia is the biggest recipient and provider of climate finance, receiving annually **80%** of total finance and placing the greater part in mitigation projects in the energy, transport, and building and infrastructure sectors, consistent with China's plan to reach peak emissions by 2030 and achieve its carbon neutrality target by 2060.

80. Next highest are climate finance flows to South Asia (9% of total flows) and **Southeast Asia** (**5%**), mainly in support of **clean energy**, **railway systems**, and **integrated urban public transportation**. Central and West Asia have a 2% share whereas the Pacific has a 0.3% share.

81. Focusing on Southeast Asia, most of its around $15 billion climate finance funds are publicly sourced, mainly through **national, multilateral, and bilateral DFIs**. The Asian Development Bank (ADB), the biggest contributor, provides about one-third of total tracked multilateral finance in Southeast Asia, while the Japanese government is the top bilateral donor, providing **more than half** of total tracked bilateral finance.

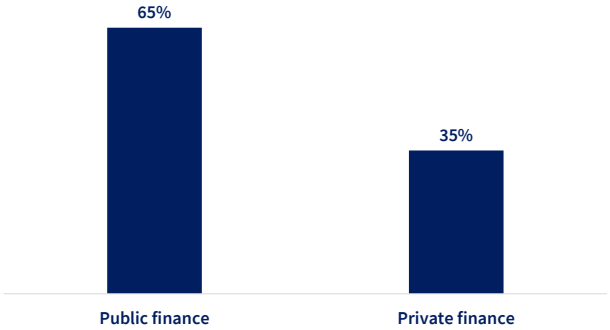

Figure 10. *Climate finance in ASEAN countries per financing source (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

82. More importantly, **although the subregion is often referred to as one of the most vulnerable to climate change, climate adaptation assistance**

[11] Latest data available for the Region as a whole up to the two-year period 2018-2019.

[12] Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan.

[13] People's Republic of China and Mongolia.

[14] Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka.

[15] Cambodia, Indonesia, Lao People's Democratic Republic, Philippines, Thailand, Timor-Leste, and Vietnam.

[16] Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

remained limited, at 12% of the subregion's total climate finance in 2018–2019.

83. Detailing the financing sources, as reported in the Figure above, **public finance** represents **65%** of the subregion's total climate finance. Here, **Multilateral DFIs** are the biggest contributor, providing **32%** of the subregion's climate public finance, followed by **government budget allocations** (**28%**) and **bilateral DFIs** (**24%**).

84. **Multilateral DFIs** mainly support **energy projects**, indicating the alignment of their funding strategy with the Paris Agreement goal of assisting developing countries in making the energy transition and building more resilient economies. As reported in the previous section, the NDC documents of the Southeast Asian countries emphasize in fact the urgency of shifting from fossil fuel–based to cleaner energy generation, and increasing the share of renewable sources in the energy mix, by 2030. Finally, **government budget** allocations were provided primarily for **railway and urban public transportation**.

85. **Private finance** makes up the remaining **35%** of the subregion's climate finance, sourced in most cases from **corporations** (**64%** of total private finance), followed by **financial institutions** (**36%**). Given the subregion's investment attractiveness, more mature technology, and bankable projects available at scale, private finance is also largely directed toward **renewable energy projects**.

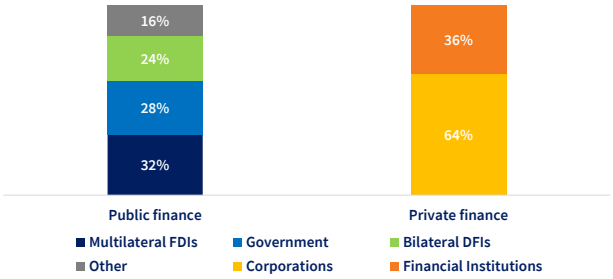

Figure 11. *Climate public and private finance in ASEAN countries per financing source (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

86. Looking at another perspective concerning where the funds come from, it is interesting to note that most of them come from outside ASEAN countries. **International finance** makes in fact **61%** of climate finance in ASEAN, mostly because of increased public sector investments from international DFIs and foreign governments.

87. At the same time, **Domestic finance** composes **39%** of the subregion's climate finance. Here, the highest contribution comes from **domestic corporations**, but only half of the amount is recorded in the national budget, indicating the low availability of climate finance data and a lack of methodology for tagging and tracking climate-related activities.

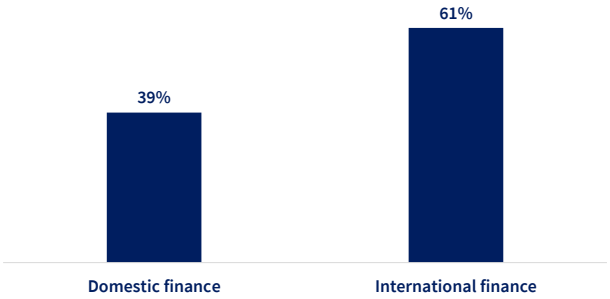

Figure 12. *Climate public and private finance in ASEAN countries per financing source (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

88. As for the sectors financed instead, **mitigation finance dominates climate finance in ASEAN countries**, reaching **84%** of the total.

89. More specifically, **50%** is for renewable energy, and **42%** for transport. Agriculture, forestry, and fisheries receive **2%**, largely from DFIs and multilateral climate funds such as REDD+,[17] and the water and wastewater sector and the building and infrastructure sector obtained **4%**.

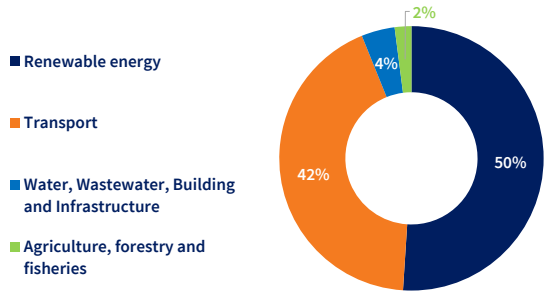

Figure 13. *Climate finance for mitigation in ASEAN per sector of destination (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

90. The high weight of mitigation funds is due to the fact that countries in the subregion have **ambitious mitigation targets**, particularly in energy, where a sizable financing gap is likely. The accelerated energy transition in Southeast Asia aligns with the findings of the IPCC (Intergovernmental Panel on Climate Change) special report on the **impact of global warming of 1.5°C** (IPCC 2022). According to the report, to reach net-zero emissions by 2050 and keep global warming from exceeding 1.5°C, as called for in the Paris Agreement, countries must rapidly decarbonize their energy systems.

[17] REDD+ is acronym for "Reducing Emission from Deforestation and Forest Degradation" and it is part of UN Programme.

91. **Adaptation** finance accounts for only **12%** of climate finance in Southeast Asia, despite the subregion's high vulnerability to climate change. Adaptation finance is mainly internationally sourced, and goes to priority sectors, including **land-use change and forestry**, **natural resource management**, and water and wastewater management. Institutional strengthening, capacity building, and other actions intended to facilitate policy-making also receive adaptation finance.

92. The rest of the climate finance in Southeast Asia (**4%**) supports cross-sectoral projects with dual benefits in terms of adaptation and mitigation.

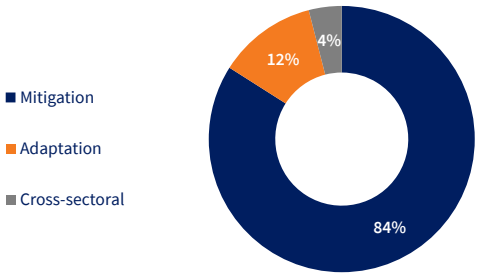

Figure 14. *Climate finance in ASEAN per objective (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

93. Finally, it is worth looking at climate finance instruments used in ASEAN. More specifically, **68%** takes the form of **debt funding**, mostly at the project level, with low-cost debt and market-rate debt in almost equal proportions. Low-cost debt is sourced primarily from bilateral DFIs (**57%** of total low-cost debt), whereas market-rate debt is sourced primarily from multilateral DFIs (**68%** of total market-rate debt).

94. **Balance-sheet debt** financing comes mainly from corporations (50%) and **commercial financial institutions** (35%) and is intended for renewable energy projects. Debt instruments are growing in volume and variety (e.g., green bonds and sukuk,[18] green credit facilities, blended finance), amid the rising popularity of sustainable finance globally and in the subregion. It is relevant to highlight that concerns are raised over the **prospect of a heavy debt load**, which could erode the financial capacity of recipient countries.

95. As for **equity investments**, they account for **27%** of the total climate finance in the subregion. These flow almost exclusively to **energy investments**, such as renewable energy generation, transmission, and distribution, and energy efficiency. Corporations, for the most part, supplied capital through **direct placement** (balance-sheet equity finance), while **governments provided project-level equity support**.

96. Finally, **grants** account for **5%** of the subregion's total climate finance. Here, cross-sectoral investments and AFOLU are the main recipients.

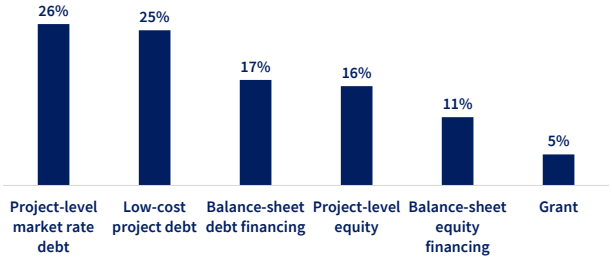

Figure 15. *Breakdown of Climate Finance Instruments in Southeast Asia (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

97. Of the countries in the subregion, the three on which the present Position Paper is focusing on (**Philippines**, **Vietnam**, and **Indonesia**) receive the bulk of the climate finance (**31%**, **32%**, and **24%** of total climate finance in the subregion, respectively).

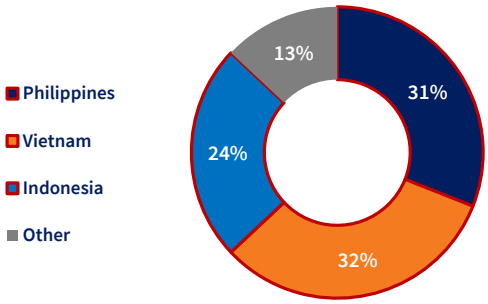

Figure 16. *Climate finance in ASEAN countries (% values), latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

98. Considering the initiatives that these States have launched, several are included in the national budgets. Indonesia spent on average **4.3%** of the national budget for climate-related actions in 2018-2020, whereas the Philippines spent on average **4%** in 2017-2019 and Vietnam **11%** of the national budget between 2018 and 2019.

99. The financial needs for achieving the national targets vary between countries depending to the targets set: according to the ADB's "Climate Finance Landscape of Asia and the Pacific" 2023 Report, Indonesia has a financing need of **$23.9 billion** for the period 2021-2030 to reach the conditional NDC targets – mainly for the energy sector – Vietnam needs **$24.7 billion** to reach the unconditional NDC targets by 2030 and the Philippines has a financing need of **$908.3 million** calculated on the basis of

[18] Green sukuk are Sharia-compliant bonds issued to finance climate change mitigation and adaptation.

estimated loss and damage from climate change in 2021-2030 period.

Country	Finance needs	Public expenditure on Climate
Indonesia	mitigation of **$23,9 billion** (2021-2030) for conditional NDC target, mainly for energy sector	Avarage **4.3%** of total national budget for 2018-2020
Philippines	**$908.3 million** (2021-2030) calculated on the basis of estimated loss and damage from climate change	Avarage **4.0%** of total national budget for 2017-2019
Vietnam	**$24.7 billion** by 2030 for Unconditional NDC target	**11%** of total national budget in 2018-2019

Figure 17. *Snapshot of financial needs and public expenditure on Climate of Indonesia, Philippines and Vietnam, latest available data. (Source: TEHA Group elaboration on Asian Development Bank, "Climate finance landscape of Asia and the Pacific", 2024)*

Multilateral and Development Finance Institutions role for climate change solutions in ASEAN

100. As reported above, **Multilateral Development Banks and Development Finance Institutions** (DFIs) are crucial in a context in which is **essential the closure of the funding gap in sustainable projects**.

101. The Asian Development Bank (ADB), the biggest contributor, provides about one-third of tracked finance from multilateral sources. In 2023, ADB committed **$3.677 million** to Southeast Asia in climate finance (**34.2%** of funds allocated to Asia and the Pacific).

102. Of the ADB-funded projects for Southeast Asia in 2023, $2,578 million (**70.1%**) are expected to contribute to climate change mitigation and $1,098 million (**29.9%**) to climate change adaptation, thus partly rebalancing the values observable in Figure 15, where mitigation share is around 84%.

103. Considering the sectoral distribution of 2023 funding, **34.5%** ($1,269 million) of total funds has been allocated to the **transport** sector, **20.5%** ($754 million) to **agriculture, natural resources and rural development**, **13.0%** ($479 million) to **health**, **12.4%** ($455 million) to **Energy**, **12.4%** ($455 million) to **Public sector management**, **3.3%** ($122 million) to **Education**, **2.6%** ($96 million) to **Finance**, and **1.3%** ($45 million) **Water and other urban infrastructure and services**.

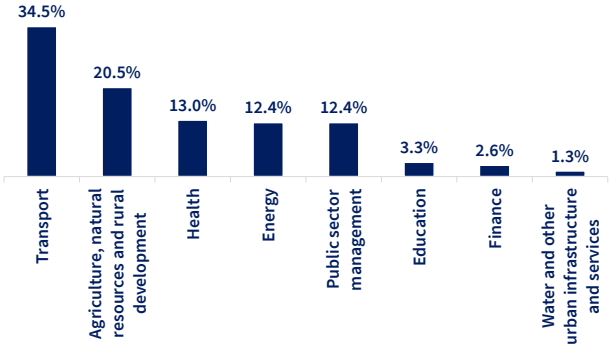

Figure 18. *Sectoral distribution of 2023 ADB funding for climate change in ASEAN (% values), 2023. (Source: TEHA Group elaboration on Asian Development Bank data, 2024)*

104. Considering the three ASEAN Member States that the present Position Paper is focusing on, in 2023 ADB provided:

- **$1,054 million** to **Indonesia**, of which $632 million (**60%**) is expected to contribute to climate change mitigation and $422 million (**40%**) to climate change adaptation. Of the total amount of funding, 4.3% has been allocated to high climate change impact projects, 60.2% to medium climate change impact projects, and 35.6% to low climate change impact projects.[19] The main funding areas are: **Health** (with $398 million, 37.8% of total), **Agriculture, natural resources and rural development** (with $309 million, 29.3% of total), **Public sector management** (with $288 million, 27.3% of total), **Water and other urban infrastructure and services** (with $44 million, 4.2% of total), and **Energy** (with $15 million, 1.5% of total).
- **$2,171 million** to **Philippines**, of which $1,553 million (**71.5%**) is expected to contribute to climate change mitigation and $618 million (**28.5%**) to climate change adaptation. Of the total amount of funding, 14.1% has been allocated to high climate change impact projects, 31.0% to medium climate change impact projects, and 54.9% to low climate change impact projects. The main funding areas are: **Transport** (with $1,229 million, 56.6% of total), **Agriculture, natural resources and rural development** (with $416 million, 19.2% of total), **Public sector management** (with $150 million, 6.9% of total), **Energy** (with $117 million, 5.4% of total), **Education** (with $100 million, 4.6% of total), **Finance** (with $93 million, 4.3% of total), and **Health** (with $66 million, 3.0% of total).
- **$29 million** to **Vietnam**, of which $10.1 million (**34.4%**) is expected to contribute to climate change mitigation and $19.2 million (**65.6%**) to climate change adaptation. Of the total amount of funding, 5.1% has been allocated to high climate change impact projects, 33.3% to medium climate change impact projects, and 61.5% to low climate change impact projects. The main funding areas are: **Agriculture, natural resources and rural development** (with $18 million, 61.5% of total), **Energy** (with $6 million, 20.5% of total), **Trasport** (with $3 million, 11.1%

[19] Impact of the project on achieving climate change targets.

of total), and **Finance** (with $2 million, 6.8% of total).

	Agriculture, natural resources and rural development	Education	Energy	Finance	Health	Public sector management	Transport	Water and other urban infrastructure and services
Indonesia	$309 mln (29.3%)		$15 mln (1.5%)		$398 mln (37.8%)	$288 mln (27.3%)		$44 mln (4.2%)
Philippines	$416 mln (19.2%)	$100 mln (4.6%)	$117 mln (5.4%)	$93 mln (4.3%)	$66 mln (3.0%)	$150 mln (6.9%)	$1,229 mln (56.6%)	
Viet Nam	$18 mln (61.5%)		$6 mln (20.5%)	$2 mln (6.8%)			$3 mln (11.1%)	
Southeast Asia	$754 mln (20.5%)	$122 mln (3.3%)	$455 mln (12.4%)	$96 mln (2.6%)	$479 mln (13.0%)	$455 mln (12.4%)	$1,269 mln (34.5%)	$45 mln (1.2%)

Figure 19. *ADB climate finance financing by sector, in Indonesia, Philippines Vietnam, and Southeast Asia ($ million and % on total regional funds), 2023. (Source: TEHA Group elaboration on Asian Development Bank data, 2024)*

105. The Asian Development Bank, as an institution committed to achieving a prosperous, inclusive, resilient and sustainable Asia-Pacific, has the lead on the promotion of climate finance among Multilateral Development Banks and Development Finance Institutions (DFIs), considering that is the "Bank of the territory" and its mission is to promote the sustainable growth of Asian countries. Beside the ADB, however, there at least other two MDBs worth to mention: the World Bank and the European Investment Bank.

106. The **World Bank** has been a longstanding climate change partner for the Asian region, generating knowledge, gathering data, offering financial support, and collaborating with governments to implement meaningful measures that lower greenhouse gas emissions, enhance climate resilience, and prepare for and respond to natural disasters.

107. In fiscal year 2024 (which covers July 1, 2023 to June 30, 2024), in fact, the World Bank delivered a **record $42.6 billion in climate finance** (up 10% compared to the previous year). Also, at COP28, the World Bank Group committed to increasing its climate finance to 45% of total lending for fiscal year 2025.

108. Each institution within the World Bank Group is contributing to this objective:

- IBRD (International Bank for Reconstruction and Development) and IDA (International Development Association) together delivered **$31 billion** in FY24 in climate finance, of which $10.3 billion specifically supported investments in adaptation and resilience.
- IFC (International Finance Cooperation), the private sector arm of the World Bank Group, delivered **$9.1 billion** in long-term climate finance.
- MIGA (Multilateral Investment Guarantee Agency), the World Bank Group's political risk insurance and credit enhancement arm, delivered **$2.5 billion** in climate finance.

Taken together, World Bank Group climate financing was **44% of total financing in FY24**, which reached **$97 billion**.

109. Considering the **Southeast Asia region**, over the years, the commitment of Word Bank has grown, from $1.4 billion in fiscal year 2017 to **$3.7 billion in fiscal year 2021**. Of the 2021 funding, over **$1.9** billion of the climate finance was used to support adaptation efforts, while **$1.8 billion** was used to support climate mitigation efforts in the area.

110. In addition to climate finance, the World Bank is launching **new Country Climate and Development Reports (CCDRs)** in South Asian nations, with the goal of guiding strategic engagement for regional development that is in line with climate change, and **several projects** to raise the standard of living in ASEAN.

111. Among the most recent and impactful initiatives, in 2016, the World Bank activated the "**Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods Project**" to reduce methane emissions by helping farmers adopt sustainable practices to produce higher quality rice in the Mekong delta in Vietnam, home to 1.4 million rice-producing families. To date, the project helped reduce greenhouse gas emissions by 1.5 million metric tons of CO_2 equivalent because of methane emission reduction and inspired the Government of Vietnam to launch an ambitious effort to scale-up these sustainable practices into one million hectares in the Mekong Delta Region, reducing carbon emissions by up to 10 million tons by 2030.

112. For what concerns the **European Investment Bank**, in Asia the EIB acts as a catalyst to attract the funds needed to meet the UN's 2030 Sustainable Development Goals and, for over 25 years, EIB has supported economic development in Asia and the Pacific region through rail logistics efficiency projects and infrastructure construction.

113. For instance, in the last years, EIB has supported new sustainable transport projects in India, Cambodia, Laos, Vietnam, and Bangladesh, water schemes in Sri Lanka and Bangladesh, renewable energy in Nepal and India and urban metro rail systems in India.

114. In 2020, the EIB financed **32 projects** in the ASEAN Region, investing **€1.8 billion** and mobilizing investments of up to **€10.7 billion** in key sectors including rural development, transportation, energy and renewable energy, water and waste management, as well as support to Small and Medium Enterprises (SMEs).

115. In addition, in 2020, the EIB supported green infrastructure development in ASEAN member countries by investing **€150 million** in the Catalytic Green Finance Facility (ACGF) established by Association of Southeast Asian Nations (ASEAN) to accelerate the development of green infrastructure projects.

116. More recently, in 2023 EIB collaborated closely with both Indonesian and Vietnam Governments to help such countries in reaching their climate targets. In particular, EIB committed to invest **€1 billion** in **Indonesia** to support the green transition, establishing a framework loan of up to €500 million.

117. Meanwhile, in Vietnam, EIB signed a MoU with the Minister of Finance, paving the way for a **€500 million framework loan** that aligns with the Just Energy Transition Partnership (JETP) objectives in Vietnam.

118. As for Development Finance Institutions (DFIs) instead, it is worth mentioning the role that Agence Française de Développement (AFD) and Kreditanstalt für Wiederaufbau (KfW) have in fostering climate finance in ASEAN.

119. First, AFD covers eight ASEAN countries (Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, and Vietnam). Overall, AFD committed – from 2015 to 2019 – **€1.2 billion** for climate finance in ASEAN: 35.6% (around €430 million) were invested in Vietnam, 31.4% in Indonesia (€380 million), 19.1% in Cambodia (€230 million), 7.4% in the Philippines (€90 million), 4.4% in Myanmar (€50 million), and 2.1% in Laos (€25 million).

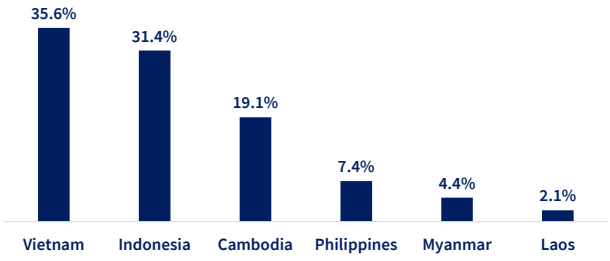

Figure 20. *Funds committed by AFD to climate finance in ASEAN (% values per country), 2015-2019. (Source: TEHA Group elaboration on Agence Française de Développement data, 2024)*

120. For what concerns the **financial instrument**, more than **90%** of the funds are committed through **loans**, with grants (2.4%) and equity investments (2.3%) being the second and third financial instrument, respectively.

121. As for the present quinquennium 2020-2024, AFD launched a regional strategy for ASEAN, committing to invest **between €4.8 and €5.7 billion** and focusing on setting three main priorities: i) encourage low-carbon transitions and territorial resilience; ii) promote the preservation and sustainable management of the environment; iii) alleviate social imbalances and reduce inequalities.

122. For what concerns and **Kreditanstalt für Wiederaufbau** (KfW) instead, in 2023 only it provided around **€37 billion** in climate finance globally of which **€2 billion** in Asia.

123. Concerning ASEAN, KfW investments in the area show high variability and transversality and focus on Cambodia, Indonesia, Laos, Philippines, and Vietnam.

124. As for the countries analyzed in this Position Paper:

- In **Indonesia**, in 2021, the project "**Exploration of Geothermal resources**" was launched to increase the Renewable Energy Sources share in the country, with an investment of **€1.1 million**. For the same amount, in 2018, KfW supported the project "**Conservation and Sustainable Development in Borneo/ Restoration Peat Swamps**", to protect the forest and peat land ecosystems in the area.
- In the **Philippines**, the project "**Provincial Towns Water Supply Program**" was completed in 2022, after its launch in 2012. With a budget of almost **€25 million**, the project comprised the expansion and rehabilitation of water supply systems (pumping stations, reservoirs, pipelines and service connections, etc.) in around 80 water districts as a contribution to improving the health situation by reducing waterborne diseases.
- In **Vietnam**, two of the main projects concern: "**Phong Nha-Ke Bang National Park Region**", launched in 2021 with an investment of **€6.1 billion**, to improve the ecological and economic situation of the national park region in Quang Binh province in north central Vietnam (that covers around 350,000 ha.); "**Improvement of energy efficiency in rural distribution networks**", launched in 2020 with a budget of **€161.6 billion**, comprised the rehabilitation, modernisation and expansion of rural electricity grids in northern, central and southern Vietnam, to strengthen the Vietnamese distribution network with a better connection of the rural areas to the national electricity grid.

The Just Energy Transition Partnership as a tool to promote climate finance in ASEAN

125. Just Energy Transition Partnerships (JETPs) are **innovative funding models** with a **plurilateral structure for accelerating the phase-out of fossil**

fuels, especially in developing countries. These intergovernmental partnerships coordinate financial resources and technical assistance to help the targeted country in its decarbonization path.

126. The terms "just" and "partnership" are central in this new paradigm. The use of "**just**" underlines that the energy transition must be implemented in an equitable and inclusive manner with regard to its social consequences. The use of "**partnership**" emphasizes that these agreements are tailored to the needs of the recipient country and that local decision-makers are actively involved.[20]

127. The first JETP was signed for South Africa at COP26 and was worth about $8.5 billion. Later, two more were announced for 2022: **$16 billion** for Vietnam and **$20 billion** for Indonesia.

128. Starting from **Indonesia**, the JETP includes an ambitious pathway to reduce power sector emissions, a strategy based on the expansion of renewable energy, and the phase down of coal, supporting at the same time economic growth, new skilled jobs, reduced pollution, and a resilient future.

129. $20 billion in public and private financing will be mobilized over a three-to-five-year period to **decarbonize Indonesia's energy sector**, using a mix of grants, concessional loans, market-rate loans, guarantees, and private investments.

130. More specifically, the actions and targets put in place are:

- **Peaking total power sector emissions by 2030**, thus shifting the projected emissions peak forward.
- **Capping power sector emissions** at 290 million tons of CO_2 in 2030, down **19%** from the baseline value of 357 million tons of CO_2, with the goal of reducing emissions intensity in all scopes by **15.7%** by 2030.
- Establishing a goal to **reach net zero emissions in the power sector by 2050**, bringing forward Indonesia's net zero power sector emissions target by ten years.
- Accelerating the deployment of renewable energy to reach at least **34%** of all power generation by 2030, thus doubling total renewables deployment by 2030 compared to current plans: to reach this target, the main Indonesian energy operator (Perusahaan Listrik Negara – PLN) plans to build **21 GW** of renewable energy plants by 2030.

131. For what concerns Vietnam instead, the **Just Energy Transition Partnership** (JETP) comes as a policy support for achieving the goal outlined in PDP8. Specifically, the partnership will provide **$15.8 billion** in support until 2026-2028, from a group of donor countries to help Vietnam reach its net zero commitment by 2050.

132. Key elements of the agreement include:

- Bringing forward the **projected peaking date** for all greenhouse gas emissions in Vietnam from 2035 to 2030.
- **Reducing peak annual power sector emissions by up to 30%**, from 240 to 170 megatons of CO_2, and bringing forward the peaking date by five years to 2030.
- Limiting Vietnam's peak coal capacity **down by 18%** to 30.2 gigawatts by from a current planning figure of 37 gigawatts.
- Accelerating the adoption of renewable energy so that it accounts for at least **47%** of electricity generation by 2030, up from the current planned generation share of 36%.

According to present forecasts, the successful delivery of these ambitious targets will result in around 500 megatons of emissions saved by 2035.

133. Moreover, at COP28, on December 1st, 2023, Vietnam launched the **Resource Mobilisation Plan** (RMP), an important milestone for the implementation of the JETP.

134. In particular, the RMP includes an assessment of priority investments, which will help Vietnam deliver on its pathway to net-zero emissions and identify a set of priority policy actions and regulatory reforms to reach the targets.

Challenges and opportunities and the main barriers to climate finance in ASEAN

135. Southeast Asia is faced with the **issue of uneven adaptation–mitigation funding**, limiting the countries' capacity to reverse the effects of climate change and to make their vulnerable populations more climate resilient. While the magnitude of adaptation finance has grown over the years, the speed of funding has yet to catch up with the ever-rising adaptation finance needs of the subregion.

136. Financiers in fact perceive climate adaptation projects as risky because:

- Planning and implementation take longer and are more exposed to high political risk as a result.

[20] Source: German Council on Foreign Relations.

– Projects are smaller in scale, and therefore cost more per dollar raised.

137. **Private sector contribution remains crucial but limited, considering its untapped sources of financing and expertise**. Here, financiers still tend to prefer mitigation to adaptation actions because:

– The return on investment can be capitalized more quickly.

– The climate-related impact is apparent (e.g., GHG reduction, with the possibility of carbon offsetting and trading).

– The carbon reduction market and technology have been more favourable in the last decade, (e.g., less costly solar and wind energy generation).

138. **Without private sector investment, meeting resilient infrastructure financing needs would be a challenge**. In their NDC documents, the Southeast Asian countries identify climate finance needs of up to **$68.1 billion in total by 2030**. Rapid economic growth is pushing these countries to invest more in adaptation, particularly in climate-smart infrastructure.

139. **Indonesia**, for instance, estimated for the current quinquennium its need for **$429.7 billion** in infrastructure investments in 2020–2024 (20% more than the $359.2 billion required in 2015–2019). Its fiscal capacity is expected to cover only 30% of this requirement, and the rest will most likely come from nongovernment funding.

140. Given the large amounts of financing needed to meet the countries' climate change commitments and infrastructure investments, **private sector engagement has a vital role** not only in closing the gap in financing and implementation but, more importantly, **in ensuring the long-term financial sustainability of these investments**.

141. **Adaptation programs are now largely treated as add-ons to development programs, and not as an integral part of the programs**. Southeast Asian countries should regard adaptation as an extension of sustainable development practices intended to build resilience and minimize the costs of emissions that have been locked into the climate system. Mainstreaming adaptation into development policy could serve to redirect the finance to areas or sectors with the most impact. National policy practices, such as fiscal discipline, climate budget tagging, and strategic public spending to attract private sector contribution, would improve the efficiency and effectiveness of available financing.

142. The window of opportunity for addressing the climate crisis is rapidly shrinking, and governments must consider further efforts to rebalance the risks to shareholders with the urgency of responding to the climate adaptation needs of the most vulnerable countries.

143. **Lack of institutional readiness has constrained the countries' access to various climate finance sources**. Indonesia, in 2019, formed the Environmental Fund Management Agency (BPDLH) to channel and distribute environmental and climate funds, but **still has limited capacity to translate needs into high-quality projects** and to meet the fund access criteria and requirements of resource providers, such as the GCF (Green Climate Fund), so that – up until now – the BPDLH is not yet an accredited entity of the GCF.

144. In the **Philippines**, the Climate Change Commission (CCC) has been working with various government agencies to increase **capacity and eligibility for international funding through interagency coordination**. Lessons have been shared among the focal points to enable the development of screening and evaluation tools for assessing the quality of project proposals, paving the way for more streamlined climate finance tracking and reporting across the subregion, through intra-ASEAN cooperation.

145. For instance, the **ASEAN Comprehensive Recovery Framework** was established in anticipation of the post-COVID recovery, to integrate the member countries' strategies for a green recovery and just transition, involving specific programs in support of clean energy, climate-smart agriculture, and sustainable forest management. The streamlined framework will require enhanced reporting to secure and mobilize public and private funding.

146. There is **massively underused potential for subregional collaboration in climate finance under ASEAN leadership**. Only a few collaborative projects have been developed so far across the Member States. Such flagship projects would not only help the members reach their NDC climate ambitions, but also improve the visibility of ASEAN efforts worldwide and narrow the knowledge and institutional gaps. Collective learning would also increase the capacity of Member States to develop bankable projects and access international funds.

147. ASEAN has been working to harmonize guidelines for financing project loans, such as the **ASEAN Taxonomy for Sustainable Finance** and the **ASEAN Green Bond Standards**, to provide the subregion with a common language for communicating their climate vision to a wide range

of investors so they can play more critical roles in filling the financial gaps in the future.

Recommendations to foster private climate finance in ASEAN countries and the role of Italy

148. Addressing the challenges requires collective effort and coordination among governments, funding institutions, the private sector, and other key stakeholders, to enhance the flows and impact of climate finance.

149. According to the literature about accelerating and scaling up climate finance, the following recommendations have been identified.

150. **Ensure that climate finance is available, sufficient, and accessible, and is targeted at underserved subregions, countries, and sectors with the most impact on achieving NDC targets**. Here, an essential role is the redirection of the regulatory framework, by entering climate targets into national planning and policy and defining an oversight mechanism among government agencies.

151. Also, it is necessary to streamline the coordination of the international and national public and private sectors in carrying out their climate finance roles and responsibilities and to **leverage the government's fiscal capacity**, through subsidies, tax incentives, public–private partnerships (PPPs), and other measures, to attract private investors by mitigating the financial risks, and influencing financial regulations to crowd in private finance for climate action.

152. Finally, there should be **higher support for governments and MDBs** through blended finance, cofinancing, and scaled-up risk management instruments, while ensuring at the same time accessibility of climate finance, by prioritizing grants and concessional funding, particularly for the countries and sectors that need financial support the most.

153. **Enhance transparency and capacity for climate finance tracking and reporting**. This can be done by enhancing disclosure across financial systems and taking the initiative to measure, disclose, manage, and mitigate climate risks in the private sector. Also, it is relevant to continuously improve methodologies to fill gaps in private investment and adaptation finance data (e.g., easing confidentiality restrictions and addressing the absence of universally accepted impact metrics) and enable full accounting and tracking of finance. Finally, access to and mobilization of global international climate initiatives and finance should be improved, by establishing a robust institutional framework with technical guidelines to meet the high level of safeguards imposed by international climate finance institutions, and by developing a consistent system for tracking finance and monitoring the progress of adaption measures.

154. **Improve understanding of climate finance effectiveness and impact**. This would enhance the capacity of developing countries to use and disburse finance to achieve the highest value for every dollar flow, possibly leading to the upscaling of climate projects and finance.

155. There is also an apparent opportunity to close the knowledge gap by **mobilizing finance by having a national strategy**, as well as national mitigation and adaptation policies and plans aligned with NDC priorities and **meeting the funding requirements** of international donors or agencies.

156. In this context, **Italy** has significant know-how and expertise and can thus be an ideal partner to promote climate finance and energy and circular transition in ASEAN. For instance, Italy is **3rd** in Europe for energy consumption from renewable sources and **100% of municipalities** with at least one renewable plant. Also, Italy is **6th** in the world for export of renewable technologies.

157. On the circular economy side, Italy ranks among the best countries in Europe, with more than **500,000 employees** in the sectors of repair, reuse and recycling (**1.7%** of total national employment) and the country has the **highest economic value generated** per unit of material consumption: every kg of resource consumed generates **€3.3** vs. EU average of €1.9.

158. Finally, on the climate finance side, Italy is the **1st** country in Europe for funds allocation to the energy transition in the Recovery Plan (**€87 billion**), with considerable investments in the Italian Recovery Plan, concerning buildings, transportation and infrastructure (both digital and physical), including Ecobonus and Sismabonus 110%, Transition 4.0, High Speed Railway Lines, Ultra Broadband, and so on.

159. A key actor in the promotion of Italy's international economic and investment relations is **Cassa Depositi e Prestiti (CDP)**, whose role may be decisive in bringing the relationship between Italy and the ASEAN countries to a higher level.

160. Cassa Depositi e Prestiti (CDP) is, in fact, the **Italian National Promotional Bank**, whose majority shareholder is the Ministry of Economy and Finance (84% of total share) followed by bank foundations (16%).

161. Since 2016, CDP also acts as a **promoter of sustainable growth in emerging countries** by offering several financial solutions—including debt, investment funds, guarantees and advisory services—and contributing to **implementing climate initiatives and achieving the 17 UN Sustainable Development Goals of the 2030 Agenda for Sustainable Development**.

162. In addition to its own resources, CDP manages national, European and international public resources, including non-repayable grants, for the purpose of international cooperation and development finance.

163. In particular, the **Italian Climate Fund (ICF)**, with an allocation equal to €4.4 billion over five years (2022-2026), is the main national public instrument to contribute to the global climate finance pledge by financing private and public initiatives in several thematic areas, such as the mitigation of greenhouse gas emissions and the adaptation and resilience to the impact of climate change.

164. The main value added that CDP can bring in its role of DFI[21] is linked to its experience as National Promotional Institution, gained from decades of activity on the domestic market, in which it has always structured projects with a significant impact and innovative financial instruments.

[21] Development Finance Institution.