

# Climate Finance Flows

TECHNICAL WORKSHOP ON CLIMATE FINANCE IN ASEAN

29 October 2019, Quezon City



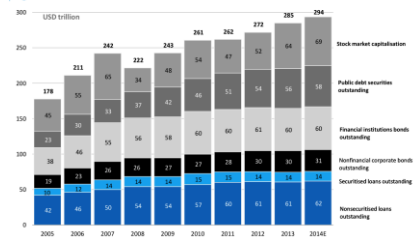
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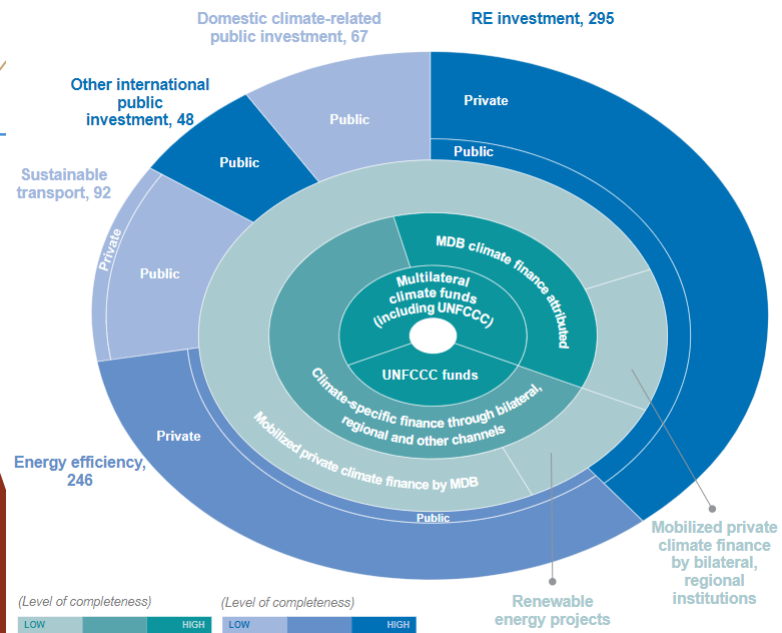
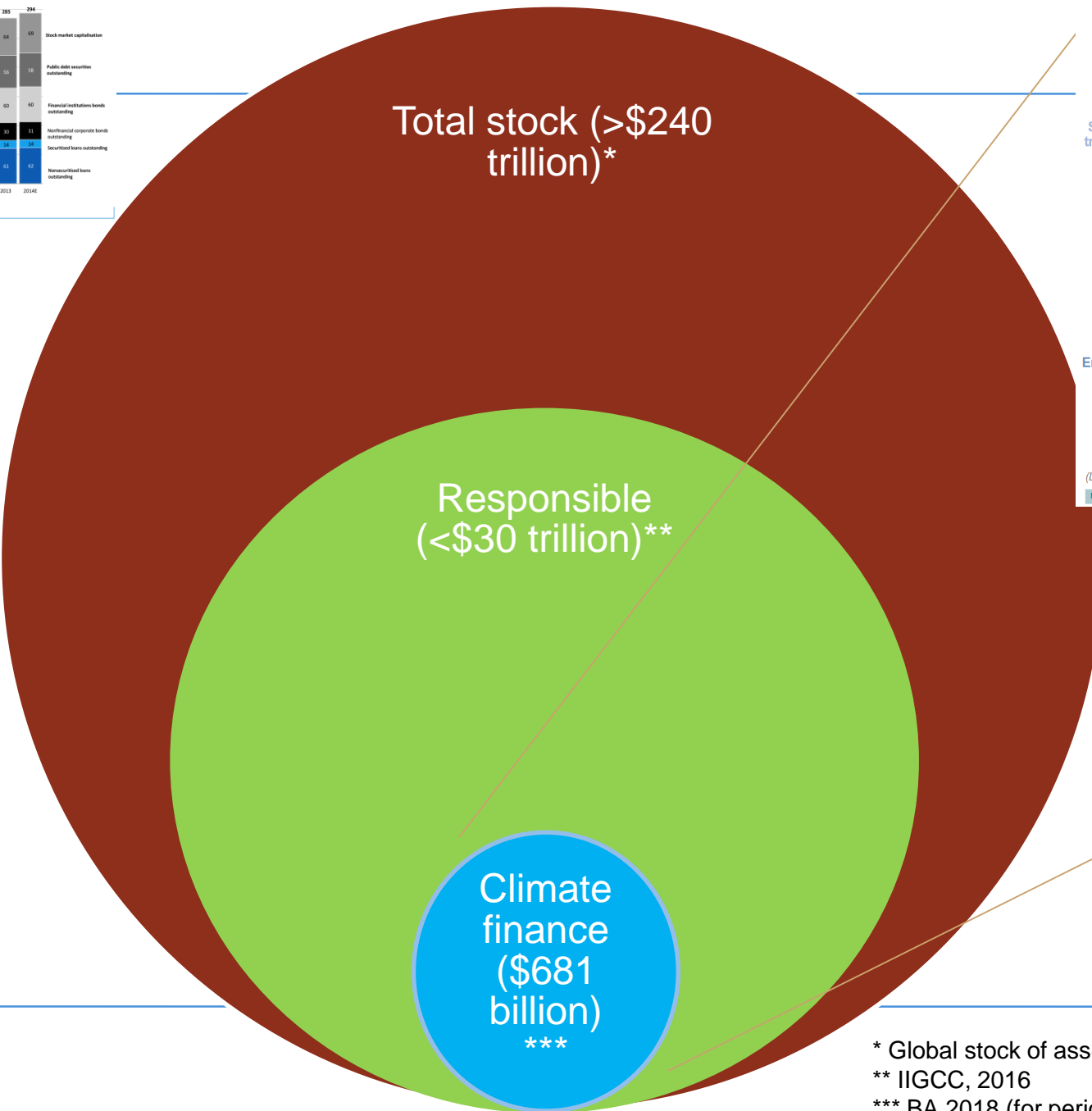
- What are current flows?
  - The big picture
  - ASEAN Trends
  - ASEAN Types
  - ASEAN Sectors
- ASEAN context (Athena)
- Needs (Yolando)
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Figure 1: Stock of Global Financial Assets



Source: McKinsey Global Institute, Haver, BIC, Deutsche Bank estimates

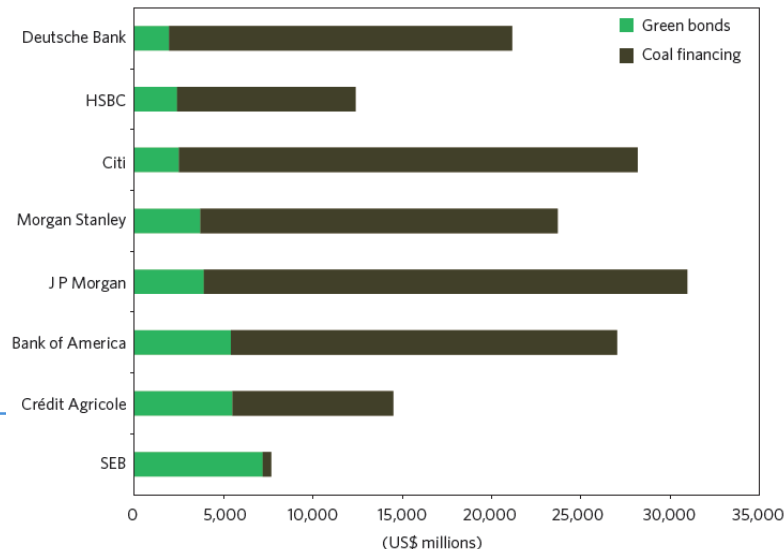


\* Global stock of assets (NCE, McKinsey, BCG, Haver, DB)  
 \*\* IIGCC, 2016  
 \*\*\* BA 2018 (for period 2015 - 2016)

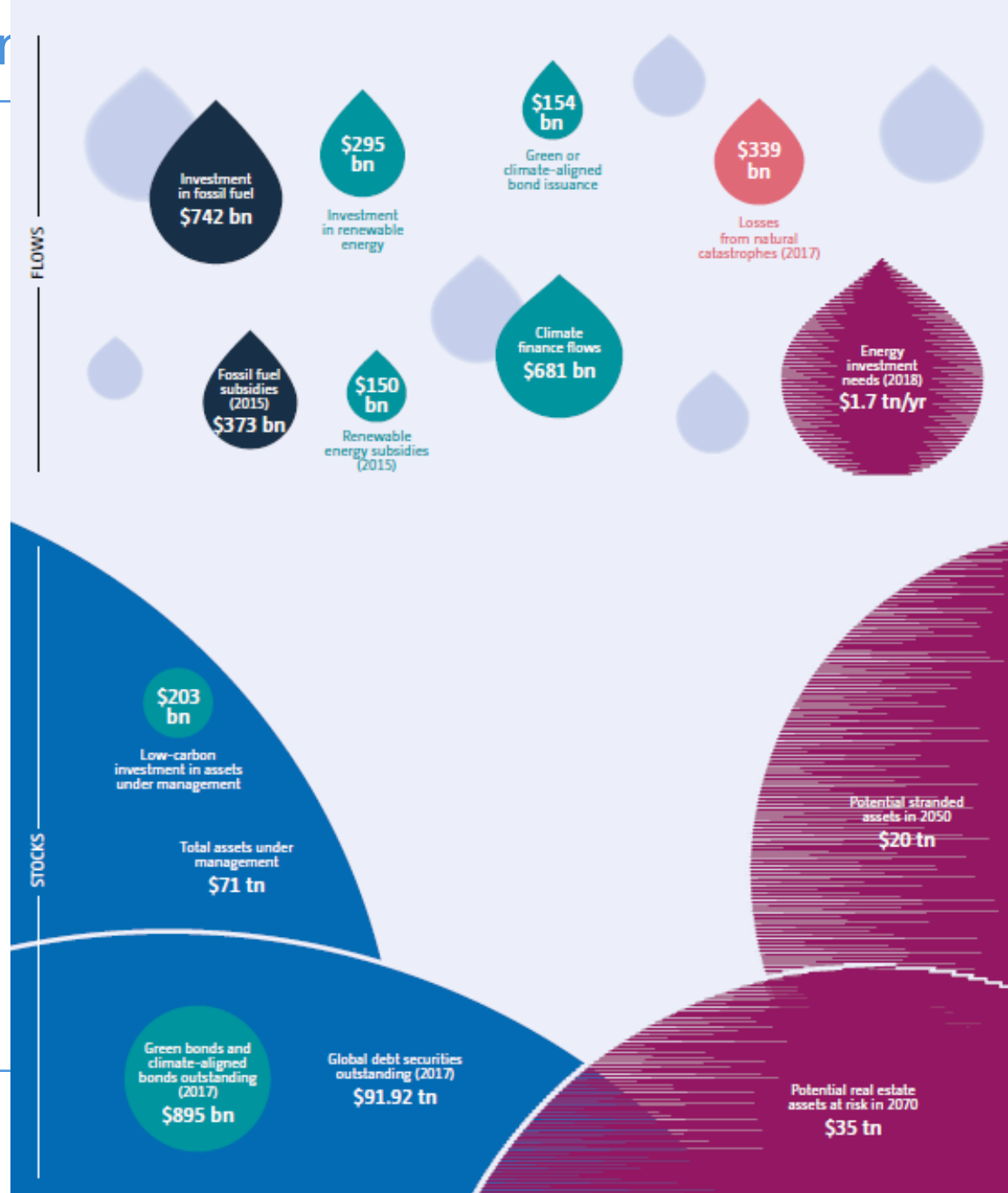
# BA 2018 key findings: Climate finance in context

## Climate finance in context:

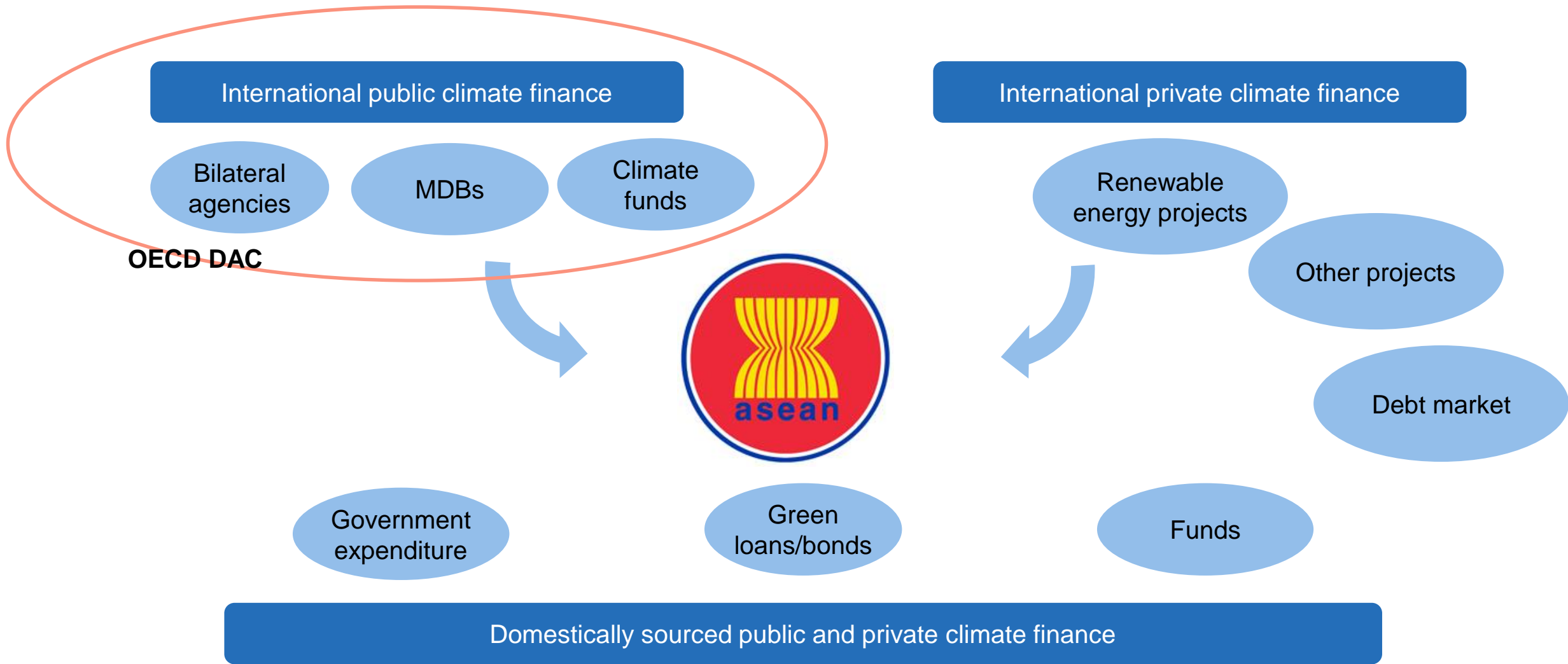
- A sole focus on climate finance flows is **insufficient in the post Paris world**: while climate finance must obviously be scaled up, it is also important to ensure **consistency of all flows and stocks, with the Article 2.1 (c) of the PA**.
- Clear momentum can be seen towards strengthening the global response to the threat of climate change in financial systems and broader financial flows, such as **investment and lending policy** of both public and private sector actors, **shifting regulatory and fiscal policy** and improved climate **information to guide investment** decision-making.
- There remains **more work** to be done on building a common understanding of Article 2.1.c.



## Climate finance in context

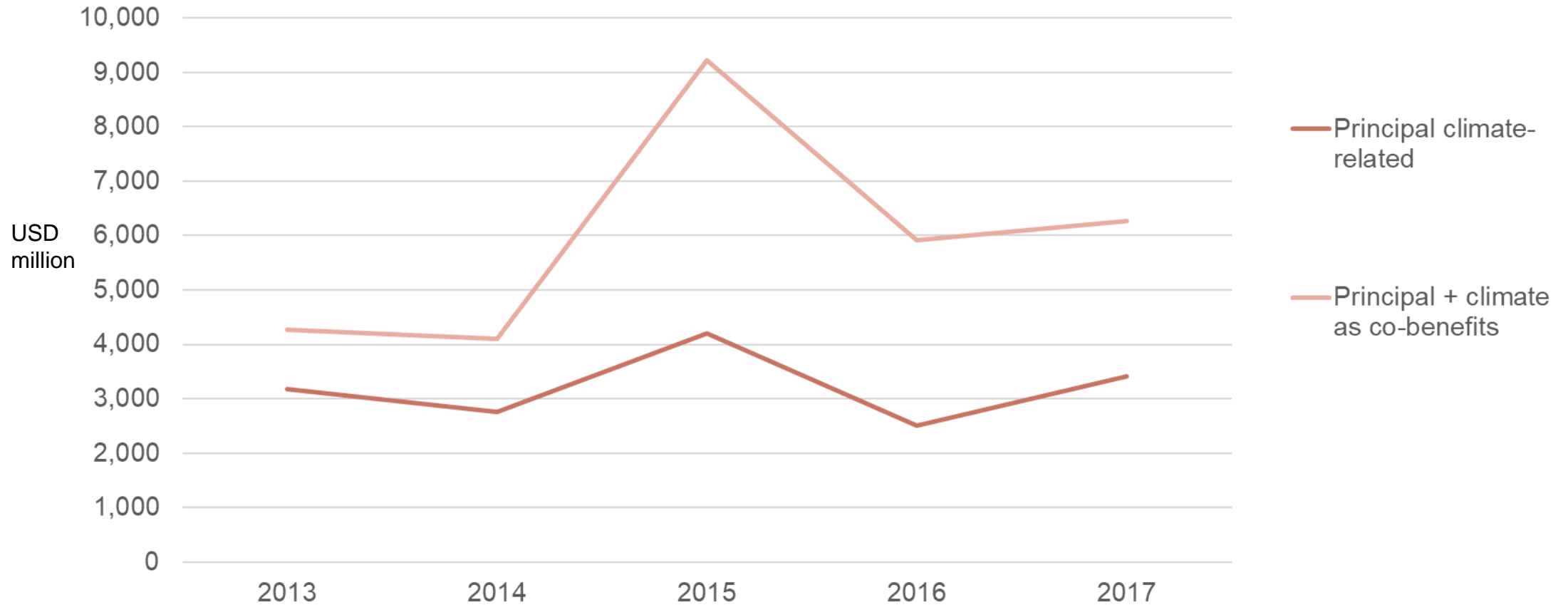


# Universe of data



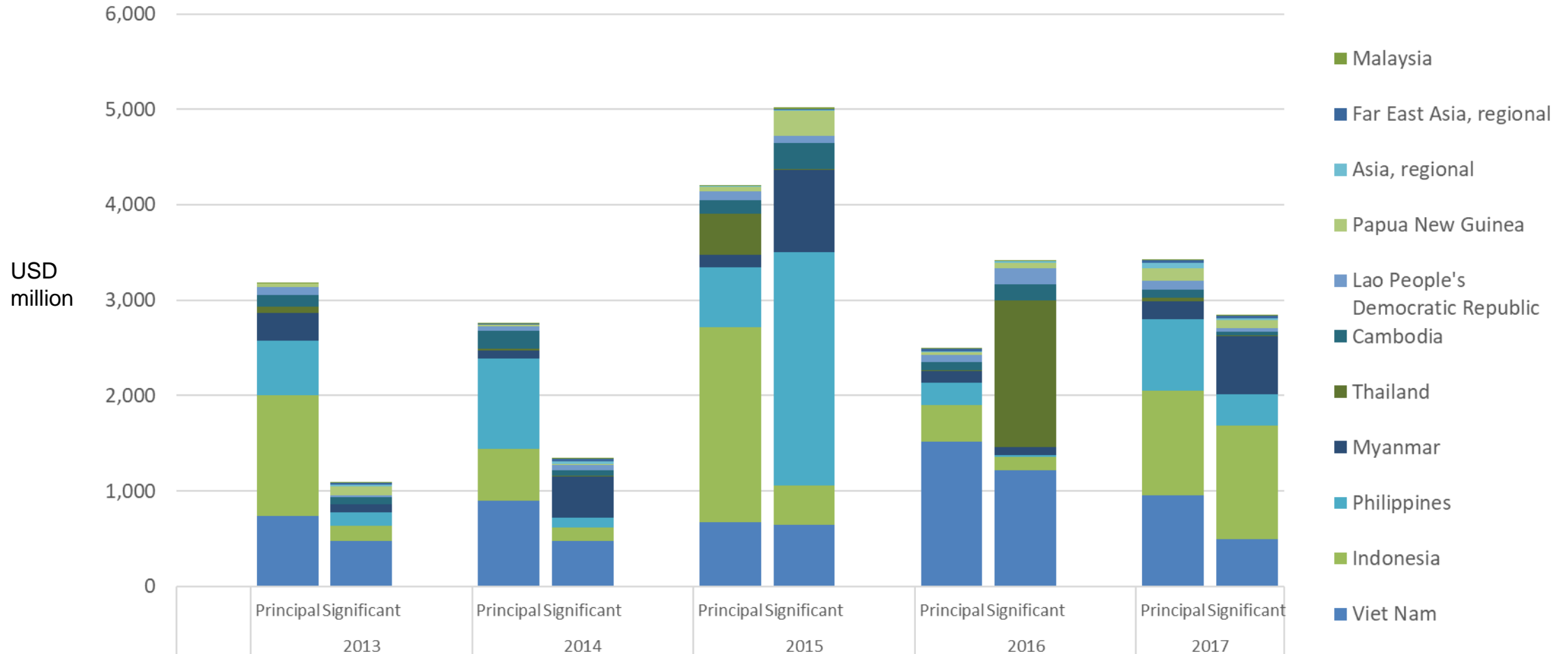
# ASEAN international public climate finance flows – recent trend

- Climate development finance averages USD 3.2 billion a year.
- Include finance for development projects with climate as a co-benefit, financing averages at USD 6 billion a year.



# International public climate finance flows – those that rec. the most

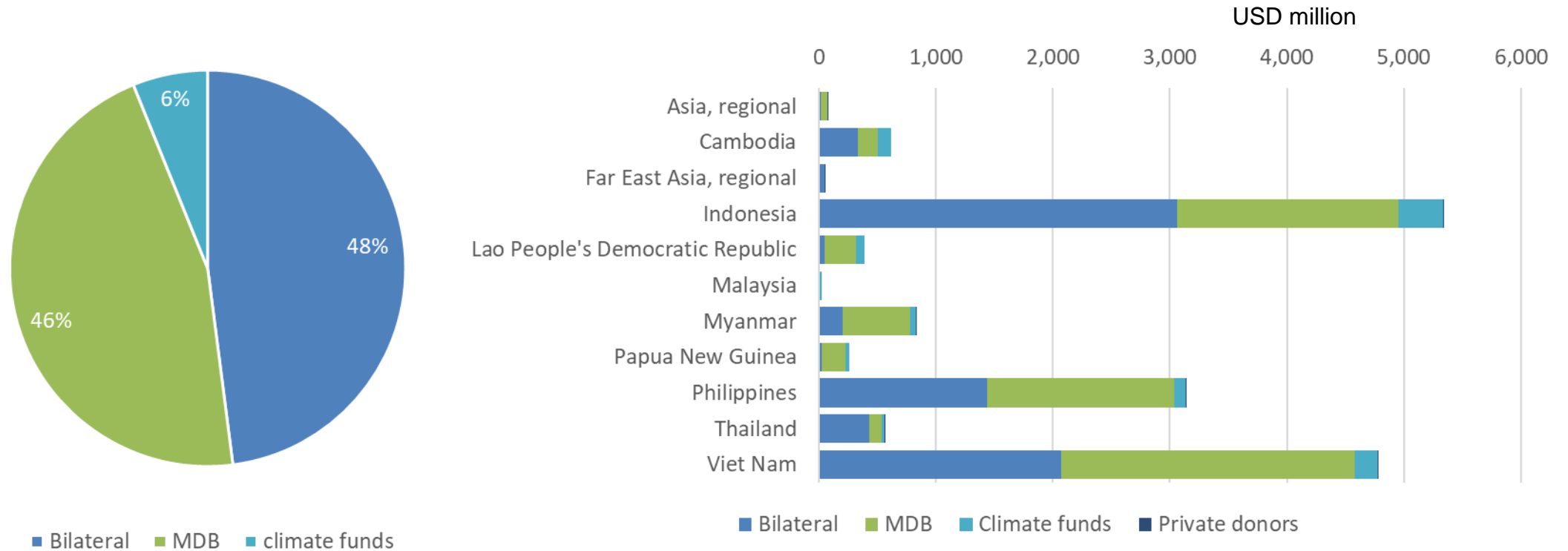
- Vietnam, Indonesia and the Philippines have received 82% of climate development finance in 2013-2017, 73% of flows including climate as a co-benefit



Source: OECD

# Countries receive mix of bilateral and multilateral flows

- 48% comes from bilateral sources with Japan as significant donor
- 46% comes from multilateral development banks such as the World Bank and ADB
- Climate fund flows have been most used in Indonesia, Vietnam and Cambodia

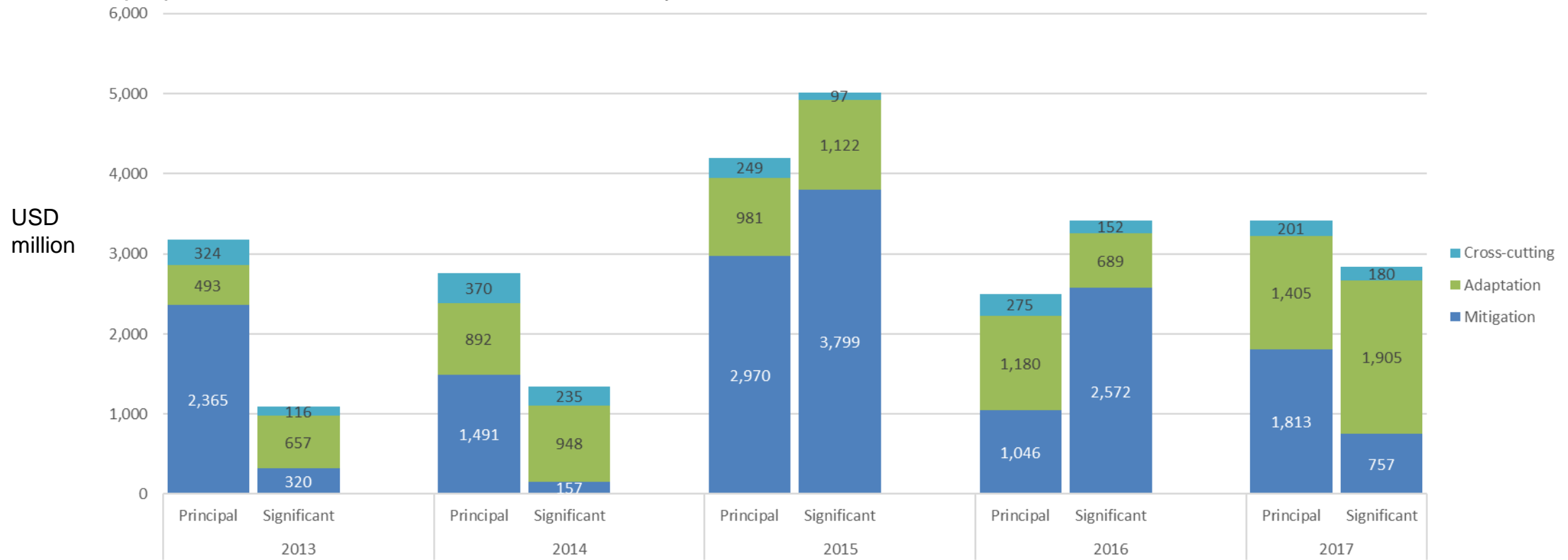


Source: OECD



# Mitigation and adaptation split

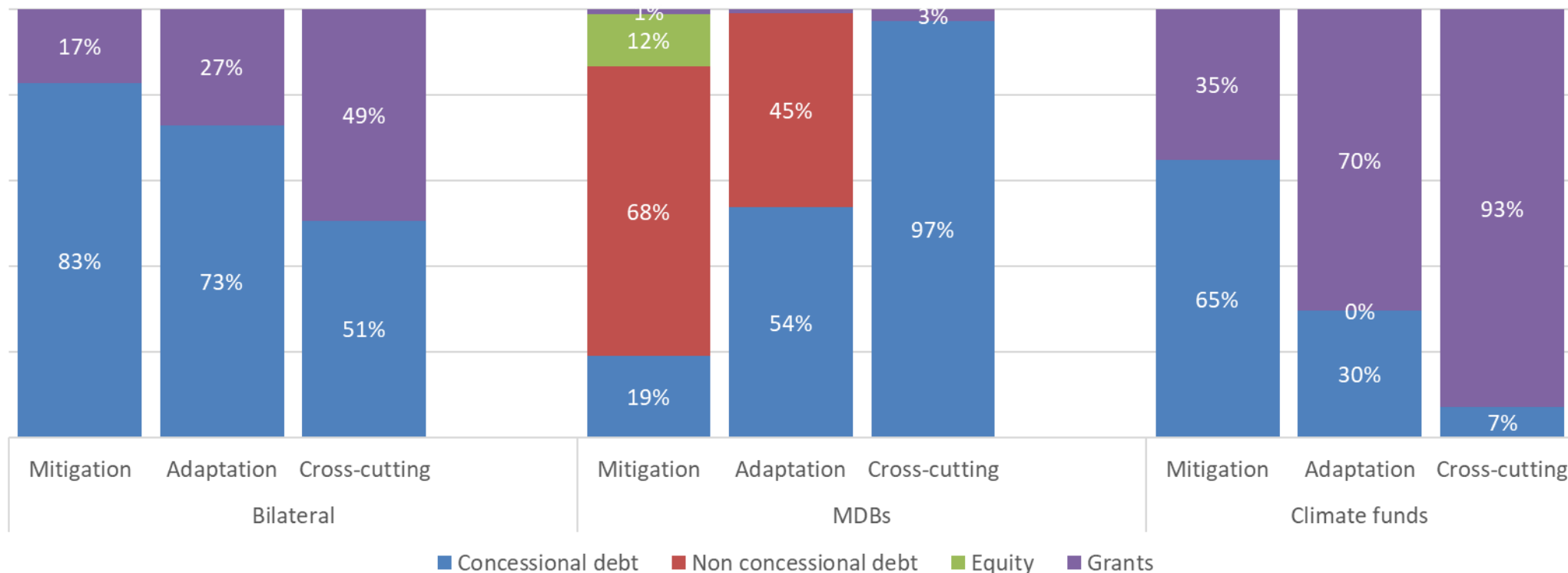
- For principal climate flows, 60% went to mitigation projects over the time period
- But 2016 and 2017 saw a more balanced allocation between mitigation and adaptation in the region, with 47% and 41% allocated to adaptation projects, compared to 15-32% in previous years.
- 4 large mitigation projects for rail infrastructure in 2015 and 2016 of USD 2.6 billion and USD 2.3 billion led to larger flows to projects with climate as co-benefit in those years.



Source: OECD

## Instrument type by provider

- Bilateral flows are predominately concessional debt, with more grants allocated to adaptation projects proportionally
- MDBs focus financing on non-concessional debt, particularly in mitigation
- Climate funds are a significant source of grant funding and concessional debt

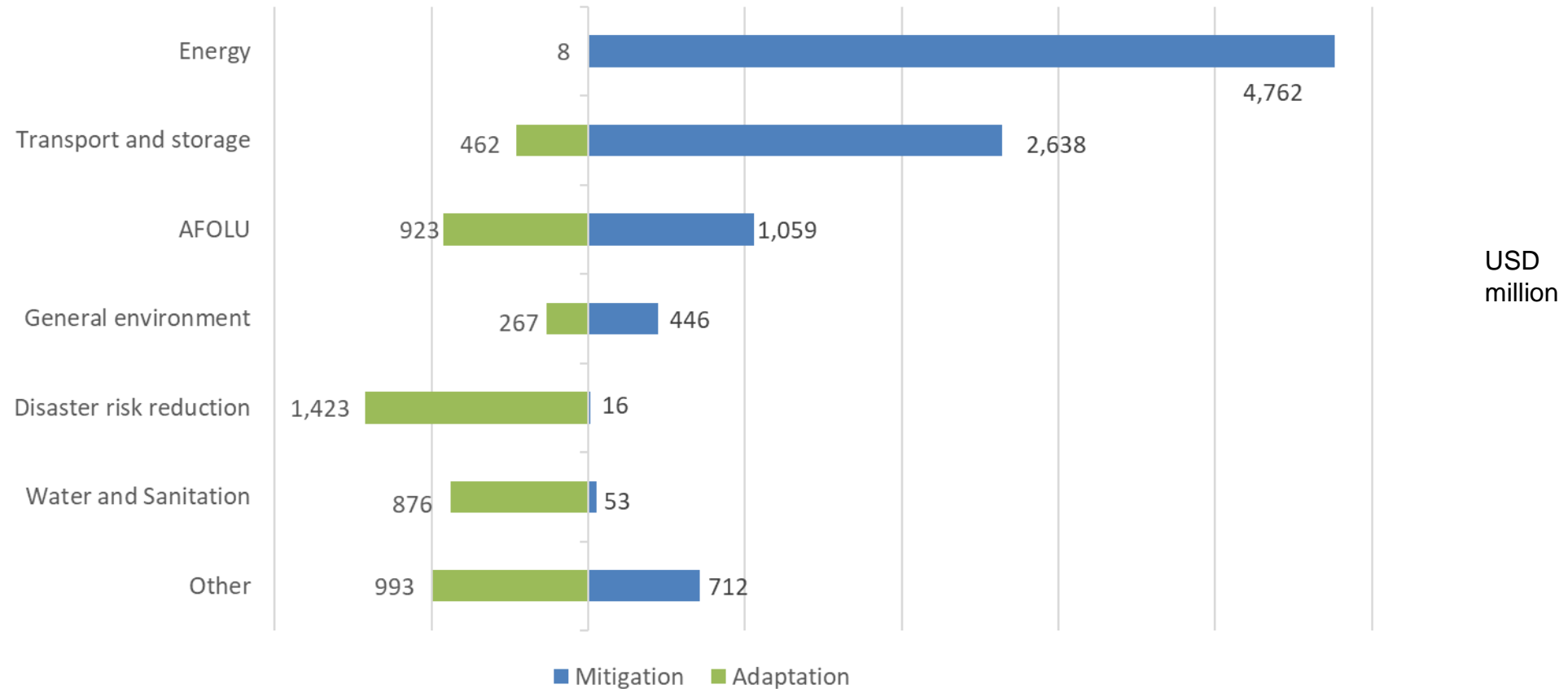


Bilateral & Funds provide concessional mitigation & adaptation debt, while MDBs focus on non-concessional debt.



# Mitigation Adaptation split

- Energy and transport projects dominate mitigation finance flow
- Disaster risk reduction, agriculture, forestry and land use and water and sanitation are most adaptation projects.

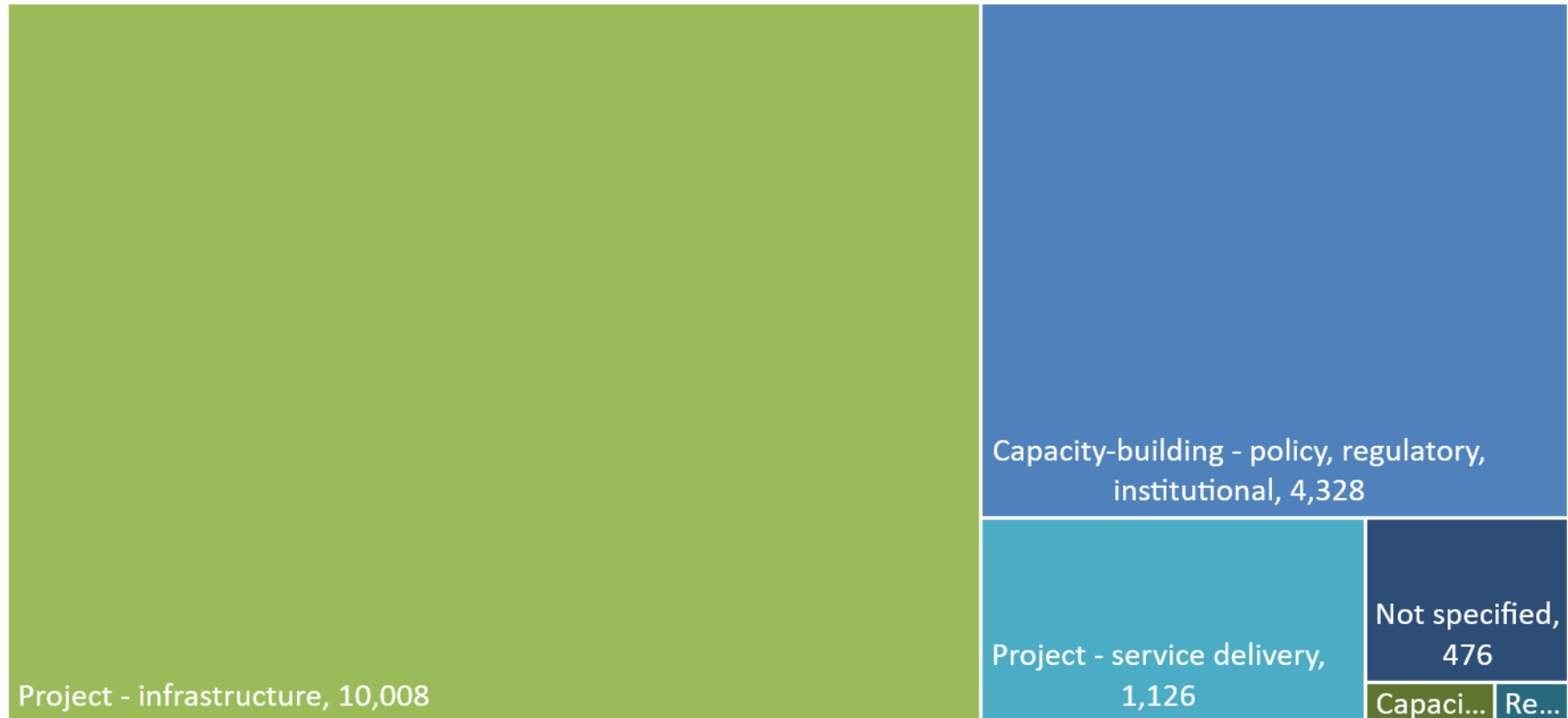


Energy is top sector, adaption is predominantly disaster reduction

Source: OECD

# Sectors – primarily capacity building and infrastructure

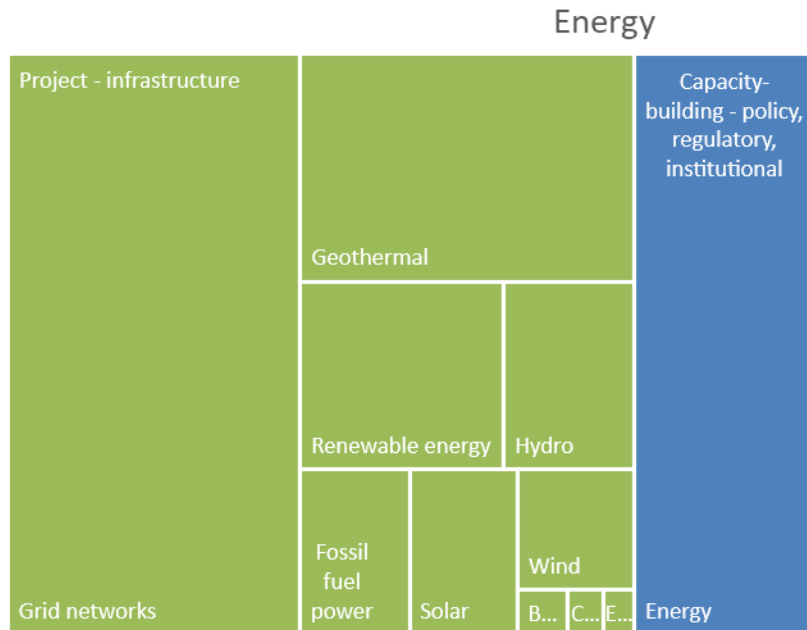
- 67% infrastructure or production
- 27% capacity building
- 7% health, education and social sectors



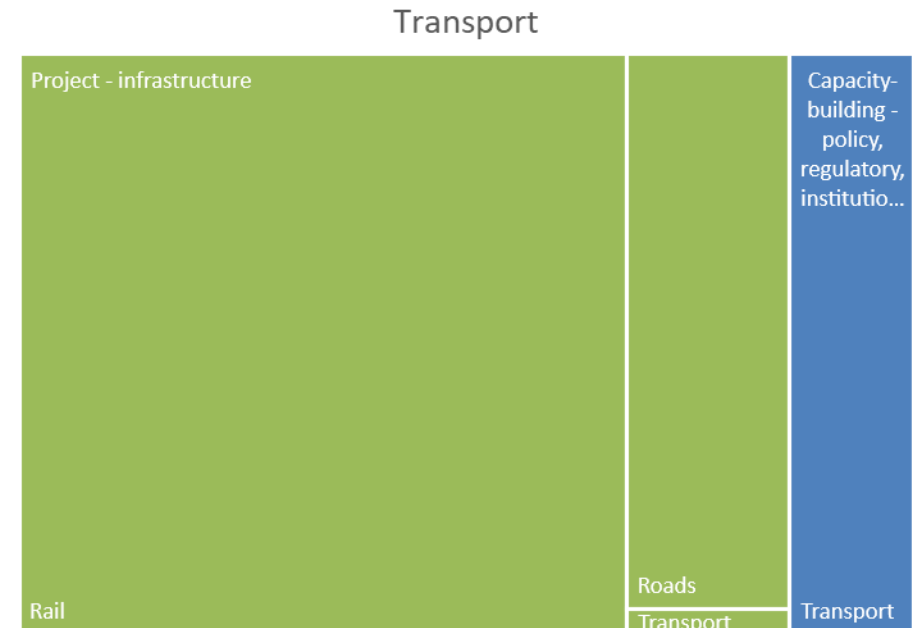
# Mitigation sectors

- In energy sector, 23% of flows went to capacity building activities.
- Grid expansions received the most of infrastructure finance (36%) and geothermal was the largest type of renewable energy. Fossil fuel power received 4%.

- In transport sector, 13% of flows went to capacity building activities.
- Rail infrastructure and transit systems received 68% of flows, followed by roads (17%)



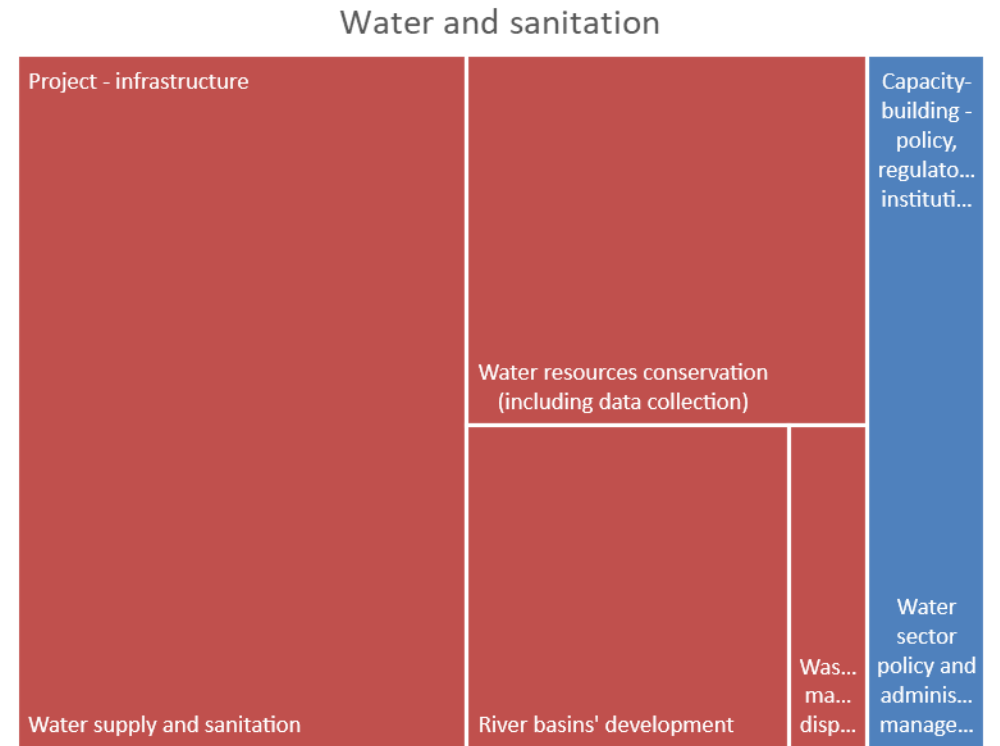
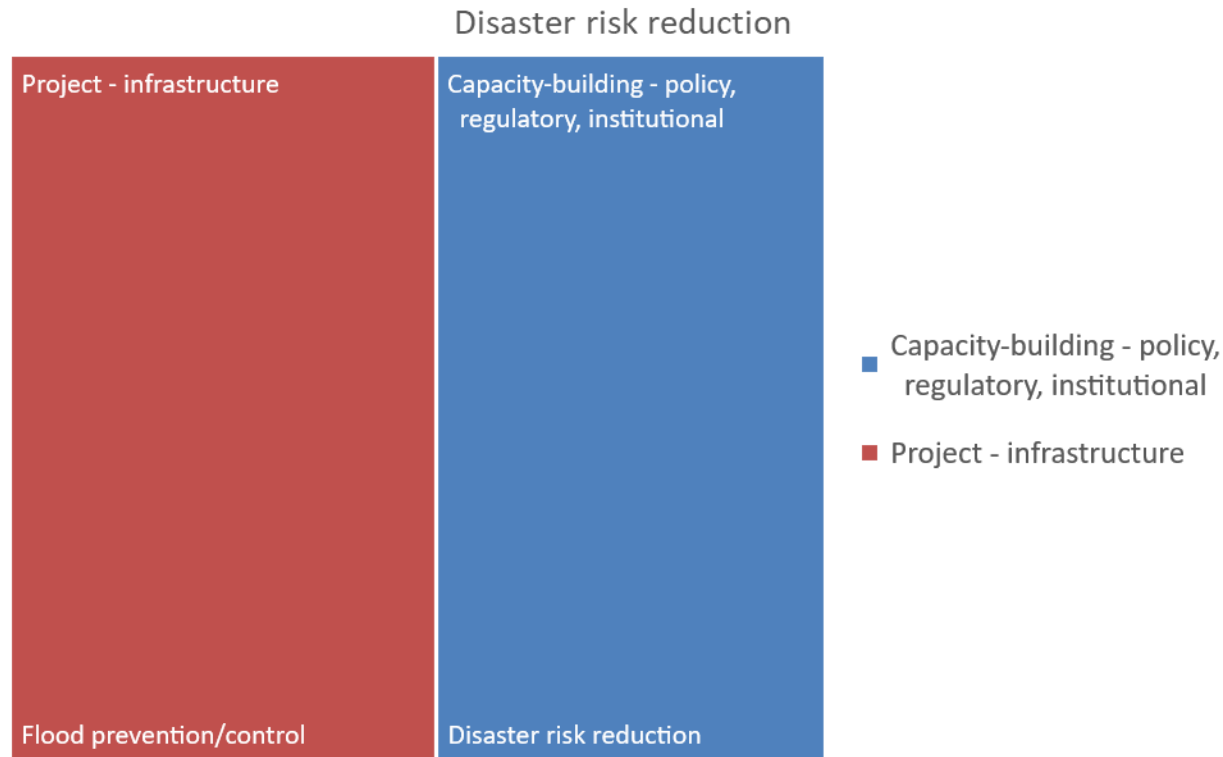
- Capacity-building - policy, regulatory, institutional
- Project - infrastructure
- Research



# Adaptation sectors

- 48% of flows for disaster risk reduction went to capacity building on preparedness, with 52% going to flood prevention infrastructure

- 46% of flows for water and sanitation went to infrastructure for water supply and sanitation services
- 22% went to water resources conservation and 12% to capacity building activities



# Private sector data

International public climate finance

Bilateral agencies

MDBs

Climate funds

International private climate finance

Renewable energy projects

BNEF



Government expenditure

Green loans/bonds

Funds

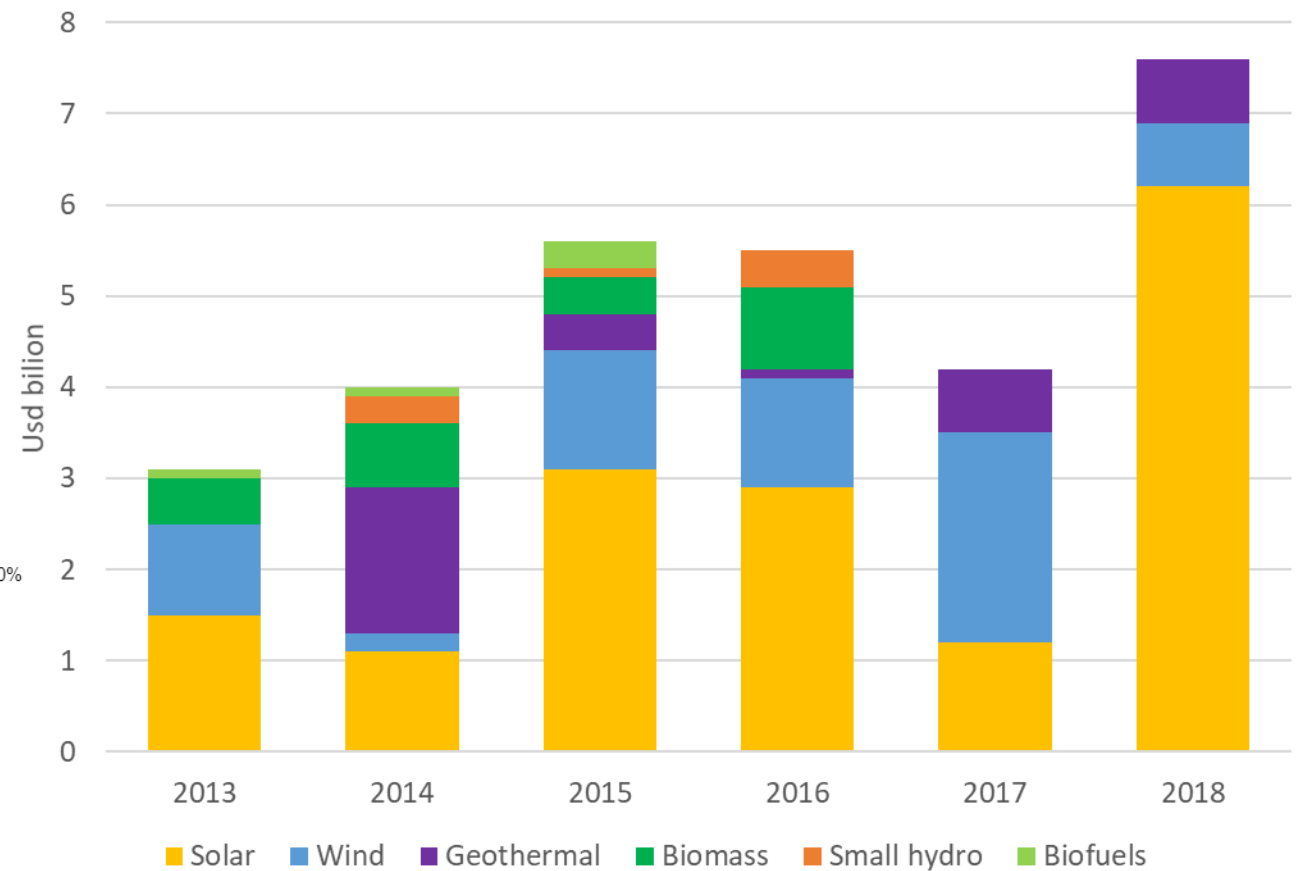
Domestically sourced public and private climate finance



# Renewable energy investment - private public combined

- Total investment in renewable energy averages USD 5 billion a year in the region
- 2018 saw 76% growth
- More was invested in solar in Vietnam in 2018 (USD 5.9bn), than in all sectors in the region in every other year.
- Top lenders involved in projects:

Bank	Count	Transaction value (\$ m)	Table share (%)
Export-Import Bank of Korea	1	143.0	28.80%
Mitsubishi UFJ Financial Group Inc	8	116.1	23.38%
Siam Commercial Bank PCL/The	2	40.7	8.21%
Kasikornbank PCL	2	26.2	5.28%
Bangkok Bank PCL	1	23.0	4.62%
Landesbank Baden-Wuerttemberg	1	18.3	3.69%
Vietnam Bank for Agriculture and Rur.	1	18.3	3.69%
BDO Unibank Inc	1	18.2	3.67%
Baoviet Bank	1	17.8	3.58%
Indovina Bank Ltd/Vietnam	1	17.8	3.58%
Malayan Banking Bhd	1	17.8	3.58%
Vietnam Oil & Gas Group	1	17.8	3.58%
China Banking Corp	1	9.1	1.83%
Land Bank of the Philippines	1	9.1	1.83%
Thanachart Capital PCL	1	3.3	0.66%
Layman Energy Associates Inc	1		





# Domestic sector data

## International public climate finance

Bilateral agencies

MDBs

Climate funds

## International private climate finance

Renewable energy projects



Government expenditure

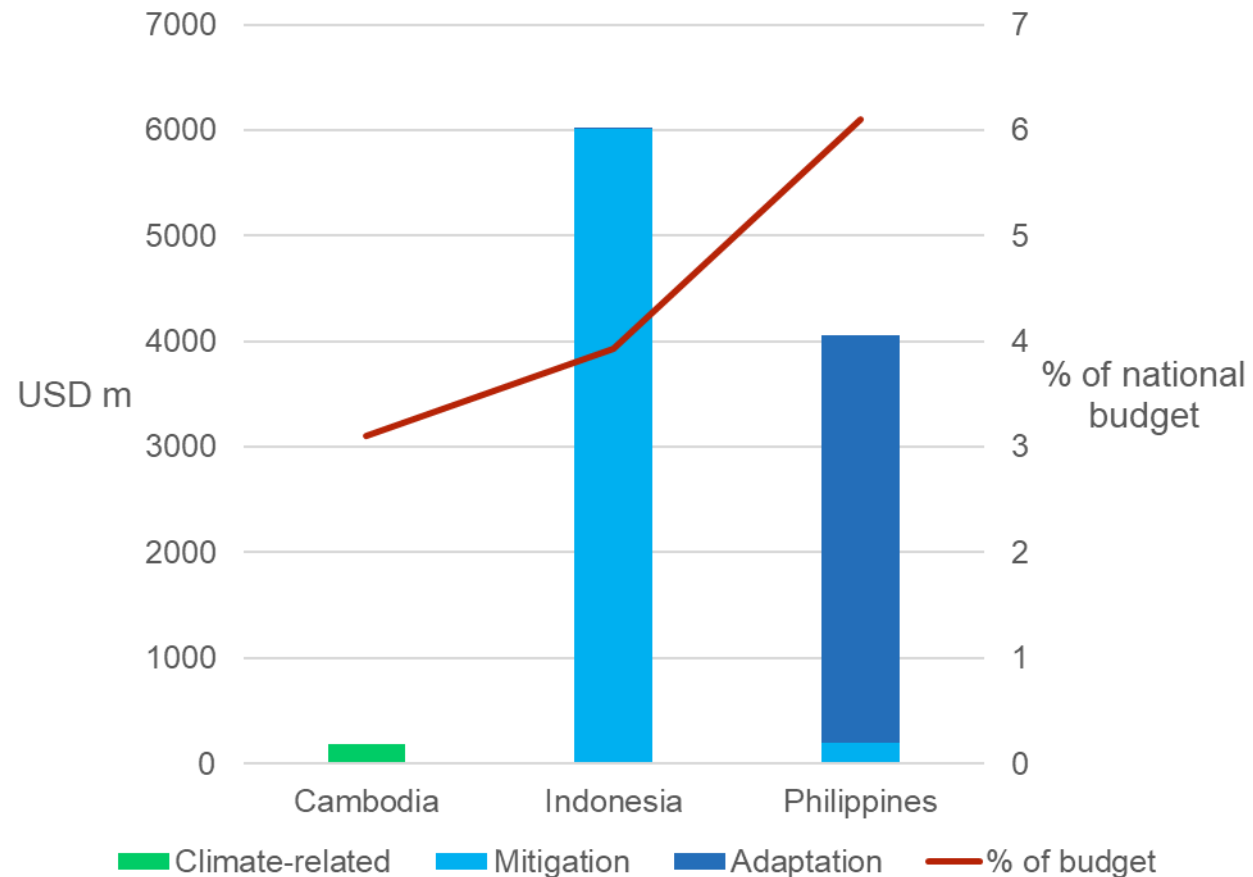
Green loans/bonds

Funds

Domestically sourced public and private climate finance



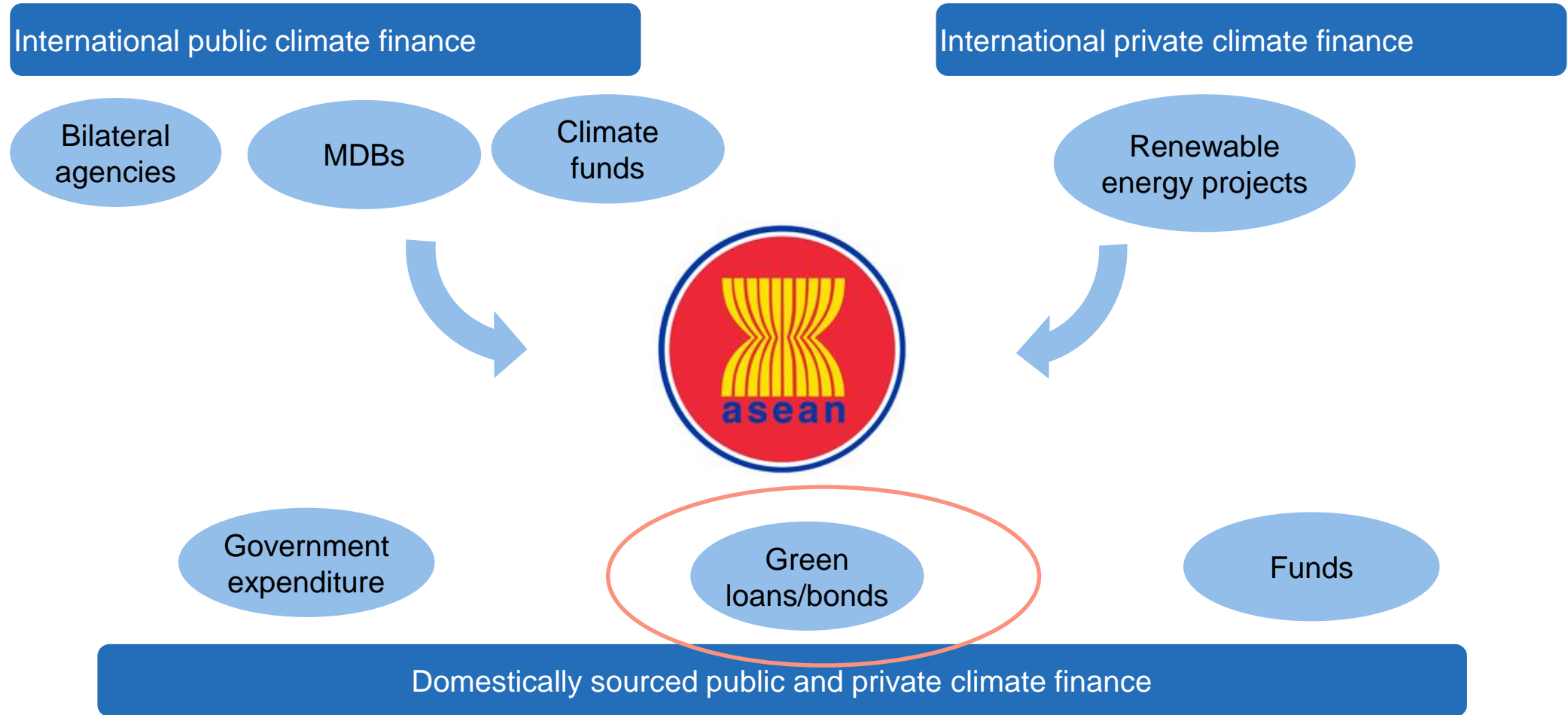
# Domestic public climate finance



- CPEIRs in three ASEAN countries with support UNDP in 2016/2017
- Automated budget tagging in **Indonesia** and **Philippines**
- **Indonesia** up to USD 6 bn in 2017. Adaptation flows not captured
- Climate **government expenditure range between 3-6% of national budgets**
- Definitions of adaptation and mitigation vary from country to country

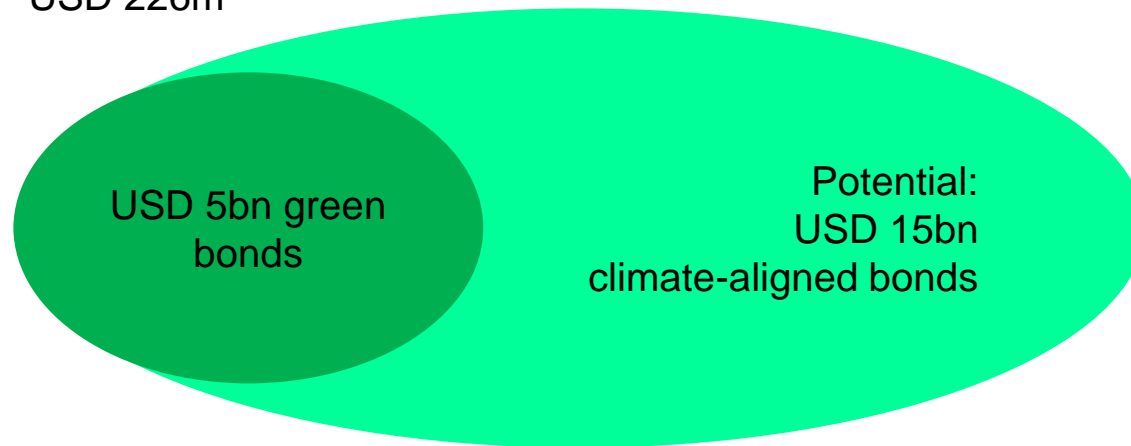


# Green Bonds & Loans data

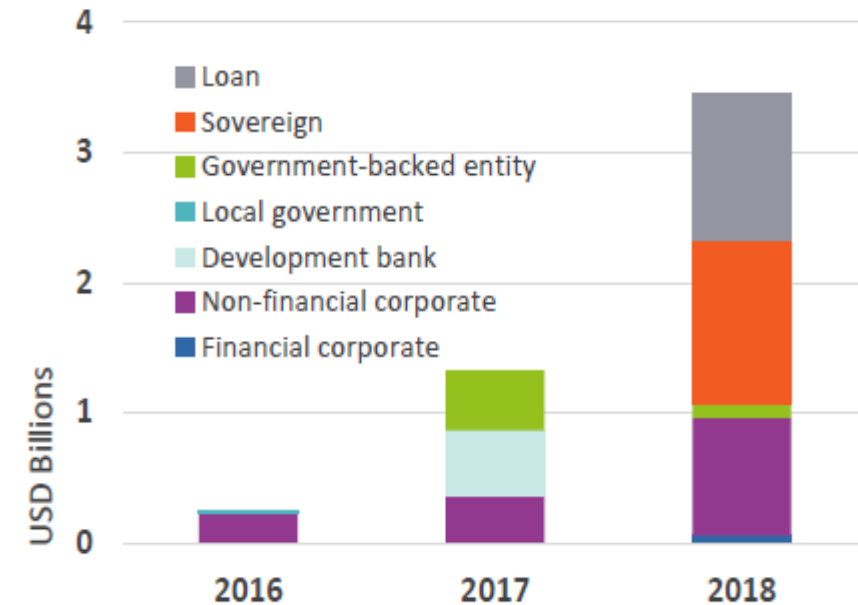


# ASEAN green bond market

- USD **5 billion** green bonds issued in ASEAN (up to 2018)
- **19 green bond issuers** from diverse segments: sovereign, corporate, banks
- 1<sup>st</sup> Green **Sukuk** in the world: Malaysia's Edra Power USD 58m for a solar project
- 1<sup>st</sup> Asian country to issue a **sovereign** green bond: Government of Indonesia USD 1.25 billion
- 1<sup>st</sup> Certified **Climate Bond** for Geothermal: Philippine's AP Power USD 226m



## Sovereign sukuk and loans fuelling 2018 ASEAN green bond market growth



*Note: All 2018 data as of 30 November 2018*

Source: Climate Bonds Initiative

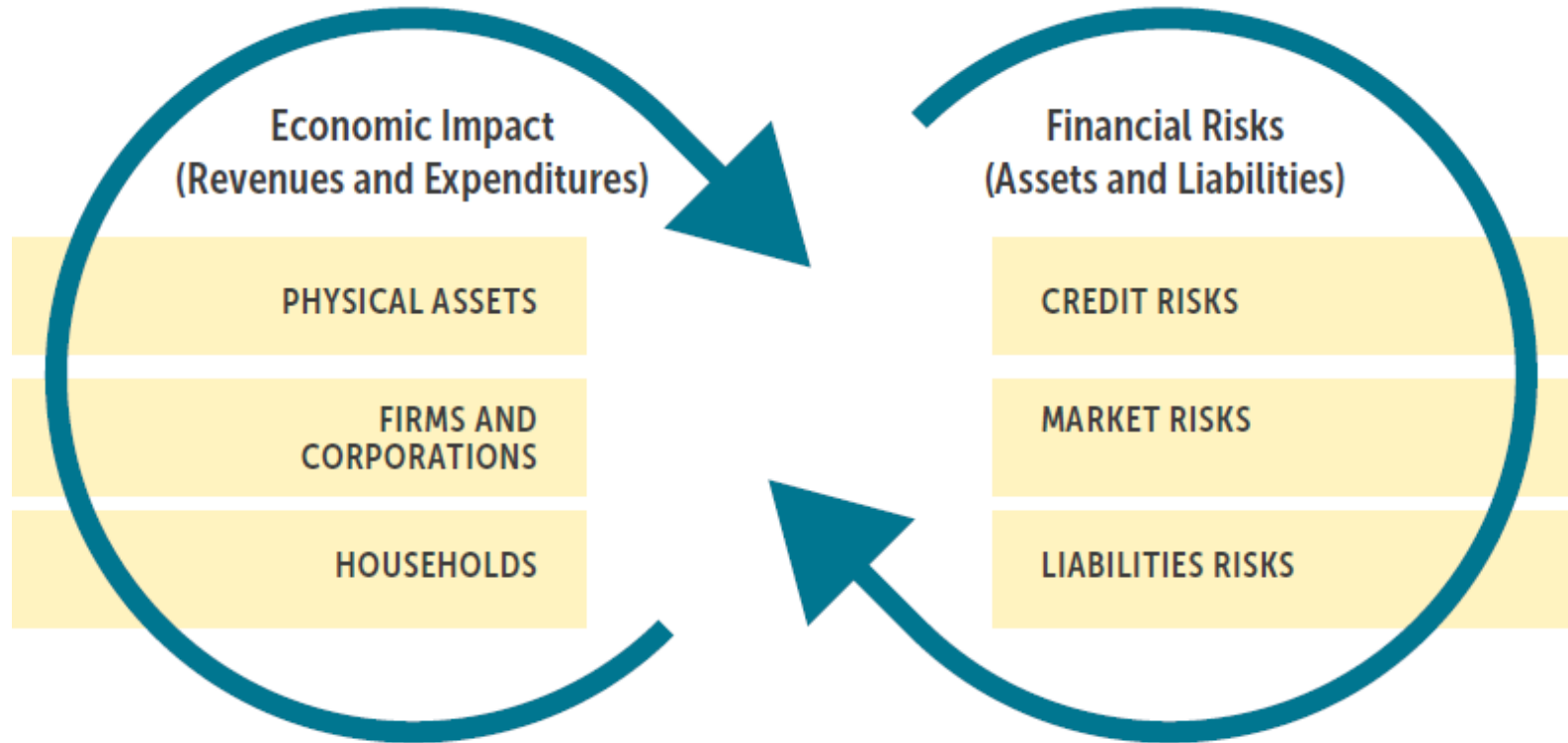


## PHYSICAL RISKS

Acute Risk  
Chronic Risk

## TRANSITION RISKS

Policy Risk  
Technology Risk  
Consumer Preferences



RISK  
IDENTIFICATION  
AND ASSESSMENT

DEVELOPING RISK  
MITIGATION  
STRATEGIES AND  
PLANNING

DESIGNING A GREEN  
UNIT OR A CLIMATE  
FINANCING VEHICLE  
TO DEPLOY GREEN  
PRODUCTS

BUILDING A  
CLIMATE-COMPATIBLE  
PORTFOLIO



# Why even strategize?

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## SUPPLY-SIDE BARRIERS

- ❑ Lack of climate strategy and limited capacity to evaluate climate projects
- ❑ Unattractive payback period of climate projects compared to terms in capital markets
- ❑ Deficient regulations to create enabling environment

## DEMAND-SIDE BARRIERS

- ❑ Limited awareness of green business opportunities and climate technologies
- ❑ High upfront costs of climate technology and low access to affordable financing
- ❑ Limited technical capabilities to access climate finance (monitoring and reporting)



Thank you

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