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## **Eighth Environment for Europe Ministerial Conference**

**Batumi, Georgia  
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**Policy perspectives  
The evolving landscape of climate finance for EECCA  
countries**



# The evolving landscape of climate finance for EECCA countries

POLICY PERSPECTIVES

2016



# The evolving landscape of climate finance for the Eastern Europe, Caucasus and Central Asian (EECCA) countries

## KEY MESSAGES

- All countries of Eastern Europe, Caucasus and Central Asia (EECCA) except Uzbekistan submitted their Intended Nationally Determined Contributions (INDCs) with quantitative GHG reduction goals. However, it will be crucial to elaborate on how actions to achieve the individual goals in INDCs will be planned, implemented and financed.
- A significant amount of international climate-related development finance has been made available to the EECCA region. In 2013 and 2014, approximately USD 3.3 billion per year was committed to the 11 EECCA countries that are eligible to receive Official Development Assistance (i.e. Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan). Mitigation projects receive five times more finance than adaptation, particularly in the energy sector.
- Among the 11 countries, the amount of climate-related development finance committed to each country significantly varies, and this is so even within the group of countries with similar levels of GDP per capita. This is due to various reasons such as socio-economic situation, needs and priorities, geopolitical circumstances, domestic institutional arrangements and historical relationship with providers of finance.
- Channels and financial instruments used to deliver climate-related development finance to the EECCA region considerably differ among the 11 countries. This may reflect, among others, the different levels of economic development and need for international public finance for climate actions. The EECCA countries also use a range of domestic climate finance sources and instruments together with international climate-related development finance.

# Context

The historic climate agreement was adopted at the 21st session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC). Yet, achieving its goals hinges on implementation of the countries' nationally determined contributions and various mechanisms under the Convention. Such implementation requires investment, thus drastic shift in finance flows from "brown" to "green" will be essential at the global and national levels.

Climate finance is already mobilised from various sources to pursue low-carbon and climate-resilient development. The Climate Policy Initiative estimates

that the global finance flow for climate actions was at least USD 391 billion in 2014, whose sources include government budgets, financial institutions and investors, corporate actors, and households. Need for finance to achieve the mitigation and adaptation goals of the Paris Agreement is however much larger. For instance, the International Energy Agency (IEA) estimates that the full implementation of climate pledges expressed in intended nationally determined contributions (INDCs) by 150 countries will require investment in the order of USD 13.5 trillion in the energy sector alone for energy efficiency and low-carbon technologies from 2015 to 2030.

**Table 1: Basic information on the countries' economy and CO<sub>2</sub> emissions (2013)**

	2014 - GDP PPP (constant 2011 international \$ min)	2014 - Population	2014 - GDP percapita, PPP (constant 2011 international \$)
Armenia	23 143.5	3 006 154	7 698.7
Azerbaijan	159 379.9	9 537 823	16 710.3
Belarus	164 292.8	9 470 00	17 348 .8
Georgia	32 579.9	4 504 100	7 233.4
Kazakhstan	399 619.4	17 289 111	23 113.9
Kyrgyz Republic	18 491.3	5 834 200	3 169.5
Moldova	16 905.5	3 556 400	4 753.5
Tajikistan	21 295.7	8 295 840	2 567.0
Turkmenistan	78 345.5	5 307 188	14 762.1
Ukraine	375 018.1	45 362 900	8 267.1
Uzbekistan	163 534.8	30 757 700	5 316.9

Source: World Bank (n.d.) World Development Indicators.

# Objectives and scope

This Policy Perspective briefly presents the current state of play on climate-related development finance that was committed in 2013 and 2014 to the countries of Eastern Europe, Caucasus and Central Asia (EECCA) from public international climate finance sources\*, while recognising the importance of mobilising domestic climate finance as well as attracting international private sector investment. The analysis focuses on 11 EECCA countries that are eligible to receive official development assistance (ODA) based on the classification by the OECD Development Assistance Committee (DAC). They are Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. This work also provides the basis for further detailed analysis to explore the level of readiness of the EECCA countries to access climate finance from various international sources.

The OECD analysis illustrates the significant amount of climate finance already committed to the EECCA countries, but scaled-up finance will help accelerate

implementation of the mitigation and adaptation actions expressed in the EECCA countries' INDCs. International climate finance can also be used to facilitate mobilisation of the countries' domestic finance sources. A range of donor countries, international financial institutions and private sector entities have pledged scaled-up climate finance globally for the period after the Paris COP, and thus there will likely be further climate finance from various sources to support climate actions across the world. However, how the EECCA countries in need of international support will be able to seize such opportunities is yet to be clarified.

Table 1 outlines the population and GDP-related data for 11 EECCA countries examined in this Policy Highlights. The sizes of the economies considerably vary among the countries, so are the population sizes.

**\* Data source of the analysis: the OECD DAC Creditor Reporting System:** *The analysis of the landscape of climate-related development finance in the EECCA region is conducted by using the database from the OECD DAC Creditor Reporting System (CRS). This database allows for an approximate quantification of financial flows targeting the objectives of the Rio conventions (including climate mitigation and adaptation). Activity-level information from both multilateral and bilateral sources is available for 2013 and 2014 for all countries eligible to receive official development assistance (ODA), including the EECCA countries (except Russian Federation). The bilateral sources include DAC members, while multilateral sources include multilateral development banks, international climate funds and some of South-South co-operation and non-DAC member contributions. This Policy Highlights tracks development finance flows for activities that target climate mitigation or adaptation as either their principle objective or significant objective.*

*It is important to note that the data shown in this Policy Highlights are a snapshot for the years 2013 and 2014 due to data availability. The DAC CRS records the face values of the activities on the dates when grant or loan agreements are signed with recipients (i.e. commitment, but not disbursement). Therefore, there may be gaps between results from the DAC CRS and recipient countries' external climate-related development finance statistics on the ground, especially when observed over a longer period.*

## What have the EECCA countries pledged?

All EECCA countries except Uzbekistan submitted their intended nationally determined contributions (INDCs) to the UNFCCC Secretariat prior to COP21, with quantitative targets for reducing greenhouse gas emissions (summarised in Table 2). Seven INDCs (by Armenia, Belarus, Georgia, Kyrgyzstan, Moldova, Tajikistan, and Turkmenistan) also include sections on adaptation plans and actions.

Climate-related development finance plays an important role in implementing mitigation and adaptation actions in their INDCs. Seven countries (Armenia, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan and Turkmenistan) have established targets that are conditional on international support (e.g. finance, technology and capacity building). However, only two INDCs (Kyrgyzstan and Moldova) explicitly indicate financial need for implementing their climate actions.

Table 2: Summary of INDCs by ODA-eligible EECCA countries

	Mitigation component			Adaptation component included?	Quantified need for support mentioned?
	Unconditional	Conditional on international support	Target year		
Armenia	-	Limit emission to an aggregate 633 million tCO <sub>2</sub> e	2050	Yes	No
Azerbaijan	Reduce GHG by 35% compared to 1990 level	-	2030	No	No
Belarus	Keep GHG emission level at 28% below 1990 level	-	2030	Yes	No
Georgia	15% reduction in GHG (excl. land use & forestry) below business as usual (BAU) levels	25 % reduction in GHG (excl. land use & forestry) below business as usual levels	2030	Yes	No
Kazakhstan	Reduce GHG by 15% compared to 1990 level	Reduce GHG by 25% compared to 1990 level	2030	No	No
Kyrgyzstan	Reduce GHG by between 11.49% and 13.75% below BAU levels	Reduce GHG by between 29% and 30.89% below BAU levels	2030	Yes	Yes
Moldova	64-67% emission cut compared to 1990 levels	78% emission cut compared to 1990 levels	2030	Yes	Yes
Tajikistan	Not exceed 80-90% of 1990 levels	Not exceed 65-75% of 1990 levels	2030	Yes	No
Turkmenistan	Zero growth in emissions, or even reduce emissions, (primarily by domestic sources but also with support of international finance)		2030	Yes	No
Ukraine	Reduce to 60% of 1990 levels	-	2030	Yes	No

Source: Intended Nationally Determined Contributions of the countries listed.

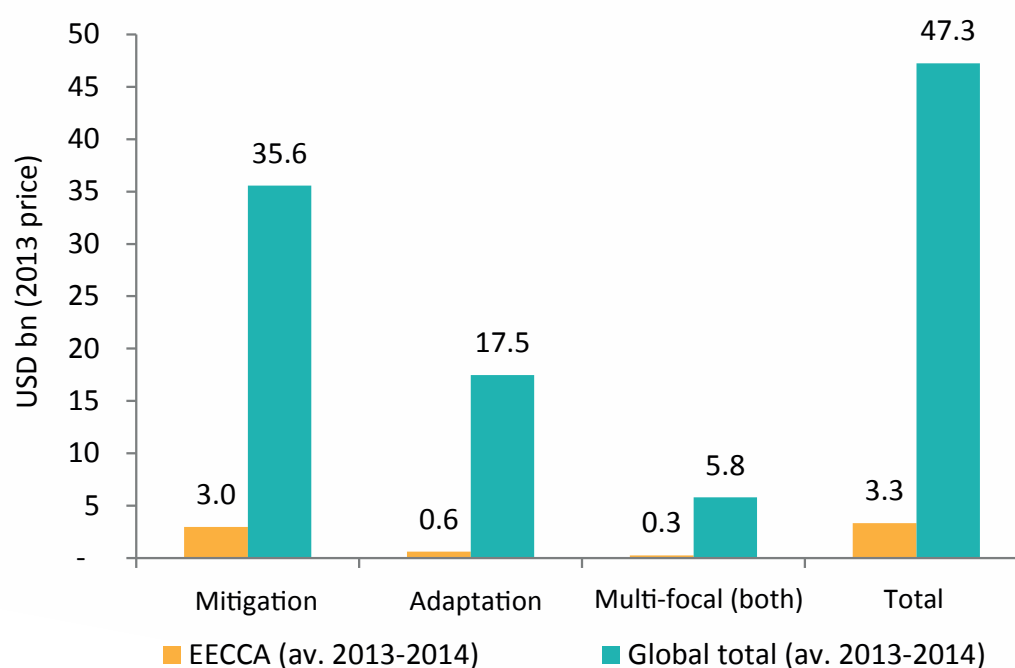


# Latest climate-related development finance flows to EECCA and other developing countries

In 2013 and 2014, USD 3.3 billion per year (2-year average) was committed to the 11 EECCA countries with the significant difference in size that each country has received, or expects to receive (Figure 1). This number consists of finance for adaptation and mitigation projects, as well as multi-focal projects for both mitigation and adaptation. Bilateral and multilateral donors providers of finance committed during 2013-14 to supporting more than 660 projects in these countries.

This amounts to 7.1% of the total climate-related development finance committed globally in 2013 and 2014 (i.e. USD 47.3 billion per year on average). More specifically, climate-related development finance committed to mitigation in the EECCA is 8.3% of that for all the recipients globally, while adaptation finance amounts to 3.5% of the global total.

Figure 1: Annual climate-related development finance flows for mitigation and adaptation: Comparison between EECCA countries and the total of all recipients (Average 2013-14)



Note: Total climate-related development finance = Mitigation + Adaptation – Multi-focal (both)

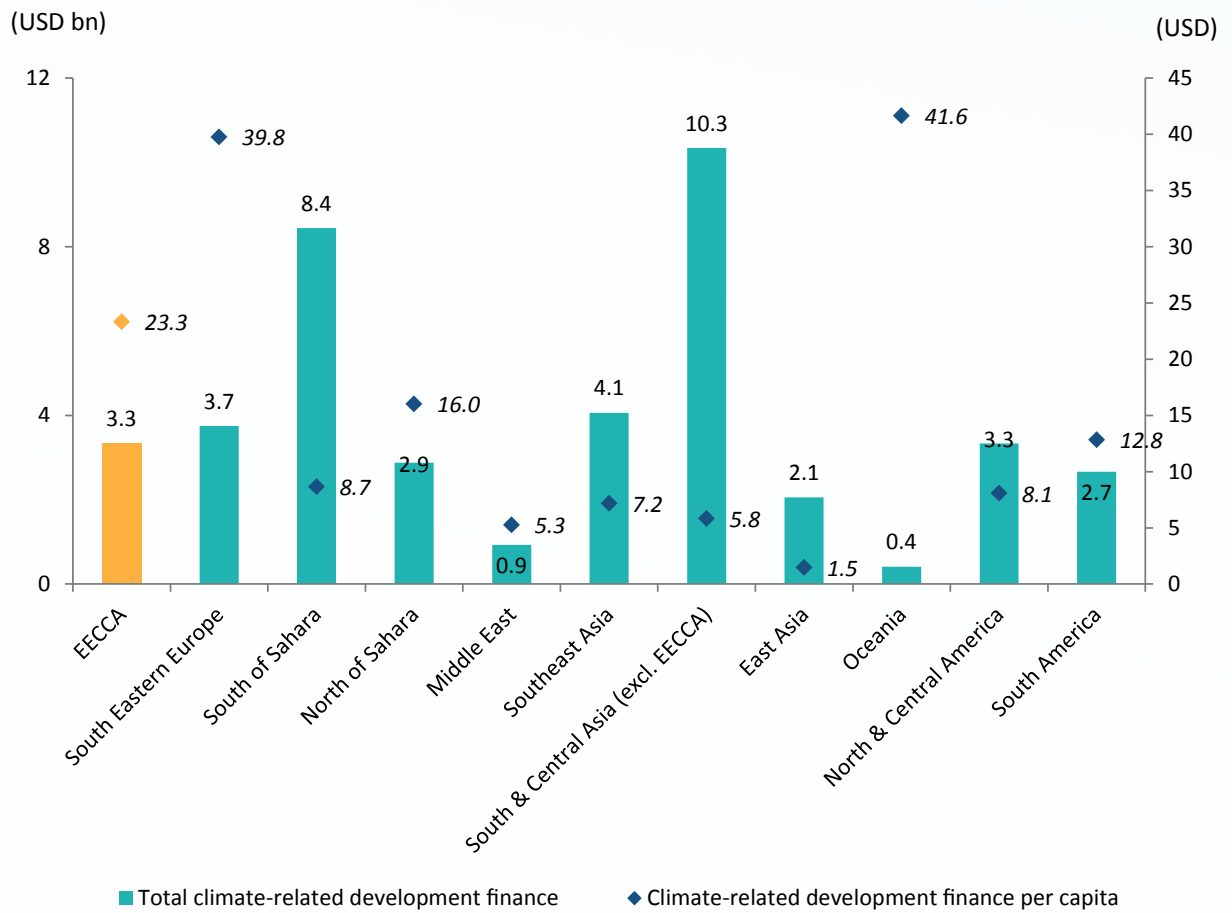
Source: OECD (2016a), Climate-related development finance, 2016 February version.

## Climate-related development finance by region: EECCA vs other regions

At the regional level, the amount of climate finance committed to the EECCA region is similar to the amounts that are committed to Southeast Asia, Southeast European countries, North and Central America, South America, and North of Sahara (Figure 2). The figure also shows climate-related development finance received on a per capita basis. Largely due to its small population size, compared to other regions such as South of Sahara, South and Central Asia, and Southeast Asia, the EECCA region receives a relatively large amount of climate-related development finance per person.

A caveat needed here is that needs, socio-economic circumstances and populations significantly differ between countries, and thus the volume of finance committed does not directly translate into the extent to which the needs of each country are being met, or difference in the levels of readiness of each region to access international climate finance.

Figure 2: **Annual climate-related development finance flows by region**  
(Total and per capita: average 2013-14)



Notes: The data above excludes some of the trans-boundary projects across countries/regions to avoid double counting.

Source: OECD (2016a), Climate-related development finance, 2016 February version.

## How much does each EECCA country receive?

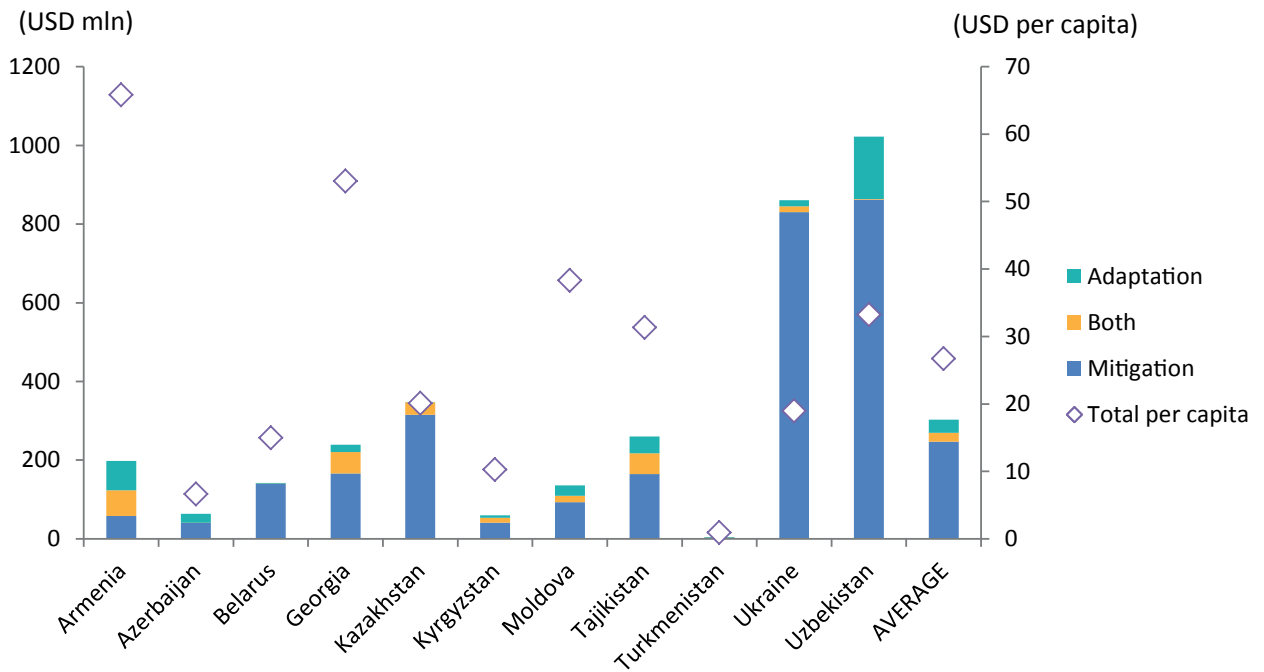
For the period 2013-14, the largest amounts of climate finance were committed to Ukraine and Uzbekistan among the 11 EECCA countries, while Turkmenistan, Azerbaijan and Kyrgyzstan receive relatively small volumes of climate finance (Figure 3). Among the resource-rich countries, Kazakhstan receive a significantly larger amount of finance than Azerbaijan or Turkmenistan.

Climate-related development finance for mitigation outweighs that for adaptation: the financing for mitigation only (USD 3 billion per year in 2013 and 2014) is about five times larger than that for adaptation only (USD 0.62 billion per year in 2013 and 2014). While this is the tendency observed globally, the difference in the balance between mitigation and adaptation finance is larger in the EECCA countries (i.e. mitigation only: adaptation only: both = 81% : 11% : 8%) than the global average (i.e. mitigation only: adaptation only: both = 63% : 25% : 12%). This may be partly due to large-scale energy sector investments for mitigation. It may also be because the 11 EECCA countries do not include any Least Developed Countries or Small Island Developing States that often have greater needs for adaptation. Further, it is generally more difficult to track finance for adaptation since adaptation tends to be embedded in broader development projects and/or business operations, and thus, may be underestimated.

In terms of climate-related development finance per capita, the less populated countries tend to receive the considerably larger amounts of finance per capita than the average (USD 27 per capita annually) (Figure 3).

Such countries are Armenia, Moldova, Georgia and Tajikistan (3.0 million, 3.6 million, 4.5 million and 8.4 million of populations respectively). Uzbekistan with 45.6 million of population also receives a relatively large amount per capita finance, reflecting the large size of total climate-related development finance committed to the country. Despite its small population size, Kyrgyzstan, on the other hand, receives the smaller amount of finance per capita due largely to a relatively small size of total climate-related development finance committed to the country in 2013 and 2014.

Figure 3: **Annual climate-related development finance flows by country in the EECCA region**  
 (Annual total per capita: average 2013-14)



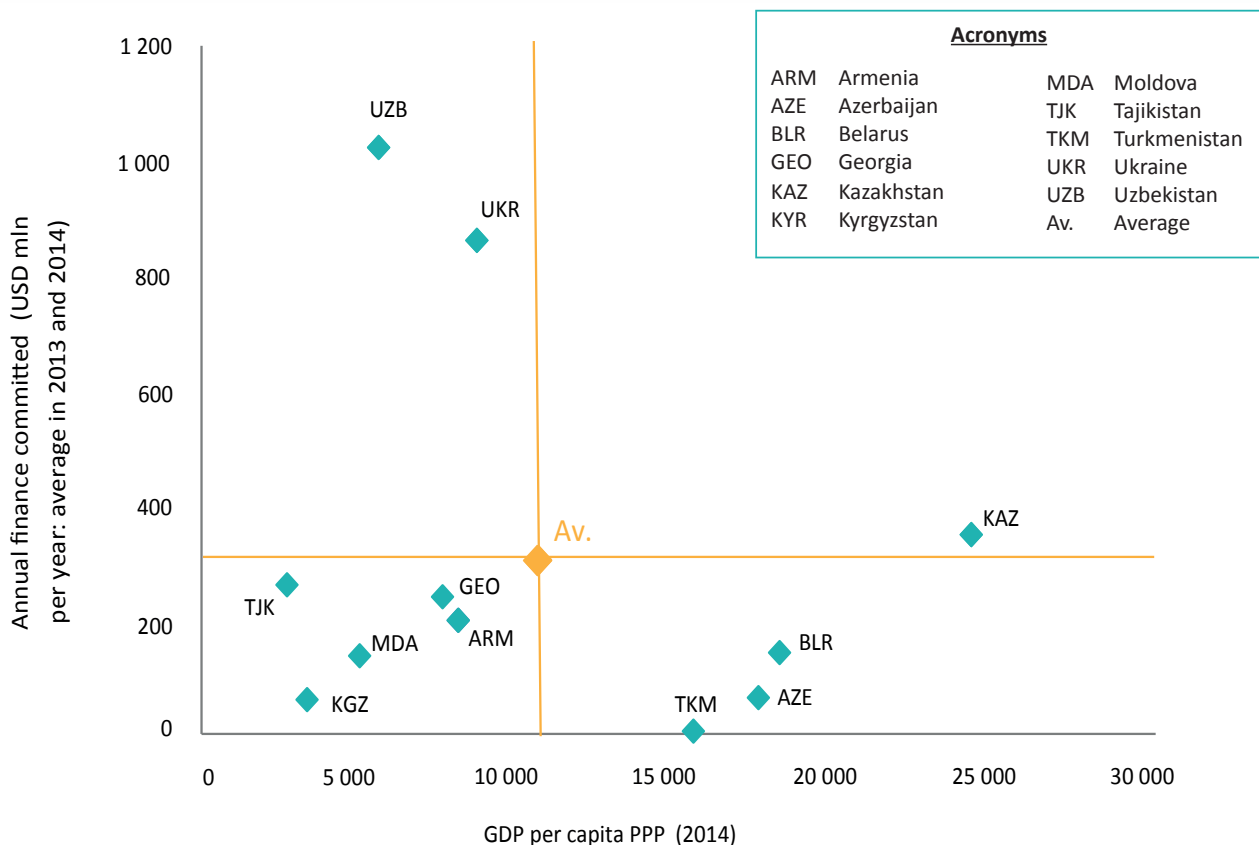
Source: OECD (2016a), Climate-related development finance, 2016 February version.

## GDP per capita and climate-related development finance

The amount of climate-related development finance committed to each country significantly varies, even within a group of countries whose GDP per capita (Purchasing Power Parity or PPP) levels are similar to each other (Figure 4). There may be various potential reasons for the differences, such as socio-economic situation, needs and priorities, geopolitical circumstances, domestic institutional arrangements, and historical relationship with providers.

For instance, Uzbekistan and Ukraine receive considerably large amounts of finance (USD 1 billion per year and USD 860 million per year respectively) compared to Moldova, Georgia and Armenia, despite their similar GDP per capita levels (PPP). This is partly due to a few large-scale infrastructure investments in energy, transport and water sectors in Uzbekistan and Ukraine in 2013 and 2014. The amounts of climate-related development finance committed to Kazakhstan, Tajikistan and Georgia are relatively close to the average of all those 11 countries, whereas their per capita income levels significantly differ.

Figure 4: Annual climate-related development finance in 2013- 14 and GDP per capita PPP



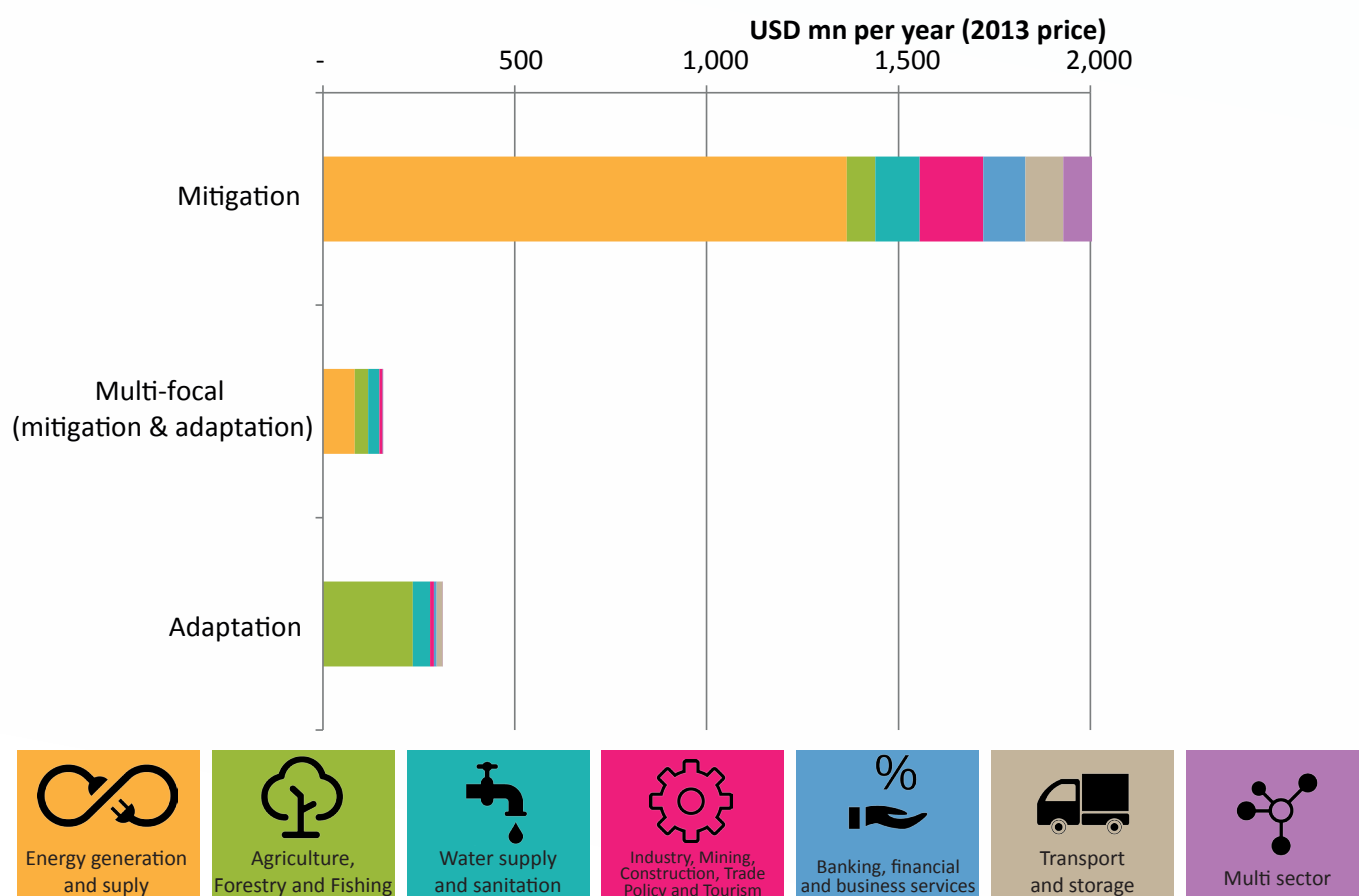
Sources: Climate Finance data from OECD (2016a), Climate-related development finance, 2016 February version; and GDP per capita PPP from Wold Bank (n.d.) World Development Indicators (accessed January 2015).

# Climate-related development finance by sector

Energy generation and supply sector (e.g. generation and distribution of electricity and gas) receives the largest volume of climate-related development finance (Figure 5), given its large financial needs to replace or rehabilitate aged and inefficient power plants and transmission infrastructure in the EECCA region (IEA, 2015). The financing for energy generation and supply sector amounts to more than 40% of the total climate-related development finance committed to EECCA in 2013 and 2014.

Agriculture, forestry and fishing sector as well as water supply and sanitation sector also receive a significant portion of climate finance, which are especially important for adaptation actions. The six largest projects of all committed to in the EECCA countries in 2013 and 2014 are directed to either Uzbekistan or Ukraine (e.g. supported by Japan, the World Bank Group and the European Investment Bank). Such projects include high-efficiency gas-fired power plants, district heating, energy efficiency, transport sector infrastructure investment and water resource management (for adaptation).

Figure 5: Annual climate-related development finance to EECCA region by sector (USD million in 2013 and 2014)



Source: OECD (2016a), Climate-related development finance, 2016 February version.


## How is climate-related development finance delivered?

In the EECCA region, multilateral development banks (MDBs) have channelled a greater level of climate-related development finance than bilateral donors during 2013-14 with respectively 61.7% (multilateral) and 29.6% (bilateral) of total (Figure 6). This is in contrast to the average of all recipient countries around the world where a significantly larger share of climate finance is delivered bilaterally (51.0% of total) than multilaterally (37.5% of total). This shows the important role that MDBs have been playing in providing or channelling climate finance for the region. Nevertheless, most ODA-recipient EECCA countries are either Lower Middle Income Countries (GNI per capita is between USD 1 046 and USD 4 125) or Upper Middle Income Countries (between USD 4 126 and USD 12 745). In such countries, loan finance by MDBs tends to have a greater role than in LDCs that often rely more on grants.

The major channels to deliver climate-related development finance differ across the EECCA countries. Armenia (e.g. infrastructure in energy, water and agriculture sectors) and Uzbekistan (e.g. large scale power plants) receive a large portion of finance through bilateral channels. Turkmenistan receives the smallest amount of climate-related development finance among the EECCA countries, and the finance is delivered through the Global Environment Facility (for e.g. energy and agriculture sectors). Various financial instruments, such as grants, concessional loans, commercial loans and equities, are used to deliver climate-related development finance to the EECCA countries (Figure 7). Which instruments or tools are best suited to specific climate activities varies across different countries, project types and technologies.

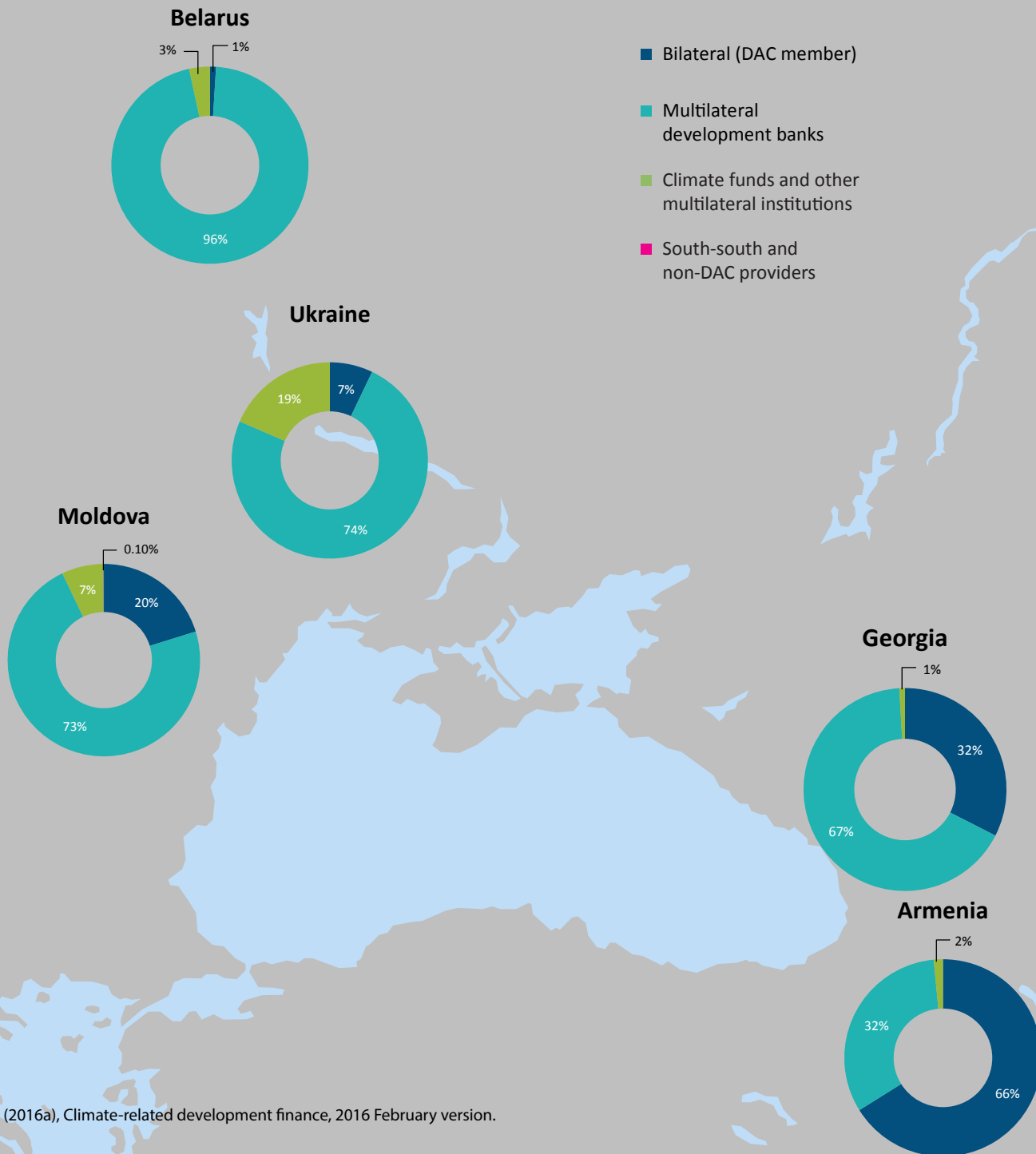






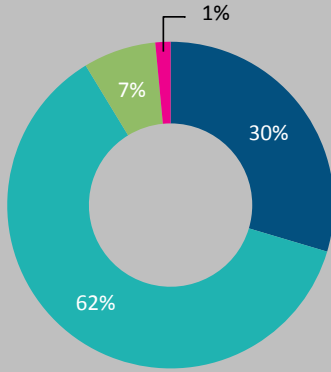
While loans are predominantly used in most of the countries (e.g. concessional loan financing for power plants, irrigation systems, transport infrastructure, etc.), Tajikistan and Kyrgyzstan receive a relatively large share of grant finance, reflecting their lower income levels. Examples for the latter include ADB's grant for Golovnaya hydro power plant (Tajikistan), and adaptation projects in forestry and agriculture sectors (Kyrgyzstan) supported by, for instance, Germany. The share of equity financing is small throughout the region, which includes equity participation by the European Investment Bank and KfW Entwicklungsbank in the Green for Growth Fund II (e.g. in Armenia, Ukraine and Georgia), and a hydro power project supported by ADB (in Armenia).

Figure 6: Channels through which climate-related development finance is provided

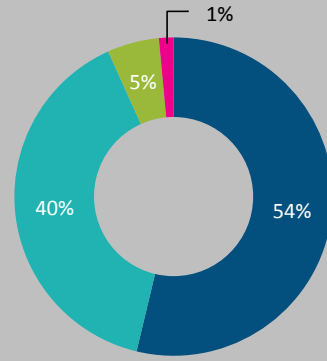


Source: OECD (2016a), Climate-related development finance, 2016 February version.

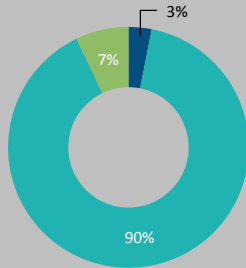
AVERAGE (EECCA)



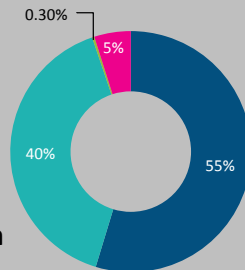
AVERAGE (Global)



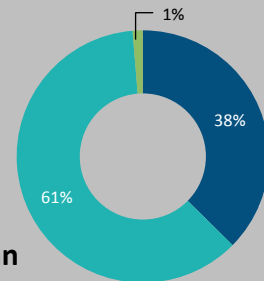
Kazakhstan



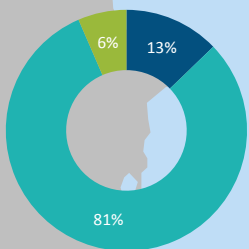
Uzbekistan



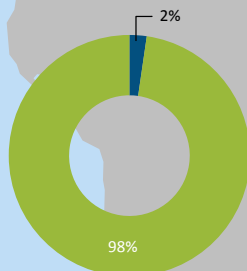
Kyrgyzstan



Azerbaijan



Turkmenistan



Tajikistan

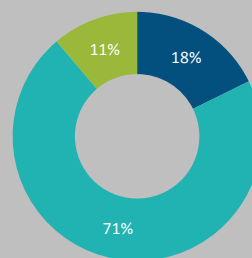
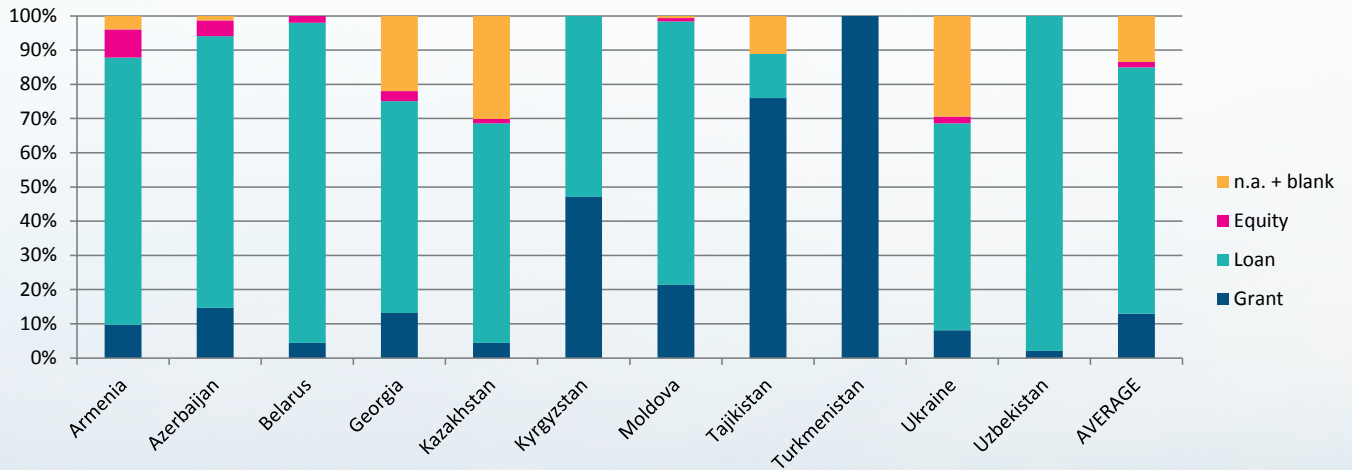


Figure 7: Financial instruments used in the region



Source: OECD (2016a), Climate-related development finance, 2016 February version.

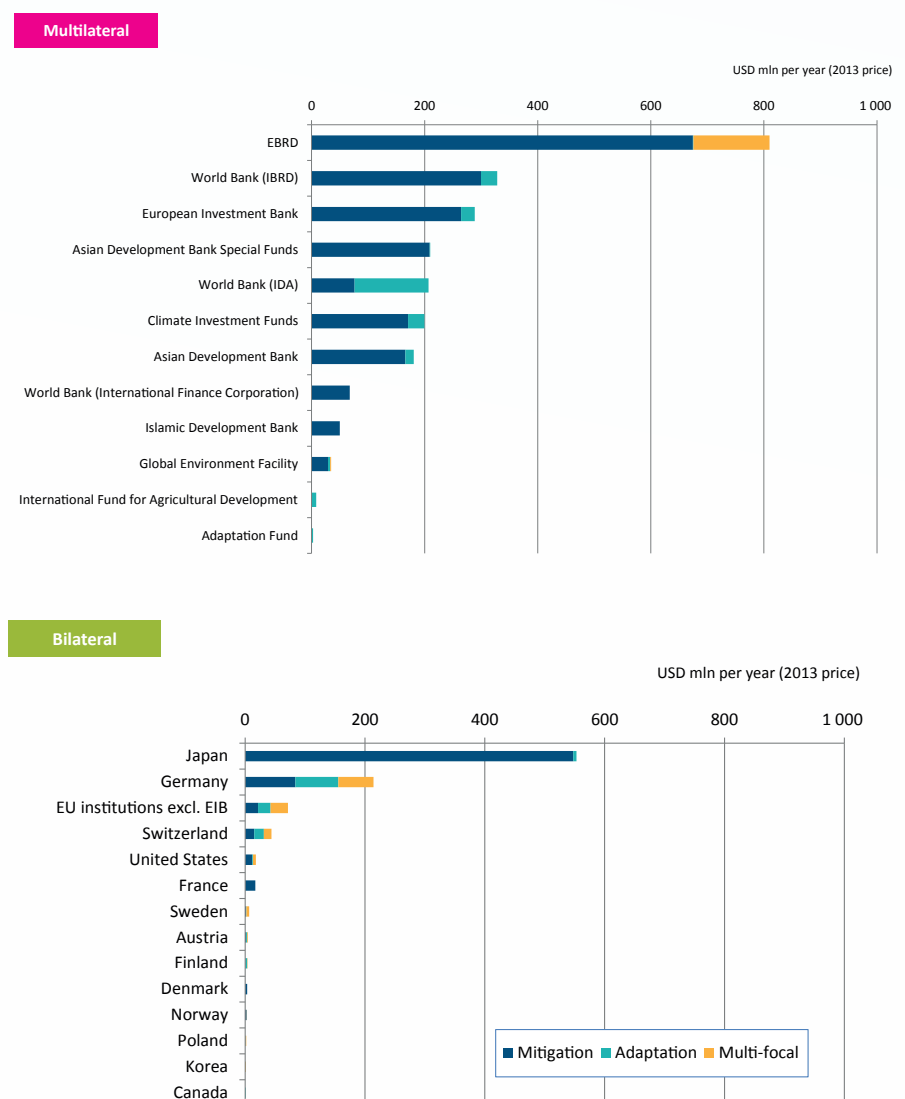


## Who delivers climate-related development finance?

Among multilateral donors, the European Bank for Reconstruction and Development (EBRD), the World Bank Group (i.e. IBRD, IDA and IFC), the Asian Development Bank (ADB) and the European Investment Bank (EIB) have committed a significant amount of climate-related development finance (Figure 8) in a variety of sectors during 2013-14. Multilateral funds dedicated to climate action are also active in many EECCA countries. These include the Climate Investment Funds (e.g. district heating energy efficiency and renewable energy plants in Ukraine, adaptation programmes for rural areas and energy sector in Tajikistan) and funds operated by the Global Environment Facility (e.g. a variety of capacity building programmes in addition to capital investments).

Among the bilateral donors, Japan committed the largest amount of climate-related development finance in 2013 and 2014 to, for instance, the large-scale gas fired power plants in Turakurgan and Navoi in Uzbekistan. Germany, EU and Switzerland, also major providers of climate-related development finance, have committed to financing a relatively large number of projects, notably on adaptation (e.g. water resource management, agriculture and forestry) but also on mitigation. Bilateral donors also provide climate-related development finance through MDBs and climate funds, whose amount is included in the figures on the multilateral channels.

Figure 8: Major providers of climate-related development finance to EECCA countries



Notes: Financing by the Climate Investment Funds is channelled through the Clean Technology Fund (CTF) or the Pilot Program for Climate Resilience (PPCR).

Source: OECD (2016a), Climate-related development finance, 2016 February version.

# Linking domestic and international climate finance

The experience of many developing countries shows the significant benefits from using in-country systems to manage international and domestic climate-related finance. Such benefits could include reducing duplication and transaction costs; enhancing a country's ownership over results of financing; strengthening linkages between climate policies and the country's core planning and budgeting processes; and improving accountability and transparency.

The EECCA countries use several different types of domestic climate finance sources, such as state budgets (central and local governments), dedicated public funds that can be used for climate actions, fiscal incentives, and asset financing by state-owned enterprises.

The aims of using such sources are diverse, including: to meet capital investment needs for their climate-related policies and national development plans; to attract foreign direct investment and domestic private financing; and to co-finance projects supported by providers of international and domestic climate finance.

Table 3 is a non-exhaustive list of examples of domestic policy instruments for financing climate action. Future OECD work on climate-related development finance envisages conducting more detailed country-level analysis.



Table 3: Examples for policy instruments to mobilise domestic climate finance

Measure	Country	Description
National funds for projects relating to climate change actions (entirely or partly financed by domestic sources)	Armenia	Armenia Renewable and Energy Efficiency Fund implements renewable energy programmes and create an enabling environment for private investors (financed by both domestic and international sources).
	Tajikistan	The National Trust Fund for renewable energy and energy efficiency is to be established for the period towards 2020 (to be financed by both domestic and international sources).
	Moldova	The National Environmental Fund and the National Fund for Regional Development allocate up to 30% of their budgets for water supply and sanitation.
	Georgia	Georgian Energy Development Fund was established in 2010 by the Government to facilitate investments and development of the country's renewable energy sector.
Public investment in capital formation by state budgets	Belarus	Government support (by national and local government budgets) of USD 1.9 bln for energy efficiency measures in 2011-2015, covering 22% of total estimated costs (USD 8.66 bln).
	Uzbekistan	Provision of co-financing from the state budget to energy efficiency and low-carbon designs for rural houses, supported by the GEF (about USD 17 mln out of the total cost of USD 114 mln).
	Turkmenistan	The state budget is mainly allocated to the Ministry of Nature Protection and the State Committee for Fisheries.
Direct subsidies for energy efficiency measures	Kazakhstan	50% subsidies for energy audit and implementation of energy management systems based on "Energy Saving 2020" Programme (together with other types of support).
Tax/Fiscal incentives	Ukraine	Tax reductions/exemptions for renewable energies, for instance: <ul style="list-style-type: none"> <li>• Exemption from import VAT and customs duties for renewable energy equipment.</li> <li>• 75 % reduction in land tax for land used for renewable energy power plants.</li> <li>• Exemption from corporation tax on profit derived from the sale of electricity produced from renewable sources.</li> </ul>
	Kyrgyzstan	Imported equipment for the use of renewable electricity is exempt from customs duties (taxes or tariffs) by the Law of the Kyrgyz Republic on Renewable Energy Source (adopted in 2009).
Feed-in-tariff	Azerbaijan	The Feed in Tariff scheme is applied to wind (EUR 45/MWh) and small hydro power plants (EUR 25/MWh).
	Ukraine	The Green Tariff, a feed-in-tariff scheme for electricity generated from renewables, is open until the 1st of January 2030 (introduced in 2009 and amended in 2012 and 2015).

Source: OECD (2016b), Readiness of Eastern Europe, Caucasus and Central Asia Countries to Access International Climate Finance, OECD Publishing, Paris (forthcoming).

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## Further reading



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The OECD implements the EAP Task Force which has, for over twenty years, been helping countries in Eastern Europe, Caucasus and Central Asia (EECCA) to integrate environmental considerations into the processes of economic, social and political reform. This policy brief has been produced with the financial assistance of the government of the Netherlands.

**For more information**

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