

# INTERNATIONAL PUBLIC CLIMATE FINANCE IN THE MEDITERRANEAN

Updated results for 2016 - Final Report









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#### Definition

The countries included in this assessment are: Albania, Algeria, Bosnia & Herzegovina, Egypt, Israel, Jordan, Lebanon, Mauritania, Montenegro, Morocco, Palestine, Tunisia, and Turkey, as well as (to the extent possible) Libya and Syria. In the report, we refer to these countries in short as the 'study region' or more precisely 'Southern and Eastern Mediterranean region' ('SEMed region').

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## 1. Executive Summary

In response to the Union for the Mediterranean's (UfM) Ministerial Declaration on Environment and Climate Change in 2014, that established a UfM Climate Change Expert Group (CCEG), and where UfM Member States expressed their desire for increased cooperation in finance, technology transfer and capacity building, the UfM created the Regional Climate Finance Committee for Climate Action (RCFC).In the context of the commitments under the Paris Agreement, the UfM Secretariat (UFMS), through the Integrated Maritime Policy / Climate Change (IMP/CC) Facility, with support from the European Union commissioned a study to quantify the amount of climate finance reaching the Southern and Eastern Mediterranean (SEMed) region in 2016. The aim of the study was to analyse international public climate finance flows to fifteen SEMed countries, namely Albania, Algeria, Bosnia & Herzegovina, Egypt, Israel, Jordan, Lebanon, Mauritania, Montenegro, Morocco, Palestine, Tunisia, and Turkey, as well as Libya and Syria.

A report with preliminary estimates on public climate finance to reach the SEMed region in 2016 was published by the UfM in December 2017 (Climatekos, 2017). This current report presents an update of the aforementioned study's first estimates, closing the data gaps and limitations through the application of a revised methodology, which is based on data released in early 2018 by the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC). In doing so, the revised methodology aligns with current international best practice in climate finance tracking procedures and provides estimates of climate finance that are more robust than those presented in the previous report.

The results of the update report show that in 2016, USD 8.3 billion of climate finance was committed to the SEMed region, comprising 13% of the USD 54.8 billion mobilised worldwide <sup>1</sup>. Multilateral Development Banks contributed USD 4.5 billion to the grand total (54%), particularly through loans from the European Bank for Reconstruction and Development (EBRD), International Bank for Reconstruction and Development (IBRD) and European Investment Bank (EIB). Bilateral climate-related ODA amounted to USD 3.4 billion (41%), dominated by loans from Japan, Germany, and France, while dedicated climate funds (particularly the Green Climate Fund, GCF, and the Global Environment Facility, GEF) contributed 0.33 billion USD (4%).Other multilateral institutions (e.g. the International Fund for Agricultural Development, IFAD) contributed USD 0.05 billion (0.6%).

Turkey, Egypt, and Morocco were the top-3 recipients of climate finance, comprising 75% of total commitments (USD 6 out of 8.3 billion). The lowest commitments were identified for Syria and Libya, but also Algeria and Montenegro (totalling USD 45.9 million).

Most of this finance was channelled into transport and storage (most specifically, the rail sector), energy generation (using renewable energy resources), and water and sanitation. The purpose of this funding was predominantly mitigation (transport and energy generation), whilst adaptation activities received

<sup>&</sup>lt;sup>1</sup> OECD DAC database, 2018 http://www.oecd.org/dac/stats/climate-change.htm

substantially fewer investments (the focus being agriculture, water and energy generation). In terms of adaptation projects, the major financiers were Germany, the European Union (EU) and the GCF.

Hard projects (i.e., for infrastructure and equipment) received substantially more investment (46%) than soft projects (i.e., capacity building, research, banking or financial services, etc.)(14.8%) although mixed projects received 31% of the investment<sup>2</sup>.

Over 50% of the beneficiaries of climate finance were public sector institutions, followed by research institutions (25%), whilst significantly fewer were non-governmental organisations (NGOs) and multilateral organisations. Overall, only 0.2% of the reported public funding went to the private sector.

<sup>&</sup>lt;sup>2</sup> The values are rounded up and the dataset contained a large number of unclassifiable projects due to limited project details provided.

### **Background** 2.

### 2.1 Context of the assignment

The Union for the Mediterranean's Ministerial Declaration on Environment and Climate Change was adopted in Athens on 13 May 2014, where UfM Member States call for greater assistance and international cooperation with regards to finance, technology transfer and capacity building. In response, the UfM created the Regional Finance Cooperation Committee for Climate Action and in parallel the UfM Climate Change Expert Group. The UfM CCEG was created to support the development of climate projects and initiatives, acting as a platform to enhance regional dialogues and to bring together climate initiatives, programmes, and stakeholders.

In 2009, developed countries pledged to raise 100 billion USD per year by 2020 to finance global climate action. Following this, in the context of the 2015 Paris Agreement adopted by the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), the UfM Secretariat sought to obtain an overview of climate finance committed to the SEMed region. In response, the current study on international public climate finance to the SEMed region in 2016 was conducted by Climatekos on behalf of the UfM, with support from the European Union and under the administration of the Integrated Maritime Policy / Climate Change (IMP/CC) Facility.

This update report builds on the UfM Climate Finance Study published in December 2017 (Climatekos, 2017). It draws on data that has officially been reported to the OECD's Development Assistance Committee (DAC) by multilateral and bilateral donors, using a revised methodology to complement and amend estimates of the international public climate finance flows identified in the previous study.

### 2.2 Scope and definitions

Climate finance tracking is hampered by the lack of a standardised definition and approach to data collection. The original study on 2016 flows (Climatekos, 2017) overcame this hurdle by establishing a definition of "climate-dedicated" and "climate-specific" purposes of project activities, in line with the approach adopted by the UNFCCC Standing Committee on Finance (SCF), and similar to the Rio Marker Approach used to identify ODA activities benefitting the climate. The approach thus involved screening individual projects based on their climate objectives, and only considering those with (stated) specific or dedicated climate objectives as climate finance. The methodology relied on surveys and interviews with donor institutions and online project databases of climate funds and ODA providers. However, data collection was impeded by limited responses from donors, lack of transparent and updated online records and confidentiality considerations.

In response to the subsequent data gaps, this update report was initiated in spring 2018 following the release of the 2016 dataset in the OECD DAC database, which represents the most comprehensive collection of publicly available, project-level climate finance data to date. The drawback is that OECD data is released with a two-year time lag only, which means it is difficult to obtain reliable climate finance estimates for a given year (e.g., 2016) in the year directly proceeding (e.g., 2017). The recently released OECD dataset has been used here to complement the 2016 estimates from last year's report, also applying an updated methodology.

The methodology underlying this update report, therefore, replaces the above approach that relied on "climate-specific" and "climate-dedicated" finance definitions. Instead, the OECD DAC's approach to tracking climate finance is adopted here, which applies a combination of the Rio Marker Methodology and the MDB joint methodologies adopted by donor institutions worldwide. "Climate finance" is therefore defined as finance mobilised for the explicit purpose of climate change adaptation (i.e., reduction of vulnerability) or mitigation (i.e., reduction of greenhouse gas emissions), on a project-level (Rio-Markers) or on an activity level basis (MDB Methodology) (OECD, n.d., IBRD et al. 2016)3.

This study focuses on the countries of Albania, Algeria, Bosnia & Herzegovina, Egypt, Israel, Jordan, Lebanon, Mauritania, Montenegro, Morocco, Palestine, Tunisia, and Turkey, and (to the extent possible) Libya and Syria. In the report, this region is referred to as the 'study region' or the Southern and Eastern Mediterranean ('SEMed') region.

The study tracks the public climate finance "committed" 4 to the SEMed region (see below) in the calendar year 2016. Information on disbursements, although tracked in the OECD database, is not complete at present and is subject to large uncertainties. It was therefore excluded. This is in line with the scope of most current studies on international climate finance, including the Climate Policy Initiative (CPI), due to the difficulty of tracking disbursements and outstanding flows.

This report considers public climate finance flows (in USD) committed by:

- Bilateral donors (i.e.ODA for climate activities)
- Multilateral donors (mainly Multilateral Development Banks)
- Funds that finance activities in the climate sector

Flows are tracked to the first implementing partner and do not include domestic co-/financing or disbursements to secondary or tertiary recipients.

In this report, "bilateral" or ODA flows are contributions with a development purpose that are committed directly by bilateral (national) donors to a recipient country. Funds are allocated by national governments and typically extended by national development agencies, such as France's Agence Française de Développement (AFD) or Japan's International Cooperation Agency (JICA). ODA flows are earmarked for specific environmental purposes by the Rio Marker approach, such as (inter alia) climate change mitigation or adaptation, or biodiversity conservation.

<sup>&</sup>lt;sup>3</sup>A full list of reporting donors in 2016 and their climate finance tracking methodologies is included in Annex I, Table 3.

<sup>&</sup>lt;sup>4</sup>A commitment is a firm written obligation by a government or official agency, backed by the appropriation or availability of the necessary funds, to provide resources of a specified amount under specified financial terms and conditions and for specified purposes for the benefit of a recipient country or a multilateral agency (OECD, 2018)

"Multilateral" flows are defined by contributions that originate from bilateral donors too but are pooled in multilateral agencies before being extended to recipient countries. Multilateral contributions are typically integrated into a recipient institution's financial assets. In this report, multilateral flows are predominantly from multilateral development banks, including the EIB, EBRD and World Bank.

Funding that is earmarked for the purpose of climate finance through specific programmes or funds is presented separately from multilateral and bilateral flows in the OECD DAC database. This includes major climate funds such as the Green Climate Fund (GCF) and the World Bank Climate Investment Funds (CIF), but also climate finance from broader environmental funds and/or specific climate finance windows (e.g. the Global Environmental Facility, GEF, the Global Green Growth Institute, GGGI or the International Fund for Agricultural Development, IFAD). Figure 1 below shows the consideration of the above categories in the OECD DAC database.

This report tracks the various flows of finance from these institutions to assorted beneficiaries, for various purposes, and with different financial instruments. More detailed descriptions regarding the scope of this report can be found in Annex I, including the categorisation and definitions of financial instruments, beneficiaries, and major areas of intervention.

# 3. Overview of methodology

### 3.1. Overview of approach to data collection

The current approach builds on lessons learned from the methodology used in Climatekos (2017). Due to the number of known constraints in gathering, verifying and measuring climate finance flows at the beginning of the year following the year under investigation, a new methodology was adopted. The most important point of improvement was the observance of the two-year time lag, which typically occurs before major donors release their climate finance data. The revised methodology process was then twofold:

A preliminary broader assessment comparing publicly-available climate finance tracking systems that cover relevant climate funds (e.g. Climate Funds Update, donor surveys, donor websites, MDB Climate Finance Reports, and donor databases)

Analysis of the OECD DAC database alongside complimentary research from websites, reports and additional resources.

A description of the assumptions and analysis of the OECD data is provided in the following section, with additional details provided in Annex I.

### 3.2. OECD data and its composition

The OECD DAC database is based on a voluntary reporting system that covers almost 30 donor countries worldwide. Their contributions are tracked to a wide range of bilateral and multilateral institutions, including bilateral recipient governments, multilateral development institutions (such as the World Bank, EBRD, EIB, amongst others) and climate-dedicated funds and programmes (including the GEF, GCF, and World Bank CIF). With this, the OECD database provides a comprehensive and methodologically consistent approach. It is the most complete single data source on climate finance to date.

The OECD DAC database was therefore used to close the data gaps in the previous report and reduce methodological inconsistencies inherent to the data collection process. It provided data on significant contributions from donors such as Germany, Japan, and the World Bank, who do not release complete, publicly available information elsewhere. More detail on improvements to the previous methodology is provided in the Annex.

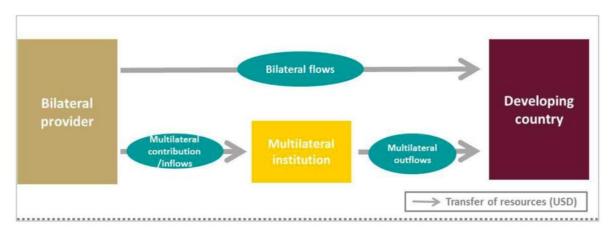
Figure 15 provides an overview of the tracking system underlying the OECD database. Essentially all climate funding is bilateral (originating from donor country governments), and flows can be viewed from

<sup>&</sup>lt;sup>5</sup>The OECD DAC report (2016a) provides a full list of donors reporting to the OECD DAC which are included in the scope, not all of which direct finance to the SEMed region in 2016. A full list of the donors to the SEMed region in 2016 is provided in Annex I, Table 3.

a "recipient" or a "donor" perspective. The "recipient" perspective used in this report considers bilateral ODA flows and outflows from multilateral institutions to recipient countries.

- Climate finance flows are reported to the OECD DAC based on two internationally recognised methodologies: The Joint Methodology used by Multilateral Development Banks (MDBs) and the Rio Markers used by all other donors.
- The MDB Joint Methodology has been adopted by the African Development Bank, the Asian Development Bank, the EBRD, the EIB, the Inter-American Development Bank Group (IDBG), the World Bank Group (EIB, 2015), and, as of 2017, the Islamic Development Bank. This method isolates and counts the components of larger development projects that contribute to climate change mitigation or adaptation. Adaptation activities/components are defined as those with specific objectives to address climate change vulnerability, while mitigation activities are defined based on a list of mitigation-relevant sectors, and an activity's quantifiable emissions reduction targets.
- The Rio Marker approach is used by all reporting donors other than the MDBs. They were originally designed to help members in their preparation of National Communications or National Reports to the Rio Conventions, by identifying activities that mainstream the Conventions' objectives into development co-operation. The Rio Markers use a scoring system based on the main purpose of activities. Individual ODA projects are screened for a "principle" objective (here: targeting climate change mitigation or adaptation as the primary aim), a "significant" objective, (here: climate as an important objective but not the main purpose of the project) and "not targeted" (here: no significant climate objectives). With the presence of a climate objective, the entire activity is accounted as climate finance (as opposed to the accounting of components of larger projects only in the MDB approach). As one activity can be assigned several Rio Markers, it is important to pay attention to potential double-counting.
- Project-level activities are reported to the OECD through a continually evolving methodology that seeks to standardise the tracking of climate finance for its members. The OECD DAC database records finance flows down to the level of the first implementing partner via the "channel of delivery" that the reporting organization categorises with the help of pre-defined sector codes. Financial instruments and the purpose of the finance, are recorded down to the project level. Projects are categorised by sector and sub-sector, a comprehensive list of which can be found in OECD DAC (2016a), with an abbreviated list in Annex I, Table 4.
- The analysis in this report covers the types of funding instrument, mitigation versus adaptation funding, major areas of intervention (i.e., sectors financed), the nature of beneficiaries, the type of support provided by donors (for hard versus soft activities), as well as the proportion of finance provided to the SEMed region compared to global climate finance flows. Annex I provides further details.

### Types of flows collected in DAC statistics



Recipient perspective = bilateral flows + multilateral outflows Provider perspective = bilateral flows + multilateral contributions/inflows

Figure 1: OECD DAC reporting method of international Official Development Assistance (ODA) from donors to recipients (developing countries), Joint ENVIRONET and WP-STAT Task Team (2015)

# 4. Updated Results 2016: total climate funding to the **SEMed region**

### 4.1. Climate finance aggregates and flows

The updated results show that in 2016, climate finance commitments of USD 8.3 billion were made to the SEMed region (Figure 2).Of this, USD 3.4 billion came from ODA sources (i.e., bilateral flows). Contributions from multilateral sources amounted to USD4.9billion, including USD 4.5 billion from MDBs and USD 0.38 billion from climate-related multilateral funds.

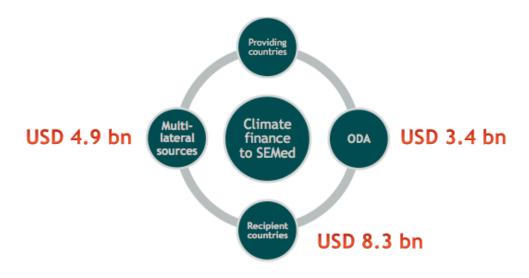


Figure 2: Total climate finance commitments to the SEMed region, 2016, USD billion (bn)

Major bilateral donors include Japan, France, and Germany (Figure 3). This is important, as Japan and Germany do not release their climate finance data publicly before reporting to the OECD, therefore such data is not available in the year following the year under investigation (and was thus not included in Climatekos 2017). In addition, since 2015, Japan has doubled its climate finance commitments to the region, especially to Egypt and Morocco, from USD 500 million to 1 billion. With this, Japan provided a significant share of the total funding in 2016.

### Sectors financed by major bilateral donors

France, Germany and Japan committed funding mainly for energy and transport. Japan focused almost 37% of its investments in natural gas-fired electric power plants, 22% in electric power transmission and distribution and 16% in air transport. France invested almost equal amounts (22% of its total commitments) to both basic social services and rail transport. Germany focused on energy conservation (20%), wind energy (17%) and water supply for large systems (10%).

Japan and France also channelled substantial finance into supporting activities, developing and strengthening environmental policy and administrative management in the agricultural and forestry sectors, respectively. For these three major donor countries, the primary financial instrument used was debt, with 15% of all debt funding coming from Japan.

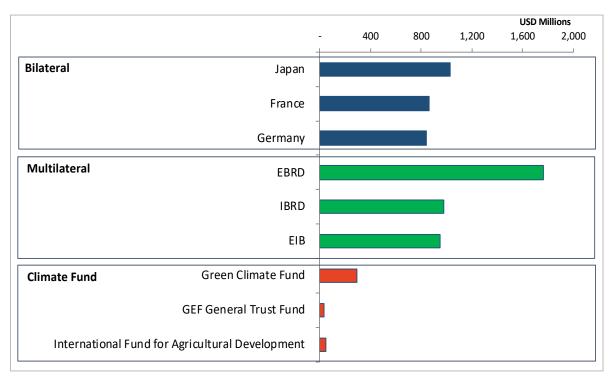


Figure 3: Climate finance committed to the SEMed region by fund, 2016, USD million

### Sectors financed by major multilateral funds

By far the most active multilateral fund was the GCF, which provided nearly USD 300 million, followed by IFAD (USD 49 million) and the GEF Trust Fund (USD 36 million). Of the total commitment, the GCF invested 86% in energy generation and renewable energy, while the GEF invested 76% of its total finance in supporting beneficiaries to develop and strengthen environmental policy and administrative management capacity. IFAD invested mostly in food and crop production. In terms of funding instruments, the GCF provided mostly debt, whereas the GEF only provided grants. IFAD used mixed instruments.

### Sectors financed by Multilateral Development Banks

The MDBs accounted for 54% of the total commitments. The EBRD dominated with USD 1.7 billion, followed by the IBRD and EIB with USD 980 and USD 950 million, respectively. Whereas the latter two focussed mostly on the transport sector, the EBRD invested mainly in energy generation through nonrenewable sources, the financial and banking sector, and supporting and building management capacity in urban areas.

### 4.2. Climate finance by country

The recipients of climate finance are shown in Figure 4. In synopsis:

- Turkey alone received over USD 3.1 billion (38% of total), mainly from multilateral sources.
- Egypt received USD 1.8 billion (22% of the total), from a wide range of donors.
- Morocco (USD 1 billion or 12% of total) received the highest share of climate fund investments, mainly through loans from the Green Climate Fund to renewable (solar) energy projects.
- Jordan accounted for nearly USD 1 billion, or 12% of the total funding.
- Tunisia received almost USD 500 million, mostly from bilateral sources.

### Primary recipients: Turkey, Egypt and Morocco

The top-3 recipient countries, Turkey, Egypt, and Morocco, comprise 75% of total commitments (USD 6 out of 8.3 billion), mostly in the form of debt. In terms of sub-sectors, rail transport was an important investment area in all three countries. Besides this, Turkey also had investments in the banking and financial sector, and Egypt in its natural gas sector. Morocco, in turn, received investments mostly in agricultural policy and administrative management, and renewable energy generation (mainly wind power).

In addition to their relatively large population size and economic strength in the region (see: Figures 5 and 6), Turkey, Morocco and Egypt have strong strategic ties to the European Union and are therefore often more attractive for investments and donor support. Turkey's relative economic power in the region may be complemented by recent political developments that might stimulate climate finance to the region, such as EU accession negotiations and support for the refugee crisis.

Morocco is historically one of the more proactive countries under the Kyoto Protocol and has therefore developed stronger institutional infrastructure than many of its SEMed partners, enabling better access to development loans. The 2016 annual UNFCCC Conference of Parties hosted by Morocco also triggered greater funding from French development agencies (e.g., the AFD), which may explain at least part of the country's success in attracting climate finance.

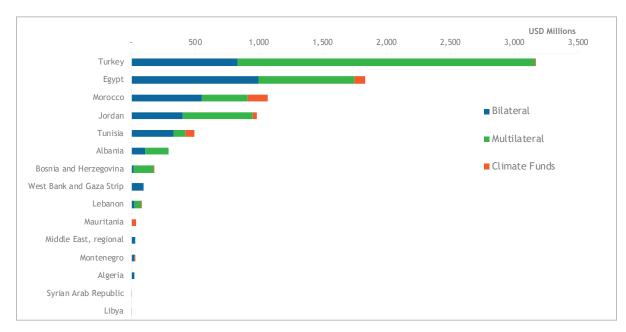


Figure 4: Climate finance committed by country and provider category, 2016, USD million

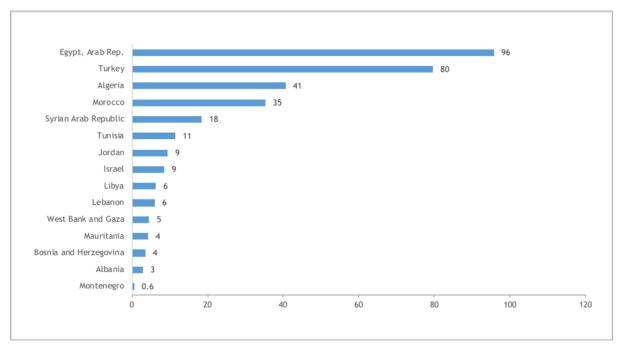


Figure 5: Population of countries in the SEMed, 2016 (World Bank, 2018b), million

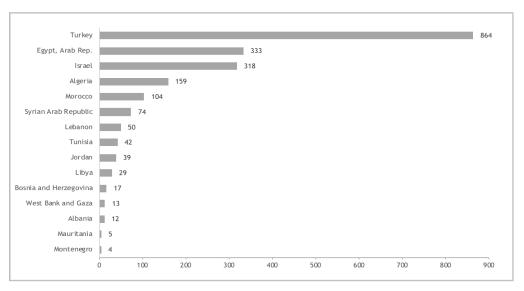


Figure 6: Gross Domestic Product (GDP) of countries in the SEMed for 2016 (World Bank, 2018a, data provided for Syria and Libya from Trading Economics for 2012 and 2015 respectively. Data for Syria is subject to high uncertainties given its current status), USD billion

### 4.3 Global versus regional climate finance

As reported to the OECD, the total amount of international public climate finance committed globally towards the USD 100 billion pledge was USD 54.8 billion in 2016.Of this, commitments to the SEMed region reached USD 8.3 billion - corresponding to 13% overall. This is in line with previous years (Figure 7), where the SEMed region received between 13-16% of the global total reported to the OECD annually, more or less proportional to changing annual flows.

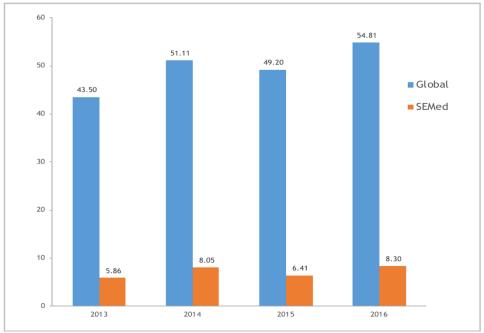


Figure 7: Annual global climate finance commitments (blue), compared to commitments to the SEMed region (orange), USD billions (data: OECD DAC statistics, 2018)

# 5. Composition of climate funding in the **SEMed region**

### 5.1. Areas of intervention by sector and sub-sector

The areas of intervention, or sub-sectors, receiving most funding for climate adaptation and mitigation are shown in Figure 8. For more detail on the OECD categories, see Annex I, Table 4.

### Primary sectors receiving climate finance

The 'transport and storage' sector received most of the climate funds committed in 2016, with approximately USD 1.6 billion. Of this, infrastructure in rail transport constituted USD 921 million, followed by airport extension projects with USD 167 million. Upgrading and reinforcement of roads comprised USD 337 million, with supporting administrative and policy-generation funds being provided to build sustainable and safe transport systems (USD 121 million).

Energy generation from renewable sources constituted the second largest funding category (USD 1 billion), primarily receiving funds from Germany, the EIB, and the Green Climate Fund. Most of this funding was for mitigation purposes. Projects to enhance energy efficiency included funding for the integration of mixed renewable technologies (USD 700 million), solar (USD 183 million) and wind power (USD 180 million), efficiency improvements of biofuel-fired power plants (USD 0.1 million), geothermal energy (USD 0.08 million) and hydro-electric power (USD 0.03 million).

Climate finance for water supply and sanitation amounted to USD 756 million with a broad portfolio of projects including waste management and disposal (USD 280 million), sanitation (USD 154 million) as well as the development of large water supply systems (USD 136 million).

In addition, funding for non-renewable energy generation reached nearly USD 715 million, and mainly consisted of funds for improving the energy efficiency of thermal power plants or combined gas-coal power plants (USD 337 million). It also includes financing for the rehabilitation of natural gas-fired electric power plants (USD 378 million), mostly provided by the EBRD and JICA, to similar degrees.

Other sectors which saw climate finance commitments include:

- Agriculture particularly the development and strengthening of agricultural capacity and institutions, land management, resource management, and supporting services for agricultural policy and management.
- Banking and financial services—mostly in the provision of loans for on-lending in-country.
- Industry, with a focus on the development of environmentally friendly chemicals, energy industries and businesses.
- Energy distribution mainly through electric power transmission and distribution.
- Other multi-sectoral projects, specifically environmentally-friendly urban development, and management of integrated urban-energy programmes.

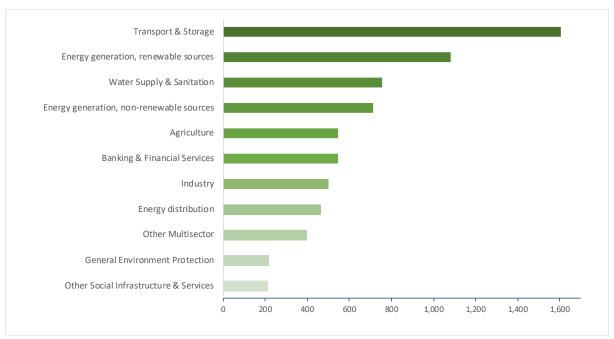


Figure 8: The 10 sectors that received the highest climate finance contributions in 2016, USD millions

### Least funded sectors for climate

In contrast, the sectors that received the lowest contributions are shown in Figure 9. These include:

- "Trade Policies and Regulations", which refers to the ISO MENA STAR project, supporting businesses and industries by developing related standards and regulations (some of which are climate-friendly).
- Education (including general, post-secondary and basic education). This refers broadly to improving education facilities and vocational training in sustainable activities at various school levels.
- Health, which refers to a broad range of activities including funding for the rehabilitation of a hospital and basic medical and health care services, was conspicuously underfunded, despite the health implications of climate change. Only one project focused on capacity building for vulnerable populations and environmental health.

Climate-related projects in construction, conflict, peace and security, fishing, and communications included climate-proof resource management and small-scale climate activities that were included in larger projects and programmes without a specific climate purpose.

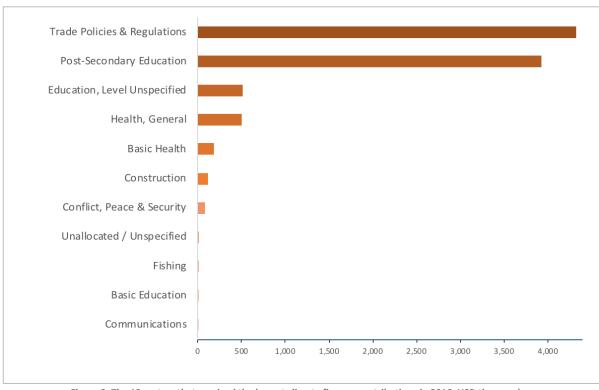


Figure 9: The 10 sectors that received the lowest climate finance contributions in 2016, USD thousands

### 5.2. Funding by financial instrument

In summary, most climate finance (82% of the total) to the SEMed region in 2016 was provided through loans, while grants comprised 13% (the remaining 5% being anonymised or through equity). Figure 10 shows all financial instruments and their respective shares provided to countries, while Figure 11 shows financial instruments provided by funders.

### Primary instruments used in major countries: Turkey, Morocco, Egypt

Turkey had a large portfolio of projects that received over USD 2.6 billion in loans, around USD 340 million in grants and USD 200 million in additional equity investment, primarily by the EBRD and IFC. The EBRD was a significant provider of finance to the region, covering approximately 37% of overall MDB financing. Out of the USD 1.7 billion provided to the SEMed region by the EBRD alone, USD 1 billion was directed at Turkey for a broad portfolio of projects in energy, banking and financial services, industry development, mineral resources, tourism, and planning and management of urban areas.

Egypt received USD 1.8 billion in loans, nearly USD 18 million in grants from multiple sources (Japan featuring prominent here) and USD 18 million in equity from the EBRD. Morocco received almost 79 grants (mostly from France) amounting to USD 140 million, whereas its debt exceeded USD 900 million.

### Grants, loans and financial instruments by providers

Overall, loans comprised the greatest proportion of finance over all categories (MDBs, bilateral donors, and multilateral funds), with 141 loans provided by MDBs, 34 by ODA donors and 10 by IFAD and the GCF together. Japan provided a large proportion of bilateral ODA as loans (almost 15% of the total debt), as did France (11% of the total debt) and Germany (9% of the total debt).

Approximately 373 grants were provided from bilateral donors in 2016, followed by 21 grants from other multilateral funds, 18 grants from MDBs and 16 grants from IFAD alone. EU Institutions provided the largest share of grants (USD 550 million), followed by Germany (USD 215 million). The countries that were successful only in securing grants were the West Bank and Gaza Strip (Palestine) (9% of total grants) and Mauritania (3% of total grants). Montenegro (2% of total grants), Algeria (1% of total grants), Syria and Libya received only small climate finance volumes (less than 1%), mostly in form of grants. Climate funds provided a smaller proportion of grants, dominated by the GCF (USD 62 million), with the GEF and Global Green Growth Institute (GGGI) providing smaller amounts.

France was the only country that uses an anonymized financial instrument<sup>6</sup>, which was allocated to Jordan in a project for "multisector aid for basic social services". Equity was provided only by the International Finance Corporation (IFC) and a small proportion by the EBRD, their destinations being predominantly Turkey and Egypt.

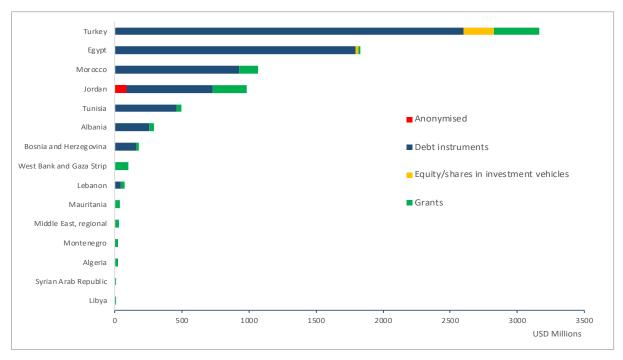


Figure 10: Funding by financial instrument and country, 2016, USD millions

<sup>&</sup>lt;sup>6</sup>Anonymised records may be due to confidentiality agreements or data protected under national laws. OECD research principles: http://stats.oecd.org/glossary/detail.asp?ID=6882 for statistical data and https://www.oecd.org/sti/sci-tech/38500813.pdf

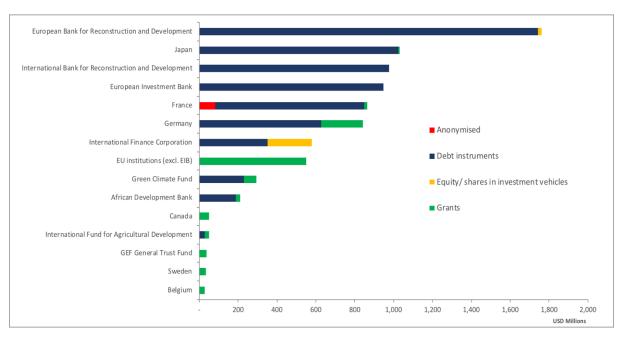


Figure 11: Climate finance to the SEMed by financial instrument and provider, 2016, USD millions

### 5.3. Funding by purpose

### Funding for adaptation vs. mitigation

A very clear tendency of climate finance in the SEMed region is the preference of mitigation activities, which received three times more funding than adaptation measures (Figure 12). The column "adaptation and mitigation" shows proportion of funds for activities with both adaptation and mitigation benefits, although the same activity could also be marked for either adaptation or mitigation individually. As this entails a risk for doublecounting, the three categories presented in Figure 12 cannot be aggregated. Total climate finance can be computed as "adaptation" + "mitigation" - "adaptation and mitigation".

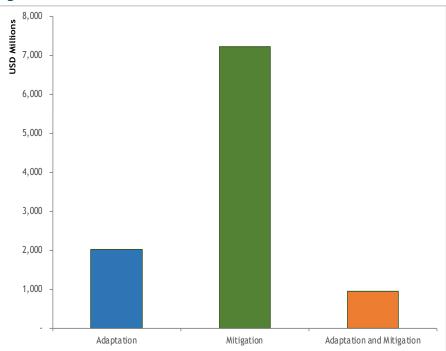


Figure 12: Climate finance to the SEMed region, 2016, USD millions

### Areas of intervention in adaptation and mitigation

The sector analysis (Figure 13) shows that adaptation finance flows mainly towards agriculture and water supply/sanitation, followed by renewable energy activities. Mitigation funding, on the other hand, is more evenly distributed over all sectors, predominantly supporting transport/storage, renewable and nonrenewable energy production, energy distribution, as well as industry and banking activities (for details on sector definitions see Annex I, Table 4). The strongest overlaps between mitigation and adaptation are in agriculture and renewable energy production because activities in these sectors often have multiple benefits, both enhancing climate resilience as well as reducing emissions. For example, land use change and livestock farming are large emitters of greenhouse gas emissions and are critical areas of vulnerability for many rural farmers. There is potential to both reduce emissions and aid farmers to adapt using sustainable farming and livestock management techniques that reduce crop and livestock losses from climate-related pests and diseases. In water supply and sanitation, improving waste water management by developing clean sanitation systems can both decrease the emission of greenhouse gases by wastewater (mitigation), and decrease the vulnerability of populations to the spread of water-borne diseases, like malaria (adaptation).

A sectoral breakdown of adaptation and mitigation activities is shown in Figures 14 and 15. Mitigation activities are dominated by transport, energy, industry, and energy efficiency improvements, while for adaptation agriculture, water, energy and multiple cross-cutting sectors predominate.

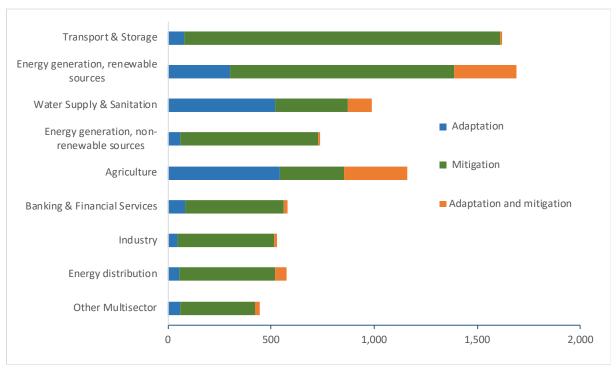


Figure 13: Adaptation and mitigation by sector, 2016, USD millions

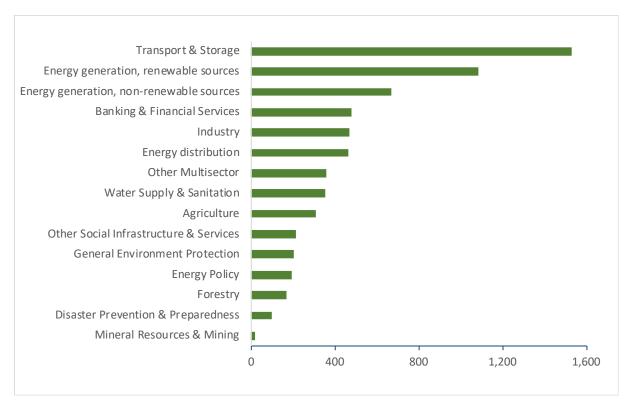


Figure 14: Mitigation by sectoral distribution, 2016, USD millions

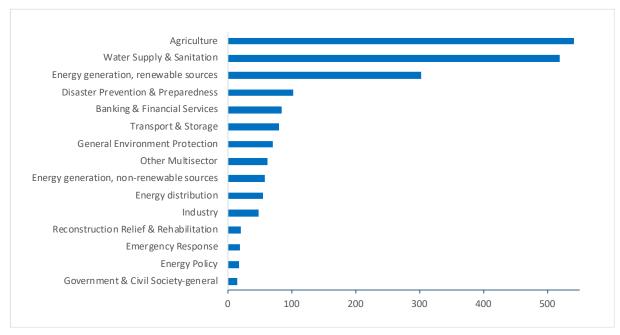


Figure 15: Adaptation by sectoral distribution, 2016, USD millions

### Adaptation funding by major sources of climate finance

Whereas only a small share of overall climate finance is for adaptation, Germany, the EU and the GCF are amongst the institutions providing most funding for adaptation activities in the SEMed region. Figure 16 shows a breakdown of activities funded by these donors.

Germany funds a number of adaptation projects in water supply and sanitation, and to a lesser degree in energy distribution and reconstruction relief and rehabilitation (the latter, for sustainable resource supplies to Syrian refugees). The majority of German funding for water and sanitation was for Tunisia, for river basin development, water management (policy) and water supply. Jordan, Morocco, and the West Bank also received water-related adaptation funding. These countries are highly vulnerable to climate-related water stress, particularly in terms of water supply and decreased rainfall<sup>7</sup>. The European Union provided adaptation funding mainly for wastewater management and supply systems, as well as for agricultural policy and administration to Tunisia, the West Bank, Montenegro and Albania. The GCF channelled adaptation funding towards renewable energy generation in Egypt, Morocco, Tunisia and Jordan through the Sustainable Energy Financing Facility<sup>8</sup>, as well as agricultural development in Morocco (for developing argon orchards).

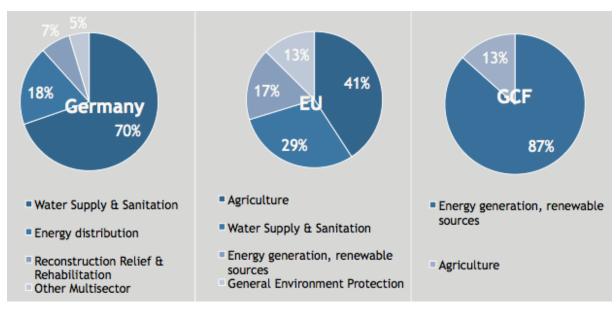


Figure 16: Climate finance for adaptation activities in the SEMed region 2016, by major donors

<sup>7</sup>For more information, see: World Bank (2017)

<sup>8</sup> The Sustainable Energy Financing Facility provides credit lines to the private sector across multiple countries in renewable energy. For more information: https://www.greenclimate.fund/-/gcf-ebrd-sustainable-energy-financing-facilities

### 5.4 Funding by beneficiary

The beneficiaries of climate finance are defined in this report as the first implementing partner to receive finance by the donor institution (i.e., the 'channel of delivery' in the OECD DAC database; see Annex I for the methodological details). The results show that:

- Public sector institutions, which include governments, local authorities and delegated cooperation with other recipient countries, received most funding (USD 4.49 billion)
- Research institutions, including universities, colleges or other teaching institutions, research institutes and think-thanks received USD 2 billion.
- Multilateral organisations as a primary implementing agency (including international, public institutions such as the World Bank or multilateral groups) received USD 450 million.
- NGOs (including international, donor-country based as well as recipient country-based NGOs) and the private sector (including all "for-profit" institutions, consultants and consultancy firms that do not meet the definition of a public-sector institution, as well as private sector institutions within and outside of the country) received less than 1% (0.4% and 0.2% respectively).
- The general category "other" received USD 1.2 billion, which broadly includes any other implementers that cannot be placed in private, public, non-governmental or research institutions. The dataset provides no more detail on this category.

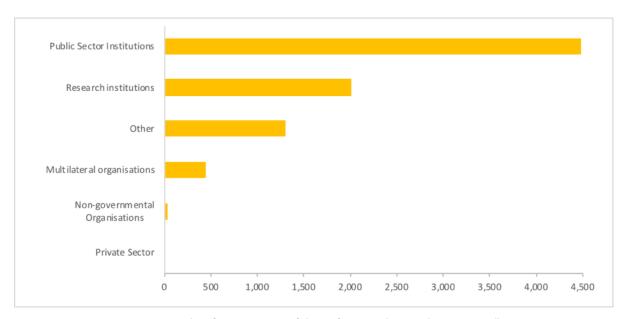


Figure 17: Major beneficiary categories of climate finance in the SEMed, 2016, USD millions

### 5.5 Funding for soft and hard activities

In the definition applied here, 'hard' activities are for the provision of equipment or expansion of structural networks, as well as for infrastructural or technological purposes (such as transport and storage facilities, energy distribution centres, reconstruction, infrastructure etc.). 'Soft' activities are defined as those which provide services or support of a technical, managerial, research, capacity building, policy-based, educational, touristic, banking or financial nature. Mixed activities (hard and soft) include activities that combine both components. Projects in sectors such as water supply and sanitation, healthcare, and renewable energy generation often combine 'hard' facility development projects with 'soft' capacity building assistance. The categorisation of such projects was based on the OECD list of CRS purpose codes that contains descriptions of the sectors, from which the 'hard' and 'soft' components were identified.

The percentage of funding directed towards such activities is detailed in Table 1. The vast majority of funding in the SEMed was for hard projects that cover a wide range of sectors, although transport and storage feature predominantly (i.e. construction or operation of road transport and maintenance), with focus on mitigation. In contrast, soft projects were mostly for banking and financial services, although general environment protection was well represented. Water supply and sanitation activities from multiple sources dominated the "mixed" category, as did agriculture, notably for adaptation.

Table 1: Climate finance proportions for hard vs. soft activities in the SEMed, 20169 (%)

Soft projects (capacity building, research etc.)	Percentage funding (%)	Hard projects (construction, infrastructure, technology etc.)	Percentage funding (%)	Hard and soft	Percentage funding (%)
Banking & Financial Services	6.6	Transport & Storage	19.4	Water Supply & Sanitation	7.9
General Environment Protection	2.6	Energy generation, renewable sources	13.1	Agriculture	6.6
Disaster Prevention & Preparedness	2.5	Energy generation, non- renewable sources	8.7	Industry	6.0
Energy Policy	2.4	Energy distribution	5.6	Other Multisector	4.9
Emergency Response	0.2	Reconstruction Relief & Rehabilitation (i.e. refugee relief)	0.3	Other Social Infrastructure & Services	2.6
Government and Civil Society	0.2			Forestry	2.0

<sup>9</sup> Values do not total to 100% as activities that were not categorised or reported with enough detail by donors were excluded. This equates to missing 7.4%.

Secondary Education	0.1		Mineral Resources & Mining	1.4
Developmental Food Aid	0.0		Health, General	0
Business and Other Services	0.0		Basic Health	0
Tourism	0.0			
Trade Policies and Regulations	0.0			
Total Percentage Funding (%)	14.8%	47%		31%

### 6. Case Studies

The following case studies demonstrate successfully implemented climate projects in the SEMed region that act as showcases for climate-relevant activities. Many of these projects have long lifespans and are still underway. The showcases were selected due to their success in securing finance, their success in accessing the private sector and their regional focus.

### Case 1: SEMed Private Renewable Energy Framework (SPREF)

#### About the project

The SEMed Private Renewable Energy Framework aims to improve private renewable energy investment in Morocco, Tunisia, Egypt and Jordan. It provides financing and technical cooperation for countries to meet their renewable energy targets, improve climate activity in the private sector and support regional cooperation and dialogue. By targeting renewable energy investors, the framework seeks to reduce the region's reliance on hydrocarbon imports, moving towards sustainable green economies.

Region: Morocco, Tunisia, Egypt, Jordan Amount: USD 250 million (EBRD loans)

Beneficiaries: International/local private energy providers, off-takers, policy makers

Additional finance mobilisation: USD 917 million from other parties, and USD 35 million (Clean Technology Fund),

USD 15 million (GEF) in concessional co-finance

Climate target: Mitigation (780 000 tCO<sub>2</sub> annual emission reductions)

#### **Outcomes:**

Khalladi windfarm (Tangier, Morocco) - one of the first private renewable energy projects in Morocco, the windfarm will produce 120 MWs in 2015. The EBRD and Banque Marocaine du Commerce Exterieur (BMCE) are providing USD 148 million to the company UPC Renewables SA to finance construction, maintenance and operation of the farm. This project contributes towards Morocco's targets to develop 2000 MW of wind capacity by 2020, reducing its emissions by 200 000 tCO<sub>2</sub>/year. This project provides an example of a bankable, private powerpurchase agreement that allows electricity being sold directly to major industrial players. It is replicable for the medium and high-voltage market (Zgheib, N.2015). It provides an example of debt instruments used to encourage private-public partnerships.

#### Sources:

EBRD (2016) EBRD and UfM private renewable energy framework.

Available: http://www.ebrd.com/cs/Satellite?c=Content&cid=1395253637506&d=Mobile&pagename=EBRD%2FC ontent%2FContentLayout

UfM (n.d.) SEMed Private Renewable Energy Framework (SPREF).

Available:http://ufmsecretariat.org/project/semed-private-renewable-energy-framework-spref/

Zgheib, N. (2015) EBRD and BMCE invest in Kalladi wind farm.

Available: http://www.ebrd.com/news/2015/ebrd-and-bmce-invest-in-khalladi-wind-farm-in-morocco.html

### Case 2: Moroccan Saiss Water Conservation Project, Green Climate Fund

#### About the project

The Saïss Water Conservation Project (2017-2023) aims to improve the climate resilience of agricultural systems in the Saïss Plain, where water scarcity is chronic and existing resources are used unsustainably. The project will revert usage of limited groundwater resources for agriculture, to surface water sources using a bulk water transfer scheme. New irrigation networks will be implemented through public-private partnerships.

Region: Morocco

Amount: USD 38.6 million (grants)

Beneficiaries: Farmers and local water network providers (private) in Saïss

Additional mobilisation: USD 145 million (EBRD loan), USD 1.1 million (EBRD grant), domestic budget

(USD 65 million), public-private partnerships (volume unknown)

Climate target: Adaptation- sustainable water sources

#### **Outcomes:**

This project is underway. It provides a good example of a scalable, replicable project that can be applied on a regional level.

#### Sources:

Green Climate Fund (2017)

Available: https://www.greenclimate.fund/-/gcf-ebrd-saiss-water-conservation-project

### Case 3: Turkey Geothermal Development Project- IBRD

#### About the project

The project runs from 2016-2022 as an IBRD initiative to scale up private sector investment in geothermal energy development. The project components include a:

i) Risk-Sharing Mechanism for resource validation that promotes private sector involvement in the early stage and confirmation drilling stages of exportation. The Risk Sharing Mechanism secures access to long-term funding by sharing the risk of failing to validate geothermal resources amongst two parties: the Risk Sharing Mechanism's administrator (capitalised by the CTF) and the geothermal developer receiving funding. In addition, technical assistance and capacity building will be provided.

ii) subsequent Loan Facility for Resources Development to address the financing gap that license holders encounter in the resource development stage of a geothermal project. The Loan Facility will capitalise a credit line to the Industrial Development Bank of Turkey (TSKB)/Development Bank of Turkey (TKB) at capacity drilling stages and construction phases. This will serve to enable the business environment, encourage public-private partnerships in geothermal development and improve access to long-term funding for projects.

**Region:** Turkey

Amount: USD 250 Million (loan)

Beneficiaries: Renewable energy sector, recipient government

Additional mobilisation: USD 62 million Clean Technology Fund (CTF), USD 66 million TSKB/TKB co-

Climate target: Mitigation (650 927 MtCO2/year by 2021)

#### **Outcomes:**

This project provides an example of an innovative risk sharing mechanism to encourage public-private partnerships by decreasing risk in prospecting projects and securing access to long-term finance. The increased involvement of the private sector serves to move Turkey towards energy security and further securing its mitigation targets.

#### Sources:

World Bank (2017) Implementation Status and Results Report of Turkey's Geothermal Development Project (P151739).

Available: http://documents.worldbank.org/curated/en/346491523020705157/pdf/Disclosable-Version-of-the-ISR-Turkey-Geothermal-Development-Project-P151739-Sequence-No-03.pdf TSKB (n.d.) Turkey Geothermal Development Project (P151739) Environment and Social Management Framework.

Available: http://www.tskb.com.tr/i/assets/document/pdf/DraftEnvironmentalSocialManagementFramew ork.pdf

### Case 4: Depolluting the Mediterranean (DEPOLMED) - AFD

#### About the project

The French Development Agency (AFD) launched a project in 2016 to protect and preserve the water quality on Tunisia's coastline, which is rich in biodiversity and a region of importance for trade. Specifically, the project aims at the rehabilitation and extension of four coastal wastewater treatment plants, networks and pumping stations. The project therefore also ensures effective sanitation services to local populations, through the National Sanitation Office (ONAS). The concessional loan provided by the AFD will be supported by co-finance from the EIB and European Union's Neighbourhood Investment Facility.

Region: Tunisia

Amount: USD 60 Million (loan)

Beneficiaries: Local populations, recipient government

Additional mobilisation: EIB and Neighbourhood Investment Facility Grant by the European Union

Climate target: Adaptation and mitigation

#### **Outcomes:**

The project provides an example of a cross-cutting initiative that can be scaled up regionally, as its focus is on the Mediterranean coastline. In addition, it provides substantial financing for infrastructural projects that aim at adaptation in an area of high climate risk, improving water scarcity and protecting the coastline from degradation. At the same time, by providing for effective wastewater treatment plants, this project reduces greenhouse gas emissions. The project has wider implications in the health sector by securing sustainable wastewater treatment services. It also effects the health of the local population, and protects coastal productivity, trade and tourism by ensuring the conservation of the coastline and local biodiversity, and ecosystem services.

#### Sources:

French Development Agency (n.d.) Depolluting the Mediterranean Project Sheet, Available: https://www.afd.fr/en/depolluting-mediterranean

### Case 5: GCF-EBRD Sustainable Energy Financing Facility

#### About the project

The Sustainable Energy Financing Facility (2016-2033), funded by the Green Climate Fund and implemented through the EBRD, provides loans and grants to selected countries to improve their energy efficiency and use of renewable energy. So far, the following loans and grants are provided to the SEMed:

USD 75 million (loan) and 7 million (grant) to Egypt; USD 59 million (loan) and 5.7 million (grant) to Tunisia, USD 72 million (loan) and 7 million (grant) to Morocco; USD 24 million (loan) and 2 million (grant) to Jordan.

Co-financing from the EBRD and other bilateral and multilateral grant providers are expected to reach 72% of the funding.

The aim is to deliver climate finance to the private sector at scale through a network of Partner Financial Institutions (PFIs) in developing countries. The projects in the SEMed have a focus on renewable energy and energy efficiency. The Facility will provide credit lines to the PFIs and allow them to create independent and sustainable markets in energy efficiency, thereby improving climate resilience. The PFIs will on-lend funds to borrowers, such as private sector companies whose projects focus on renewable energy and climate resilience. The results areas focus on improving energy generation and access, as well as infrastructure for buildings, cities, industries and appliances and security to the food, water and health sectors. Technical assistance will be provided to PFIs and also to local borrowers and include a capacity building element to local small and medium sized enterprises.

Region: North Africa, Eastern Mediterranean, Asia (incl. Tunisia, Jordan, Morocco, Egypt) Amount: Green Climate Fund- USD 344 million total in loans and 34 million available in grants

**Beneficiaries:** Private energy sector, private companies

Additional mobilisation: Co-financing by the EBRD, USD 973 million in loans and 34 million in grants,

as well as private sector donors

Climate target: Mitigation (27.5 MtCO<sub>2</sub> globally)

#### **Outcomes:**

This case provides an example of an innovative financing facility that funds multiple renewable energy projects, with the aim of scaling up replicable mitigation projects. Renewable energy projects have thus far been financed in the SEMed countries of Tunisia, Jordan, Morocco and Egypt, and focus on improving the contribution of the private sector in the region's energy efficiency and climate resilience projects.

#### Sources:

Green Climate Fund website:

https://www.greenclimate.fund/-/gcf-ebrd-sustainable-energy-financing-facilities

### Case 6: EIB suburban rail network

#### About the project

The new financing operation with the Republic of Tunisia and Société Nationale des Chemins de Fer Tunisiens (SNCFT), EIB has supported the development of a rail project with 17 km express transport system. The project signed a EUR 83 million (loans) finance contract to Tunisia in 2017 in support of the construction and commissioning of the new express railway network.

The aim is to provide Tunisia with high-performance, sustainable, job-creating infrastructure. The project will increase the share of public transport in the city to 40%.

Region: Tunisia

Amount: EIB - EUR 83 million in loans Beneficiaries: Recipient government

Additional mobilisation: KfW, NIF, AFD (unspecified)

Climate target: Mitigation

#### **Outcomes:**

This project will optimise bus services, thus reducing overall CO<sub>2</sub> emissions into the atmosphere from urban transport. The project aims to reduce traffic congestion on access roads to the capital while reducing air and noise pollution and cutting greenhouse gas emissions.

#### Sources:

EIB website: http://www.eib.org/infocentre/press/releases/all/2017/2017-309-la-bei-finance-lenouveau-reseau-suburbain-de-tunis

### 7. Conclusion

This update report shows that up to USD 8.3 billion climate finance was mobilised in the SEMed region in 2016. This amount corresponds to 13% of global public climate finance commitments, as reported by the OECD DAC.

The largest share of climate finance to the SEMed region stemmed from MDBs, which provided 54% of the finance through loans. In particular, the EBRD had a large portfolio of projects in Turkey to the value of USD 1 billion. Bilateral ODA comprised 41% of the commitments, headed by Japan, France, and Germany, Japan's commitments to the region doubled in 2016 from the previous year. Dedicated climate funds contributed only 4% of the funding to the region, while other multilateral institutions contributed the remainder.

Turkey, Egypt, and Morocco received the largest proportion of climate finance to the region (72%). Mitigation activities dominated and were centred on greenhouse gas emission reductions in the energy and transport sectors, while adaptation measures remained underfunded. The beneficiaries, or the first implementing partner receiving funding, were largely public bodies (50%), whilst only 0.2% of the reported funding was provided to the private sector.

Monitoring, reporting, and verification of climate finance is a challenging exercise, limited by a lack of standardised climate finance tracking methodologies, and inadequate transparency that is due to the confidentiality of project-level data, delays in the release of data and inconsistencies in publicly available project records. While public climate finance is recorded by donor agencies and international financial institutions, private climate finance and domestic expenditure is rarely documented. Very few incentives to record private climate finance exist, confidentiality is often prioritised, and there are limited means of tracing cascade climate finance mobilised in the private sector. Without the records of domestic and private climate finance, the total aggregates are still subject to uncertainties. Such issues must be taken into account when considering the data gaps that will once again be present in estimating climate finance in 2017, during the second phase of the study. For this reason, reliable estimates for 2017 will be available on release of the OECD DAC 2017 dataset in 2019.

While the OECD DAC database provides a means for bridging these gaps on an aggregate level, it is also subject to potential errors. These may occur from human error, as most data is self-reported by donors who artificially fit the data to the OECD tracking system, or from systematic error relating to, for example, a subjective understanding of what climate finance should include or exclude. Nevertheless, by applying the OECD dataset, this report supports the movement towards a global, standardised approach to climate finance tracking. It seeks to encourage dataset comparability to enable more robust estimates, to improve the transparency of climate finance reporting at the national, regional and international levels.

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# **Annex I: Discussion of methodology**

### 9.1. Methodology revision 2018

The 2016 UfM Climate Finance Report (Climatekos, 2017) used a "bottom-up" methodology to gather data from various sources. However, significant finance gaps in aggregated data were revealed, due to delays in reporting by donors, issues of confidentiality and lack of response to questionnaires. In order to bridge this gap, the OECD DAC database was adopted as the main data source of this update report. The OECD DAC uses a "top-down" methodology based on donor reporting, that applies better-established climate finance tracking methodologies in form of the Rio Marker and Joint MDB Approach to Climate Finance Tracking. The following section details the difference between the approach of the original report and the revised method used in this update report, outlining the challenges and benefits of the two approaches.

## 9.2. Changes in methodology: bottom-up vs. top-down data collection

Currently, there is no universal definition of climate finance. To overcome this lack of a common definition, the 2016 UfM Climate Finance Report (Climatekos, 2017) adopted a purpose-based approach to categorising potential project activities. Projects whose primary or secondary objective was to support climate activities were considered "climate-specific", whereas projects administered by funds established with the sole purpose to address climate change were classified as "climate-dedicated". Activities that did not specify a climate objective were excluded, regardless of their potential climate co-benefits, due to the risk of double counting and the difficulties of categorising "additional" finance.

The two-step, "bottom-up" methodology employed:

- A preliminary assessment of 51 climate funds in the 91 OECD Climate Funds Inventory Report<sup>10</sup> supplemented by a broader web search, database analysis, and annual report review.
- 2. A survey, followed by interviews with major donors (where possible) to gather more accurate information on climate finance activities, tracking methods and climate finance definitions.
- 3. A plausibility check comparing estimates to other reports (MDB Report and OECD data) to assess data accuracy and bridge data gaps.

However, the application of these approaches had its limitations. While already being relatively strict in the classification of "climate finance" activities, large data gaps ensued as surveys received poor response rates. In addition, it turned out that many donors do not release data before a two-year time lag, do not

<sup>10</sup> OCED (2015), Climate Funds inventions

release data at all due to confidentiality issues, or do not track climate finance in a publicly transparent and accessible way.

Therefore, in order to bridge the large gaps in the data, the present update report replaced the previous methodology with a new "top-down" methodology. This entailed:

- 1. A preliminary broad assessment comparing publicly-available climate finance tracking systems that cover relevant climate funds (e.g. Climate Funds Update, donor surveys, donor websites, MDB Climate Finance Reports, and donor databases)
- 2. Analysis of the OECD DAC (Development Assistance Committee) Creditor Reporting System (CRS)'s alongside complimentary research from websites, reports and additional resources.

The two approaches are summarised in Figure 18.

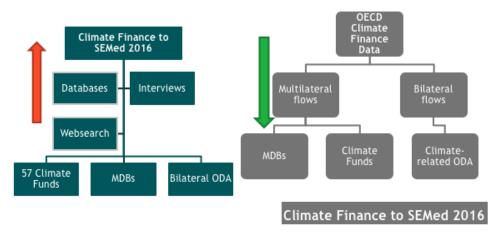


Figure 18: Comparison of methodologies in the 2017 data (bottom-up) collection versus 2018 collection (top-down) for 2016 flows

### The OECD DAC Methodology and Approach

The OECD DAC is a publicly available, comprehensive database that relies on self-reporting of donors on their bilateral commitments to developing countries. It applies the definitions of two well-established climate finance tracking methodologies: the Rio-Marker methodology<sup>11</sup> (typically used by bilateral donors and funds) and the Joint MDB Approach to Climate Finance Tracking<sup>12</sup> (used by multilateral development banks). The data on projects tagged as climate finance is submitted in the OECD reporting format by the donors themselves, and then integrated into the DAC database by the OECD, a process that takes two years and causes a time lag of two years until the data is released. OECD DAC data for 2016 was therefore

<sup>11</sup>See OECD (2016c), Annex 18 of for more information on the Rio Markers

<sup>12</sup> See EIB (2015) for more detail

available from March 2018. This update report, therefore, established a new timeline to allow the use of the OECD DAC data.

While the previous sub-categorisation of "climate specific" and "climate dedicated" funding was relevant to establish whether a project's funding was dedicated towards the climate, or was a specific co-benefit, this categorisation is no longer necessary in the OECD DAC database. This is because the Rio-Markers go further, including only projects with "significant" or "principle" climate objectives and counting the entire budget towards climate finance only if a detailed set of specifications are met. The MDB Methodology specifies the exact financial component of a project geared towards climate activities. In this context, therefore, the original categorisation of "climate specific" and "climate dedicated" funding is redundant. "Climate finance" in this report is defined as finance mobilised for the explicit purpose of climate adaptation (i.e., reduction of vulnerability) or mitigation (i.e., reduction of greenhouse gas emissions), on a project-level (Rio-Markers) or on an activity level (MDB Methodology) (OECD, n.d., IBRD et al. 2016). The tracking methods used by different donors are listed in Table 3.

# 9.3. Comparison of the aggregates from the 2016 Climate **Finance Report and the Update Report**

The 2016 UfM Climate Finance Report estimated that USD 4.6 billion was mobilised to the SEMed region in 2016 for an estimated 100 projects. The 2016 update report presented complemented and more robust estimates of USD 8.3 billion being mobilised to the SEMed for 619 projects. The gap in the two estimates can be explained by additional data being available in the OEC database, that was not yet released during the time of data collection in 2017.

The OECD DAC database receives detailed reports of climate finance from donors annually. Such established channels bypass the confidentiality barriers encountered in the 2016 Climate Finance Report. The figure below provides an overview of the donors in the 2016 Climate Finance Study whose data could not be gathered due to reporting restrictions. It reveals a finance gap of USD 3.66 billion, primarily due to new data from Japan, Germany, the IBRD and the EU, who did not release their data publicly before the OECD DAC publication.

Donor	USD
Japan	1,029,933,000
Germany	842,452,000
IBRD	976,023,000
EU	550,547,000
AfDB	209,321,000
Canada	50,556,000
Total	3,658,833,000
Difference	4,636,877,000

Figure 19: The data gap resulting from the OECD database (2018) and Climatekos (2017), arising from data inaccessibility at the time of collection

### 9.4. Limitations of current "top-down" methodology

The table below summarises the constraints and improvements of the methodologies of the two reports.

Table 2 Improvements to the old approach

Previous methodology ("bottom-up") constraints	New methodology ("top-down") improvements
Lack of a clear definition of "climate finance" and clear standards of what should/should not be included	Based on well-established methodologies that provide a set list of instructions on what should be included
Large inconsistencies in data collection (e.g. double counting)	Comprehensive data with many inconsistencies accounted for (e.g. double counting)
Lack of qualitative, project-level detail	Detailed, qualitative, project-level data
Large data gaps due to lack of donor response	Most active donors in climate finance report regularly, providing more accurate aggregates

Despite representing an improvement to the previous methodology, the use of the OECD DAC database also has several inherent limitations when it comes to climate finance tracking and reporting:

- Emphasis is on climate finance aggregates, meaning that project-level detail is sometimes limited.
- The OECD DAC reporting methodology is constantly evolving, which means that attention must be paid to changes in the approach over the years.
- The methodology relies on voluntary reporting of climate flows. Some projects may, therefore, be subjectively categorised or excluded if their climate benefits cannot be tracked quantitatively. This is particularly relevant in adaptation, where project inclusions may still be disputed. Human or systematic errors may also occur during reporting, for example, via incorrect reporting or in subjective judgements of what constitutes climate finance. Systematic errors could also occur as MDBs use different sector groupings to the OECD, and translation of project data between databases constitutes an important potential error source.
- The Rio Marker system requires donors to indicate whether a project contributes "principally" or "significantly" to climate change mitigation or adaptation. However, there has been evidence of inconsistencies in this system, brought about by unclear definitions and political motivations that affect the use of the coding system (Michaelowa and Michaelowa (2011), Junghans and Harmeling (2012), Adaptation Watch, (2015)).
- The purpose of the Rio Markers was not originally to track finance flows and therefore provides only an approximate quantification of finance flows (OECD DAC, n.d.). This method takes the

- entire project value into consideration, whereas the MDB Joint Approach only considers the proportion of finance designated specifically for a climate activity. It, therefore, provides a sharper delineation of actual climate finance. In addition, only projects with a Rio Marker "principal objective" may contribute towards the notion of "additionality" that is discussed in the context of the USD 100 billion target, although most estimates include projects with both "principal" and "significant" objectives.
- The current OECD methodology excludes climate finance flows that are subject to uncertainty and methodological limitations. This includes greater private climate finance flows, flows from domestic government expenditure, flows from additional investors that do not report to the OECD and flows that are not officially earmarked for the climate.
- The categorisation of flows as bilateral or multilateral means that only larger, multilateral climatespecific funds and programmes are clearly separated from bilateral flows. While this still provides accurate aggregates, details from secondary donors are not accounted for. For example, the budget for the "Fonds Français pour l'Environnement Mondial" may be integrated into that of its bilateral agency (the AFD).

# 9.5. Approaches and definitions applied to analyse the OECD **DAC** database

#### Details on the OECD DAC Donors to the SEMed in 2016

Table 3: Full list of donors to the SEMed region in 2016, including their flow categorisation, the methodology used to track climate finance, and their recorded commitment, OECD DAC Dataset, 2018

List of Donors to the SEMed region in 2016	Categorisation of flows (Bilateral/Multilateral)	Methodology	Total commitment (USD thousand)
European Bank for Reconstruction and Development	Multilateral	MDB Joint Approach	1,763,109.44
Japan	Bilateral	Rio Markers	1,029,933.16
International Bank for Reconstruction and Development (World Bank)	Multilateral	MDB Joint Approach	976,023.00
European Investment Bank	Multilateral	MDB Joint Approach	947,698.84
France	Bilateral	Rio Markers	863,020.46
Germany	Bilateral	Rio Markers	842,452.46
International Finance Corporation (World Bank)	Multilateral	MDB Joint Approach	580,255.45
EU institutions (excl. EIB)	Bilateral	Rio Markers	550,547.38
Green Climate Fund	Climate Fund	Rio Markers	292,552.60
African Development Bank	Multilateral	MDB Joint Approach	209,321.67
Canada	Bilateral	Rio Markers	50,556.15
International Fund for Agricultural Development	Climate-related fund/ "other multilateral flow"	Rio Markers	49,259.46
GEF General Trust Fund	Climate Fund	Rio Markers	36,136.35
Sweden	Bilateral	Rio Markers	35,916.01
Belgium	Bilateral	Rio Markers	28,066.24
Netherlands	Bilateral	Rio Markers	17,504.58
Spain	Bilateral	Rio Markers	5,927.75
Italy	Bilateral	Rio Markers	4,040.98
Finland	Bilateral	Rio Markers	3,530.70

United Kingdom	Bilateral	Rio Markers	1,644.30
Switzerland	Bilateral	Rio Markers	1,405.95
Slovenia	Bilateral	Rio Markers	1,129.64
Norway	Bilateral	Rio Markers	1,110.13
Global Green Growth Institute	Climate Fund	Rio Markers	850.51
Austria	Bilateral	Rio Markers	685.51
United Arab Emirates	Bilateral	Rio Markers	680.00
Korea	Bilateral	Rio Markers	597.08
Greece	Bilateral	Rio Markers	590.51
Czech Republic	Bilateral	Rio Markers	390.29
Poland	Bilateral	Rio Markers	301.74
United States	Bilateral	Rio Markers	275.28
Australia	Bilateral	Rio Markers	179.23
Ireland	Bilateral	Rio Markers	18.60
Total Climate Finance to the region:			8,295,711.45

Table 3, above, shows the full list of donors to the SEMed region for 2016 recorded by the OECD DAC, and how their flows were categorised by the OECD (although climate funds were separated from other flows in this report). The methodology of each donor is also recorded (MDB Joint Method, or the Rio Marker Method). Their total commitments are included as a measure of the importance of the donor to the region. See: OECD, 2016a, for the full list of all donors scoped by the OECD DAC.

### Approaches and definitions used in this update report, based on the OECD categorisation

The OECD data included in this report are:

- Financial instruments to the UfM included: grants and loans. More detailed instruments are able to be recorded by the OECD, although usually for the private sector, and private sector activities that were limited in the SEMed. For more information, see: OECD DAC (2016a).
- Adaptation and mitigation activities were reported in aggregates with the knowledge of the limitations of the Rio Marker and MDB Joint methodology system.
- Major areas of intervention or sectors and sub-sectors are differentiated by a coding system; more information is provided in Table 4 (below).

- Beneficiaries were recorded as the OECD DAC's Channel of Delivery<sup>13</sup>, which allows for a boundary to be drawn for climate finance flows. This includes:
  - o Public sector institutions: donor governments, recipient governments, local authorities and delegated co-operation with another recipient country. More information on sub-categories is provided in OECD (2007).
  - NGO's: international, donor-country based and developing country-based NGOs
  - Multilateral organisations: international, public institutions such as the World Bank or multilateral groups.
  - **Research institutions:** University, college or other teaching institution, research institute or think-tank.
  - Private sector institutions: Includes all "for-profit" institutions, consultants and consultancy firms that do not meet the definition of a public-sector institution, and private sector within and outside of the country
  - Other: Includes any other implementers that cannot be placed in another channel category or that are left blank
- "Soft" and "hard" activities were categorised on a sub-sectoral level, based on the descriptions in the CRS codes. This was because, in many cases, project-level descriptions were inadequate to categorise the data further. Sub-sectors were therefore labelled "soft", "hard" or "mixed" based on the following criteria:
  - Soft activities are defined as those without a hard, infrastructural, equipmentbased or technological element (i.e. capacity building, policy implementation, general assistance, education, tourism, banking and financial services, basic health and communications).
  - Hard activities are for infrastructure, equipment or technological purposes (i.e. transport and storage facilities, energy distribution centres, reconstruction, infrastructure, new technologies etc.).
  - Mixed activities (hard and soft) include activities that combine both components (sectors of water supply and sanitation, healthcare, renewable energy generation commonly require both activities).

<sup>13</sup> The channel of delivery is the first implementing partner. It is the entity that has implementing responsibility over the funds and is normally linked to the extending agency by a contract or other binding agreement and is directly accountable to it. Where several levels of implementation are involved (e.g. when the extending agency hires a national implementer which in turn may hire a local implementer), report the first level of implementation as the channel of delivery (OECD, 2007)

More information on definitions used by the OECD DAC database to code the responses of their recipients is provided in the following readings: OECD (2007) or OECD (2016a).

Table 4, below, shows the sector classification used in this report to investigate major sectors of intervention (including sector numbers used). More detailed sub-sectoral categories are provided, where possible. A complete list of explanations is given in OECD (2016a).

Table 2: Summary of the OECD DAC sectors (including sector number) and sub-sectors funded in the SEMed region in 2016

OECD DAC Sectors and Subsectors (OECD, 2016a)	Total
II.1. Transport & Storage	1,606,434.67
Air transport	167,275.26
Rail transport	921,622.13
Road transport	337,093.01
Transport policy and administrative management	121,753.84
Water transport	58,690.43
II.3.b. Energy generation, renewable sources	1,082,755.58
Biofuel-fired power plants	118.05
Energy generation, renewable sources - multiple technologies	718,526.28
Geothermal energy	80.72
Hydro-electric power plants	27.65
Solar energy	183,741.91
Wind energy	180,260.98
II.3.c. Energy generation, non-renewable sources	714,252.46
Energy generation, non-renewable sources, unspecified	336,522.86
Natural gas-fired electric power plants	377,729.60
I.4. Water Supply & Sanitation	656,015.14
Basic drinking water supply	164.22
Basic drinking water supply and basic sanitation	22,757.50
Basic sanitation	3,527.59
Education and training in water supply and sanitation	157.03
River basins' development	13,314.04
Sanitation - large systems	153,484.04
Waste management/disposal	184,092.54
Water resources conservation (including data collection)	3,679.59
Water sector policy and administrative management	79,698.01
Water supply - large systems	136,733.72
Water supply and sanitation - large systems	58,406.88
III.1.a. Agriculture	545,482.93
Agricultural alternative development	122.35
Agricultural co-operatives	7,192.68
Agricultural development	143,432.34
Agricultural education/training	11,113.88

Agricultural extension	40.72
Agricultural inputs	8,828.94
Agricultural land resources	11,050.58
Agricultural policy and administrative management	301,435.21
Agricultural research	1,395.87
Agricultural services	13,566.00
Agricultural water resources	24,892.08
Food crop production	21,344.26
Livestock	764.15
Livestock/veterinary services	303.86
II.4. Banking & Financial Services	544,316.12
Formal sector financial intermediaries	519,566.12
Monetary institutions	24,750.00
III.2.a. Industry	501,055.32
Agro-industries	15,131.66
Basic metal industries	89,572.04
Chemicals	86,019.85
Energy manufacturing	157,070.36
Engineering	5,570.88
Small and medium-sized enterprises (SME) development	147,690.53
II.3.f. Energy distribution	465,235.86
Electric power transmission and distribution	457,663.43
Gas distribution	7,565.80
Heat plants	6.63
IV.2. Other Multisector	399,272.92
Multisector aid	299.14
Multisector education/training	600.50
Research/scientific institutions	1,612.34
Rural development	17,347.58
Urban development and management	379,413.37
IV.1. General Environment Protection	214,696.81
Bio-diversity	11,075.50
Biosphere protection	127.09
Environmental education/training	616.22
Environmental policy and administrative management	98,256.74
Environmental research	71.68
Flood prevention/control	104,529.14
Site preservation	20.45
I.6. Other Social Infrastructure & Services	213,248.09
Culture and recreation	32.07
Employment policy and administrative management	1,658.74

Housing policy and administrative management	14,971.34
Multisector aid for basic social services	194,905.34
Social/welfare services	1,680.60
VIII.3. Disaster Prevention & Preparedness	200,819.16
II.3.a. Energy Policy	194,684.99
Energy conservation and demand-side efficiency	180,282.52
Energy policy and administrative management	14,402.47
III.1.b. Forestry	166,211.66
Forestry development	337.50
Forestry policy and administrative management	165,874.16
III.2.b. Mineral Resources & Mining	117,407.61
Industrial minerals	100,623.19
Mineral/mining policy and administrative management	8,932.14
Oil and gas	7,852.27
VIII.2. Reconstruction Relief & Rehabilitation	20,686.72
VIII.1. Emergency Response	19,381.23
Emergency food aid	3,317.48
Material relief assistance and services	9,717.34
Relief co-ordination; protection and support services	6,346.41
I.5.a. Government & Civil Society-general	19,194.95
Decentralisation and support to subnational government	82.94
Democratic participation and civil society	5,983.75
Human rights	71.88
Public sector policy and administrative management	136.38
Women's equality organisations and institutions	12,920.00
I.1.c. Secondary Education	9,156.12
Vocational training	9,156.12
VI.2. Developmental Food Aid/Food Security Assistance	5,570.98
II.5. Business & Other Services	4,976.22
Business support services and institutions	4,976.22
III.3.b. Tourism	4,923.32
Tourism policy and administrative management	4,923.32
III.3.a. Trade Policies & Regulations	4,324.20
Trade policy and administrative management	4,324.20
I.1.d. Post-Secondary Education	3,925.04
Advanced technical and managerial training	3,852.26
Higher education	72.78
I.1.a. Education, Level Unspecified	510.22
Education facilities and training	510.22
I.2.a. Health, General	507.07
Health policy and administrative management	62.49

Medical services	444.57
I.2.b. Basic Health	180.65
Basic health care	159.84
Basic health infrastructure	2.21
Basic nutrition	18.60
III.2.c. Construction	116.38
Construction policy and administrative management	116.38
I.5.b. Conflict, Peace & Security	77.41
Civilian peace-building, conflict prevention and resolution	77.41
IX. Unallocated / Unspecified	17.36
Sectors not specified	17.36
III.1.c. Fishing	11.63
Fishery development	11.63
I.1.b. Basic Education	4.42
Primary education	4.42
II.2. Communications	2.76
Information and communication technology (ICT)	2.76
Grand Total	8,295,711.45



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