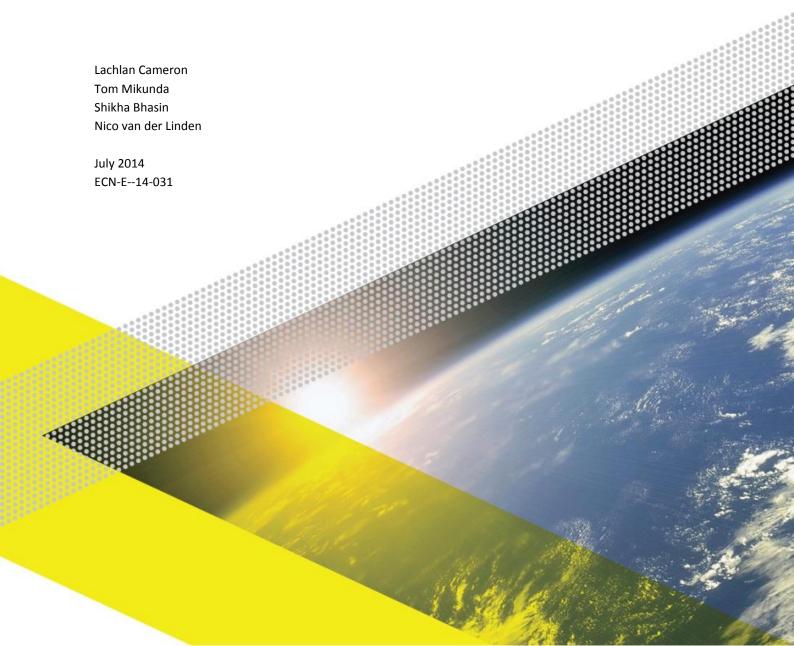


# Trends and opportunities in multilateral climate funds



# Acknowledgement

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# Summary

To tackle climate change, developing countries must have access to climate technologies and services that enable low carbon development. Achieving this will require a massive ramp-up in climate finance flows to facilitate the necessary investment. Climate investments include both mitigation projects that reduce emissions of greenhouse gases – such as renewable energy technologies, urban transport improvements and energy efficiency measures – as well as climate change adaptation projects – such as water management and 'climate smart' agricultural practices.

Multilateral climate funds are a major channel for climate finance flows from national donors to projects in developing countries, often utilized as part of multimillion-dollar country-wide investment programmes administered by multilateral development banks. For the Netherlands, tracking climate funds can help identify concrete opportunities for Dutch 'Climate tech' firms to establish or expand business overseas. However, identifying business opportunities associated with climate funds can be challenging for firms, particularly for small and medium size enterprises.

In recognition of this, DME requested ECN Policy Studies to develop a monitoring framework that analyses trends in the pipeline of projects from major climate funds. The projects are aggregated and filtered to identify potential opportunities at the earliest stage in the project development cycle. Projects, which are still under development or only recently approved, represent the best prospects for Dutch firms to engage with new markets. The monitoring framework helps Dutch firms anticipate where the project tenders will emerge, both geographically and by sector, as well as includes contact details for each project. The report also gives an overview of the programmes and grant schemes run by the Netherlands Enterprise Agency (RVO) to support Dutch companies and knowledge institutes in developing business opportunities in developing countries.

This first release of the monitoring framework focuses on the Climate Investment Funds (CIF), one of the largest channels of multilateral climate finance. Projects were studied from the four programmes under the CIFs: the Clean Technology Fund (CTF), the Scaling Up Renewable Energy in Low Income Countries Program (SREP), the Forest Investment Program (FIP) and, the Pilot Programme for Climate Resilience (PPCR). A total of, USD

\$7.6 billion worth of CIF project funding has been analysed, of which an estimated USD 3 billion is still to be disbursed. These flows, along with the significantly larger external contributions that they leverage, may represent concrete opportunities for Dutch firms, through involvement in projects. The results can also provide insights on where to focus efforts overseas. Identified 'open' projects are presented at the country, sector and country-sector combination level for relevant mitigation and adaptation technologies.

As a next step, the information generated through the first edition of the monitoring framework will be discussed with relevant private sector platforms to tune the analysis to add maximum value to Dutch technology and service providers. In future editions, this database and report will be expanded to include the Global Environment Facility (GEF) and Adaptation Fund, as well as other sources of information on market trends and potential opportunities, such as the new Green Climate Fund (GCF), the nationally appropriate mitigation action (NAMA) database and requests submitted to the UNFCCC's Climate Technology Centre and Network (CTCN).

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# $oldsymbol{1}$ Introduction

This report presents a 'monitoring framework' that allows Dutch companies to identify opportunities to offer their solutions within the investment projects of multilateral climate funds. The monitoring framework focuses primarily on the cleantech, water management and agricultural sectors.

# 1.1 Rationale and purpose

Global investments related to climate technologies are estimated to be in the order of USD 360 billion in 2012<sup>1</sup>. These investments include both mitigation projects that reduce emissions of greenhouse gases – such as renewable energy technologies, urban transport improvements and energy efficiency measures – as well as climate change adaptation projects – such as to water management and 'climate smart' agricultural practices. Some USD 93 billion of renewable energy investments alone were made in developing countries in 2013, a figure that almost doubled in the last 5 years<sup>2</sup>. Climate investments, for both mitigation and adaptation, are expected to grow significantly, with the International Energy Agency projecting that an additional investment of USD 5 trillion is required by 2020 for clean energy alone in order to meet climate targets. A majority of this investment will be in developing countries, where multilateral climate funds and multilateral development banks (MDBs) play a key role in using international public support to achieve local private investment. The focus of this study is on the major multilateral climate funds, who were responsible for delivering some USD 1.6 billion of direct climate finance to developing countries in 2013, with the aim to leverage much larger total investments<sup>1</sup>.

ECN, in cooperation with DLO, Deltares and Duisenberg School of Finance have initiated a four year project with the objective to better link the availability of Dutch climate solutions to the specific needs of developing countries. In this, ECN looks at the opportunities offered by the upcoming international climate change regime, and

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<sup>&</sup>lt;sup>1</sup> CPI (2013) The Global Landscape of Climate Finance 2013

especially the project based cooperation supported by multilateral climate funds, as well as the technology transfer mechanism of the UNFCCC; the Climate Technology Centre and Network (CTCN).

For the Netherlands, the investment projects of multilateral climate funds can offer an opportunity for Dutch firms to contribute to technology transfer and diffusion, and expand overseas markets. The challenge is to find prospects in a timely way that allows firms to engage with a country or implementing MDB early in the process. Figure 1 describes a typical approach of major climate funds to implementing projects and programmes in developing countries. These projects can take many forms, from provision of equipment and infrastructure, to consulting services and project management.

It should also be noted that the process below will not always be followed or transparent. Investment plans are not created by all funds, depending on the size of the allocation and administering body. Additionally, many funding bodies do not make these investment plans public.

Figure 1: Outline of project development process of a multilateral climate fund (based on CIF)

•Resources allocated to broad themes, regions and countries based on country needs and donor requirements

 •Investment plans are drawn up at the country level with the involvement of national stakeholders and MDBs. These map out a strategic investment approach within a country

Projects

Plan

•Specific projects in the investment plan are developed in more detail by an implementing MDB together with the host country

Finance

•Total support for a project comes from a number of bilateral and multilateral partners, as well as the project host country and other sources

Submission

• Detailed proposals are submitted for approval to the relevant climate fund and within the implementing MDB. This process can take more than a year for larger funds

Approval

•Resources are approved and assigned to a project, ready for implementation. Implementation is often a multi-year process

Implement

•The MDB that is responsible for implementation either administers the project itself or tenders the work to have contractors carry-out many aspects of the project.

The final stage of Figure 1, implementation, offers the most direct way for firms to be able to offer their climate solutions to concrete projects on the ground. However, by

this stage, it is often very late in the design process, and specific solutions may not fit very specific tender requirements. Therefore, opportunities should ideally be anticipated by firms earlier in the project development and implementation process, and firms should be in a position to engage with relevant contact points within a country and finance institution.

Climate funds, and implementing partners such as MDBs, have specific procurement practices, investment plans and funding channels, which can be challenging to navigate to identify potential opportunities, particularly for small and medium enterprises (SMEs). In recognition of this, DME has requested ECN Policy Studies to develop a monitoring framework that allows the demands of developing countries, in terms of specific climate investments in mitigation and adaptation, to be matched with the specific solutions offered by (clusters of) Dutch business.

The monitoring framework should allow Dutch businesses to anticipate where project opportunities will emerge, both geographically and by technology/sector, allowing targeted business development and a timely exploration of local market conditions.

# 1.2 Objectives of the monitoring framework

It is intended that the monitoring framework generates reports that are distributed to Dutch firms, including SMEs, which may have an interest in globalising through participation in climate finance funded projects, but have lacked the necessary information on opportunities. The report should help firms to identify up-coming opportunities in terms of countries and regions for specific technologies. The monitoring framework:

- Provides information on the pipeline of projects from multilateral climate funds, along with contact details of implementing partners. This allows firms to preemptively prepare.
- Based on planned investments, the framework highlights promising countrytechnology combinations in order to inform and direct possible business development activities.
- Introduces the investment policies/strategies of major climate funds.
- Provides general information on available Dutch support; e.g. embassies and the Netherlands Enterprise Agency (RVO)

It is necessary to engage with and understand the needs of national stakeholders when seeking involvement in the projects of climate funds and MDBs. Competition can be high and many decisions will be taken at the national level. The information presented in the framework therefore provides a first step in identifying multilateral climate finance trends and potential open opportunities. It is not the role of the monitoring framework to support business to approach specific projects or actors, but rather to provide information to allow companies to assess the relevance to their specific expertise/output, and liaise with Dutch support; for example via embassies or the Netherlands Enterprise Agency (RVO) (see Section Fout! Verwijzingsbron niet evonden.).

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# 1.3 Emerging climate finance architecture<sup>3</sup>

This section introduces the broader climate finance architecture, outlines the climate finance flows that are considered in this initial release of the monitoring framework and highlights the sectors that are targeted.

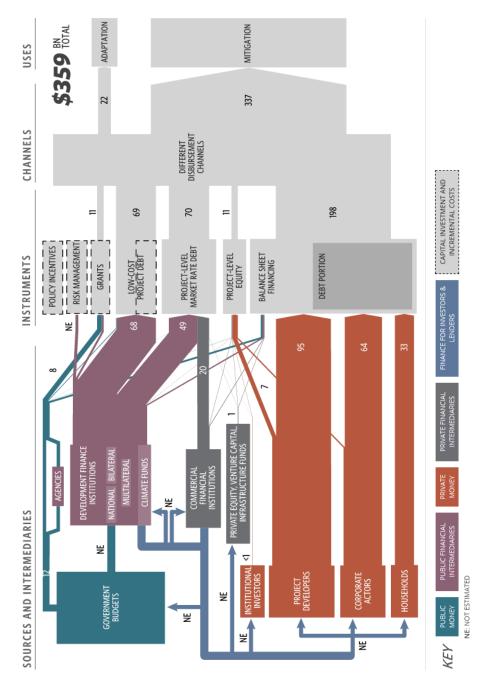
Climate finance typically refers to the financial resources mobilised to help developing countries mitigate and adapt to the impacts of climate change<sup>4</sup>. The so-called 'global climate finance architecture' – denoting the sources, flows and targets of climate finance – is complex and evolving. Recent assessments of climate finance volumes demonstrate this complex landscape, with multiple sources and intermediaries providing various forms of climate finance through a number of instruments and approaches (Figure 2). Funds flow through multilateral channels and increasingly through bilateral channels, as well as in some recipient countries through national climate change funds. The total amount of climate finance in 2012 is estimated at USD 359 billion; with approximately 40 percent of climate finance provided by the public sector and the remainder attributed to private investments. The bulk of climate finance, 94 percent, was directed towards mitigation activities.

The types of climate finance available through these channels are varied; from grants and concessional loans, to guarantees and private equity. The architecture has variable structures of governance, modalities and objectives. While the transparency of climate finance channelled through multilateral initiatives is increasing, detailed information on bilateral initiatives is less easily available. For this reason, the focus of the monitoring framework is on multilateral initiatives, which have the most readily available information on funding volumes and strategies, as well as the clearest access modalities for Dutch firms.

<sup>&</sup>lt;sup>3</sup> This section draws on the ODI report The Global Climate Finance Architecture (2013)

<sup>&</sup>lt;sup>4</sup> A formal definition of the term "climate finance" is yet to be agreed internationally

Figure 2 Climate finance flows in 2012<sup>5</sup>



#### Multilateral climate funds

There are a number of routes through which climate finance can flow. Public climate finance is often provided to **multilateral climate funds**, pools of resources from donors and other sources that are dedicated to addressing climate change. These funds usually have a finite lifetime and a specific sector/regional focus. They can support projects directly, but typically work through other organisations, such as MDBs or UN organisations to fund and implement actions in host countries.

<sup>5</sup> CPI (2013)

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Two of the main multilateral climate funds are established under the United Nations Framework Convention on Climate Change (UNFCCC); the Global Environment Facility (GEF) and Green Climate Fund (GCF). Established in 1991, the GEF allocates resources according to the impact of dollars spent on environmental outcomes, but ensuring all developing countries have a share of the funding. In the GEF fourth replenishment (2006 -2010), 31 countries pledged just over USD 1 billion for the climate change focal area, most of which has been approved and disbursed to both climate change mitigation and adaptation projects. Under the fifth replenishment (2011 – 2014), 40 donor countries have deposited USD 777 million to the climate change focal area. GEF 5 has approved a total of USD 582 million for 127 projects, of which USD 31 million has been disbursed as of September 2013. The GEF also administers the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF). These funds support small-scale adaptation plans and projects and have disbursed a combined total of almost USD 250 million across 82 countries since their inception in 2002.

The GCF was agreed in 2011 and is expected to become the primary channel through which international public climate finance will flow over time. Through its established principles, it aims to adopt a country-driven approach, to balance adaptation and mitigation finance, allow direct access and have a private sector facility. In 2013 governments sought to operationalize the fund, and agree on its business model, priorities, results framework, and ways of working with recipient countries. This has been a time consuming process, and to date no funding has been pledged to the GCF for actual projects. As agreed in the 2009 UNFCCC Copenhagen Accord, the GCF could be responsible for administering up to USD 100 billion per year by 2020. In 2014, the Dutch government is expected to pledge USD 100 million to the GCF.

A substantial volume of climate finance has been channelled through institutions not linked to the UNFCCC. This edition of the monitoring framework focuses on a specific set of multilateral climate funds, the **Climate Investment Funds (CIF)**, currently the largest and most prominent of these. The CIFs, established in 2008, are administered by the World Bank, but operate in partnership with regional development banks to finance programmatic interventions in selected developing countries, with the objective of improving understanding of how public finance is best deployed at scale to assist transformation of development trajectories. Further information on the structure of the CIFs can be found in 1.3.1.

In total, support pledged to multilateral climate funds to date is in the order of USD 7.4 billion for mitigation and USD 2.2 billion for adaptation. Of this more than 80 percent of mitigation support has been approved<sup>6</sup>, with roughly 20 percent actually disbursed. While for adaptation, roughly half has been approved but less than 15 percent disbursed<sup>7</sup>.

#### Multilateral development banks (MDBs)

The majority of public climate finance – predominantly from developed country governments – is channelled through intermediaries, principally **development finance** 

These figures include projects in approved investment plans, which may not yet be approved for implementation.

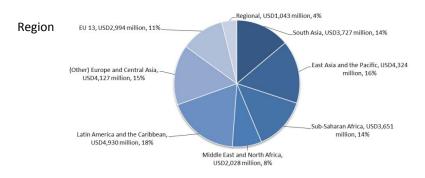
ODI (2013) Climate Finance Thematic Briefings: Mitigation and Adaptation Finance.

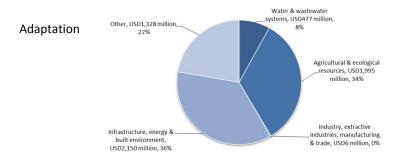
**institutions (DFIs)**. DFIs can be national<sup>8</sup>, bilateral<sup>9</sup> or multilateral institutions, such as MDBs. In 2012, DFIs provided a third of global climate finance (approx. \$120 billion), with MDBs accounting for around 30 percent of that figure.

The MDBs provide financial assistance to developing countries in order to promote economic and social development. They primarily fund large infrastructure and other development projects and, increasingly, provide loans tied to policy reforms by the government. The MDBs provide non-concessional financial assistance to middle-income countries and some creditworthy low-income countries on market-based terms. They also provide concessional assistance, including grants and loans at below-market rate interest rates, to low-income countries. MDBs effectively obtain funds from three main sources, direct bilateral contributions from countries, contributions from different types of climate funds (which may have certain sector or region restrictions) and from international capital markets through bond issuance. The first two sources are used for concessional support, while the last is used for the non-concessional lending of the MDBs. As a result, MDBs are not only a direct channel of climate finance from donors to countries, but also play a large role in the disbursement of climate finance and implementation of projects for many climate funds.

The last joint MDB climate finance report for 2012 showed that of the USD 27 billion provided by MDBs for climate change related activities, almost 80 percent was related to mitigation and the remainder for adaptation (Figure 3).

Figure 3: MDB climate finance by region (top), by sector for adaptation (centre) and by sector for mitigation (bottom)  $^{11}$ 





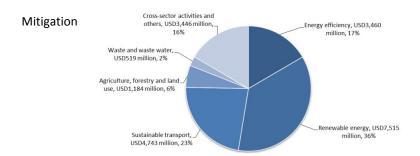
The Brazilian Development Bank (BNDES) is an example of national development finance institution

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<sup>&</sup>lt;sup>9</sup> The Netherlands Development Cooperation (FMO) is an example of a bilateral development finance institution.

Nelson, R.M. (2013) Multilateral Development Banks: Overview and Issues for Congress

<sup>&</sup>lt;sup>11</sup> AfDB/ADB/EBRD/EIB/IDB/WB/IFC (2013) Joint report on MDB climate finance 2012



MDBs are of particular interest for this monitoring framework, that tries to pre-empt climate investment and support in developing countries, because of the generally transparent and open way in which they operate. The multilateral nature of the support that they receive means that MDB projects are open to different countries to deliver and that projects are generally well documented. As noted in Section 1.1, early engagement with MDB investment programmes is expected to deliver better outcomes for organisations that are interested to deliver or be involved in these type of projects

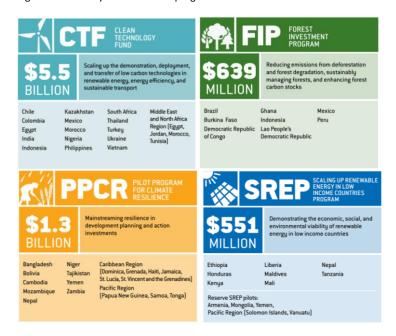
#### 1.3.1 The Climate Investment Funds

This first edition of the monitoring framework focuses on the Climate Investment Funds (CIF). Administered by the World Bank Group, the CIF<sup>12</sup> is a financing instrument to initiate transformational change to facilitate low-carbon and climate resilient development. The finance of the CIF is channelled through the World Bank (including the International Financial Corporation; IFC, International Bank for Reconstruction and Development; IBRD), African Development Bank (AfDB), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), Islamic Development Bank (ISDB) and the Inter-American Development Bank (IADB).

There are two primary funds: the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF). The CTF provides concessional financing to middle-income countries to implement country-driven projects in the fields of renewable energy, sustainable transport and energy efficiency. The (SCF), is separated into a further 3 programmes. First, the Scaling Up Renewable Energy in Low Income Countries Program (SREP). SREP channels grants and near-zero debt through MDBs to support renewable energy projects in some of the world's poorest countries. Second, the Forest Investment Program (FIP) and, third, the Pilot Programme for Climate Resilience (PPCR). All together the resources of the CIFs have been committed to 48 countries (Figure 4).

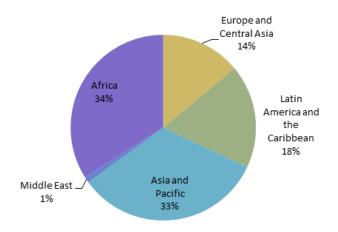
www.climateinvestmentfunds.org/cif/

Figure 4: Summary of the four CIF programmes and active countries



The CIF funding is disbursed in a demand-driven process, initiated by the prospective recipient country. First, the recipient country develops, in cooperation with MDBs, an investment plan, which outlines a number of proposed projects, the envisioned impacts and the related costs. The investment plans also describes the country-specific challenges and development needs. The investment plans with the request for funds are presented to a Trust Fund Committee of the CIF for approval. If approved, again with support of a MDB, detailed project proposals are developed for each project in the investment plan. These specific proposals are again submitted to the CIF and then to the implementing MDB for approval prior to the release of funds.

Figure 5: Regional split of total CIF funding



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# 2

# Climate change solutions offered by the Netherlands

Since 2013, a number of so called 'Top Sectors' and associated companies have been working towards a boosting the international profiling agenda called 'Smart solutions for sustainability'. Here, trade organisations, business, relevant government institutions and knowledge institutes are collaborating to develop concrete plans and export projects for mitigation and adaptation technologies and knowledge.

The monitoring framework has been developed for a range of technology clusters, specifically those identified in the TKIs. These areas, listed below, have been chosen either because of the growing international demand, the presence of specific Dutch expertise, and/or the importance as part of national planning:

- Solar energy
- Geothermal
- Bio-based economy
- Hydropower (mini)
- Smart grids
- Wind
- Energy efficiency in built environment
- · Sustainable process engineering
- Agri & Food
- Water technology

The outputs of the monitoring framework will be tailored towards generating as many insights as possible for the above clusters. In many cases, it is thought that business opportunities may be relevant for more than one cluster. This section of the monitoring framework will be updated in future editions with more specific climate technology and service offerings of the Netherlands.

# 3 Overview of opportunities

This chapter summarises the results of the monitoring framework for the CIFs and presents potential 'opportunities' for firms at sector, country and technology level. The results are preceded by a short overview of the approach taken.

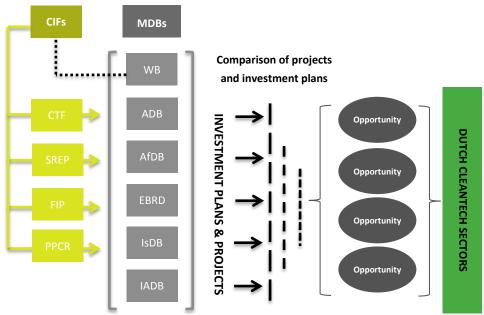
# 3.1 Approach

The monitoring framework has been designed to provide a concise overview of ongoing and planned investments by the CIF programmes, which can be used to identify upcoming opportunities both by country, and by technology. The initial step was to aggregate the entire project planning information in the country investment plans along with the actual projects that have eventuated. This is available along with this document in the form of a spreadsheet database, with the information categorised by country, the status of the project, the implementing MDB and the sector/technology in which the investment will take place.

The following step is to **identify** relevant and compatible opportunities, with reference to the priority sectors listed in section **Fout! Verwijzingsbron niet gevonden.**. The dentification process not only assesses technology/sector relevance, but also the status of the investment programmes and individual projects, with focus placed on what portion of the available funds have been disbursed. For each country the planned projects in the investment plan are compared with actual projects that are being prepared or implemented in order to identify where new projects are likely to be developed in the near future.

The final step involves **coordinating** the insights generated for dissemination to the cluster recipients. Outputs are categorised per cluster/sector and summarise key information for individual project opportunities that are accessible for company business developers.

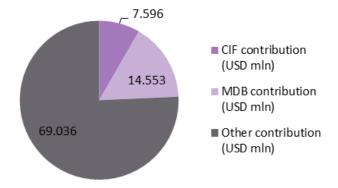
Figure 6: Visualisation of the monitoring framework



Although the CIF provide arguably the most detail in terms of projects and planning documents, there are still certain data limitations. In some instances the exact nature of the project is not clear from the available documents, for example the type of planned activity may not be clearly identified. Furthermore, some projects are designed in general terms, covering all RE technologies or even cleantech in general. In such cases, the terms of 'Energy efficiency (unspecified)', 'Renewable energy (unspecified)' or 'RE and EE' are used to define a sector.

The funds for CIF projects do not only come from the CIFs themselves. It is typical for the implementing MDB and other MDBs to contribute, as well as local governments, bilateral development finance institutes and the private sector (so-called 'other' sources). Looking at only total planned investment, the total value of all CIF projects – based on the country investment plans – is approximately USD 90 billion, of which approximately USD 7.6 billion comes from the CIFs and roughly double that amount again from implementing and supporting MDBs (Fout! Verwijzingsbron niet evonden.Fout! Verwijzingsbron niet gevonden.).

Figure 7: Sources of funding for CIF projects



Tracking CIF funding and associated projects can therefore be used as a proxy for much larger flows of further MDB, bilateral and national funding for climate related projects. The information on these CIF contributions is also readily available (and is the basis for the monitoring framework, whereas contributions from 'other' sources would not be possible to collect and aggregate across all countries.

The monitoring framework categorises projects by their current status, in order to distinguish where in the project cycle (Figure 1) they are, recalling that those projects which have started implementation some time ago may be less interesting for Dutch companies. Projects are defined as:

- Approved (pre-2014): Project has been approved prior to 2014
- Approved (post-2014): Project has been approved in 2014
- **Pending approval:** The project proposal has been submitted to for approval
- Under preparation: A preparation grant has been provided to the MDB to prepare the full scale project
- IP only: A potential project idea has been approved as part of a country investment plan (IP); however no project proposal has been developed.

The following sections are intended to provide an overview of the funding allocated or planned for allocation by technology and by country. From section 3.3, the monitoring database has been used to identify a number of key opportunities, projects with remaining CIF budget approved in 2014, pending approval or at investment plan (IP) stage only. This report describes these opportunities for the cleantech, water management and agriculture sectors, however more detail on other sectors is available, with the same classification system described above, in the accompanying data file.

#### Country-level opportunities 3.2

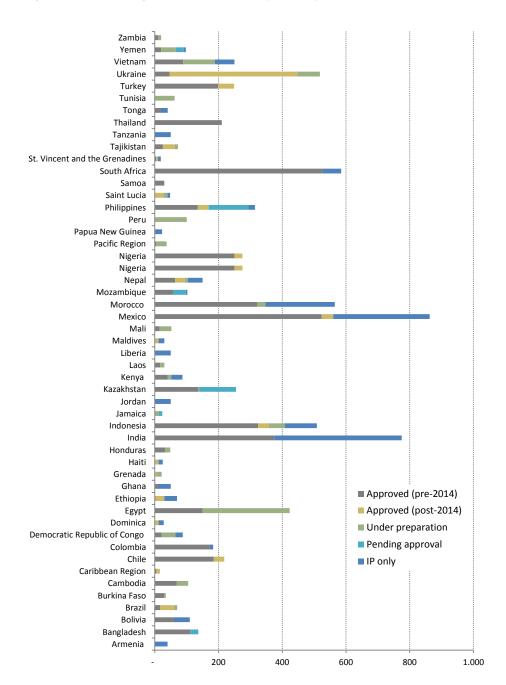
Those countries that have more projects at the earlier stages of development are theoretically more interesting for firms to pre-emptively engage with. Figure 8 shows the breakdown by project status for each of the CIF countries. It indicates that countries such as Tanzania, Tunisia, India and the MENA<sup>13</sup> region, amongst others, have a significant proportion of their CIF budget allocation remaining; while, while the Ukraine has recently been approved a significant proportion of its CIF allocation for implementation. Jordan, Armenia, Mexico, Morocco, Mexico, Bolivia and Vietnam also have a large proportion of their CIF budget that is yet to be allocated to specific projects.

However, at this level of aggregation there is limited value in knowing which countries could represent opportunities. It is important to understand in more detail what these opportunities might be and in which sectors.

Overview of opportunities 19

Middle East and North Africa

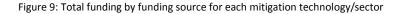
Figure 8: Total CIF funding and disbursement status per country (USD million)



# 3.3 Sector-level opportunities

In terms of specific technologies or sectors, renewable energy generation from geothermal, wind and solar have all received significant allocations from the CIF, as have transport and energy efficiency related measures (Figure 9). Hydropower support is dominated by the private sector co-financing of one large project and biomass similarly has received limited support from the CIF. Figure 9 also shows the large co-financing that will be leveraged from MDBs and other sources, sums that are typically

many multiples of the underlying CIF contributions. An equivalent figure for adaption is not possible, due to a lack of data on partner MDB and other contributions, however a similar trend, with CIF funds representing a fraction of total project size, can be observed<sup>14</sup>.



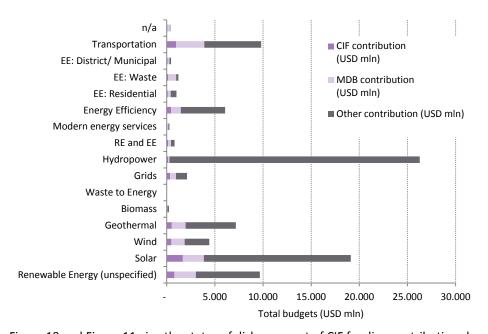


Figure 10 and Figure 11 give the status of disbursement of CIF funding contributions by mitigation sector. Projects that have already been approved by the CIF committees prior to 2014 (pre-2014) could be expected to offer fewer opportunities for firms to newly engage with, as the procurement windows of the project entity may have closed or implementing partners may already have been identified. Projects approved after 2014 (post-2014), or which are yet to be approved by the CIF, may represent opportunities for firms to investigate further.

By tracking projects that have not yet been approved, or have been recently approved, firms may be able to prepare for future openings and initiate a more comprehensive engagement with various actors such as associated MDBs, national government and private stakeholders. The monitoring framework has identified projects to the value of USD 2,860 million of CIF funding across several sectors, which are labelled as either under preparation, pending approval or are still only at the investment plan stage. As such, investment plans and 'open' projects can provide a valuable starting point for a firm looking to engage in a foreign market.

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Only mitigation technologies are shown. The data for complementary MDB and other co-financing is often not available in PPCR and FIP investment plans for adaptation technologies. Furthermore, in the majority of adaptation projects, the CIF funding is the largest component in the total budget (See Figure 11 for CIF contributions by adaptation sector).

Figure 10: Total and disbursement status of CIF contribution per mitigation sector (USD mln)

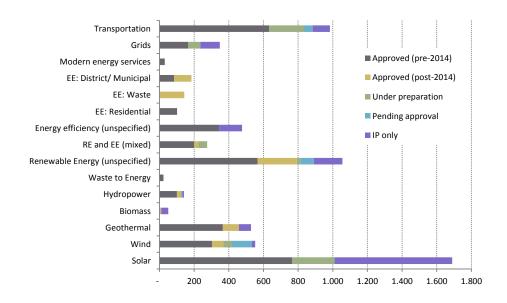
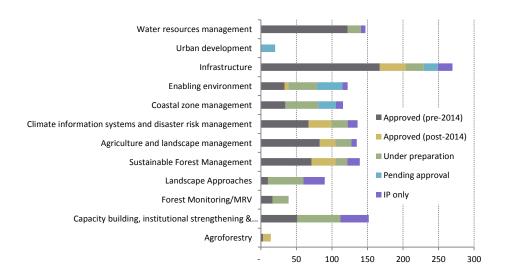


Figure 11: Total and disbursement status of CIF contribution by adaptation sector <sup>15</sup> (USD mln)



# 3.4 Country-sector combinations

As a starting point it is useful to see where the CIF programmes have been investing in regards to different technologies or sectors (**Fout! Verwijzingsbron niet gevonden.**). hile this is largely a result of the type of programme – for example, SREP countries will inevitably show investments in renewable energy – other patterns can start to be observed. For example, transport projects are by and large limited to Columbia, Egypt, Mexico, Nigeria, Philippines and Vietnam. Solar specific projects are most common in

<sup>&</sup>lt;sup>15</sup> Adopts the same sector categorization for adaptation technologies as used within the CIF

Chile, Egypt, India, Jordan, Morocco and Tunisia. However, Figure 12 and Figure 13Fout! Verwijzingsbron niet gevonden. consider all projects, including projects that have begun implementation some time ago and not just those that could be considered to represent an open opportunity. It is important to filter other projects that may be less interesting due to their advanced progress and clearly identify those are could be interesting for firms to investigate. This is done in the following sub-sections for each sector grouping relevant to the TKIs in Chapter Fout! Verwijzingsbron niet gevonden..

1.200 ■ Transportation ■ Modern energy services Hydropower 1.000 ■Grids Biomass ■ Geothermal 800 ■Wind CIF allocation (USD mln) Solar ■ RE and EE (grouped) ■ Energy efficiency (unspecified) 600 ■ Renewable Energy (unspecified) 400 200 Ethiopia South... Honduras India Jordan Kazakhst.. Kenya Liberia Mali Mexico Nepal Nigeria ndonesia Maldives hilippines Thailand Morocco

Figure 12: CIF funding by country and mitigation technology/sector

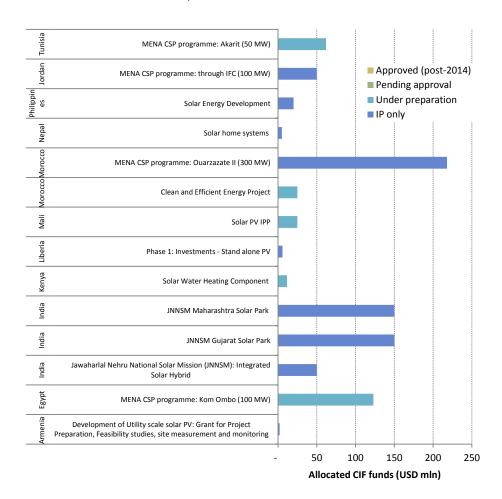
200 ■ Water resources management Urban development 180 ■ Infrastructure ■ Enabling environment 160 ■ Coastal zone management Climate information systems and disaster risk management ■ Agriculture and landscape management 140 ■ Sustainable Forest Management ■ Landscape Approaches ■ Forest Monitoring/MRV 120 ■ Capacity building, institutional strengthening & governance reform ■ Agroforestry 100 80 60 40 20 Dominica Grenada Samoa Ghana Niger Saint Lucia **Burkina Faso** Haiti Laos Nepal Papua New Guinea Peru St. Vincent and the Grenadines Brazil Cambodia Caribbean Region Mozambique Pacific Region Democratic Republic of Congo Indonesia Jamaica Mexico Tajikistan

Figure 13: CIF funding by country and adaptation technology/sector

## 3.4.1 Solar

Figure 14 highlights CIF funded solar power projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 1 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 14: Solar projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



In terms of planned investments in solar power, India has requested the largest amount of CIF funding at USD 400 million. India's 'National Solar Mission' has the objective of developing an enabling policy framework to realise the installation of 20,000 MW solar capacity by 2022. The three solar power projects that have requested funding from the CIF, have plans to leverage approximately USD 6 billion in private co-financing. There are also a number of prominent concentrated solar power (CSP) projects across the MENA region, with Tunisia, Jordan, Egypt and Morocco requesting a total of USD 750 million in CIF funding to achieve the deployment of 1 GW installed capacity. The CIF funds are expected to lever a further USD 3 billion in private co-financing.

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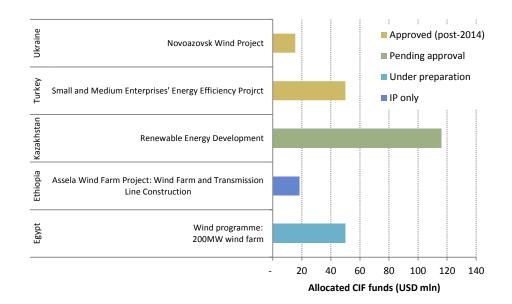
Table 1: Key solar project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
CTF	Tunisia	MENA CSP programme: Akarit (50 MW)	367	Infrastructure and goods	IBRD	Georg Sargsyan	gsargsyan@worldb ank.org	<u>Link</u>
CTF	Jordan	MENA CSP programme: through IFC (100 MW)	250	Infrastructure and goods	IFC	none given	none given	
CTF	Philippines	Solar Energy Development	120	Infrastructure and goods		n/a	n/a	<u>Link</u>
SREP	Nepal	Solar home systems	125	Financing and incentives		n/a	n/a	n/a
CTF	Morocco	MENA CSP programme: Ouarzazate II (300 MW)	1,900	Infrastructure and goods	IFC and AfDB	Mafalda Duatarte	m.duarte@afdb.org	<u>Link</u>
CTF	Morocco	Clean and Efficient Energy Project	155	Infrastructure and goods	IBRD	Gevorg Sargsyan	gsargsyan@worldb ank.org	<u>Link</u>
SREP	Mali	Solar PV IPP	60	Infrastructure and goods	AfDB	Ms. Thierno Bah	t.bah@afdb.org	<u>Link</u>
SREP	Liberia	Phase 1: Investments - Stand alone PV	10.6	Infrastructure and goods	IP only	Mrs. Elise Akitani (AfDB) / Zayra Romo (WB)	e.akitani@afdb.org zromo@worldbank. org	<u>Link</u>
SREP	Kenya	Solar Water Heating Component	60	Financing and incentives	AfDB	Mr. Solomon Asfaw	s.asfaw@afdb.org	<u>Link</u>
CTF	India	JNNSM Maharashtra Solar Park	3,050	Infrastructure and goods		Mr. R. Rashmi	rr.rashmi@nic.in	<u>Link</u>
CTF	India	JNNSM Gujarat Solar Park	3,050	Infrastructure and goods		Mr. R. Rashmi	rr.rashmi@nic.in	<u>Link</u>
CTF	India	Jawaharlal Nehru National Solar Mission (JNNSM): Integrated Solar Hybrid	450	Infrastructure and goods		Mr. R. Rashmi	rr.rashmi@nic.in	<u>Link</u>
CTF	Egypt	MENA CSP programme: Kom Ombo (100 MW)	946	Infrastructure and goods	AfDB	E.B. Nzabanita	e.nzabanita@afdb. org	<u>Link</u>
SREP	Armenia	Development of Utility scale solar PV: Grant for Project Preparation, Feasibility Studies, site measurement and monitoring	2.5	Infrastructure and goods	ADB	tbd	tbd	n/a

## 3.4.2 Wind

Figure 15**Fout! Verwijzingsbron niet gevonden.** highlights CIF funded wind power projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 1 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 15: Wind projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



Both Egypt and Ethiopia have significant wind power development programmes which have been allocated funds from the CIF. Ethiopia has plans to develop 800 MW of onshore wind power by 2015, utilizing just a fraction of its estimated 100 GW technical potential for wind power generation. The Assela Wind farm project is a planned 100 MW wind farm planned for construction by 2016, with a total cost of USD 250 million. The Ethiopian Electric Power Corporation will conduct bidding for an EPC<sup>16</sup> contract with support from AfDB. Egypt is another country that has significant potential for wind power, and has been allocated USD 50 million from the CIF towards a 200MW wind farm in the Gulf of Suez with a total cost of USD 400 million.

Table 2: Key wind project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
CTF	Ukraine	Novoazovsk Wind Project	95.2	Infrastructure and goods	EBRD	Louis Borgo	borgo@ebrd.com	<u>Link</u>
CTF	Turkey	Small and Medium Enterprises' Energy Efficiency Project	307.0	Infrastructure and goods	IBRD	Mr Mikul Bhatia	mbhatia@worldba nk.org	<u>Link</u>
CTF	Kazakhstan	Renewable Energy Development	597.0	Infrastructure and goods	EBRD	Xeniya Rogan	roganx@ebrd.com	<u>Link</u>
SREP	Ethiopia	Assela Wind Farm Project	250.0	Infrastructure and goods	AfDB	Mr. Humphrey Richard	h.ndwiga- richard@afdb.org	<u>Link</u>
CTF	Egypt	Wind programme: 200MW wind farm	400.0	Infrastructure and goods	AfDB	Khaled El- Askari	k.elaskari@afdb.or g	<u>Link</u>

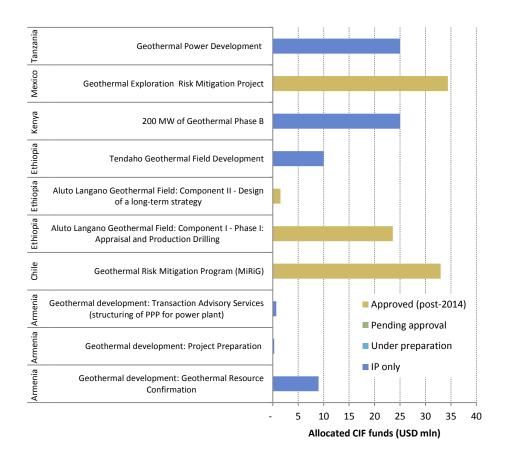
<sup>&</sup>lt;sup>16</sup> Engineering, procurement and construction

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#### 3.4.3 Geothermal

Figure 16**Fout! Verwijzingsbron niet gevonden.** highlights CIF funded geothermal power projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 3 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 16: Geothermal projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



A number of countries across the globe have identified geothermal technologies for low carbon power generation. Generally speaking, the CIF provides funds for each country in staged tranches. Initial funding allocations are generally small and focus on policy mechanisms and long-term strategies for the technologies, followed by larger grants to allow drilling to assess the resource potential. The CIFs funds can be used for investment in infrastructure, but can also be used for financial risk mitigation to allow production companies to assess affordable credit for investments in geothermal exploration and production. Significant scale up of geothermal energy is expected in Kenya. The country has an estimated technical potential of 7, 000MW of geothermal capacity, but as yet only has an installed capacity of 200MW.

Table 3: Key geothermal project information and contact

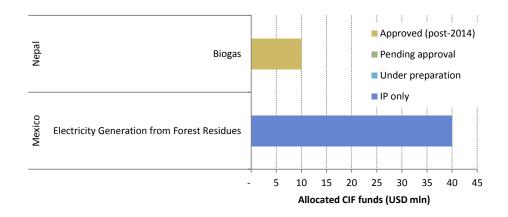
Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
SREP	Tanzania	Geothermal Power Development	536.8	Financing and incentives	SREP	Mr. Babu Ram	b.ram@afdb.org	<u>Link</u>
CTF	Mexico	Geothermal Exploration Risk Mitigation Project	149.4	Financing and incentives	IDB	Claudio Alatorre	calatorre@iadb.o rg	<u>Link</u>
SREP	Kenya	200 MW of Geothermal Phase B	400.0	Infrastruct ure and goods		n/a	n/a	n/a
SREP	Ethiopia	Tendaho Geothermal Field Development	319.6	Financing and incentives	IFC	Ms. Noleen Dube	ndube@ifc.org	<u>Link</u>
SREP	Ethiopia	Aluto Langano Geothermal Field: Component II - Phase I: Design of a long-term strategy	2.0	Policy design and implement ation	IFC	Ms. Noleen Dube	ndube@ifc.org	<u>Link</u>
SREP	Ethiopia	Aluto Langano Geothermal Field: Component I - Phase I: Appraisal and Production Drilling	91.1	Infrastruct ure and goods	IBRD	Mr. Raihan Elahi	relahi@worldban k.org	<u>Link</u>
CTF	Chile	Geothermal Risk Mitigation Program (MiRiG)	298.0	Infrastruct ure and goods	IDB	Claudio Alatorre	calatorre@iadb.o rg	<u>Link</u>
SREP	Armenia	Geothermal development: Transaction Advisory Services (structuring of PPP for power plant)	0.9	Financing and incentives	IBRD	tbd	tbd	n/a
SREP	Armenia	Geothermal development: Project Preparation	0.4	Infrastruct ure and goods		tbd	tbd	n/a
SREP	Armenia	Geothermal development: Geothermal Resource Confirmation	11.3	Infrastruct ure and goods		tbd	tbd	n/a

# 3.4.4 Bio-based economy

Figure 17 highlights CIF funded bioenergy projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 4 provides further information on each of the projects and contact details for the implementing MDB where available.

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Figure 17: Biomass projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



There are only two biomass projects funded by the CIF. In Nepal, the SREP allocation was confirmed in February 2014. USD 3 million will be used to build capacity and USD 6 million will be used for cost-of-capital buy down for prospective investors. Mexico has a large investment plan allocation of USD 40 million for electricity generation from forest residues but is yet to submit this as a project for funding disbursement.

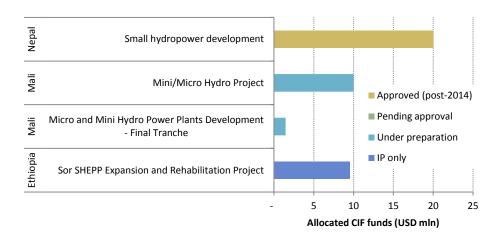
Table 4: Biomass project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem-enting MDB	Contact	Email	Link
SREP	Nepal	Biogas	133.3	Financing and incentives	IBRD	Ms. Mohua Mukherjee	mmukherjee@w orldbank.org	<u>Link</u>
CTF	Mexico	Electricity Generation from Forest residues	90	n/a	IDB	Claudio Alatorre	calatorre@iadb.o rg	<u>Link</u>

### 3.4.5 Hydropower

Figure 18 highlights CIF funded hydropower projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 5 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 18: Hydropower projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



Projects in this sector include mini- and micro-hydro development in Mali that is currently under preparation; a small hydropower development project in Nepal that was recently approved for USD 20 million of CIF funding, and a rehabilitation project associated with hydropower expansion in Ethiopia that has yet to be submitted for funding disbursement/project approval.

Table 5: Hydropower project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
SREP	Nepal	Small hydropower development	112.5	Financing and incentives	ADB and IFC	Priyanthi Wijayatunga / Mr. Pavol Vajda	pwijayatunga@a db.org / pvajda@ifc.org	<u>Link</u>
SREP	Mali	Mini/Micro Hydro Project	136.5	Infrastructure and goods	AfDB	Ms. Thierno Bah	t.bah@afdb.org	<u>Link</u>
SREP	Mail	Micro and Mini Hydro Power Plants Development - Final Tranche		Infrastructure and goods	AfDB	Ms. Thierno Bah	t.bah@afdb.org	<u>Link</u>
SREP	Ethiopia	Sor SHEPP Expansion and Rehabilitation Project	25.6	Infrastructure and goods				

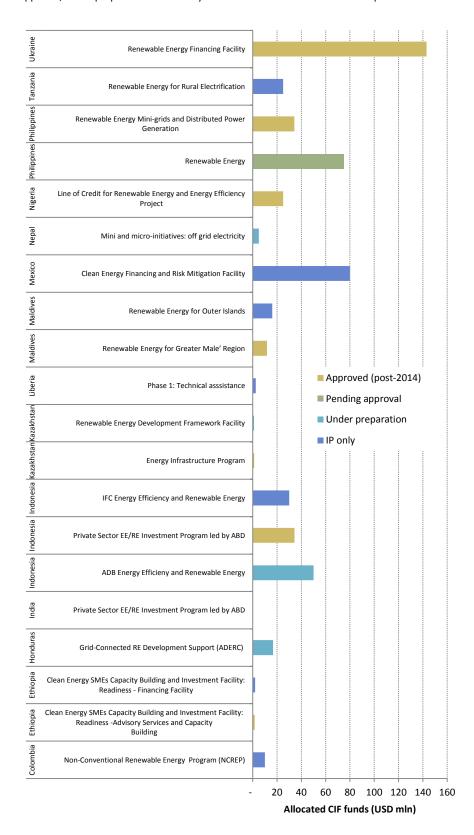
# 3.4.6 Mixed renewable energy and energy efficiency

Many projects – for example certain financing support schemes – are designed to support low carbon technologies in the energy sector more broadly and do not make a clean distinction between RE and EE. Figure 16 and Table 6 highlight such projects and proposals. Of these, the most recently approved project (March 2014) is the 'Renewable Energy Mini-grids and Distributed Power Generation' with a total CIF budget outlay of USD 34.3 million. It is a Dedicated Private Sector Program that is being led by ADB, and will be undertaken in India, Indonesia and the Philippines. It aims to

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increase electricity access in these countries by addressing financial barriers to private sector led distributed power generation and "mini grid" development from renewable energy (RE). Another large recently approved project is Ukraine's 'Renewable Energy Financing Facility' and is currently in its preparation stage. There are also opportunities available through projects (currently in their preparation stage) in Honduras, Indonesia, Nepal and Kazakhstan, amongst others.

Figure 19: Mixed renewable energy and energy efficiency projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



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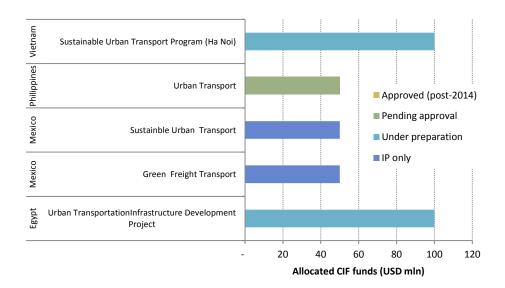
Table 6: Mixed renewable energy and energy efficiency project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem -enting MDB	Contact	Email	Link
CTF	Ukraine	Renewable Energy Financing Facility	775.5	Financing and incentives	EBRD	Louis Borgo	borgo@ebrd.com	<u>Link</u>
SREP	Tanzania	Renewable Energy for Rural Electrification	182.5		AfdB	Mr. Babu Ram	b.ram@afdb.org	<u>Link</u>
CTF	Philippines	Renewable Energy Mini-grids and Distributed Power Generation		Infrastructure and goods	ADB	Mr Don Purka and Mr. Jiwan Acharya	dpurka@adb.org and jacharya@adb.org	<u>Link</u>
CTF	Philippines	Renewable Energy	1505	Infrastructure and goods	IBRD	Alan Townsend		<u>Link</u>
CTF	Nigeria	Line of Credit for Renewable Energy and Energy Efficiency Project		Financing and incentives	AfDB	Mrs Marie- Hellen Minja and Mr Manojeet Pal	m.minja@afdb.org and m.pal@afdb.org	<u>Link</u>
SREP	Nepal	Millioni and micro- initiatives: off grid electricity	133.3	Financing and incentives	IBRD	Ms. Mohua Mukherjee	mmukherjee@worldba nk.org	<u>Link</u>
CTF	Mexico	Clean Energy Financing and Risk Mitigation Facility	370	n/a	IDB	Claudio Alatorre	calatorre@iadb.org	<u>Link</u>
SREP	Maldives	Renewable Energy for Outer Islands	62	Infrastructure and goods				
SREP	Maldives	Renewable Energy for Greater Male' Region	69.5	Financing and incentives	WB	Sandeep Kohli	skohli@worldbank.org	<u>Link</u>
SREP	Liberia	Phase 1: Technical assistance	8.5	Infrastructure and goods	AfDB/W B	Mrs. Elise Akitani (AfDB) / Zayra Romo (WB)	e.akitani@afdb.org / zromo@worldbank.org	<u>Link</u>
CTF	Kazakhsta n	Renewable Energy Development Framework Facility		Policy design and implementatio n	EBRD	Bakhtiyor Faiziev	faizievb@ebrd.com	<u>Link</u>
CTF	Kazakhsta n	Energy Infrastructure Program		Policy design and implementatio n	IFC	Tomasz Telma	TTelma@ifc.org	<u>Link</u>
CTF	Indonesia	IFC Energy Efficiency and Renewable Energy	260	n/a	IFC	Joyita Mukherjee	jmukherjee1@ifc.org	<u>Link</u>
CTF	Indonesia	Private Sector EE/RE Investment Program led by ABD		Financing and incentives	ADB	Mr Don Purka and Mr. Jiwan Acharya	dpurka@adb.org and jacharya@adb.org	<u>Link</u>
CTF	Indonesia	ADB Energy Efficiency and Renewable Energy	250	Financing and incentives	ADB	Mr Don Purka and Mr. Jiwan Acharya	dpurka@adb.org and jacharya@adb.org	<u>Link</u>
CTF	India	Private Sector EE/RE Investment Program led by ADB		Financing and incentives	ADB		dpurka@adb.org and jacharya@adb.org	<u>Link</u>
SREP	Honduras	Grid-Connected RE Development Support (ADERC)	234.6	Infrastructure and goods	IDB	Mr. Claudio Alatorre	calatorre@iadb.org	<u>Link</u>
SREP	Ethiopia	Clean Energy SMEs Capacity Building and Investment Facility: Readiness - Financing Facility	10	Financing and incentives				
SREP	Ethiopia	Clean Energy SMEs Capacity Building and Investment Facility: Readiness - Advisory Services and Capacity Building	1.6	Policy design and implementatio n	IFC	Ms. Noleen Dube	ndube@ifc.org	<u>Link</u>
CTF	Colombia	Non-Conventional Renewable Energy Program (NCREP)	44	Infrastructure and goods				

#### 3.4.7 Transport

Figure 20 highlights CIF funded transport projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 7 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 20: Transport projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



Projects in the transportation sector include green freight and sustainable urban transportation solutions. Transportation-related projects and plans have the third highest amount of funding/budget allocated in CIF countries' investment plans, following only hydropower and solar. CIF funds are expected to contribute USD 956 million, and MDBs USD 2.5 billion to the overall budget of USD 9.8 billion. Mexico has two projects in its investment plan on transportation. Egypt and Vietnam are both preparing to implement sustainable urban transport projects, while Philippines is awaiting an approval on its Urban Transportation project.

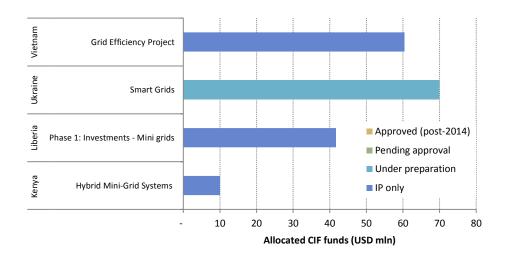
Table 7: Transport project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
CTF	Vietnam	Sustainable Urban Transport Program (Ha Noi)	1636.9	Infrastructure and goods	IFC	Joyita Mukehrjee	jmukherjee1@ifc. org	<u>Link</u>
CTF	Philippines	Urban Transport	605	Infrastructure and goods	IBRD	Ajay Kumar/Victor Dato		<u>Link</u>
CTF	Mexico	Sustainable Urban Transport	740	n/a	IBRD	Gevorg Sargsyan	gsargsyan@world bank.org	<u>Link</u>
CTF	Mexico	Green Freight Transport	140	n/a	IBRD	Gevorg Sargsyan	gsargsyan@world bank.org	<u>Link</u>
CTF	Egypt	Urban Transportation infrastructure Development Project	730	Infrastructure and goods	IBRD	Olivier Le Ber	oleber@worldba nk.org	<u>Link</u>

#### 3.4.8 Grid

This category groups together projects that have a focus on improving grid infrastructure and supply. Figure 21 highlights CIF funded grid projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 8 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 21: Grid projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



It includes a wide variety of projects related to transmission/distribution infrastructure (Vietnam), smart grids (Ukraine)and off-grid/mini-grid development (Liberia and Kenya). The only project which is in its preparation stage is Ukraine's smart grids project, while the rest are yet to be submitted as projects for approval.

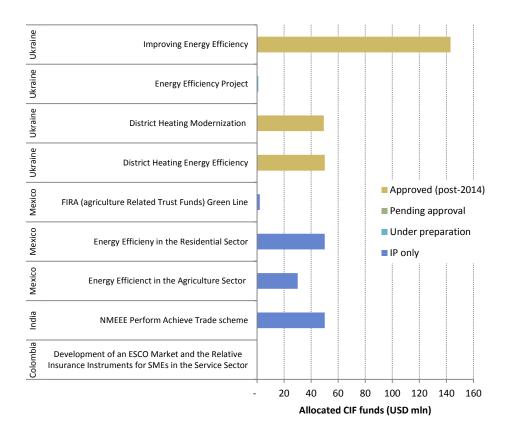
Table 8: Grid project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
SREP	Kenya	Hybrid Mini- Grid Systems	10	Infrastructure and goods	IBRD	Ms. Paivi Koljonen	pkoljonen@worldbank.org	<u>Link</u>
SREP	Liberia	Phase 1: Investments - Mini grids	41.7	Infrastructure and goods	AfDB/WB	Mrs. Elise Akitani (AfDB) / Zayra Romo (WB)	e.akitani@afdb.org / zromo@worldbank.org	Link
CTF	Ukraine	Smart Grids	70	Policy design and implementation	IBRD	Dmytro Glazkov	dglazkov@worldbank.org	<u>Link</u>
CTF	Vietnam	Grid Efficiency Project	60.4	Infrastructure and goods	ADB			<u>Link</u>

### 3.4.9 Energy efficiency

This section groups together a broad range of projects related to energy efficiency, including at the residential, municipal and industrial levels. Figure 22 highlights CIF funded energy efficiency projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table 9 provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 22: EE projects that are recently approved, pending approval, under preparation or still only listed in the CTF or SREP investment plans



Mexico included six planned projects on energy efficiency in its investment plan, amounting to a planned investment of USD 1.5 billion. Three of these projects were approved in 2011 and 2012, and three are yet to be submitted for approval. These relate to energy efficiency in the residential and agricultural sectors. Ukraine has the most recent and the largest amount of budgetary allocation approved for energy efficiency improvements and district heating. Colombia and India both have projects relating to market mechanisms in energy efficiency. India has planned a trading scheme on energy efficiency for the private sector, while Mexico is preparing a project on ESCOs and insurance instruments for SMEs.

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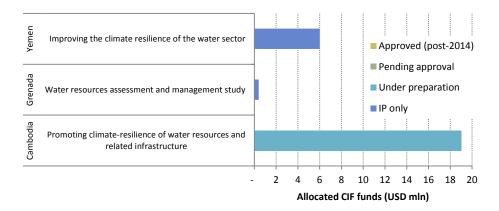
Table 9: EE project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implem- enting MDB	Contact	Email	Link
CTF	Ukraine	Improving Energy Efficiency	1207.5	Capacity building	IBRD	Dmytro Glazkov	dglazkov@worldb ank.org	<u>Link</u>
CTF	Ukraine	Energy Efficiency Project		Capacity building	IBRD	Dmytro Glazkov	dglazkov@worldb ank.org	
CTF	Ukraine	District Heating Modernization		Capacity building	IBRD	Dmytro Glazkov	dglazkov@worldb ank.org	<u>Link</u>
CTF	Ukraine	District Heating Energy Efficiency		Capacity building	IBRD	Dmytro Glazkov	dglazkov@worldb ank.org	
CTF	Mexico	FIRA (agriculture Related Trust Funds) Green Line	32	Capacity building	IDB	Claudio Alatorre	calatorre@iadb.o rg	<u>Link</u>
CTF	Mexico	Energy Efficiency in the Residential Sector	300	n/a	IBRD	Gevorg Sargsyan	gsargsyan@world bank.org	<u>Link</u>
CTF	Mexico	Energy Efficiency in the Agriculture Sector	70	n/a	IDB	Claudio Alatorre	calatorre@iadb.o rg	<u>Link</u>
CTF	India	NMEEE Perform Achieve Trade scheme	1955	Financing and incentives	IFC	Gevorg Sargsyan	gsargsyan@world bank.org	<u>Link</u>
CTF	Colombia	Development of an ESCO Market and the Relative Insurance Instruments for SMEs in the Service Sector		Financing and incentives	IDB	Claudio Alatorre	calatorre@iadb.o rg	<u>Link</u>

# 3.4.10 Water resource management

Figure 23 Figure 21 highlights CIF funded water resource management projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table provides further information on each of the projects and contact details for the implementing MDB where available.

Figure 23 Water resource management projects that are recently approved, pending approval, under preparation or still only listed in the PPCR investment plans



Three opportunities are available in water resources management sector. Colombia's project 'Promoting climate-resilience of water resources and related infrastructure' is currently under preparation having been granted USD 600,000 as a project preparation grant. Its total budget outlay (CIF) is approximately USD 19 million.

The other two opportunities are still at an investment plan level; Yemen has a CIF budget of USD 6 million for 'Improving the climate resilience of the water sector' and Grenada has a study provisioned in its investment plan on water resources assessment and management.

Table 10: Water resource project information and contact

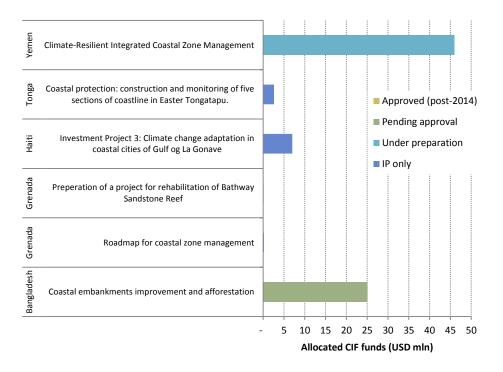
Fund	Country	Project title	Total budget (USD mln)	Service type	Implementing MDB	Contact	Email	Link
PPCR	Cambodia	Promoting climate- resilience of water resources and related infrastructure	n/a	Infrastructure and goods	ADB	Ancha Srinivasan	asrinivasan@adb. org	<u>Link</u>
PPCR	Grenada	Water resources assessment and management study	n/a		IBRD	Mr Justin Locke	jlocke@worldban k.org	<u>Link</u>
PPCR	Yemen	Improving the climate resilience of the water sector	n/a		IBRD	Ms Lia Sieghart	lsieghart@worldb ank.org	<u>Link</u>

## 3.4.11 Coastal zone management

Figure 24 highlights CIF funded coastal zone management projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table provides further information on each of the projects and contact details for the implementing MDB where available.

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Figure 24 Coastal zone management projects that are recently approved, pending approval, under preparation or still only listed in the PPCR investment plans



A project of USD 25 million (CIF funding) on Coastal embankments improvement and afforestation in Bangladesh is currently awaiting approval. There are three projects in the Caribbean region (in Grenada and Haiti) that are listed in the investment plans for coastal zone management and adaptation activities. Tonga also has an investment plan component on coastal protection (construction and monitoring) with an allocated budget of USD 2.6 million. The largest opportunity (in terms of CIF funding) is in preparation stages in Yemen for climate resilient integrated coastal zone management. It has been approved for USD 46 million of CIF budget.

Table 11: Coastal zone management project information and contact

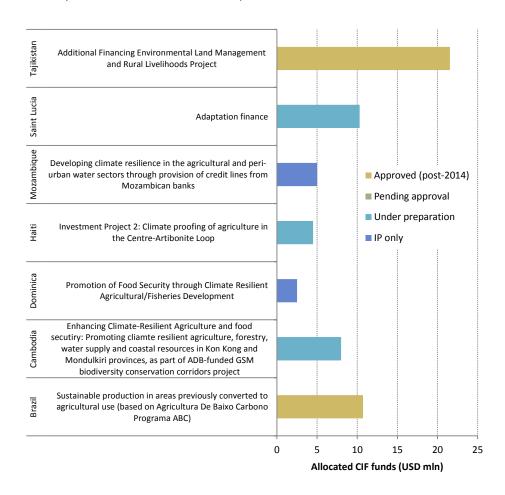
Fund	Country	Project title	Total budget (USD mln)	Service type	Implementing MDB	Contact	Email	Link
PPCR	Bangladesh	Coastal embankments improvement and afforestation	325.4	Infrastructure and goods	IBRD	Ms. Maria Sarraf	Msaraff@worldb ank.org	<u>Link</u>
PPCR	Grenada	Roadmap for coastal zone management	n/a		IBRD	Mr Justin Locke	jlocke@worldban k.org	<u>Link</u>
PPCR	Grenada	Preperation of a project for rehabilitation of Bathway Sandstone Reef	n/a		IBRD	Mr Justin Locke	jlocke@worldban k.org	<u>Link</u>
PPCR	Haiti	Investment Project 3: Climate change adaptation in coastal cities of Gulf og La Gonave	n/a		IBRD	Mr Michel Matera	mmatera@world bank.org	<u>Link</u>
PPCR	Tonga	Coastal protection: construction and monitoring of five sections of coastline in Easter Tongatapu.	n/a		ADB	Ms. Maria Paniagua	mpaniagua@adb. org	<u>Link</u>
PPCR	Yemen	Climate-Resilient Integrated Coastal Zone Management	n/a	Infrastructure and goods	IBRD	Ms Lia Sieghart	lsieghart@world bank.org	<u>Link</u>

# 3.4.12 Agriculture, agroforestry and landscape management

The information below includes projects registered within the sectors of agriculture, agroforestry and landscape management. Figure 21 highlights CIF funded agriculture and agroforestry projects where the total allocated funds have yet to be disbursed, or the project is at IP stage waiting for approval. Table provides further information on each of the projects and contact details for the implementing MDB where available.

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Figure 25 Agriculture related projects that are recently approved, pending approval, under preparation or still only listed in the PPCR or FIP investment plans



There are currently seven open opportunities for adaptation projects in the agriculture related sectors. Tajikistan has a project on additional financing for environmental land management and rural livelihoods that was recently approved. Brazil's project on sustainable production on converted agricultural land, with a budget of USD 11 million, was also recently approved for implementation.

Climate-resilient agriculture projects are currently in preparation stages in Cambodia and Haiti. A broader project on adaptation finance with an allocated budget of USD 10 million, also under preparation, is being undertaken in Saint Lucia.

Still at the investment plan level, Dominica has a project on promoting food security through climate resilient agriculture and fisheries development. Mozambique too has a project allocation (at the IP level) of USD 5 million for developing climate resilience in the agricultural and peri-urban water sectors through provision of credit lines from domestic banks.

Table 12: Agriculture and agroforestry project information and contact

Fund	Country	Project title	Total budget (USD mln)	Service type	Implement ing MDB	Contact	Email	Link
FIP	Brazil	Sustainable production in areas previously converted to agricultural use (based on Agricultura De Baixo Carbono Programa ABC)	35.72	Capacity development	IBRD	Ms. Bernadete Lange	blange@world bank.org	<u>Link</u>
PPCR	Cambodia	Enhancing Climate- Resilient Agriculture and food secutiry: Promoting cliamte resilient agriculture, forestry, water supply and coastal resources in Kon Kong and Mondulkiri provinces, as part of ADB-funded GSM biodiversity conservation corridors project	n/a	Infrastructure and goods	ADB	Ancha Srinivasan	asrinivasan@a db.org	<u>Link</u>
PPCR	Dominica	Promotion of Food Security through Climate Resilient Agricultural/Fisheries Development	13.7		IBRD	Ms. Zoe Trohanis	ztrohanis@wo rldbank.org	<u>Link</u>
PPCR	Haiti	Investment Project 2: Climate proofing of agriculture in the Centre-Artibonite Loop	n/a	Infrastructure and goods	IDB	Mr Gerard Alleng	gerarda@iadb .org	<u>Link</u>
PPCR	Mozambique	Developing climate resilience in the agricultural and periurban water sectors through provision of credit lines from Mozambican banks	10	Finance and incentives	IFC	Khetsiwe Dlamini	kdlamini@ifc. org	<u>Link</u>
PPCR	Saint Lucia	Adaptation finance	n/a	Finance and incentives	IDB	Mr. Gerard Alleng	gerarda@iadb .org	<u>Link</u>
PPCR	Tajikistan	Additional Financing Environmental Land Management and Rural Livelihoods Project	n/a	Capacity development	IBRD	Ms Angela Armstrong	aarmstrong@ worldbank.org	<u>Link</u>

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# 4 Dutch support

This chapter presents an overview of the programmes and grant schemes run by the Netherlands Enterprise Agency (RVO) to support Dutch companies and knowledge institutes in developing business opportunities in developing countries.

## 4.1 Support through RVO

The climate monitoring framework serves to provide directions to Dutch companies as to where to focus their activities regionally and how to start engaging with relevant climate investment programmes. Based on this mapping exercise and in close consultation with the platform organisations for cleantech, water and agro-food sectors, promising business opportunities can then be identified.

The companies themselves are responsible for developing these opportunities but the RVO can provide financial, technical and institutional support to the companies to help them to start or expand business initiatives in developing countries.

The RVO is part of the Ministry of Economic Affairs and was created in 2014 as a merger between NL Agency and the Dienst Regelingen. RVO is tasked to help entrepreneurs by providing all kind of services such as grants, finding business partners, know-how and compliance with laws and regulations in developing countries. The RVO has two main support instruments at its disposal to make it easier for Dutch companies to do business:

- Provide support and information to Dutch companies that want to do business with International organisations such as the European Commission or the Multilateral Development Banks
- 2. Provide support to companies to develop overseas business opportunities

Below a short overview of both types of support is presented.

#### 1. Business with EC and MDBs

Every year international organisations spend billions of euros on projects in developing countries and emerging markets that are interesting also for Dutch companies. The RVO can help companies to seize these opportunities. The RVO has set up the following support facilities:

- The RVO helpdesk helps individual companies through a personal talk with questions about opportunities, how to prepare and set up a strategy, how to access the RVO subsidy programmes and so on. The company needs to submit its questions online and will then be contacted by RVO.
- 2. Partners in Business: companies can apply for PiB subsidy to support them in acquiring assignments/projects from the Asian Development Bank, European Bank for Reconstruction and Development, European Investment Bank, EU, Inter-American Development Bank, VN and World Bank. The support is targeted at clusters/groups of companies that want to jointly start overseas business. Knowledge institutes can be part of the group. PIB support is based on a comprehensive strategy rather than on carrying out several independent activities and aims to remove trade and investment barriers through economic diplomacy. PID is demand driven and the contribution of the government is focused on economic diplomacy. PID is meant for Dutch companies in the Top sectors. An application for PID support must be submitted by a consortium comprising at least three Dutch companies. The PID budget available in 2014 is EUR 6.3 million.
- 3. Scan of International organisation: For a fee, the RVO can conduct a scan of international organisations to prepare Dutch companies for international assignments. This scan provides detailed insights into what these organisations can offer and what the relevant projects and contact persons are.

#### 2. Provide support to companies to develop overseas business opportunities

The relevant subsidy programmes managed by RVO to support companies in developing concrete business opportunities are:

- Public private cooperation
- Private sector development

#### Public Private Cooperation

This programme is targeted at the water and food security sectors. It consists of the following fund facilities:

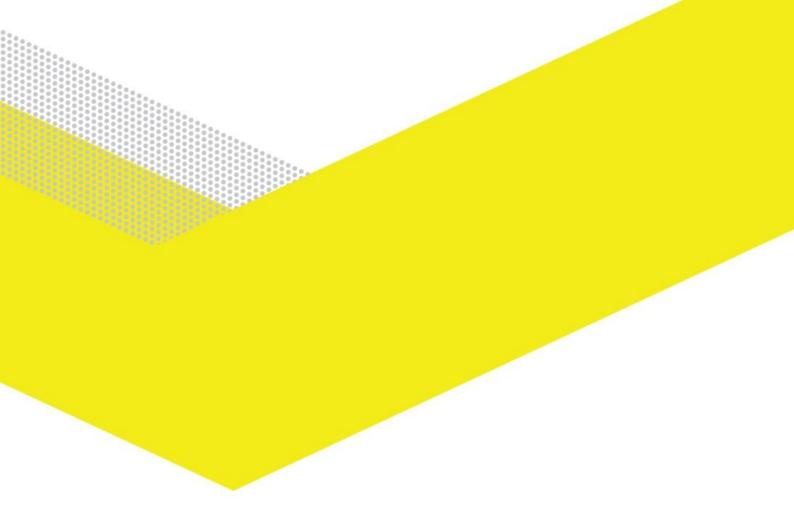
- The Sustainable Water Fund (FDW) aims to finance initiatives in the areas of water safety and water security. There is a link with adaptation and therefore the FDW is climate relevant. The FWD is a public-private partnership comprising at least one private body, one public body and one NGO. The requested grant should be in the range of € 0.5 4 million and the maximum project duration is 7 years. Other formal requirements can be found at the RVO website.
- The facility for sustainable entrepreneurship and food security(FDOV) seeks to stimulate public/private partnerships in the field of food security and private sector development in developing countries. This facility is relevant for Climate adaptation. The first call is expected in June 2014 and total available budget is € 40 million. More details about submission requirements will be provided by RVO at a later stage.
- Ghana WASH Window was established to support public-private projects in the field
  of water, sanitation and hygiene (WASH) and/or urban water management in
  Ghana. This facility seems not to contribute directly to climate adaptation.

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#### Private sector development

- The Private Sector Investment programme (PSI) aims to support Dutch business investments in emerging markets, in cooperation with local business. Its main objective is to strengthen the local private sector. The PSI budget for 2014 is € 37 million. The 2014 deadline for applications was March 2014.
- Matchmaking facility (MMF) is a matchmaking subsidy programme that helps to
  establish structural, long-term business relationships between an entrepreneur from
  a developing country and a Dutch entrepreneur. The application should come from
  a company in a developing country. The foreign company is invited to the
  Netherlands to meet with several partnership candidates in order to find the best
  match.

The RVO and the embassies and Consulates General closely work together in the identification and development of business opportunities. They can provide advice on the use of specific support instruments in the context of local circumstances and conditions. Application for these instruments can only be approved when fully supported by the embassy.



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