A Brief Analysis of Selected Multilateral Development Bank Support to the Energy Sectors

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Abbreviations and acronyms

ADB	Asian Development Bank
AfDB	African Development Bank
AfDF	African Development Fund
CIF	Climate Investment Funds
COP	Conference of the Parties
CTF	Clean Technology Fund
DAC	Development Assistance Committee
DFID	Department for International Development
EBRD	European Bank for Reconstruction and Development
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EIB	European Investment Bank
FfD	Financing for Development
GCF	Green Climate Fund
GEF	Global Environmental Facility
IADB	Inter-American Development Bank
IDA	International Development Association
IEG	Independent Evaluation Group
IFC	International Finance Corporation
IMF	International Monetary Fund
MAR	Multilateral Aid Review
MDB	Multilateral Development Bank
MDG	Millennium Development Goals
OECD	Organisation for Economic Co-operation and Development
SCF	Strategic Climate Fund
SDG	Sustainable Development Goals
SE4ALL	Sustainable Energy for All
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
VfM	Value for Money
WB	World Bank

Report Summary

Introduction

- The objective of this assignment is 'to collate and analyse selected multilateral donors' energy results indicators (in comparison to DFID's energy result indicators and the SDGs), independent evaluations, and approximate spend, to inform the economic infrastructure assessment of the DFID Multilateral Aid Review (MAR)' (Terms of Reference).
- A team of consultants from Ricardo Energy & Environment has been appointed to carry out this rapid desk based study to assemble and analyse indicators and evaluations used by multilateral aid organisations in order to inform the economic infrastructure assessment of the DFID MAR.

Energy results indicators for MDBs and SDGs

- The mandates of different multilateral aid organisations influence the choice of energy results indicators used in the results frameworks to assess aid effectiveness.
- In order to ensure the highest degree of comparability among indicators, these will need to be aligned with the Sustainable Development Goals (SDGs) going forward.
- In the SDGs, as opposed to the MDGs, energy is a stand-alone issue, with one specific goal and 5 targets (Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all)
- The majority of indicators are directly relevant to targets set under Goal 7, and indirect links can be made to other Goals
- Similarities among indicators are:
    - All organisations, apart from the European Bank for Reconstruction and Development (EBRD), have some sort of indicator for energy access ('% electrification rate')
    - AfDB, World Bank (WB), and EBRD have specific indicators for energy efficiency
    - ADB, AfDB, and WB have indicators on renewable energy (renewable energy installed or generated as share of total energy or under a project)
- Key gaps are:
    - Apart from EBRD's energy-trade, there are limited indicators that capture energy-economy linkages
    - There is limited disaggregation of indicators by impact on gender.
    - There are limited linkages with health-related indicators

MAR organisations evaluations

- DFID carried out a MAR in 2011 and an update in 2013: All relevant MDBs showed good progress rating in the MAR update. IDA and ASDF have performed as 'very good value for money' and EBRD and AFDF as 'good value for money.

- Q1: How effective is the sector in delivering results against stated objectives?
    - All agencies use a variety of methods to measure progress against reform priorities
    - The ADB appears to have the most comprehensive results framework, as it comprises of all the five DAC criteria

    - Only the ADB and the AfDB use scorecards to report on progress, but comparisons are challenging
    - A number of MDBs and FIs have defined specific eligibility criteria or performance standards to screen carbon intensive or climate sensitive activities.

- Q2: What Value for Money (VfM) indicators exist and how is each of the agencies performing against them?
    - VfM in DFID's programming is 'about maximising the impact of each pound spent to improve poor people's lives'
    - None of the agencies analysed specifically report on VfM. 'Economic Rate of Return' is the most used metric. Additionally, all report on, or mention, 'leveraging finance'.
    - Additionally, the Climate Investment Fund (CIF) operates with contributions from all the MDBs considered: AfDB, ADB, EBRD, and WB, in addition to the IDB.

- Q3: What does the evidence tell us about sector dysfunctions?
    - From a rapid assessment, there is some evidence on sector dysfunctions, and the evaluation of the Climate Investment Funds provides indications on governance and M&E for the agencies involved
    - The evaluation of the CIF provides some indication of how effectively the MDBs have worked together
    - The CIF evaluation also provides some insight on the effectiveness of the M&E system

Energy-relevant climate spending

- Climate and energy related financing has now become a priority activity in all MDBs.
- The joint MDB approach developed in 2012 is an attempt to jointly report on resources mobilised for a set of commonly-agreed activities.
- Total bilateral and multilateral climate-related development finance to developing countries reached USD 39.7 billion in 2013.
- The energy sector received overall commitments of USD 8. 136 billion in 2013.
- The Green Climate Fund (GCF) will be crucial going forward
- So far, 27 countries have pledged USD 10.2 billion to the fund, but the amount that will be spent on energy is not yet known

SECTION 1

Introduction

1.1 Objective of the assignment

The objective of this assignment is '*to collate and analyse selected multilateral donors' energy results indicators (in comparison to DFID's energy result indicators and the SDGs), independent evaluations, and approximate spend, to inform the economic infrastructure assessment of the DFID Multilateral Aid Review (MAR)'* (Terms of Reference).

A team of consultants from Ricardo Energy & Environment has been appointed to carry out this rapid desk based study to assemble and analyse indicators and evaluations used by multilateral aid organisations in order to inform the economic infrastructure assessment of the DFID MAR.

1.2 Approach

The study is based on a **rapid review** of mostly publicly available information and documents shared by the client and on further research by the team. Specifically:

- Information on indicators and evaluations have been derived from MARs; documents detailing Multilateral Development Banks (MDB)s' results frameworks, where available, sector-specific studies; and relevant grey literature
- The Sustainable Development Goals (SDGs), available on the United Nation (UN)'s Sustainable Development website1, were mapped against relevant MDB indicators
- Headline climate-relevant spending of the major MDBs and funds as related to the energy sector were derived from climate finance-specific documents and dedicated OECD-DAC website2.

1.3 Structure of the report

Subsequent to this introduction, the report is structured as follows:

- In section 2, we present energy results indicators currently used by key MAR organisations and DFID, and compare with SDGs to identify key gaps
- In section 3, we summarise and analyse energy sector evaluations
- In section 4, we present a summary of approximate and future spend on energy from Climate Investment Funds (CIF) - Clean technology Fund (CTF) and Strategic Climate Fund SCF) - Global Environmental Facility (GEF), the Green Climate Fund (GCF) and the International Finance Corporation (IFC).

1 See: https://sustainabledevelopment.un.org/topics
2 See: http://www.oecd.org/dac/stats/rioconventions.htm

SECTION 2

Energy results indicators for MDBs and SDGs

2.1 Context

The mandates of different multilateral aid organisations influence the choice of energy results indicators used in the results frameworks to assess aid effectiveness. MDBs have largely aligned their goals and indicators to the Millennium Development Goals (MDGs). Some MDBs (Asian Development Bank (ADB) and African Development Bank (AfDB) in particular) have linked energy indicators to the MDGs, thus showing how energy is a key enabler to achieve wider development goals (AfDB, 2014) p 47 and (AfDB, 2014) p. 11.

In order to ensure the highest degree of comparability among indicators, these will need to be aligned with the Sustainable Development Goals (SDGs) going forward. At the time of writing, the UN had announced 17 SDGs and 169 targets (United Nations Department of Economic and Social Affairs, 2015). These are presented in Annex 2. Indicators have not yet been published.

In the SDGs, as opposed to the MDGs, energy is a stand-alone issue, with one specific goal and 5 targets:

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
- 7.3 By 2030, double the global rate of improvement in energy efficiency
- 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
- 7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

It has been recognised that, without bridging the infrastructure gap, most of the SDGs cannot be achieved, hence this goal creates an urgency for organisations to ensure that energy indicators are developed and used for monitoring projects after 2015 (AfDB, 2014, p. 11).

2.2 Presentation of indicators

In Table 1 we present the main energy-related indicators in use by key MAR organisations (ADB, AfDB, EBRD, WB) compared with DFID, and indicate alignment with the SDG energy-specific goals and targets, and any goals and targets which are indirectly related to energy.

Indicator	Source	Link to SDG 7 targets	Potential indirect links to other SDGs
Asian Development Bank			
Electrification rate (%)	(ADB, 2015b, p. 8)	7.1	All other goals
Carbon dioxide emissions (metric tons per capita)	(ADB, 2015b, p. 9)	7.2, 7,3	Goals 13, 14 15
Greenhouse gas emission reduction (tCO2-equiv/yr.)	(ADB, 2015b, p. 11)	7.2, 7,3	Goals 13, 14 15
New households connected to electricity (number)- Urban/ Rural split	(ADB, 2015b, p. 11)	7.1	All other goals
Installed energy generation capacity (MW equiv.)	(ADB, 2015b, p. 11)	7.1	All other goals
Renewable (MW equiv.)	(ADB, 2015b, p. 11)	7.1, 7.2	All other goals
Transmission lines installed or (upgraded) (km)	(ADB, 2015b, p. 11)	7.1	All other goals
Distribution lines installed or upgraded (km)	(ADB, 2015b, p. 11)	7.1	All other goals
Cross-border transmission of electricity (gigawatt-hour per year)	(ADB, 2015b, p. 14)	7.1	Goals 16. 17
AfDB (African Development Bank)			
Energy poverty:	(AfDB, 2014, p. 12)		
Schools with access to electricity (%)		7.1	Goal 4, 5
Doing Business – Getting electricity (days)		7.1	Goals 1, 2, 3, 5, 8. 12
Increasing access to modern energy:			
Electrification rate (%)		7.1	All other goals
Total population without access to electricity (million)		7.1	All other goals
Total household energy consumption (KWh)		7.1, 7.3	All other goals
Total electricity installed (GWh)		7.1, 7.2	All other goals
Promoting clean energy:			
Combustible renewable and waste (% of total energy)		7.2	All other goals
Average carbon dioxide emissions from the consumption of energy (million metric tonnes)		7.3	Goals 13, 14 15
Improving energy efficiency:			
Energy intensity - total primary energy consumption per dollar of GDP (BTU per year, 2005 US dollars)		7.3	Goals 13, 14 15
Fostering regional energy cooperation:			
Energy traded (Billions of KWh)		7.1, 7,2	Goals 16, 17
Import dependence – energy imports, net (% energy use)			
Strengthening governance in the energy sector:			
Quality of public administration (CPIA) (index)		All	N/A
Quality of regulator (P-Rank) (index)		All	N/A
Collaborative financing for energy:			
Investment in energy with private sector participation3 (billion current USD)		All	All other goals
World Bank			
Energy Efficiency in heat and power:	(World Bank, 2013, p. 3)		
Projected lifetime energy savings – (MWh)		7.3	Goals 13, 14 15
Projected lifetime fuel savings – (MJ)		7.3	Goals 13, 14 15
Projected generation capacity savings – (MW)		7.3	Goals 13, 14 15

Indicator	Source	Link to SDG 7 targets	Potential indirect links to other SDGs
Number of people that gained access to more energy-efficient cooking and/or heating facilities – (number)		7.1, 7.3	All other goals
Hydropower: Generation Capacity of Hydropower constructed or rehabilitated under the project (MW)	(World Bank, 2013, p. 3)	7.1, 7.2	All other goals
Other renewable energy:	(World Bank, 2013, p. 5)		
Generation Capacity of Renewable Energy (other than hydropower) constructed under the project (MW)		7.1, 7.2	All other goals
Generation Capacity of Renewable Energy (other than hydropower) rehabilitated under the project (MW)		7.1, 7.2	All other goals
People provided with access to electricity under the project by household connections- Other Renewable Energy – Off-grid (#)		7.1	All other goals
Community electricity connections under the project –Other Renewable Energy – Off-grid (#)		7.1, 7.2	All other goals
Generation Capacity of Renewable Energy (other than hydropower) constructed under the project (MW)		7.1, 7.2	All other goals
EBRD			
Private participation: the percentage of a country's energy sector assets owned by parties other than the government or government owned entities.	(EBRD, 2013, p. 66)	All	N/A
Energy efficiency: the absolute energy consumption per capita and the energy intensity of the country, measured as total primary energy consumption per unit of GDP, adjusted for purchasing power parity.	(EBRD, 2013, p. 66)	7.3	Goals 13, 14 15
Carbon intensity: measured as absolute CO2 emission per capita and CO2 emissions per unit of GDP, adjusted for purchasing power parity.	(EBRD, 2013, p. 66)	7.2, 7,3	Goals 13, 14 15
Interconnections/energy trade: measured as the proportion of energy exports over total energy production, proportion of energy imports over total energy consumption and aggregate interconnection capacity.	(EBRD, 2013, p. 66)	7.1	Goals 16. 17
Cost reflective pricing: the proportion of energy prices, weighted by consumption, that is either liberalised or, if regulated, at levels that do not imply any pre-tax subsidies.	(EBRD, 2013, p. 66)	7.1	Goals 16. 17
DFID			
Number of people with improved access to clean energy as a result of DFID funding	(DFID, 2014, p. 6)	7.1, 7.2	All other goals

Table 1 Indicators and linkages to SDGs

2.3 Key results and gaps

2.3.1 Linkages with SDGs

The majority of indicators are directly relevant to targets set under Goal 7, and indirect links can be made to other Goals from the mapping of indicators used by major MAR organisations and the linkages with the SDGs and sub-targets identified in Section 3.2. Also, it is timely that MDBs and the International Monetary Fund (IMF) signalled plans to extend more than USD400 billion in financing over the next three years and vowed to work more closely with private and public sector partners to help mobilise the resources needed to meet the historic challenge of achieving the SDGs[3].

2.3.2 Key comparisons

There are both similarities and differences among energy-specific indicators, as summarised in the table below.

Indicator	ADB	AfDB	EBRD	WB	DFID
Energy access	√	√		√	√
Energy efficiency		√	√	√	
Renewable energy	√	√		√	

Table 2 Summary of comparisons

In particular:

- All organisations, apart from the European Bank for Reconstruction and Development (EBRD), have some sort of indicator for energy access ('% electrification rate')4
- AfDB, World Bank (WB), and EBRD have specific indicators for energy efficiency
- ADB, AfDB, and WB have indicators on renewable energy (renewable energy installed or generated as share of total energy or under a project)

2.3.3 Key gaps

From an initial assessment of the indicators we have identified a number of key gaps[5]:

Apart from EBRD's energy-trade, there are limited indicators that capture energy-economy linkages. These may relate to:

- Number of jobs created through energy interventions (disaggregated by gender)
- Income, savings, and expenditures of households
- Productivity improvements

[3] See: http://sd.iisd.org/news/mdbs-will-collaborate-to-mobilize-resources-for-achievement-of-sdgs/ or http://www.worldbank.org/en/news/press-release/2015/07/10/international-financial-institutions-400-billion-sustainable-development-goals

[4] See also: http://www.se4all.org/wp-content/uploads/2015/02/GTF_SherpaMeeting_Mar2015.pdf

[5] It is important to highlight that these gaps were identified through a rapid analysis, and would need to be improved through additional literature, in particular with more information on the SDG mandates, and validated through stakeholder consultation.

There is limited disaggregation of indicators by impact on gender. Disaggregation may be captured through:

- Access rates of female-headed households
- Improvements in women and girl safety from energy access

There are limited linkages with health-related indicators. These indicators could capture, for instance:

- Improved indoor air quality
- Time savings from reduced hospital visits
- Child health improvements
- Maternity and child mortality rates
- Electrification rates in health centres and access to electric equipment
- Refrigeration of vaccines and impacts

SECTION 3

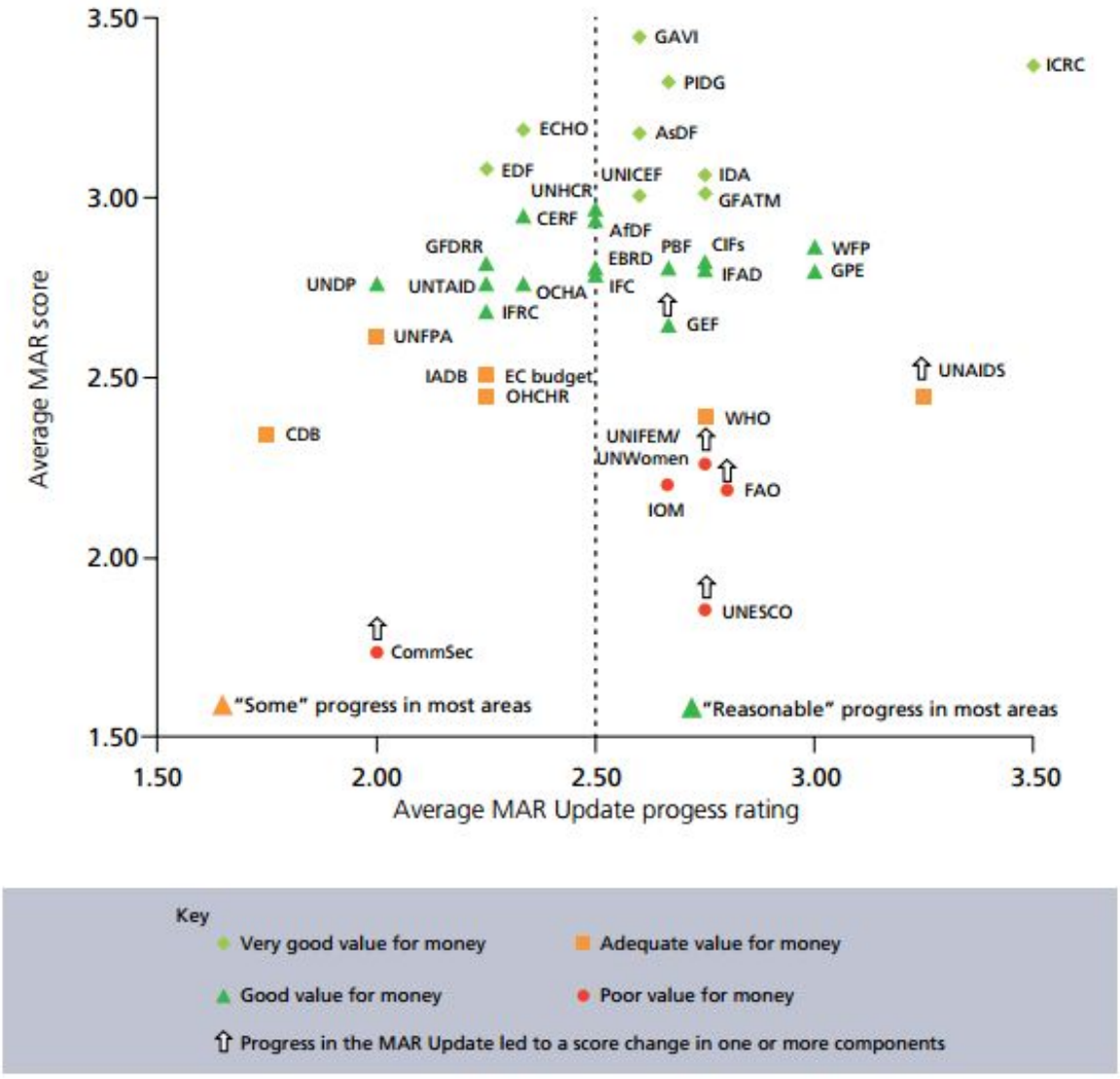
MAR organisations evaluations

3.1 Overview of evaluation results

DFID carried out a MAR in 2011 and an update in 2013. The 2013 update assesses the progress of the multilateral organisations against the reform priorities since 2011.

Figure 1 contains a summary of both the value for money assessment under the 2011 MAR, and the progress ratings from the MAR Update.

Figure 1 MAR value for money and MAR progress ratings



All relevant MDBs showed good progress rating in the MAR update. IDA and ASDF have performed as 'very good value for money' and EBRD and AFDF as 'good value for money.

A summary of strengths, weaknesses, and areas for improvement is given in Annex 3. For additional information, a summary analysis of the Danish multilateral development cooperation analysis is presented in Annex 4.

3.2 Energy-specific findings

In this section we present evaluation findings for three research questions mainly related to 'effectiveness' for the ADB, AfDB, EBRD, IFC, and WB.

3.2.1 Question 1

How **effective** is the sector in delivering results against stated objectives? Are there any indicators (or other forms of evidence) with respect to how effectively they work together across agencies?

All agencies use a variety of methods to measure progress against reform priorities. A recently published DFID study reviewed the extent of use of results-based approach within different agencies. All apply the five DAC criteria - Relevance, Efficiency, Effectiveness, Impact, and Sustainability - for evaluating energy projects[6] but not consistently (Rahman, 2014)[7].

A summary is presented in **Table 3**.

Criteria	ADB	AfDB	EBRD	IFC	WB
5 DAC criteria	√				
Relevance					√
Efficiency		√		√	√
Effectiveness		√	√	√	√
Sustainability			√		
Impact			√		
Gender					√

Table 3 Summary table of energy indicators (Rahman, 2014, p. 4) and team analysis

The ADB appears to have the most comprehensive results framework, as it comprises of all the five DAC criteria. The AfDB, EBRD, and WB consider part of the DAC criteria, as well as other additional criteria for measuring results.

Only the ADB and the AfDB use scorecards to report on progress, but comparisons are challenging. It is in fact difficult to comment on the effectiveness of the organisations, as it is not always possible to obtain aggregate results compared to baselines and targets.

6 Development Assistance Committee (DAC). The Organisation for Economic Co-operation and Development (OECD) DAC is a forum to discuss issues on aid development and poverty reduction in developing countries, which considers Relevance, Effectiveness, Efficiency, Impact, and Sustainability as the main criteria for evaluating development assistance. For more details, see on http://www.oecd.org/development/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm and http://www.oecd.org/dac/aid-architecture/DCD_DAC(2012)33_FINAL.pdf

7 To note, the report presents results for the AfDB, but not for the energy sector. Also, the EC is presented, but not the EBRD. The IFC was not presented. Hence, the results below for the AfDB, the EBRD, and the IFC are based on the team's analysis.

- The **ADB**, whilst not relying on a particular definition of effectiveness, reports on it using a scorecard in the energy sector (ADB, 2013, p. 8).

  ADB measures results achieved in its five core operational areas: infrastructure, environment, regional cooperation and integration, finance sector development, and education. In 2014, 46 of the 75 operations reviewed, or 61%, contributed to 1 or more of the core operational results indicators (ADB, 2015, p. 27). ADB facilitated 4.9 gigawatts to the region's energy generation capacity by funding four projects in 2014. Three projects installed 2,900 km of transmission and distribution lines. This included a 280 km transmission line for energy exports from Tajikistan to help restore the power supply in Afghanistan after years of conflict. About 760,000 households in Kabul now have electricity almost 24 hours a day, up from 4 hours in 2002.Unfortunately, the targets to compare these achievements to are not indicated[8]. Additionally, in 2013, ADB invested USD 2.3 billion in clean energy, meeting its target to achieve at least USD 2 billion annual investments by 2013 (ADB, 2014b)[9].

- Also the **AfDB** uses a scorecard system, reporting progress with green, amber, red and grey ('progress could not be measured') lights. Since 2009, the Bank has contributed to financing over 1900 MW of new generation capacity and over 15,000 km of transmission lines. Through these efforts, ADB have provided 567,000 people with new electricity connections and over 14 million people with improved access to electricity (AfDB, 2014, p. 4)

- The **EBRD's** overall performance in the Power and Energy Sector was rated 'Successful', while transition impact, sustainability and effectiveness of policy implementation were rated 'Good' to 'Excellent'. Additionally, from 44 projects evaluated since 2006 in the energy sector, in over 60% of cases overall performance was rated 'Successful' or 'Highly Successful'[10] (EBRD, 2013, p. 21).

- An Independent Evaluation Group (IEG) study of the **WBG** (including the **IFC**) has highlighted the importance of reorienting the Group towards results based indicators and closely monitoring progress (IEG, 2010, pp. 11, 33). On renewable energy, the WBG's direct lending is dominated by hydropower, the only grid technology for which there is a substantial record at the WBG for undertaking evaluations. Of these plants, 76% had outcomes rated as moderately satisfactory or better; with better ratings in recently initiated projects. Unsuccessful projects are often those for which preparation or implementation resettlement plans has been ineffective. Direct WBG investments in wind power have been modest. In solar photovoltaics, World Bank efforts, using quality-contingent producer subsidies and relying on microfinance for consumers, have been more successful than those of the IFC. These projects can have economic rates of return of 30–90% but have little impact on GHG reductions because off-grid households use less energy. On energy efficiency, three areas of existing activity stand out as having high impact and high potential for scale-up: first, proactive IFC support for energy efficiency in large carbon-intensive factories that face credit or information barriers; second, increased support for transmission and distribution loss reduction, which offers economic rates of return of 16–60+%; third, substitution of compact fluorescent lamps (CFLs) for incandescent lamps offers estimated direct economic returns (in saved energy) of 50–70%, together with deferred construction of power plants and emissions reductions of 27–134 kilograms of CO_2 per dollar.

8 It is not clear why targets are not indicated, an explanation could be that the different targets would not add up at the aggregate level

9 Highlights available: http://www.adb.org/publications/2013-clean-energy-investments-project-summaries

10 Page 21 of the report contains a summary of the energy project evaluations 2006-12

A number of MDBs and FIs have defined specific eligibility criteria or performance standards to screen carbon intensive or climate sensitive activities. Some FIs have adapted their processes to prioritise projects according to their potential to meet climate change targets (Varma et al, 2013, p5). For example:

- The **EBRD** tries to capture not just the impact on the total tonnes CO_2 saved by a project, but also the impact on the low carbon economy. They have a rating for the potential of the project to make the transformation into the low carbon economy and additionally risk rating to achieve the transition.
- The **WBG** has established a 'Criteria for Screening Coal Projects' (to be integrated in the expected review of their energy strategy), limiting financing to cases in which a country has no other options to respond to urgent demands for electricity, and providing several other conditions have been met and the process reviewed by an external advisory committee. These criteria include approaches for including environmental costs in projects analysis.

3.2.2 Question 2

What Value for Money (VfM) indicators exist and how is each of the agencies performing against them? E.g. indicators relating to leverage and taking below-market returns to mobilise private finance

VfM in DFID's programming is 'about maximising the impact of each pound spent to improve poor people's lives' (DFID, 2011, p. 2).

A recent study by DFID reports on VfM indicators used by aid agencies, climate funds and international financing institutions (Shaw, Varma, & Mason, 2014, p. 24). The VfM indicators below have been collected for the ADB and EBRD as the only ones relevant to this study.

MDB	Cost/tonne of Co_2 saved	Cost per MW of renewable power installed	Private sector finance leveraged	Public sector finance leveraged	Levelised cost of energy by technology	Cost per person of access to clean technology
ADB	Data not monitored	Data collected, but used for due diligence, not for VfM	Data collected, but used for screening projects, not for VfM purposes	Data collected, but not for VfM purposes	Data collected, but used for due diligence, not for VfM	Data not monitored
EBRD	Data not monitored Note: this is now monitored (EBRD, 2014)	Data collected, but used for due diligence, not for VfM	Data collected, but not for VfM purposes	Data collected, but not for VfM purposes	Data collected, but used for screening projects, not for VfM purposes	Data not monitored

Table 4 VfM indicators in energy efficiency and renewable energy projects (Shaw, Varma, & Mason, 2014)

None of the agencies analysed specifically report on VfM. 'Economic Rate of Return' is the most used metric. Additionally, all report on, or mention, 'leveraging finance' but without mentioning the amount.

- By mobilising financing from other development partners and the private sector, the **ADB** has generated almost USD 10 billion of official co-financing and USD 14 billion

of commercial co-financing during 2012–2014. For example, it has financed 57% of the USD 103 million cost of completing a regional power transmission project in Afghanistan and Tajikistan in 2014. An additional 38% was covered by co-financing raised from the Islamic Development Fund and the Organization of the Petroleum Exporting Countries Fund for International Development. The project delivered electricity from Tajikistan to Afghanistan and reduced power outages in Kabul from an average of 20 hours a day to almost none (ADB, 2015a, pp. 26-27).

- Between 2009 and 2013, the **AfDB** provided USD 3 billion in energy finance, and its equity investments provided additional finance to the private sector (although the amount is not stated) (AfDB, 2014, p. 5).

- The Sustainable Energy Initiative of the **EBRD** uses a range of financial instruments to leverage private finance, including (EBRD, 2014, p. 9):

    - Direct EBRD financing and syndication in the form of private, non-sovereign and sovereign guaranteed loans, direct equity, equity funds and credit lines in the context of individual energy efficiency and renewable energy projects
    - Co-financing with the private financial sector; using public sources such as multilateral donor funds, and other international financial institutions (IFIs) as part of the project financing plan
    - Selective and smart use of subsidies (where necessary) to address specific barriers and market failures in line with the guidelines developed by the Bank
    - Carbon finance or other market-based systems to provide additional revenues for projects

- The **IFC** provides finance and advice for energy-efficient and renewable energy solutions. Since 2005, it has made long-term investments totalling more than USD 13 billion in climate-related projects. Around USD 2.3 billion in 103 projects in 31 countries were invested in FY15. The IFC has also mobilised USD 2.2 billion from other investors (IFC, 2015, p. 44).

- The **WB** is well placed to maximise its leverage in promoting low-carbon development (IEG, 2010, p. XIV). It can do so by using GEF or other concessional funds (grants or low-interest loans) to support the earliest and riskiest ventures, so that failures are less costly to borrowers. Given the potential for high returns, this could be a much higher leverage/use of climate finance than the purchase of carbon offsets from marginally profitable renewable energy projects.

Additionally, the Climate Investment Fund (CIF) operates with contributions from all the MDBs considered: AfDB, ADB, EBRD, and WB, in addition to the IDB. Nearly 75% of the contributions are directed to the Clean Technology Fund (CTF). Although the CIF has achieved a higher level of private sector participation than many other funds, barriers have been identified such as the short window of funds availability, lack of equity capital and long project clearance times. The CIF projects have shown significant co-financing benefits. The ratio of CIF finance to non-CIF funding has been 1:7.8, which is low compared to GEF, although GEF included high-income countries. However, leverage is difficult to assess, as some of it comes at a later stage than initial investment (CIF, 2014, p. XX). Additionally, the CIF's USD 8 billion public funds are expected to mobilise USD 55 billion of total climate financing from private and public sources (World Bank, 2014).

3.2.3 Question 3

What does the evidence tell us about sector dysfunctions? i.e. ways in which the system

could be improved (better M&E, processes for working together, re-orienting spend to reach the poorest)?

From a rapid assessment, there is some evidence on sector dysfunctions, and the evaluation of the Climate Investment Funds provides indications on governance and M&E for the agencies involved.

- The **ADB** has focused on removing procurement and other bottlenecks, to help raise total disbursements by 17% in 2013 overall, but there is no comparable information for the energy sector (ADB, 2015a, p. 73).

- The **AfDB** highlights that in Africa nearly 60% of the population has no access to reliable energy, and over 620 million people live without the benefits of an electricity connection. On the other hand, the continent has very high, but largely untapped, renewable energy sources. Whilst clean energy solutions involve high initial capital costs, they are found to be cost-effective over the longer term. It is recognised that innovative, small-scale and off-grid clean energy technologies will be key in bringing power to remote areas (AfDB, 2014, p. 3). The Bank clearly indicates a change in policy to favour private investment. In 1994 the Bank's policy focused on institutional reforms and capacity development in the energy sector, aimed at helping unlock private investment. After a few years, however, it became clear that private investment was not forthcoming and decided to support regional member countries by scaling up investments in major infrastructure development (AfDB, 2014, p. 5).

- The **EBRD** evaluations highlight that the challenge to the energy sector is to deliver energy that is secure, affordable and sustainable (EBRD, 2013, p. 4). The Bank's response to this challenge is based on seven pillars: promoting energy efficiency and demand-side measures; build domestic and liquid energy markets; rethinking energy systems; promote the transition to a low carbon sector; support cleaner energy production and supply; set standards and best practice; and promote economic inclusion and equal opportunities to all.

- The **IFC** invests in resource efficiency and renewable energy. In the former, it helps to cut costs for energy and other resources to improve clients' competitiveness. In the latter, it assists emerging markets to replace polluting power sources with clean alternatives (IFC website).

- The **WB** evaluation highlights barriers that block adoption of low-carbon paths: limited cost-competitiveness of options; credit bottlenecks, due to high up-front capital needs; lack of information or public attention; and unfavourable policies, which instead promote the high-carbon alternatives (IEG, 2010, p. 6).

The evaluation of the CIF provides some indication of how effectively the MDBs have worked together (CIF, 2014, p. VIII). Whilst the CIF is a comparably very open structure that favours collaboration, governance and efficiency, effectiveness has been hindered by the CIF's complex architecture, including the two-fund design and the establishment of six separate governing bodies.

The CIF evaluation also provides some insight on the effectiveness of the M&E system (CIF, 2014, p. XII). The CIF M&E system is appropriately envisioned as a multi-level system, but differences in MDB GHG accounting methodologies and gaps between CIF systems and MDB operational procedures diminish the robustness of the system. There is also incomplete alignment between results frameworks at the project, investment plan, and programme level.

SECTION 4

Energy-relevant climate spending

4.1 Context

Climate and energy related financing has now become a priority activity in all MDBs. It is increasingly integrated and mainstreamed into their development and operational strategies, though not yet in a fully consistent manner (Varma, A. et al. 2013).

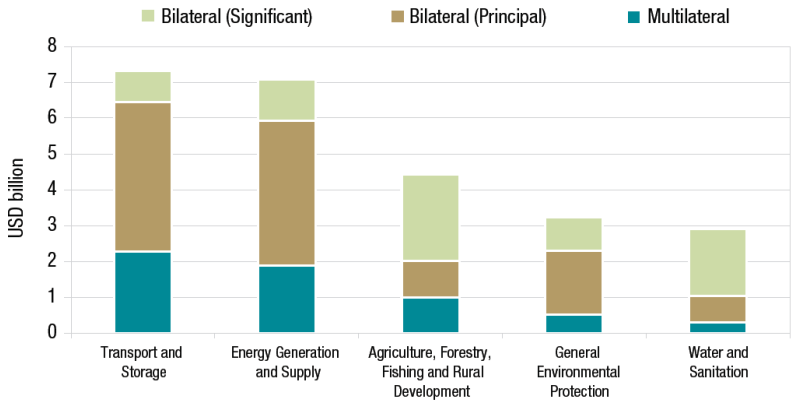
The joint MDB approach developed in 2012 is an attempt to jointly report on resources mobilised for a set of commonly-agreed activities. Since 2013, OECD DAC statistics have captured an integrated picture of both bilateral and multilateral climate-related external development finance flows based on the 'Rio Markers' and the Joint MDB approach (OECD, 2013, p. 5)[11].

4.2 Energy-relevant climate spending

Total bilateral and multilateral climate-related development finance to developing countries reached USD 39.7 billion in 2013. Of this, USD 24.6 billion (62%) addresses mitigation only, USD 10.0 billion (25%) adaptation only, and USD 5.1 billion (13%) consists of activities designed to address both adaptation and mitigation (OECD, 2013, p. 1).

Economic infrastructure sectors - energy, transport and water – received over two-thirds of climate-related development finance in 2013, as shown in **Figure 2**.

Figure 2 Top 5 sectors receiving climate-related development finance in 2013 (OECD, 2013, p. 5)



This high proportion of financing is driven by large volume mitigation projects in the energy and transport sectors (and by large volume adaptation projects in the water sector).

The energy sector received overall commitments of USD 8.136 billion in 2013.

Table 5 presents the total financing by beneficiary:

[11] For additional information on the OECD DAC methodology and results see: http://oe.cd/RioMarkers

MDB and specialised funds	Climate-related finance (commitments in USD billions)
AfDB	*0.973*
ADB	*1.150*
EBRD	*1.633*
EIB	*2.715*
IADB	*1.122*
IFC	*1.763*
WB	*4.974*
GEF	*0.806*
AF	*0.021*
CIF	*0.221*

Table 5 Climate-related multilateral flows in 2013 (OECD, 2013, p. 3)[12].

The organisations in Table 6 have specific reporting on energy[13]:

MDB and specialised funds	Climate-related finance (commitments in USD billions)
IFC	*1.03*
GEF	*0.168*
CIF	*0.098*

Table 6 Reporting on energy (OECD Database, 2015)

4.3 Going forward: the Green Climate Fund

The Green Climate Fund (GCF) will be crucial going forward. In 2009, at Conference of the Parties (COP) 15 of the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen, developed countries pledged to jointly mobilize USD100 billion per year by 2020 to address the adaptation and mitigation needs of developing countries (Fransen, et al., 2013). In COP 16 in Cancun, the GCF was created, and is expected to be the main channel of climate finance for the future. The Governments will agree a new climate deal in Paris in December 2015; before then, the international community is due to agree the new set of Sustainable Development Goals (SDGs) and establish a new partnership for Financing for Development (FfD).

So far, 27 countries have pledged USD 10.2 billion to the fund, but the amount that will be spent on energy is not yet known (Doukas, 2015)**.** The Fund places equal emphasis on allocating resources for reducing emissions and strengthening resilience, with a focus on the most vulnerable countries (GCF, 2014).

[12] It is important to note that these statistics are based on MDBs' reporting to the OECD DAC and may differ from data published by the MDBs in their joint report (Multilateral Development Banks (MDBs), 2014)

[13] Data queried on the OECD DAC database: http://www.oecd.org/dac/stats/rioconventions.htm

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Annex 1 Key documentation with indicators

Reference	Web link	Document description (2-3 lines max)
ADB		
ADB. (2015). *2014 Development Effectiveness Review.* Manila: Asian Development Bank (ADB).	***Hyperlink***	*The review tracks recent development progress in Asia and the Pacific, assesses ADB's development effectiveness, and identifies areas where ADB's performance needs to be strengthened.*
ADB. (2015). *2014 Development Effectiveness Review: Scorecard, Signals and Scoring Methods and Standard Explanatory data Indicators.* Asian Development Bank.	***Hyperlink***	*Linked to the above review*
ADB. (2013). *Development Effectiveness Review of the Asian Development Bank 2006-2011.* Development Effectiveness Review of the Asian Development Bank.	***Hyperlink***	*The review evaluated ADB's progress against the Strategy 2020 results framework, and highlighted performance trends and needed Management actions. The DEfR reviewed progress in Asia and the Pacific toward key development objectives (Level 1). It further assessed ADB's performance in delivering core sector outputs and outcomes (Level 2), and improving operational and organizational effectiveness (levels 3 and 4).*
AfDB		
AfDB. (2014). Development Effectiveness Review- Energy. African Development Bank Group	***Hyperlink***	*This review is organised in four chapters, corresponding to the four levels of our Results Measurement Framework. The first chapter describes the nature of the energy challenges Africa faces and the progress it has made in addressing them along with indicators that show energy sector development progress.*
EBRD/ EC		
EBRD. (2013). Energy Sector Strategy. European Bank for Reconstruction and Development (EBRD).	***Hyperlink***	*The strategy explains in detail the EBRD's approach to the energy sector. Of particular interest is Chapter 5 which outlines the EBRD's operational activities around seven key areas.*
World Bank	***Hyperlink***	
World Bank. (2013). Core Sector Indicators and Definitions. World Bank.		***Presents a list of co sector indicators.***
SDGs		
Transforming our world: the 2030 Agenda for Sustainable Development	***Hyperlink***	*Presents the 17 Sustainable Development Goals and 169 targets which we are announcing today demonstrate the scale and ambition of this new universal Agenda.*

Table 7 List of key documents reviewed for indicators

Annex 2 Sustainable Development Goals and Targets

Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3. Ensure healthy lives and promote well-being for all at all ages
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5. Achieve gender equality and empower all women and girls
Goal 6. Ensure availability and sustainable management of water and sanitation for all
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10. Reduce inequality within and among countries
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12. Ensure sustainable consumption and production patterns
Goal 13. Take urgent action to combat climate change and its impacts*
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

Targets for Goal 7

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
7.3 By 2030, double the global rate of improvement in energy efficiency
7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology
7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support.

Annex 3 Summary of MAR evaluations

Strengths	Weaknesses	Areas of Improvement (from 2011)
AFDF (AfDF, 2013) AfDB's mission is to spur sustainable economic development and social progress in its RMCs, thus contributing to poverty reduction (MfDR, 2014, p. 4).		
• AfDF's geographical focus fits well with DFID's priorities. • It has a strong focus on wealth creation and governance. • It has generally good relationships with partner governments. • It has an independent evaluation department helping to shape policy.	• Delays and limited in-country capacity hinder performance • It is not yet able to demonstrate outputs for all its programmes and projects and it is not always strongly focused on poverty • A need to improve the mix and specialisation of skills of staff in fragile states • There is weak performance on climate change, fragile states and gender.	• Improved focus on gender (particularly on results), enhanced effectiveness of programmes in fragile states and better defined policies on climate change, assessed under attention to cross-cutting issues (gender, fragile contexts and climate change and environmental sustainability) • Embedded results framework in Bank's business and its culture focussed on results, assessed under contribution to results • Improved effectiveness in administration budgets and value for money in programmes – assessed under cost and value consciousness • Improved project performance and partner coordination through further decentralisation – assessed under partnership behaviour.
EBRD (EBRD, 2013a) The bank seeks to help countries with EBRD operations make the transition toward well-functioning market economies by investing mainly in the private sector, with associated technical cooperation, legal reform and policy dialogue (MfDR, 2014, p. 9)**.**		
• It has a leading role in supporting transition and climate finance in the region. • It has a comprehensive results and performance system with evidence of strong strategic stewardship by the Board and pro-active portfolio management. • It has flexible, innovative use of financial instruments. • **It has active budget management – evidence of active re-prioritisation.**	• Its geographical focus does not match with DFID's. The link between the impact of EBRD's programmes on transition, and their impact on people's lives, is not always well articulated • Management support for gender was not strong • It has strong partnership behaviour during a crisis, but sometimes it is criticised for working against sector reforms.	• Increase levels of Bank support to climate change mitigation particularly in more innovative and risky projects • Implementation of the new Gender Action Plan • Continued efforts to measure the wider development impact of transition activities • A more explicit focus on cost-effectiveness in administration budgets and project design
World Bank Group (IDA, 2013) At its 2013 Annual Meetings, the World Bank Group adopted a new strategy focused on aligning its work with the goals of eliminating extreme poverty and boosting shared prosperity in a sustainable manner (MfDR, 2014, p. 20).		
Progress • IDA has prioritised working in fragile contexts. • It has increased its focus on		• Whilst it has increased its focus on gender, this has yet to be fully integrated as part of its operations. • It could do more to discuss cost effectiveness with partners

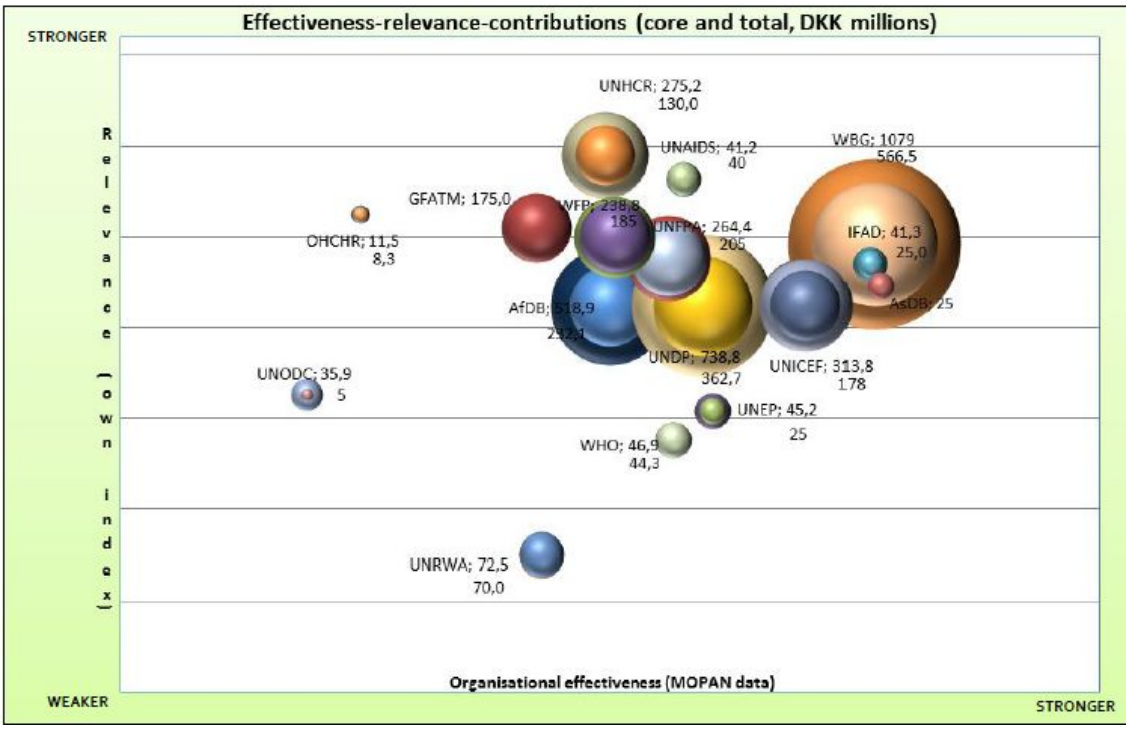
Strengths	Weaknesses	Areas of Improvement (from 2011)
gender. • It has improved results reporting across the organisation and is modernising procedures to improve partnership working. • It has better budget and work programme information.		• It is too early to determine the impact in developing countries of current corporate strategy reforms.
ADB (ADB, 2015a) The bank aims to help its developing member countries (DMCs) in the Asia and Pacific region reduce poverty and improve the living conditions and quality of life of their citizens **(MfDR, 2014)**.		
• ADB programming is relevant to the needs of target group members and well aligned with the development goals of its national partners. • Positive results in the achievement of objectives and expected development results in over two thirds of evaluation reports. • While evaluations often do not address gender equality, those that do indicate that ADB programs have been effective in achieving results. • Most ADB programs have generally been effective in addressing environmental sustainability, although improvements are needed to ensure that ADB projects include effective measures to address environmental challenges.	• The sustainability of program benefits remains an important challenge for the ADB and its partners, especially in terms of the capacity of partner institutions to sustain program results. • Reported results in the area of efficiency indicate another important challenge for the ADB--timeliness of program implementation.	• Systems for program evaluation are effective, and are well used, but there is a continuing need to strengthen results-based management, including monitoring and reporting at the national and local level. • Paying adequate attention to gender equality as a key evaluation issue • Ensuring environmental sustainability of infrastructure and other assets financed by the Bank • Considering the issue of the sustainability of the benefits of ADB investments at a strategic level • Improving the timeliness of ADB operations • Strengthening systems for program results-based management and monitoring at the local level.

Table 8 Summary of MAR organisations evaluations

Annex 4 Analysis of Danish multilateral development cooperation analysis

The multilateral organisations covered by the assessments are generally seen as both effective and highly relevant to Danish development priorities[14]. Overall, the IFIs score high on effectiveness as do the large UN funds and programmes. The five highest ranking organisations are ADB, the World Bank, IFAD, UNICEF and UNEP, followed by UNDP, UNAIDS, WHO, UNFPA, and WFP (DANIDA, 2013, p. 7)

Figure 3 Danish multilateral engagement in 2011



[14] Denmark will concentrate its development cooperation on four strategic priority areas which are interconnected and which will enable Denmark to make its contribution to combating poverty and promote human rights: human rights and democracy, green growth, social progress, and stability and protection (see: http://um.dk/en/danida-en/goals/)