

ADMINISTRATION AGREEMENT
BETWEEN
THE GOVERNMENT OF ITALY AS REPRESENTED BY
THE MINISTER FOR ENVIRONMENT, LAND AND SEA
AND
INTERNATIONAL FINANCE CORPORATION
FOR
THE FINANCIAL SUPPORT OF
A PROGRAM OF ADVISORY SERVICES
RELATING TO THE
MENA INCLUSIVE GREEN GROWTH PROGRAM

AGREEMENT dated as of November 30 2015 between the GOVERNMENT OF ITALY as represented by THE ITALIAN MINISTER FOR ENVIRONMENT, LAND AND SEA (the "Donor") and INTERNATIONAL FINANCE CORPORATION ("IFC"), an international organization established by Articles of Agreement among its member countries (including the Italian Republic) and a member of the World Bank Group¹ ("WBG"), to provide for the creation of a trust fund, identified by the name "Middle east and North Africa - MENA Inclusive Green Growth Program" and by the number TF072526 (the "Trust Fund") to finance certain advisory services in the Middle East and North Africa (the "MENA Region").

WHEREAS:

(A) IFC has established a program called MENA Inclusive Green Growth (the "Program"). The objectives of the Program are:

- i. Support governments in reforming energy efficiency and renewable energy regulatory frameworks;
- ii. Promote energy efficient best practices and private sector participation in the design and implementation of resource efficient infrastructure projects;
- iii. Assist financial institutions to extend access to finance to micro, small and medium enterprises (MSMEs) for sustainable energy investments; and,
- iv. Help industry groups, individual firms to mitigate their resource constraints.

The Program is more fully described in Annex A to this Agreement.

(B) The Donor has expressed strong support for the Program and wishes to provide funding for the activities undertaken by IFC under the Program with particular emphasis on the need for a flexible, long-term approach whereby a program of advisory services is initially agreed on and reviewed regularly to ensure that existing and new initiatives are adapted to achieve development impact.

¹ The World Bank Group consists of the International Finance Corporation (IFC), the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID)



(C) IFC is prepared to utilize funds provided by the Donor for the purpose of financing certain advisory services activities within the framework of the Program. IFC will utilize such funds in accordance with IFC's standard policies and procedures and in accordance with the terms and conditions set forth in this Agreement.

NOW THEREFORE, the parties hereto agree as follows:

1 The Grant

- 1.1 The initial contribution of the Donor under this Agreement is seven million United States dollars (USD 7,000,000).
- 1.2 The Donor may later agree with IFC to contribute additional funding support for the Activities (as defined below), which will be governed in all respects by this Agreement unless otherwise agreed.
- 1.3 The initial contribution and any subsequent funding from the Donor under this Agreement together with any income from investment and reinvestment will be referred to as the "Grant Funds" in this Agreement.

2 The Activities

- 2.1 The Trust Fund will be funding certain advisory services activities primarily in Algeria, Egypt, Morocco and Tunisia but also in other countries in the MENA Region (the "Activities") within the framework of the Program. The parties may agree to adjustments within the overall budget of the Activities and to changes to the scope, content, timing and cost of the Activities. Such changes will be recorded by a revision of Annex A, duly signed and dated by the representatives of the Donor and IFC.
- 2.2 The Activities are currently projected to be carried out until June 30, 2020. However, the implementation of the Activities may be extended beyond that date by agreement of the parties.
- 2.3 The Grant Funds will be utilized by IFC to meet the costs of the Activities in accordance with IFC's applicable procedures. Such costs will include those of WBG's consultants and staff dedicated to the implementation of the Activities, equipment, workshops/training, grants, office space and furniture, travel and communications, public relations and business development expenses, termination costs as specified in paragraph 5.2, and any other costs incurred in the implementation of the Activities. The Grant Funds may be utilized for the payment of salaries and benefits for WBG's staff and consultants only to the extent that their work is dedicated to the implementation of the Activities.
- 2.4 The selection and recruitment of consultants, consulting firms, experts, staff and other suppliers of services will be the responsibility solely of IFC and will be carried out in accordance with its usual procedures and will not be tied by nationality.
- 2.5 IFC may seek funding from sources other than the Donor for the implementation of the Activities and/or for implementation of specific components of the Activities.
- 2.6 The Trust Fund will fund activities that have a potential to generate fees from clients in the future. The client fees paid to IFC, to the extent they result from the activities funded by the Trust Fund, will be set aside and utilized to support activities under the Program. Upon termination of the Trust Fund, any unused portion of such client fees may then be used by IFC in accordance with its sole discretion.

3 Disbursement and Deposit of Funds

- 3.1 The Donor's contribution under this Agreement will be disbursed in one tranche upon signing of this Agreement.
- 3.2 A written disbursement request will be submitted by IFC.
- 3.3 Amounts disbursed by the Donor will be deposited into such account with such bank designated in the corresponding disbursement request submitted by IFC.

When making deposits, the Donor will instruct their bank to include in their payment details information (remittance advice) field of their SWIFT payment message, information indicating:

- a. the amount paid,
 - b. that the payment is from the Donor for the MENA Inclusive Green Growth Program Trust Fund Nr. TF072526; and,
 - c. the date of the deposit.
- 3.4 In addition, the Donor will send a copy of its payment request to IBRD's Trust Funds Division (by fax to +1-202-614-1315 or by email to tfremittanceadvice@worldbank.org) and to the Regional Director, IFC Middle East and North Africa Department (UAE, Dubai) (by fax Nr. +971 4 360 1010). Upon receipt of the Grant Funds, if funds are received in a currency other than United States dollars, the funds will be converted into United States dollars. All financial reports will be prepared in United States dollars. All Grant Funds may be freely exchanged into other currencies as may facilitate their disbursement by IFC.
 - 3.5 The Grant Funds will be accounted for as a single trust fund. IFC will have the right to commingle the funds in the Trust Fund with other trust funds assets maintained by IBRD and IFC, provided however that all such assets will be kept separate and apart from those of IBRD and IFC.
 - 3.6 IFC may establish sub-accounts within the Trust Fund for separate components of the Activities. IFC may allocate and reallocate the Grant Funds to these sub-accounts as needed from time to time for the relevant components of the Activities.
 - 3.7 Notwithstanding paragraph 2.3 above, at the time of receipt of each contribution from the Donor, five percent (5%) of the amount received will be deducted from the amount received and retained by IFC as a fee to help cover the costs of administration and other expenses incurred by IFC.
 - 3.8 IBRD, on behalf of IFC, may invest and reinvest the Grant Funds pending their application. The income from such investment and reinvestment will be credited to the Trust Fund for use for the purposes of the implementation of the Activities.

4 General Provisions, Reporting and Auditing

- 4.1 IFC will exercise the same care in the discharge of its function under this Agreement as it exercises with respect to the administration and management of its own affairs and will have no further liability to the Donor, including, without limitation, any duties or obligations that might otherwise apply to a fiduciary or trustee under general principles of trust or fiduciary law.
- 4.2 IFC will have the responsibility for the supervision, monitoring and evaluation of the Activities. IFC will provide to the Donor:
- (a) An annual report which includes a concise review of the Activities and results, actual and forecast expenditures, and a review of project outputs and outcomes achieved so far; the format and content of reports will be consistent with the IFC's accounting system; and,
 - (b) A semi-annual report including: (i) status of financial disbursements in implementing the Activities, (ii) a short update on the progress of the Activities, (iii) results for agreed indicators; and, (iv) update on risks/challenges, if any.
- 4.3 IBRD, on behalf of IFC, will maintain separate records and accounts in respect of the Grant Funds and funds disbursed from it by IFC pursuant to the provisions of this Agreement. IBRD, on behalf of IFC, will make available to the Donor current financial information relating to receipts, disbursements and fund balance in United States dollars with respect to the Grant Funds via the World Bank's Trust Funds Donor Center secure website (<https://clientconnection.worldbank.org>). Within six (6) months after all commitments and liabilities under this Trust Fund have been satisfied and the Trust Fund has been closed, the final financial information relating to receipts, disbursements and fund balance in United States dollars with respect to the Trust Fund will be made available to the Donor via the World Bank's Trust Funds Donor Center secure website. IBRD, on behalf IFC, will provide to the Donor, within six (6) months following the end of each IFC's fiscal year, an annual single audit report, comprising (1) a management assertion together with an attestation from the WBG's external auditors concerning the adequacy of internal control over cash-based financial reporting for all cash-based trust funds as a whole; and (2) a combined financial statement for all cash-based trust funds together with the WBG's external auditor's opinion thereon. The cost of the single audit will be borne by the WBG. In addition, if the Donor wishes to request, on an exceptional basis, a financial statement audit of the Trust Fund by WBG's external auditors, the Donor and IFC will first consult as to whether such an external audit is necessary. The Donor and IFC will agree on the most appropriate scope and terms of reference of such audit. Following agreement on the scope and terms of reference, IFC will arrange for such external audit. The cost of such an audit, including the internal costs of IFC with respect to such audit, will be borne by the Donor.

5 Duration and Termination

- 5.1 Subject to paragraphs 5.2 and 5.3 below, this Agreement will continue to be in effect until the Grant Funds will have been fully utilized by IFC in accordance with the terms of this Agreement and each of the parties has fully satisfied its obligations under this Agreement, unless otherwise agreed between the Donor and IFC.
- 5.2 Either party may at any time, by ninety (90) days' notice in writing, terminate this Agreement in whole or cancel any portion of the undisbursed and uncommitted Grant Funds, in which event IFC will have no claim against the Donor by reason of such termination or cancellation other than payment of expenses actually incurred or committed under this Agreement prior to the date of such termination or cancellation, less any sums previously paid on account thereof. Such expenses will include, but not necessarily be limited to, all shutdown costs and final report, payout of staff and consultant contractual salaries and benefits (collectively, "Termination Costs"). IFC may deduct these Termination Costs from the Grant Funds. Such termination or cancellation will not affect any agreements entered into between IFC and staff and consultants, other persons or third parties prior to IFC's giving or receiving such notice of termination or cancellation, and where such agreements cannot

be cancelled IFC will be entitled to continue to make disbursements and receive further disbursements from the Donor in respect of such agreements as if this Agreement had not been so terminated or the Grant Funds or any portion of them not been cancelled, provided that: (i) IFC has fulfilled all its duties, responsibilities and obligations to the date of termination or cancellation, as specified in this Agreement and; (ii) the implementation of the Activities was not unilaterally terminated by IFC without consultation with the Donor.

5.3 If any portion of the Grant Funds remains in the Trust Fund after the termination date specified in paragraph 2.2 above or in the event of an earlier termination of this Agreement or of the implementation of the Activities, IFC and the Donor will agree on the disposition of these funds. In the event that IFC and the Donor do not reach any agreement on the disposition of any remaining funds, IFC will return to the Donor any unutilized and uncommitted portion of the Grant Funds, and will provide a final report to the Donor promptly thereafter. IFC will have no liability to the Donor under this Agreement except for the return of unutilized and uncommitted funds after application to costs, including Termination Costs, contemplated under this Agreement.

5.4 Following completion or termination of the implementation of the Activities, any equipment purchased for the Activities will be either transferred to the beneficiaries or will be used or disposed of in accordance with normal IFC procedures.

6 Acknowledgements & Disclosure

6.1 Where appropriate to do so in the opinion of IFC, IFC will acknowledge the Donor's contribution in any reference made by IFC with respect to the Activities in publications, speeches, press releases or other similar publications.

6.2 (a) The Donor acknowledges that IFC's Access to Information Policy (the "AIP") will apply with respect to disclosure of all documentation, data and other information that IFC receives from the Donor relating to this Agreement and the Trust Fund or from third parties in connection with performing the Activities. The AIP is available on IFC's web site at www.ifc.org/ah/closure. Under the AIP, IFC makes available to the public certain information about IFC's activities. Examples of such information include, with respect to IFC's advisory services activities, good practices or lessons learned reports that aim to enhance the development impact of IFC's initiatives, and limited project-specific information, such as brief project descriptions, expected development impacts and actual results. Pursuant to the AIP, IFC does not disclose to the public financial, business, proprietary or other non-public information provided to IFC by its clients or third parties without the consent of such clients or third parties.

(b) By entering into this Agreement, the Donor consents, as permitted under the AIP, to disclosure of this Agreement and related information on this Trust Fund.

(c) With respect to any client or third party information that IFC communicates to the Donor in accordance with IFC's reporting obligations under this Agreement, the Donor hereby agrees to keep confidential any information identified in writing by IFC as confidential in accordance with the principles of the AIP. The Donor will also ensure that any access to such confidential information granted to its officers, directors, employees, attorneys, independent auditors, rating agencies, contractors, and consultants will be only on a need-to-know basis and provided that such persons are subject to a similar or equivalent confidentiality obligation. The Donor and IFC agree that should the Donor wish to publicly disclose any information shared by IFC with the Donor under this Agreement, the Donor shall first ask IFC whether all or part of such relevant information is disclosable under the AIP and then disclose only such information as IFC confirms may be disclosed under the AIP.

6.3 The Program is not a separate legal entity, but rather is a facility or program of IFC. Nothing in this Agreement is intended to create or imply a legal partnership between or among IFC, the Donor, any other donor and/or any other person.

7 Other Provisions

- 7.1 This Agreement together with Annex A, as amended or supplemented from time to time, constitutes the entire agreement between IFC and the Donor with respect to the funding and implementation of the Activities.
- 7.2 This Agreement may be amended only by written agreement of the parties hereto.
- 7.3 The Donor and IFC will seek amicably to settle all differences and disputes arising out of or in connection with the implementation of this Agreement.
- 7.4 Any notice or request required or permitted to be given under this Agreement will be in writing and will be given at each party's address as follows:

For the Donor:

Ministero dell' Ambiente e della Tutela del Territorio e del Mare
Via Cristoforo Colombo, 44
00147 Roma
Attention: Mr. Francesco La Camera
Director General
Fax: 0039 06 57228175

For IFC:

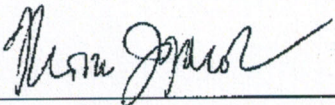
International Finance Corporation
2121 Pennsylvania Ave., N.W.
Washington, D.C. 20433
United States of America
Attention: Director, Middle East and North Africa Department
Fax: +1-202-974-4396

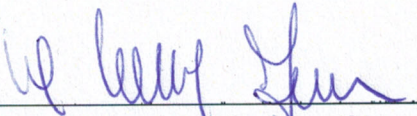
With copy to:
The Director, Development Partner Relations.
International Finance Corporation
2121 Pennsylvania Ave., N.W.
Washington, D.C. 20433
United States of America
Fax: +1-202-974-4344

IN WITNESS WHEREOF, the authorized representatives of the parties hereto have signed this Agreement.

INTERNATIONAL FINANCE CORPORATION

GOVERNMENT OF ITALY represented by THE MINISTER FOR ENVIRONMENT, LAND AND SEA

By: 
Name: THOMAS JAMES JACOBS
Title: PRINCIPLE CONTRACT OFFICER

By: 
Name: FRANCESCO LA CAMERA
Title: DIRECTOR GENERAL

TF072526

ANNEX A

THE GOVERNMENT OF ITALY AS REPRESENTED BY
THE MINISTER FOR ENVIRONMENT, LAND AND SEA

AND

INTERNATIONAL FINANCE CORPORATION

FOR

THE FINANCIAL SUPPORT OF
A PROGRAM OF ADVISORY SERVICES
RELATING TO THEMENA INCLUSIVE GREEN GROWTH PROGRAM

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**Middle East and North Africa Inclusive Green Growth Program
IFC Advisory Services in MENA**

Program Scope:	Green Growth	Geographical Coverage:	Regional
Program Budget:	USD 26.4 million	Funding Requested:	USD 26.4 million
Start Date:	FY16	Expected Completion Date:	FY2020



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I. MENA INCLUSIVE GREEN GROWTH STRATEGY

Inclusive Green Growth (IGG) is the pathway to sustainable development. It is the only way to reconcile the rapid growth required to bring developing countries to the level of prosperity to which they aspire, meet the needs of the more than one billion people still living in poverty, and keep us on the path to achieve the World Bank Group's (WBG) ambitious goals. As part of the WBG, IFC defines green growth as economic growth that is environmentally and socially sustainable. IFC pursues green growth which is inclusive, clean and resilient. Figure 1 below illustrates the range of interventions in each of these three areas.

The complexity and diversity within the Middle East and North Africa (MENA) region cannot be understated, particularly in relation to sustainable development and green growth. The region suffers from ongoing conflict and political turmoil, varying levels of energy access, endemic water security issues, excessive energy subsidies, along with an aged infrastructure which is straining to support a burgeoning urban population. Nonetheless, IFC's Inclusive Green Growth Strategy for the region aims to dissect some of this complexity and converge on the key factors which are the main driving themes for advisory activity in the region.



Figure 1: Defining Green Growth

1.1 Issue 1: Carbon Emissions

As a starting point, it is clear that carbon emissions in the MENA region² are relatively modest: the region represents 8% of total global emissions, just under 9% of the global population, and nearly 5% of global GDP. Furthermore emissions are not a key political agenda item throughout the region. Although emissions contribution on a pure basis to global climate change may not be a significant one, sustainable development³ in the MENA region is however a critical concern, particularly given the inefficient use of energy resources and water scarcity throughout the region.

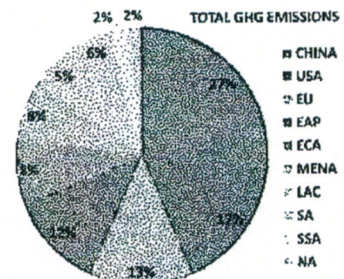


Figure 2: Global GHG Emissions

More specifically, the MENA region⁴ is not efficiently using its energy resources for economic production, and is the third most emissions intensive region in terms of emissions produced per economic output⁵.

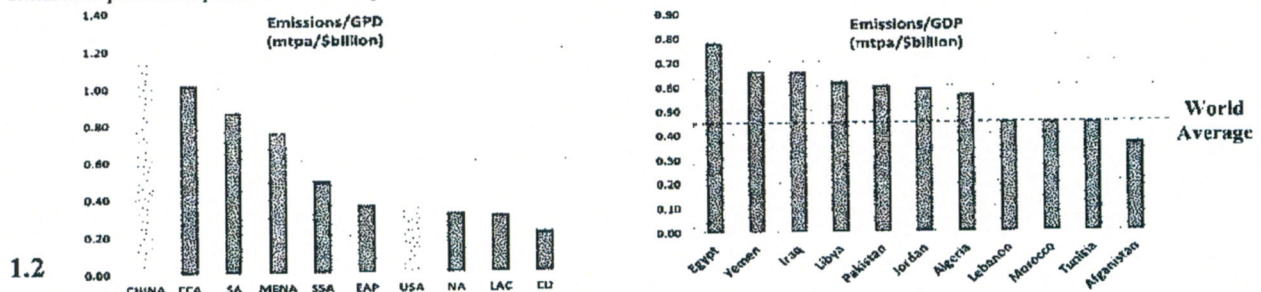


Figure 3: Emissions/GDP

² Including GCC countries, Iran, Syria, Israel

³ Where Sustainable Development is defined as economic development that is conducted without depletion of natural resources

⁴ Including GCC countries, Iran, Syria, Israel

⁵ Emissions per GDP can also be affected by the fuel mix



In terms of primary energy consumption, MENA⁶ is the second most energy intensive region per economic output globally. Once again, we see that the most inefficient countries in the region⁷ are Egypt, Yemen, Iraq, Pakistan, Jordan and Algeria⁸ and we expect also Libya (data unavailable).

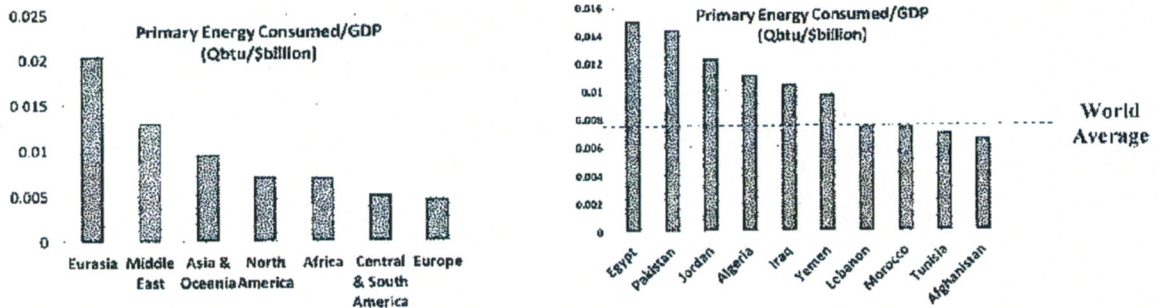


Figure 4: Energy Consumption/GDP

Consistently the same four countries (Lebanon, Morocco, Tunisia, and Afghanistan) are using their energy resources more efficiently, whether it be by design (Tunisia) or due to lack of energy resources and infrastructure (Afghanistan). This provides an indication for the main areas of focus where gains can be made in energy efficiency in the region.

However other factors are likely to inhibit progress in improving energy efficiency in these markets which are described later in this paper, particularly ongoing conflict, energy subsidies and energy efficiency regulatory frameworks.

1.3 Issue 3: Energy Security

HAVES VS. HAVENOTS

The Middle East and North Africa Region (including the GCC) is the fortunate host of 49% of the world's proven oil reserves, 44% of gas, but less than 0.5% of total global coal reserves. However, MENA has a unique dichotomy within the region in terms of energy – those who are energy resource rich (the “Haves”) and those who are not (the “Havenots”).

Within the 12 countries⁹ of IFC operations, four of these countries (Iraq, Libya, Algeria and Egypt) have 98% of the region's proven oil reserves, 90% of gas, and 3% of coal¹⁰; while the remaining countries in the region face tremendous energy scarcity (Yemen, Tunisia, Pakistan, Jordan, Morocco, Lebanon, West Bank & Gaza, and Afghanistan).

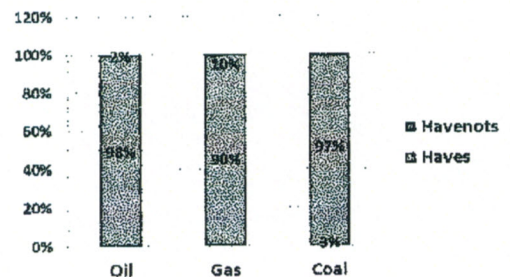


Figure 5: Energy “Haves” and “Havenots” in MENA

Even within this context of “haves” and “havenots” there remains energy accessibility and availability issues. For example, due to longstanding excessive subsidies, Egypt has been unable to keep up with payments to foreign oil and gas production companies, and has accrued more than \$6bn in owed debt to such companies who have recently launched lawsuits against the country; existing production has stagnated, and new production contracts have been slow to be awarded/commence. Therefore despite Egypt's plentiful reserves, they are now facing tremendous energy shortages. Conflict has been a key factor in the remaining three countries: in Libya production has nearly halved since 2009 due to domestic conflict; in Iraq production has been slow to ramp up post conflict; in Algeria production levels have been unstable although appear to be rebounding since 2013.

GRID AVAILABILITY AND ELECTRIFICATION RATES

Despite being a region that is identified as energy rich, it still suffers from grid availability issues – largely due to lack of investment in infrastructure, and lack of access to primary energy supplies. Pakistan is the most severe case in the

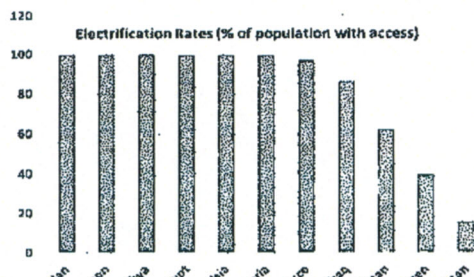


Figure 6: % of population with access to electricity

1. Lebanon, Pakistan, Afghanistan, and West Bank & Gaza in Pakistan



region which experiences approximately 50% load shedding on average throughout the year, much more during peak periods. Egypt, Jordan, Lebanon, West Bank & Gaza, Yemen, Afghanistan and Iraq all face significant levels of load shedding – in Lebanon for example, an iPhone app is available which lets residents know when load shedding will be taking place and in which locations – a rather sophisticated approach to avoid deal with the challenge, and given that addressing the root cause of the issue is not being addressed.

In addition to a lack of consistent power generation to support existing as well as growing economic demand, there are a number of countries within the region which simply lack the basic infrastructure to transmit energy to the frontier regions of the respective countries. Yemen, Afghanistan, and Pakistan are the most severe cases of lacking infrastructure, where consumers resort instead to kerosene, diesel, LPG, wood, dung and other expensive fuels which are also highly related to dangerous health and safety impacts, in order to provide for lighting, cooking and other basic needs.

ALTERNATIVE ENERGY SOURCES

Fortunately, most of the region is well endowed with renewable energy resources including solar, hydro, biomass, and wind¹¹. Most countries have also set ambitious targets to incorporate renewable sources as a significant proportion of their energy supply.

The conclusion from these inputs is the need for the region to focus on developing sustainable and renewable energy resources – including off-grid or distributed generation, captive applications and grid based renewable energy solutions throughout the region in solar and wind, and in select countries in hydro and biomass with particular focus on the “havenot” countries and where renewable energy resources are in abundant supply. More specifically, IFC’s focus is on lowest cost or grid parity opportunities as much as possible.

	RESOURCE POTENTIAL					TARGETS	
	Wind	Solar	Bio	Geo	Hydro	%	by
Morocco	high	high	med	unknown	high	42	2020
Algeria	med	high	med	high	high	20	2030
Tunisia	high	high	med	unknown	high	25	2030
Libya	high	high	low	unknown	unknown	30	2030
Egypt	high	high	high	high	high	20	2020
Jordan	high	high	med	med	med	10	2020
Lebanon	low	med	med	med	med	12	2020
Iraq	med	high	low	med	low	0	-
WB&G	unknown	unknown	unknown	unknown	unknown	10	2020
Yemen	high	high	low	med	low	20	2025
Afghanistan	med	high	med	high	high	0	-
Pakistan	high	high	high	high	high	10	2015

Figure 7: Renewable energy resource potential by Country

1.4 Issue 4: Energy Pricing

As a region, MENA¹² has the highest level of subsidies in the world, nearly triple those of the second and third leading regions, and spends more on subsidies than all other regions combined with the exception of East Asia and Pacific (EAP). Although the data presented here dates from 2011, Jordan, Pakistan, Tunisia, and Morocco have all since achieved significant results in reducing subsidies. As is widely known, Egypt continues to face growing economic strain due to the fiscal burden of its long standing subsidy policies.

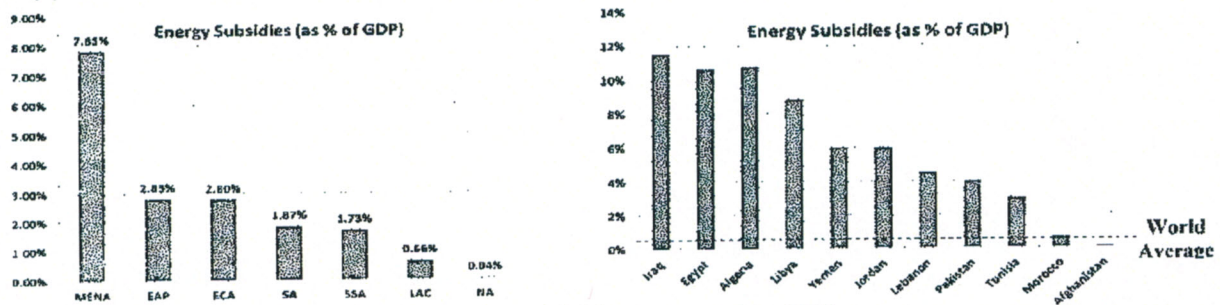


Figure 8: Energy Subsidies as a proportion of GDP

A positive correlation between most of the high energy consumers per GDP and the high subsidy levels can be seen here in the replication of the same leading countries. Unfortunately the result of such high levels of subsidy, particularly in Egypt, Iraq, Algeria, Libya and Yemen¹³ lead us to conclude that solutions in energy efficiency and alternative energy will struggle to be economically

¹¹ Source: IRENA & MASDAR

¹² Including GCC, Israel, Syria & Iran

¹³ Jordan has already addressed subsidy levels and in addition has issued preferential tariffs for renewable energy on a competitive tender basis. Egypt has recently started to implement a first stage of gradual subsidy decrease



viable until such subsidies are addressed¹⁴. This is true except in the case where energy availability is lacking – which is particularly the case in Yemen. Conversely, in those countries where energy subsidies have been reduced or eliminated, renewable energy technologies and energy efficiency solutions become more viable, and in some cases are already at grid parity. Nonetheless, IFC’s interventions at the regulatory, market, infrastructure and firm level can act as a catalyst for change in these markets.

1.5 Issue 5: Climate Change Vulnerability

WATER SCARCITY¹⁵

The MENA region has access to only 1.4% of the world’s total renewable fresh water resources. The average water availability per person in other regions is about 7,000 m³/year, whereas water availability is merely 1,200 m³/person/year in MENA.

The region has the highest per capita rates of freshwater extraction in the world (804 m³/year) and currently exploits over 75 percent of its renewable water resources – more so in countries such as Jordan, Egypt, and Yemen where demand outstrips supply. Due to burgeoning population and rapid economic growth, the per capita water availability is expected to reduce to alarming proportions in the coming decades. By the year 2050, two-thirds of MENA countries could have less than 200 m³ of renewable water resources per capita per year.

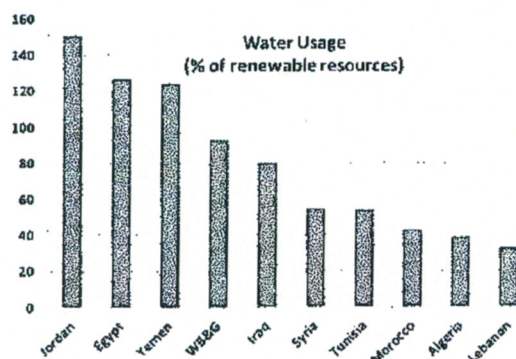


Figure 9: Unsustainable water use in MENA countries

Around 85 percent of the water in the MENA region is used for irrigation.

This level of irrigation is not inherently sustainable and leads to overuse of scarce renewable water resources, which in turn results in increased soil salinization. MENA’s average water use efficiency in irrigation is only 50 to 60 percent, compared to best-practice examples of above 80 percent efficiency under similar climate conditions in Australia and southwest US. Similarly, physical water losses in municipal and industrial supplies in the region are far above world averages. Losses reach as high as 30 to 50 percent in some cities, compared to global best practice of approximately 10 percent.

Despite significant investment in the water sector, water management still remains a serious economic and environmental problem in MENA countries, as shown by frequent droughts and floods. Public health, agricultural productivity and environment are suffering due to over-pumping of aquifers and deterioration of water quality. Improved irrigation efficiency in agricultural water use would significantly increase water availability for other sectors, which at the same time improves crop yields and overall agricultural productivity.

Managing demand, particularly of agricultural water use, will be the key to reduce the high costs of filling the water gap. Similarly, improvements in water management in domestic and industrial sectors could reduce system losses to globally acceptable levels. Failure to save water and to reduce uneconomic use will have severe socioeconomic repercussions as the only alternative will be desalination which will put further pressure on scarce energy supplies in the region.

The administrative structures of both drinking water and irrigation systems are characterized by weak governance and incoherent water laws. Some countries including Egypt, Jordan and Palestine have approved national water resources plans. Other countries have developed frameworks which contain elements of policy, in the form of strategy or master plans. In general, MENA countries are beginning to recognize the importance of an integrated approach to water management. The demand for water will continue to rise across the region, due to population increase and economic growth.

¹⁴ It is anticipated that with the new government in Egypt as of June 2014, that energy subsidies and pricing will be addressed rapidly, while some gains have already been achieved in reducing natural gas subsidies for industry in 2012/2013.

¹⁵ Source: ecomena.org



1.6 Issue 6: Sectorial Implications and Opportunities

INDUSTRY¹⁶

Industry contributes a significant proportion to the respective GDP's of most countries in the region¹⁷ particularly Egypt and Algeria. Furthermore, the industrial sector is the third highest energy consumer (after power generation and transport) and GHG emitter in MENA¹⁸. According to statistics, in 2004 approximately 85% of the industrial sector's energy use was in energy-intensive industries¹⁹. In Egypt, for example, heavy industry continues to be significantly more energy intensive than the world average.

Reducing energy intensity in the industrial sector throughout the region has the potential for substantial savings in both GHG emissions and government subsidies. It is estimated that by embracing energy and other resource efficiency improvements, the region could reap gains equivalent to 0.5-1% of GDP²⁰. There are significant development opportunities in the manufacturing and services sectors, including cement, steel, chemicals, fertilizers, textiles, pulp and paper, and agribusiness including food processing, which represent an important share of GDP for countries throughout the region. There is clear need to increase the adoption of resource efficient practices (including energy efficiency and captive renewable energy applications) and technologies in the region, in order to remain competitive, particularly as energy subsidies are eliminated, the cost of fossil fuel based energy increases and its availability decreases.

AGRICULTURE

Agriculture plays an important role in the economies of several countries in the region, particularly Afghanistan, Pakistan, Morocco and Egypt. The contribution of the agricultural sector to the overall economy varies significantly among countries in the region, ranging from about 3 percent in Jordan to 25 percent in Afghanistan but provides for employment of 21 percent of the population. Production levels throughout the region have also varied significantly over the past 12 years: Yemen has suffered a 42% drop in agricultural production since 2002 while Afghanistan has suffered a 36% drop over the same period. Large scale irrigation is expanding, enabling intensive production of high value cash and export crops, including fruits, vegetables, cereals, and sugar.

Despite the fact that MENA is the most water-scarce and dry region worldwide, many countries across the region, especially those around the Mediterranean Sea, are highly dependent on agriculture. For example, the Oum Er Rbia River basin contains half of Morocco's public irrigated agriculture and produces 60 percent of its sugar beets, 40 percent of its olives, and 40 percent of its milk²¹.

The agricultural sector in MENA uses approximately 80 percent of total water resources, generates only 13% percent of the GDP on average.²² Increasing water scarcity (see Figure 9 above) and drought and flood frequency have contributed to significant

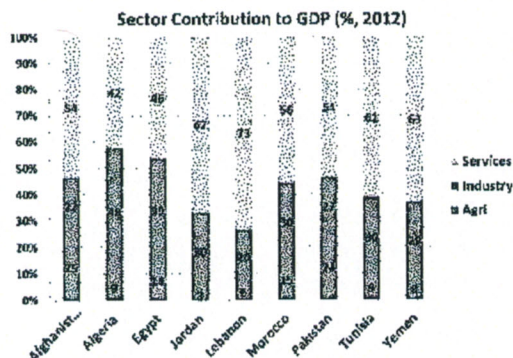


Figure 10: Sector contribution to GDP

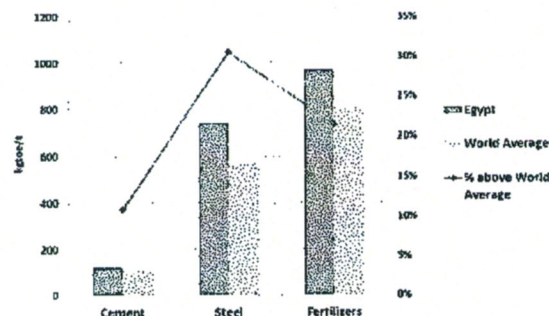


Figure 11: Energy inefficiency in Egyptian heavy

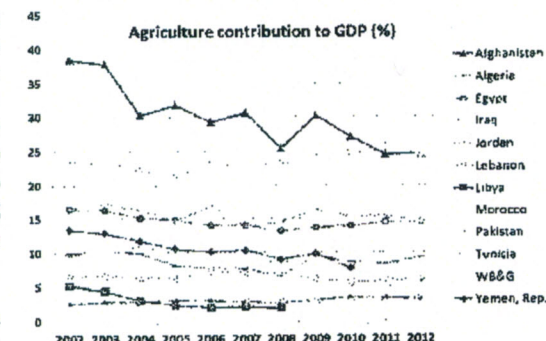


Figure 12: Agricultural contribution to GDP 2002-2012

¹⁶ Includes large and MSME industries

¹⁷ No data available for Iraq, Libya, WB&G

¹⁸ "Opportunities for Mitigating the Environmental Impact of Energy Use in the Middle East and North Africa Region", by Yabei Zhang, March 2008

¹⁹ "Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change" (2007), B. Metz, O.R. Davidson, P.R.

Boseh, R. Dave, L.A. Meyer (eds), Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

²⁰ "ESMAP, 2009. Tapping a Hidden Resource Energy Efficiency in the Middle East and North Africa", February 2009, Sustainable Development Network, Middle East and North Africa Region, Energy Sector Management Assistance Program (ESMAP)

²¹ Source: Carbone



economic losses (e.g. losses in Yemen between 2008-2012 reached more than 180% of pre-flood agricultural value add) and increasing severity of food security concerns – a trend that is likely to continue as temperatures and weather variability continue to increase. It is therefore critical that water-efficiency, particularly in the agricultural sector, is sought wherever feasible.

FINANCIAL INSTITUTIONS

The latent and emerging interest in energy efficiency, resource efficiency and renewable energy solutions in the region is further inhibited by a widespread lack of financing options across the region. One of the main causes for this is that there is a significant lack of awareness and understanding among banks and other financial institutions of the potential business opportunity in developing products to support sustainable energy interventions. Although energy efficiency and renewable energy are increasingly recognized as a priority across the region, local financial institutions lack understanding of how to achieve returns from investments on sustainable energy finance. There is a need for comprehensive advice for financial institutions on the development of specific lending products, the assessment of project energy savings potential, and on implementing procedures to collaborate with local market players (energy auditors, vendors, ESCOs).

URBANIZATION

Whilst MENA was relatively late in the urban transition, this is changing rapidly. The 25 largest cities in the region had an average annual urban growth rate of 2.7% between 2000 and 2010, and trend is expected to continue in the future. For example, the population of MENA's largest agglomeration, the Cairo metropolitan area, has increased from 2.5m in 1965 to about 10m today, with population densities in certain areas reaching some of the highest levels globally²³. The impact of this rising level of urbanization can be felt in many ways, including greater levels of air pollution, water issues (eg: shortages, pollution, treatment requirements etc.), accumulation of waste, power shortages, although these can be addressed through coherent public transportation schemes, energy efficiency programs, water treatment and waste facilities, along with other core infrastructure.

WASTE MANAGEMENT

The high population growth rates, coupled with rapid urbanization and economic growth in MENA are accelerating consumption rates and the generation levels of all types of waste. The higher income countries of the GCC are amongst the world's largest producers of waste on a per capita basis, but even others such as Egypt are generating high levels (20m tons per annum of solid waste), with an increase of 36% from 2000 to 2010, and less than 65% is managed by some form of public or private sector collection, disposal or recycling operation²⁴. Furthermore, a large amount of sewage sludge is being generated region wide, which presents a major issue due to high treatment cost and risk to environment and health. The average wastewater generation is 80-200l / person in MENA and sewage output is rising by 25% p.a. across the region²⁵. The majority of countries in the region have no specific solid waste or waste water policies, and policies / strategies that do exist are largely non-mandatory²⁶.

A number of solutions exist to deal with the issues outlined above, including a focus on incorporating waste to energy techniques into municipal solid waste projects, or waste water treatment facilities. For example, 83% of solid waste in Egypt ends up in open dumps, and only 2-5% is actually recycled and composted. Given that over 60% of waste in MENA is classified as organic waste²⁷, which is one of the highest levels globally, a significant benefit could be gained from developing waste to energy projects, given it simultaneously addresses the region's acute waste disposal issues as well as providing for a lower-cost renewable energy supply option. Opportunities also exist to develop privately operated waste collection services, potentially combined with landfill sites.

BUILDINGS

Although buildings in MENA represent the second smallest energy consumer by sector, and are much lower in comparison to the global average, they still represent a significant proportion of consumption²⁸. Given the fragmented nature of this market sector, improving building resource efficiency will be challenging but requires as a foundation a systemic regulatory framework.

²² Source: FAO AQUASTAT

²³ UN Habitat - State of the World's Cities: Trends in Middle East & North Africa

²⁴ <http://www.sweep-net.org/ckfinder/userfiles/files/country-profiles/rapport-Egypte-en.pdf>

²⁵ <http://www.ecomena.org/tag/bioenergy-in-the-middle-east/>

²⁶ Centre for Sustainable Waste Management, University of Northampton: Review of Waste Policy Framework in the MENA region: a case study of Egypt

²⁷ Urban Development Series Knowledge Papers – World Bank

²⁸ Source: Carbound



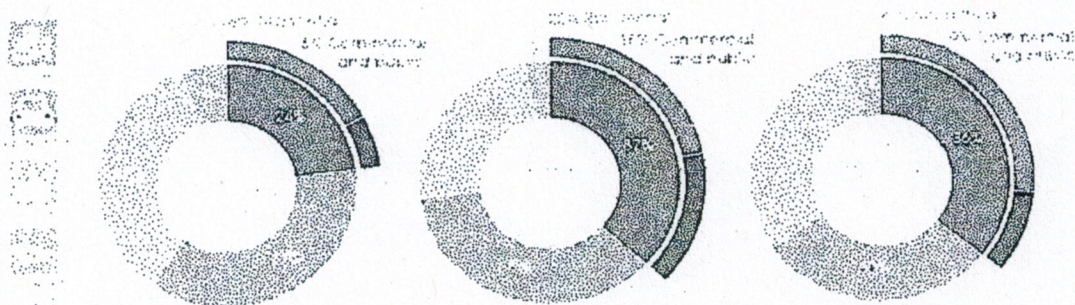


Figure 13: Energy consumption by sector - MENA vs. OECD vs. World

INFRASTRUCTURE

Infrastructure is core to a green growth strategy due to the significant issues created if not done properly (due to the scale of the investments required and lifetimes which can reach up to 100 years or more). Additionally, such investment also addresses the gap that exists in infrastructure provision in the region; significant investment in the sector is required for economic growth & development, whilst also being positive for the environment. The deficit in key strategic infrastructure sectors required to fuel growth, from roads and ports / airports to energy, is critical. An estimated \$106bn is required up to 2020 solely in MENA, with the greatest needs being in the oil importing / non-GCC nations given their high infrastructure gap²⁹. Focusing on infrastructure development in MENA is key since it addresses key issues such as (i) demographics – young & fast growing population, (ii) fast urbanization, (iii) economic diversification with a move away from hydrocarbons, (iv) historical underinvestment leading to large supply gaps (especially in oil importing countries which have limited fiscal space), and (v) reducing poverty by improving access to economic opportunities to large swathes of the population and lowering cost of purchased goods along with access to basic services / power.

OTHER PUBLIC INFRASTRUCTURE

Infrastructure needs cover a range of sectors that are all receptive to integration of green growth components. For example, transportation infrastructure such as airports can significantly adjust their emission and energy consumption levels both through design efforts as well as operational adjustments, and the gap in such infrastructure is quite glaring throughout the region. Around 16% of the global investment in airports is currently in MENA, and given ever increasing traffic levels MENA wide, this ramp up of supply should continue³⁰. Ensuring that this development is done in a manner that minimizes energy consumption in countries where energy supply is already scarce, as well as keeping emissions to the lowest level possible, is key to the sustainable development of this sector.

On the power front, the largest and most cost effective source of emission reduction is through better energy efficiency, on both the supply and demand side. This requires a mix of implementation of existing or new policies, and adopting energy efficiency technologies (eg: 70% of lighting, which is responsible for 20% of total global electricity consumption, can be reduced by 50% just by using existing technologies³¹). As mentioned in earlier sections, power supply deficiencies need to be addressed, and in certain cases this can be done by raising the proportion of renewable power generation (eg: solar, wind, hydro, biomass). A significant development of renewable energy is already taking place regionally, and the existing pipeline of future projects points to strong growth over coming years. In 2011, power generation reached about 1,200 TWh in the MENA region, a 20% increase compared to 2008. The share of renewable energy reached 3.3%, an increase of 0.4% percentage points, over the same period (significant given overall growth in power demand, including through conventional energy). More recently, Morocco, Lebanon, and Tunisia saw their renewable energy shares increase to reach 33%, 12%, and 6%, respectively, in 2012³². It should be noted that the development of renewable energy is happening in both oil importing and exporting countries across MENA; oil exporting countries are recognizing opportunity cost of using domestic output for their own power needs (eg: electricity, desalination, air conditioning), and oil importing countries are focused on energy security and reduced dependence on expensive imports. Hydropower remains the main renewable energy source for power generation in MENA, with Iran and Egypt as leaders in installed capacity (9.5 GW and 2.8 GW respectively). Other countries with significant hydropower generation capacity include Iraq, Syria and Morocco. Whilst growth in

²⁹ World Bank (2011): Infrastructure and employment creation in the Middle East and North Africa

³⁰ Centre for Aviation (CAPA) – Aviation Analysis : Inside the world's biggest airport construction projects in 2013/14

³¹ <http://siteresources.worldbank.org/EXTSDNET/Resources/Inclusive-Green-Growth-Chapter6.pdf>

³² http://ren21.net/Portals/0/documents/activities/Regional%20Reports/MENA_2013_lowres.pdf

generating capacity has been robust region wide (9% average growth over 2008-2011), this growth has been driven mainly by Iran and Iraq, who together represent around half of MENA hydropower production³³. Future prospects for development exist, however are not as extensive as for other renewables given the limited further resources available to exploit regionally.

SERVICES & TOURISM

As indicated above, the services sector is the region's most important contributor to GDP (57% overall) and is the region's greatest employer (55%). The sustainability of this sector is therefore absolutely paramount. In relation to green growth, the services and tourism sectors have the opportunity to apply resource efficient technologies and practices, and thereby reducing their exposure to increasing prices and declining resource availability. One particularly example is in Egypt whereby the Government has introduced plans to require the tourism sector to procure ~20 percent of its energy supply from renewable sources. Although the law has yet to pass as of mid-2014, many tourism operators are already taking steps to comply with this new rule. Increasing external market demand and competition are also requiring players in the tourism and services sectors to become more "green" – large scale European procurement firms of services in emerging markets now require minimum sustainability standards – German tourism operator TUI for example has already implemented minimum standards and required certifications in order for a vendor to work with TUI.³⁴

QUALITY STANDARDS FOR ENERGY PRODUCTS AND SERVICES

Although there is emerging interest in the region in applying resource efficient solutions and captive renewable energy generation to meet the energy deficit, adoption by the private sector remains weak due to lack of awareness of the most appropriate technologies, lack of product availability in the market, risk aversion and lack of trust in manufactured components such as solar panels.

In addition, although energy service companies (ESCO's) are gaining ground in the region and could provide a critical technical and financial solution to entities wishing to pursue clean energy and resource efficiency solutions, many private sector companies do not yet understand how a partnership with an ESCO can be beneficial, and there is an inherent lack of trust. In some cases there may also be a lack of governing regulations over the ESCO arrangement.

REGULATORY FRAMEWORKS

The policy framework in MENA is generally not proactive in promoting renewable energy and energy efficiency measures through private sector friendly regulations and incentives. There are a number of steps that countries can take to help the private sector in the region to adjust to the new reality of higher energy prices by becoming more efficient in their use of energy and exploiting significant potential of renewable energy sources.

Countries such as Jordan, Tunisia, Morocco and Egypt have the potential to attract investment in energy efficiency and renewable energy. However, private investments are constrained by market and information failures, state monopolies, regulatory barriers, weak investor incentives, and institutional complexities. In addition, such investments are typically still only marginally attractive due to residual energy subsidies. Furthermore, attracting investments into this space is also difficult due to higher levels of taxation, project development complexities, and a weak investment climate. These issues are compounded by high competition for scarce capital and low access to finance.

The industrial sector in the region appears to be very lightly regulated in terms of energy efficiency compared to other middle income countries. Among all MENA countries, only three (Tunisia, Algeria, and Syria) have laws encouraging energy efficiency in the industrial sector, and only one of these three (Tunisia) has an effective energy efficiency regulatory framework. The effect is predictable: highly energy inefficient industrial sectors have emerged. The industrial sector presents ample opportunities for energy efficiency improvements and represents a substantial part of the economy.

Only Pakistan, Morocco and Jordan thus far have been successful in implementing regulatory frameworks to attract private sector investment in renewable energy (although Pakistan still faces many issues). However, large scale private investments are still constrained barriers preventing private providers from entering energy markets and selling power from renewable sources to national grids or even on a private to private or captive basis. Lack of a proper framework for standards and labeling for industrial equipment, lack of institution to support energy efficiency in industries, and weak government support on financing mechanisms for industries add to the issue. Regulatory and institutional obstacles hindering private sector participation in renewable energy generation in the region include:

³³ http://ren21.net/Portals/0/documents/activities/Regional%20Reports/MENA_2013_lowres.pdf

³⁴ <http://www.tuivavelplc.com/sustainability/working-with-suppliers>



- o Lack of legal framework for independent power and captive power producers;
- o Lack of feed-in tariffs and proper incentives schemes;
- o Lack of legal framework for private to private sales of power in off grid areas
- o Obstacles in licensing and inspections regimes, and in quality and safety regulations;
- o Obstacles in utility interconnection and third party access including standard power purchase agreements (PPAs), standard pricing principles, and guidelines for interconnection;
- o Restrictions on sites and construction;
- o Weak institutional framework of the power sector in the region, lack of institutional capacity in packaging investment propositions to take to the market.

II. SUMMARY OF GREEN GROWTH RELATED ISSUES BY COUNTRY

Table 1 below summarized the various issues (and opportunities) faced by the various countries throughout the region. Each country will warrant a particular focus – Afghanistan for example would benefit from a focus on increasing access to energy through clean and renewable technologies, where there are many sources of renewable energy resources. Egypt alternatively requires regulatory support to improve its investment climate for energy efficiency and can also support greater grid availability by supplementing traditional energy sources with renewable energy.

Country	Access to primary energy	Efficient use of Energy	Grid availability	Alternative Energy Resources	Energy Subsidies	Water Scarcity
Afghanistan	Low	High	Low	High	Low	No info
Algeria	High	Med	Med	High	High	Low
Egypt	High	Low	Med	High	High	V. High
Iraq	High	Med	Low	Low	High	High
Jordan	Low	Low	Med	Med	Low	V. High
Lebanon	Low	High	Low	Med	Med	Low
Libya	High	No info	Med	Med	High	No info
Morocco	Low	High	High	High	Low	Low
Pakistan	Med	Low	Low	High	Low	No info
Tunisia	Med	High	High	High	Med	Med
Yemen	Med	Med	Low	Med	Med	V. High
West Bank & Gaza	Low	No info	Low	No info	Low	High

As stated at the outset, the MENA region is characterized by many different unique circumstances – each country faces particular issues. However, there are a common set of solutions which can be applied through the various IFC Advisory programs and areas of expertise.



III. IFC'S APPROACH TO PROMOTE A GREEN GROWTH PATHWAY

IFC's portfolio of advisory services and investment services tools are usually deployed jointly throughout the development stages of the market, with specific strategies based on the level of each market's capacity (see Figure 14). For example, when proposing or supporting the adoption of a new technology or innovative business model, IFC advisory can work with the government to create the appropriate regulatory environment and support investments in firms that are early adopters and/or IFC can act as the lead transaction advisor in structuring of PPP contracts to promote adoption through concessions.

Furthermore, IFC's interventions highly depend up on the maturity of the market or green growth market solution. Different interventions are required at different times throughout this maturation process, for which IFC acts as a catalyst bringing both investment and advisory support at the relevant stages.

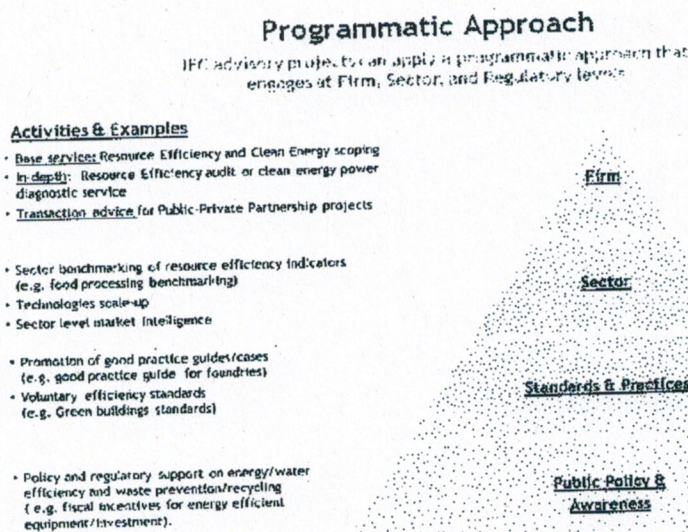


Figure 14: IFC's programmatic approach to market solutions

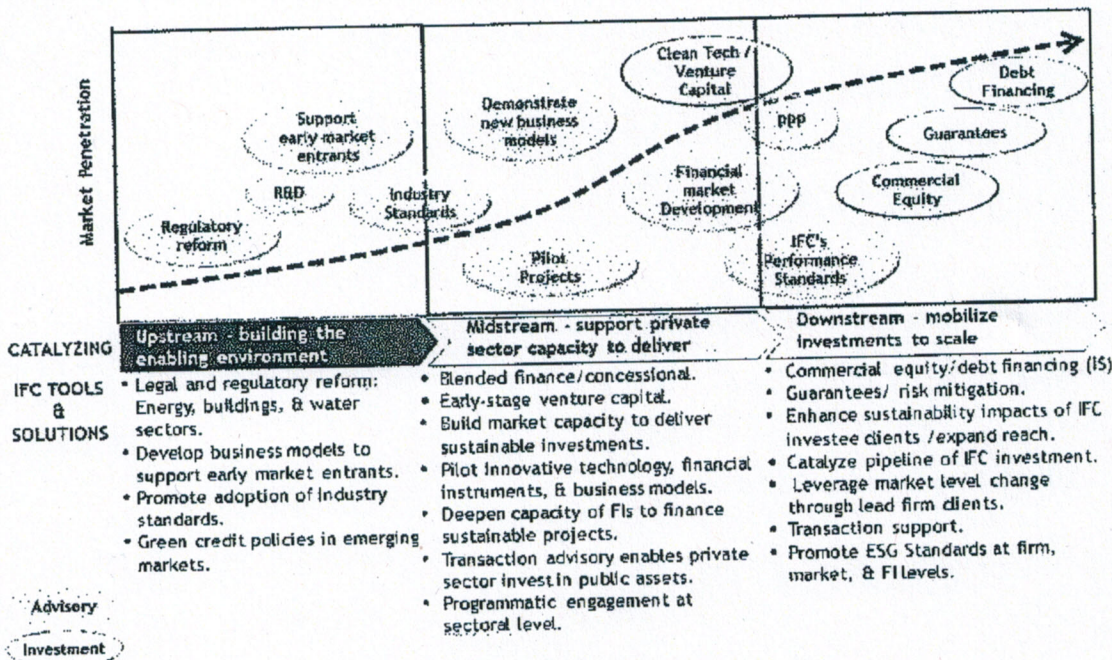


Figure 15: Market maturation curve



Where opportunities exist to catalyze sector-wide impacts through programmatic market transformation efforts and PPPs, IFC will deploy its toolkit of regulatory reform, standards, market intelligence, consumer education, and investment to accelerate market change by addressing barriers to the adoption and scale-up of technologies and practices that support green growth. The strategy focuses on the following areas of opportunity and innovation: (i) Clean and Resource Efficient Growth, (ii) Resilient Growth and (iii) Inclusive Growth.

Clean and Resource Efficient Growth utilizes clean technology and innovation to promote low carbon economic development and efficient resource use. IFC has developed expertise and sectoral strategies to support market development in the areas of energy and water access, solid waste management, resource efficiency, renewable energy, and water management. In the area of Clean and Resource Efficient Growth, IFC:

- supports regulatory reform, market pricing, industry standards and improved targeting of public resources to create the enabling environment supporting private sector investment in low carbon practices and technologies;
- works with the financial sector to expand their capacity to finance clean and resource efficient investments;
- supports the creation of an enabling environment and partnerships for sustainable use of natural resources;
- identifies emerging technologies and addresses barriers to rapid adoption of these technologies in the market through multi-faceted market transformation programs; and
- supports governments to structure concessions that enable public private partnerships to develop renewable energy, power transmission and distribution infrastructure with energy efficiency measures, sustainable transport, efficient public buildings and infrastructure, and efficient waste management.

Resilient Growth requires consideration of climate risks and quality standards to ensure that development is sustainable. IFC promotes adaptation to climate change in order to reduce vulnerability of infrastructure, local economies, and to ensure food security. In the area of Resilient Growth, IFC:

- provides the tools to support the private sector to integrate climate risk into decision making;
- improves food security through interventions at the farm, firm and sector level to increase food production or diversify/increase farmer income, and enhance the efficiency of the supply chain;
- supports the adoption of climate resilient practices across the agricultural supply chain including adoption of efficient irrigation practices, private sector delivery of weather information services, improved storage and delivery, and adoption of draught tolerant food varieties;
- works with the insurance industry to develop and pilot climate-related insurance products; and
- incorporates climate risk mitigation measures in the structure of PPP contracts.

Inclusive Growth focuses on mobilizing private sector investment that will benefit the poor and the marginalized groups, and that can ensure that economic development reaches every segment of society, including those currently outside the mainstream of the economy. Central to this strategy is a focus on enabling private sector delivery of basic energy and water services to the underserved and engaging women in the economy through increasing employment opportunities and expanded access to finance. In the area of Inclusive Growth, IFC:

- supports the private sector to pilot and take to scale innovative technologies and business models which enable sustainable commercial delivery of basic services to the 1.5 billion without access to safe water, sanitation and modern energy;
- works in the financial sector to provide access to finance to unleash women-owned businesses as an engine for economic development;
- supports global and local initiatives to improve women's employment opportunities and working conditions; and
- supports governments to develop regulatory and incentive frameworks that encourage private sector efficient use of resources and provision of basic energy and electricity services.
- strengthens dialogue networks for promotion and marketing of resource and energy efficiency opportunities.
- supports the sustainable development and growth of MSME's as important contributor to the economy

IV. MENA PROPOSAL TO SUPPORT A GREEN GROWTH PATHWAY

This funding proposal introduces an integrated advisory service (AS) program for \$26.4 million to support an Inclusive Green Growth pilot program in MENA, for the period FY15-FY18 (four years). The program encompasses coordinated AS interventions to address all key dimensions of green growth: policy, finance, industry, and infrastructure and which are specifically targeted to address the issues described above and which tap into IFC's global expertise, experience, and generally established approach to green growth and sustainable development.

The regional pilot program will (i) support governments in reforming energy efficiency and renewable energy regulatory frameworks; (ii) promote energy efficient best practices and private sector participation in the design and implementation of resource efficient infrastructure projects (iii) assist financial institutions to extend access to finance to micro, small and medium enterprises (MSMEs) for sustainable energy investments; (iv) help industry groups, individual firms to mitigate their resource constraints.

This multidimensional approach is expected to yield significant resource and cost savings for both governments and the private sector alike, and at the same time help reduce GHG emissions, improve competitiveness and productivity, and support the development of climate resilient economies. In nearly all markets, the various solutions are working together in order to enable greater and synergistic change – for example, in Pakistan IFC is working simultaneously on energy efficiency related regulations, working with banks to enable sustainable energy financing, and working together with industrial clients in order to identify resource efficiency opportunities. The following sections briefly present how IFC, leveraging its global expertise and local knowledge, can help tackle these barriers in the region with an integrated program of advisory service interventions by taking a programmatic and client based approach with three main client groups: (i) governments (both regulatory and infrastructure development aspects), (ii) financial institutions, and (iii) private sector firms.

4.1 Outcome 1 - Reforming the Regulatory and Institutional Frameworks

The current regulatory frameworks in MENA fail to promote investments in resource efficiency and renewable energy. Working together with the World Bank as relevant, IFC will support sustainable growth through the implementation of regulatory reforms enabling investments in (i) energy efficiency, (ii) renewable energy, and (iii) reforming environmental licensing requirements. In light of identified opportunities and aligned with the issues presented in the previous section, potential target countries are Egypt, Pakistan and Jordan although may include others.

a. **Energy Efficiency**

Energy efficiency work will build on the World Bank and IFC's ongoing efforts to support better regulations for the construction sector. The focus will be on helping to design and implement green building codes and relevant incentives mechanism for new greener buildings. Complementary to that, the focus will also be on identifying top energy intensive industries and working on incentive mechanisms to apply energy efficiency technologies.

IFC will conduct a detailed review of the legal, regulatory, and institutional setup for energy efficiency, in cooperation with the World Bank energy team. The review will include (i) energy efficiency plan; (ii) institutional capacity; (iii) industrial energy efficiency policy; (iv) energy efficiency framework law; (v) low-carbon zones policies; (vi) quality standards and labeling in the industrial sector for energy efficient products and equipment; and (vii) fiscal and non-fiscal incentives, grant and funding mechanisms to promote energy efficiency adoption in key industries.

b. **Renewable Energy**

Interventions on renewable energy will support respective governments to develop a robust regulatory framework for investing in renewable source of energy generation and enabling environment for delivery energy from renewable sources to final consumers. This work will be based on our previous experience in other regions in supporting green tariffs and incentives, power purchase agreement standards, Independent Power Producer approval procedures, wheeling procedures, and other relevant regulatory requirements in order to foster an effective renewable energy market.

c. **Environmental Licensing**

In the area of environmental regulations, the advisory service program will focus on improving the regulatory framework for selected environmental permits and licenses through the introduction of a risk-based approach, targeting sectors and specific establishments with higher potential risk for environment, and reducing the excessive regulatory burden for less environmentally risky businesses.

IFC has a solid track record of results from similar interventions in MENA and across the world. In Pakistan IFC is advising the Government of Punjab on energy efficiency regulations on a five year action plan. It involves working with the performance standards agency and regulator to develop boiler efficiency and fan (motor) efficiency programs with the Punjab province, while aligning the incentive regime with opportunities in standards and labelling. In Jordan, IFC is intervening on a standards and labelling program for energy efficient equipment, creating transparency and clarity on incentives and financing options.

4.2 Outcome 2 - Supporting Infrastructure and Good Practices

IFC is striving to include a strong climate change component in all new infrastructure Public-Private Partnerships (PPP) and provide specific guidance and advice to clients on the integration of climate change components in the technical design of infrastructure projects. IFC has an established specialized climate change group that advises on the potential for the mitigation of global greenhouse gas emissions in all infrastructure-related PPP projects. The climate change group explores, amongst other things, climate risks for all projects.

The region presents significant opportunities to attract private sector participation in the design and implementation of energy efficient, environmentally-friendly infrastructure projects. In the medium-term, small and large scale solar projects, mini hydro, energy efficient street lighting projects are envisioned. Target countries in the region with current opportunities include Egypt, Iraq, Jordan, Morocco and Pakistan. Investments are expected to result in improved access to infrastructure services for the beneficiaries, reduction of GHG emissions, and mobilization of private sector investments.

The implementation of Public-Private Partnerships in the region offers the opportunity to introduce IFC performance standards and good practices related to green growth, as part of PPP contracts. Good practices can range from green buildings, to renewable energy and energy efficiency projects across infrastructure sub-sectors. Recent transactions closed in this space within the region include a wind farm in Tafila, Jordan and Madinah Airport in Saudi Arabia (LEED Silver certified and first in the region) and the West Bank Solid Waste Management project in the West Bank and Gaza³⁵.

4.3 Outcome 3 - Increasing the Role of Financial Institutions

As energy scarcity becomes more prevalent and as energy pricing increases throughout the region, inevitably a greater market for sustainable energy finance (SEF) products³⁶ is expected to emerge. IFC will help financial institutions to launch dedicated financial products for energy efficiency, resource efficiency and renewable energy projects. The SEF component will serve clients in the region to improve access to finance MSMEs and large corporate sector for sustainable energy investments, so to improve their competitiveness while addressing climate change issues in MENA.

IFC has started to advise banks and leasing companies on sustainable energy finance since 2011, by signing an advisory agreement in Jordan with a microfinance institution (MFI) and one in Lebanon with a local bank. IFC assisted the MFI in launching a special microfinance solution for solar water heaters, a widespread technology in Jordan given the local high electricity prices. In Lebanon, a bank invited IFC to advise on the implementation of its "Green Strategy". It included special financial solutions for SME and the large corporate segment. As of today, its portfolio of SEF loans includes various projects from solar PVs for buildings to modernization of processing equipment (bakery oven, printing press etc.), worth over USD 30 million. IFC has signed two more advisory agreements in 2013, in Lebanon, with two financial institutions to develop special financial products to meet clients' needs in renewable energy and energy efficiency.

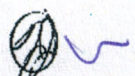
Further expansion of SEF initiatives will focus on countries such as Tunisia and Morocco where energy pricing has been established at such a level that resource efficient and clean energy solutions are economically viable, but where lending products continue to elude consumers. The program will continue to operate in Lebanon and expand to Pakistan where frequent power outages are a key driver for clean energy solutions – Pakistan in particular has already reached very high energy pricing, which justifies investment in resource efficient solutions. Egypt is also expected to be a key focus country as subsidies are reduced; however financing in Egypt for sustainable energy projects in the past has proven challenging, mostly due to lack of awareness and financing pricing issues. Additional target countries will be selected based on assessment of opportunities during the implementation phase.

a. Demand and market infrastructure for SEF

In MENA countries with a nascent SEF market, IFC will work to build a favorable sustainable energy finance environment that can then catalyze market demand for specific green growth financial products. A structured market development and

³⁵ Whilst work carried out in GCC is fully reimbursed by clients and not covered by this funding request (or any other donor funding), these projects are an important component of our regional strategy, both in terms of impact, given high emission levels in this sub-region, and through the strong demonstration effect created by signaling to the wider market that innovative transactions can be implemented even on a large scale in this space.

³⁶ SEF includes lending for energy and resource efficiency as well as renewable energy



awareness campaign will focus on building the strong case for key stakeholders, including energy auditors, vendors, project developers, technical experts, etc. about the potential benefits of sustainable energy finance.

Depending on each country context, IFC will identify the most effective channels for marketing mechanisms for sustainable energy finance delivery. Activities will target a sector-wide audience and will include participation in informational seminars and trainings, provision of SEF assessment tools for stakeholders, and media work structured to educate the business community on the benefits and opportunities inherent to sustainable energy investments, and provide input to other IFC teams and World Bank programs related to any identified policy reforms which may be needed.

The process of market development will start from identifying key stakeholders: industry associations, banking associations, local chambers of commerce, energy efficiency communities such as energy auditors, technical experts, etc. Key media channels will be identified to disseminate marketing materials and share knowledge about IFC SEF experience. Participation in third party events (conferences, roundtables, energy efficiency equipment trade shows) and study tours for opinion leaders could be considered as well.

b. Developing and marketing SEF lending products

IFC will support banks in developing and marketing sustainable energy lending products. In each focus country, committed financial institutions will be selected by IFC as partners, and IFC will work with these institutions to build their sustainable energy finance expertise. As IFC will prioritize work with existing investment clients, in most cases this will include provision of dedicated IFC financing for any combination of energy efficiency, resource efficiency and renewable energy projects.

IFC will follow a standardized process of advisory intervention with a client bank:

- o Assessment of energy efficiency potential based on current portfolio of the bank;
- o Advisory agreement on the scope of works, minimal targets (volume and number of energy efficiency loans) number of people to be trained, marketing support required, etc.;
- o Strategy session with senior management on sustainable energy finance product development;
- o Product development (internal policy, key performance indicators, marketing materials, etc.);
- o Official launch of the SEF product and training for bank's staff;
- o Transaction support: pipeline development and technical support when energy audit is required;
- o Marketing and PR support for special promotion events: conferences, roundtables etc.; and,
- o Stimulation of cross-sales: engagement with vendors and project developers.

4.4 Outcome 4 - Reducing Private Sector Resource Constraints

In working with private sector firms, IFC Advisory will focus on two key interventions: improving resource efficiency (including energy, water, and other material inputs); and renewable and clean energy alternatives. These solutions are cross cutting, while the main focus in the region is on large and heavy industry, agri-business, tourism sector, power generation, and off-grid consumers. Work in these solutions areas will focus primarily on Egypt and Pakistan – the primary countries in the region facing energy crises - while additional efforts are ongoing or expected in Morocco, Afghanistan, Yemen, Tunisia, and possibly Algeria.

a. Resource Efficiency

IFC is already active in the Resource Efficiency (REff) space in MENA. Recent activities include: conducting REff scoping with industrial companies in Morocco, Egypt and Pakistan; working with cleaner production institutes in both Egypt and Pakistan to analyze results of previously conducted cleaner production audits so as to identify technologies with high impact potential; launching a national study assessing the potential for alternative fuel usage in the cement sector in Egypt; and initiating a cross-cutting initiative, with the World Bank, in Egypt to identify energy efficiency interventions, incentives schemes or other regulatory reforms, focusing on industries affected by energy shortages.

Looking forward, IFC will work to increase the uptake of resource efficiency practices and technologies in order to support the emergence of an integrated resource efficiency "market", (i.e. enhanced supply of and demand for resource efficiency knowledge and technology), resulting in economical savings for companies through more efficient use of inputs (such as energy, water, and raw materials) and reduction of waste and pollution at the source. The interventions include:



1. Industrial sector or geographical cluster: focus on selected industrial sectors or multiple industries in one geographical location (i.e. industrial estates) to support the identification and implementation of resource efficiency practices. The replication will be achieved through working with specific industry association and/or support from cleaner production centers.
2. Energy Service Companies (ESCO's) or technology suppliers: diffuse resource efficiency practices to the sector through cooperation with ESCO's or technology suppliers for specific equipment identified based on a trend of recommended cleaner production measures wherever feasible.

These activities will be closely coordinated with the related efforts to improve regulatory frameworks, and increase access to financing. IFC's efforts will also have a particular emphasis on IFC's investment service (IS) current or potential clients.

b. Renewable Energy

IFC is actively promoting the uptake of renewable energy in the MENA through a range of interventions at the firm and sector / market level. Examples of recent or ongoing work include: advising RE project developers (biogas, hydro, wind and solar) in Egypt and Pakistan to ensure that projects are rigorously developed; supporting a study of biomass resources in Punjab, Pakistan; conducting a market study of solar thermal energy in Pakistan, Egypt and Morocco; and supporting the EgyptERA (the power sector regulator) to design a feed-in tariff for wind projects.

Looking forward, IFC intends to continue supporting private sector deployment in renewable energy in MENA. This will be pursued through the following specific objectives:

1. Supporting the identification, assessment and implementation of renewable energy demonstration projects.
2. Strengthening the market for renewable energy by increasing awareness of relevant players, developing linkages between the various market actors, and providing targeted training to address capacity gaps.
3. Providing developers with the support needed to develop projects to a bankable standard – economically, technically and commercially.

Renewable energy interventions will focus on grid based and captive applications, as well as off-grid or mini-grid (distributed generation) solutions. IFC's work in this area is also cross-cutting, providing solutions and support to industry, tourism, agri-business, as well as IPP's.

In addition to the above, building on the successful experience of Lighting Africa, IFC is seeking to support the uptake of off-grid solar lighting as a solution to replace kerosene and other expensive and hazardous fuels in Pakistan, Afghanistan and possibly Yemen. These solutions bring a much improved quality of lighting, additional services (e.g. mobile phone charging and fans), as well as significant economic and health benefits to consumers. In the context of these countries, where private sector is severely constrained by unreliable supplies and low electrifications rates, major benefits are expected for both domestic consumers and MSMEs.

For ease of reference, below are two matrix tables to summarize (i) the key regional issues, and the main areas of IFC focus proposed in this proposal; and (ii) the areas of IFC focus and the potential countries of intervention. Focus areas and country interventions are subject to changes in the regional environment, market opportunities and the results of the scoping activity.



MATRIX 1: MENA key issues and IFC main focus areas

IFC Main Focus Areas	Access to Primary Energy	Efficient Use of Energy	Grid Availability	Alternative Energy Resources	Energy Subsidies	Water Scarcity
Investment Promotion		✓		✓	<i>Area led by the World Bank</i>	
Regulatory Reform		✓		✓		
Industry Standards		✓		✓		✓
Financial Institutions		✓		✓		
Uptake Renew. Energy	✓	✓	✓	✓		
Uptake Res. Eff. Practices		✓		✓		
Public-Private Partnership	✓	✓	✓	✓		✓
Construction Sector		✓				
Institutional Capacity		✓				

MATRIX 2: IFC main focus areas and tentative country interventions

Tentative Countries of Intervention	Invest. Prom.	Regulat. Reform	Industry Stand.	Financial Instit.	Uptake Renew. Energy	Uptake Res. Eff. Pract.	PPP	Constr. Sector	Instit. Capacity	Industry Interv.
Afghanistan					✓		✓			✓
Algeria										✓
Egypt	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Iraq							✓			
Jordan	✓	✓	✓	✓			✓	✓	✓	
Lebanon				✓						
Morocco				✓	✓	✓	✓			✓
Pakistan	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Tunisia				✓	✓		✓			✓
Yemen					✓					✓



V. RISKS

Risk Level	Risk	Likelihood	Impact	Mitigation
Regional	Deterioration of Security	Medium	Extreme	This risk cannot be mitigated by IFC. In the event it occurs, IFC would make best judgment about potential work arounds or, if necessary, suspend operations and, if needed, evacuate staff
	Political Instability	Medium - High	High	This risk cannot be directly mitigated by IFC. Nevertheless, by maintaining an in-depth understanding and awareness of the political environment, IFC will be able to quickly identify potential events and adjust the AS Program as needed.
	Macroeconomic Instability	Low - Medium	Medium	This risk cannot be mitigated by IFC. Hyper-inflation or severe depreciation of the local currency could significantly offset the benefits of the AS Program. Both events could also result in a significant increase in local costs.
Program	Duplication of Efforts with other agencies	Low	Medium	Given the international communities' commitment to climate change and green growth initiatives, there are a large number of bilateral and multilateral engagements across a very broad spectrum. The risk of overlap and duplication will be mitigated by IFC's active dialogue with both its multilateral and bilateral development partners.
	Client Commitment	Low	High	Key to mitigating this risk is to actively communicate the long term benefits of individual engagements and by seeking to achieve those benefits as quickly and effectively as possible. IFC will actively engage in a dialogue with the client to seek to address the cause of dis-engagement. Where this is not possible, IFC will determine if the engagement should be terminated.
	Lack of financial resources to implement green growth practices	Medium	High	The project will seek to engage with clients of good financial standing. The project will work with IFC investment staff where appropriate.
	Some technologies can have adverse environmental or social impacts	Low	High	Specialist IFC environmental and social staff, along with renewable energy specialists, will be used to flag potential E&S risks in client work. All client work will include consideration of environmental and social risks.

VI. IFC ADDITIONALITY

IFC has extensive experience in promoting and supporting the adoption of resource efficiency measures and renewable energy technologies in developing countries. In addition to relevant technical expertise, IFC brings an understanding of the business and financial aspects of resource efficiency and renewable energy, as well as detailed appreciation of business and regulatory environments in the region. IFC's capabilities and reputation allow it to work effectively with a range of different stakeholders, from individual firms to industry associations and government agencies.

IFC is well positioned to progress the green growth agenda in the region. In particular, we can bring the followings key capabilities.

1. **Convening power:** The program will leverage IFC's convening power by bringing a broad variety of stakeholders to cooperate together, in order to pursue wider resource efficiency and clean energy opportunities. This will include government authorities, industry groups and financial institutions.
2. **Integrated business solutions approach:** The proposed green growth program will adopt a systemic approach to ensure continuity and replication of the different interventions. IFC is well positioned to successfully implement this approach due to its high level engagement with investment services and financial entities, private sector and policy makers.
3. **Global and local expertise:** Several previous initiatives in the region have been criticized for lack of local technical expertise or access to international know-how in specific sectors. IFC has developed a multi-sector knowledge base, global and local in-house expertise, network of international experts and best practices. In addition, consultant databases from other initiatives will be utilized (i.e. UNIDO database).
4. **Financing:** A key factor preventing implementation of green growth interventions has been the lack of financing instruments. For eligible IFC investment clients, the program will have the possibility to leverage the Cleaner Production of Lending Facility (CPLF). For non-eligible clients (expected to be the major portion of financing need), IFC AS MENA will work closely with the IFC investment departments to facilitate financing beyond the scope and limits of the CPLF, and cooperate with the Sustainable Energy Finance component to facilitate financing through regional financial institutions to implement renewable energy projects.

VII. PROPOSED BUDGET

Budget Component	Estimated Program Budget (USD \$)				
	FY15	FY16	FY17	FY18	TOTAL
Outcome 1 - Improved Regulatory and Institutional Frameworks	\$550,000	\$1,000,000	\$1,000,000	\$1,000,000	\$3,550,000
Outcome 2 - Increased Long-Term Investment in Infrastructure	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$8,000,000
Outcome 3 - Expanded Role of Financial Institutions	\$500,000	\$1,200,000	\$1,400,000	\$1,300,000	\$4,400,000
Outcome 4 - Energy Intensity and Constraints Removed	\$1,300,000	\$1,550,000	\$1,900,000	\$2,750,000	\$7,500,000
Total	\$4,350,000	\$5,750,000	\$6,300,000	\$7,050,000	\$23,450,000
Program Management & Support ³⁷ (5%)	\$217,500	\$287,500	\$315,000	\$352,500	\$1,172,500
Monitoring & Evaluation (2%)	\$87,000	\$115,000	\$126,000	\$141,000	\$469,000
Trust Fund Administration Fee (5%)	\$244,974	\$323,816	\$354,789	\$397,026	\$1,320,605
Grand Total	\$4,899,474	\$6,476,316	\$7,095,789	\$7,940,526	\$26,412,105

The internal reporting system allow to track project expenses along standard cost categories. The financial statement that complements regular program progress reports will be presented in the form of standard cost categories (consultants, travels, etc.) and not by program component, as here notionally introduced.

Donor funds will be complemented by client cash and in-kind contributions towards the implementation of the program. IFC pricing guidelines will be applied to reflect the benefits captured and value perceived by the different project clients. Funds will be re-invested into project activities.

³⁷ Overhead costs included in the operational budget lines



Appendix A: Logframe

Impact <i>Increased Energy Savings, Cost Savings and Reduced GHG Emissions</i>			
Outcome 1 Improved energy efficiency and renewable energy regulatory framework	Outcome 2 Increased adoption of good practices and investments in renewable energy and energy efficiency infrastructure	Outcome 3 Strengthened SEF investment environment to support financial transactions	Outcome 4 Increased adoption of renewable energy and resource efficiency technology

Appendix B: Key Result Indicators

Key Result Indicators
Renewable energy and energy efficiency laws, regulations, standards, procedures, and practices endorsed and implemented
Efficient risk-based environmental licensing regime introduced
Number of entities accessing investment/financing
Value of financing facilitated (US\$)
GHG emissions expected to be reduced (metric tons/year)
Costs expected to be avoided (US\$/year)
Number of people receiving access to improved services (real/non-financial sectors)

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