



RENEWABLE ENERGY SOLUTIONS  
FOR THE MEDITERRANEAN

**RES4MED**

presents:

# Survey on the main barriers affecting investments in RE capacity in the Mediterranean

Focus on Southern and Eastern Mediterranean Countries (SEMCs)

Identifying risks which are commonly perceived as hampering factors for developing RE investments and defining the scope for a wider analysis that includes risk mitigation solutions and policy recommendations.

RES4MED Working Group led by  **PwC**

2016 edition

# Contents

- Voice of investors 2
- Acknowledgments 3
- Introduction 4

## Participants profiling

- Sector of activity 5
- Level of involvement 6
- Technology focus 7

- Methodology 8

## Main findings per Country

- Egypt 10
- Jordan 17
- Morocco 23
- Tunisia 30

- Annex: All ratings 35
- About RES4MED 36

# *Listening the voice of investors*

We are glad to present the results of the 2016 RES4MED's survey on derisking energy investments in the Mediterranean countries, our first contribution of the kind to the large audience the Association has been talking with in the last few years.

Specifically, this survey has been conceived as a contribution to the Southern and Eastern Mediterranean Countries' (SEMCS) policy makers RES4MED has been working with since its foundation, gathering relevant industrial players, financial actors and professional advisors' viewpoints on the main factors affecting risk perception around investing in Renewable Energy investments in their Countries.

In RES4MED, after observing by close the evolution of the SEMCS regulation in the RE sector and warmly supporting the institutional and capacity building process observed in many of them, we realised we were missing the "voice of the investors".

From one end, in fact, Governments and Agencies have been working intensively to ensure favourable conditions for RE investments. On the other one, there are players who, on such basis, should commit their money for investing, confirming the environment created by the new rules is suitable for doing business.

To satisfy this need, we decide to design a tool to reflect their opinion in order to understand whether their expectations have been met so far, to which extent, and which barriers they still perceive to a safer landing of their investments in each destination Country.

This document reports the survey results which, in our view, can be considered as a basis and for an open discussion between the two sides of the business arena (public policy makers and private investors), in order to try to match their respective viewpoints.

We consider this as the first step of an exercise we would like to repeat to track any change in the investing trend in the coming years, keeping on contributing to deploying renewables in the Mediterranean.



Francesco Venturini  
(President, RES4MED)



Giovanni Poggio  
(Partner Energy&Utilities, PwC)

---

# *Acknowledgements*

We would like to thank all company leaders who have participated in the Survey and shared insights with us. Their sincere and valuable opinion was a crucial element for success of the first edition of RES4MED's Survey.

Moreover, we would like to extend our special gratitude toward those participants who dedicated their precious time in order to share with us deeper and more detailed conversations. Their comments are the body of this report.

Last but not the least, while offering this study to our Mediterranean partners, RES4MED greatly appreciate efforts of the Working Group, led by PwC, which has designed and implemented the Survey.

# Introduction

*RES4MED carried out a Survey on risks/barriers affecting renewable energy (RE) investments in four selected Countries: **Egypt, Jordan, Morocco and Tunisia.***

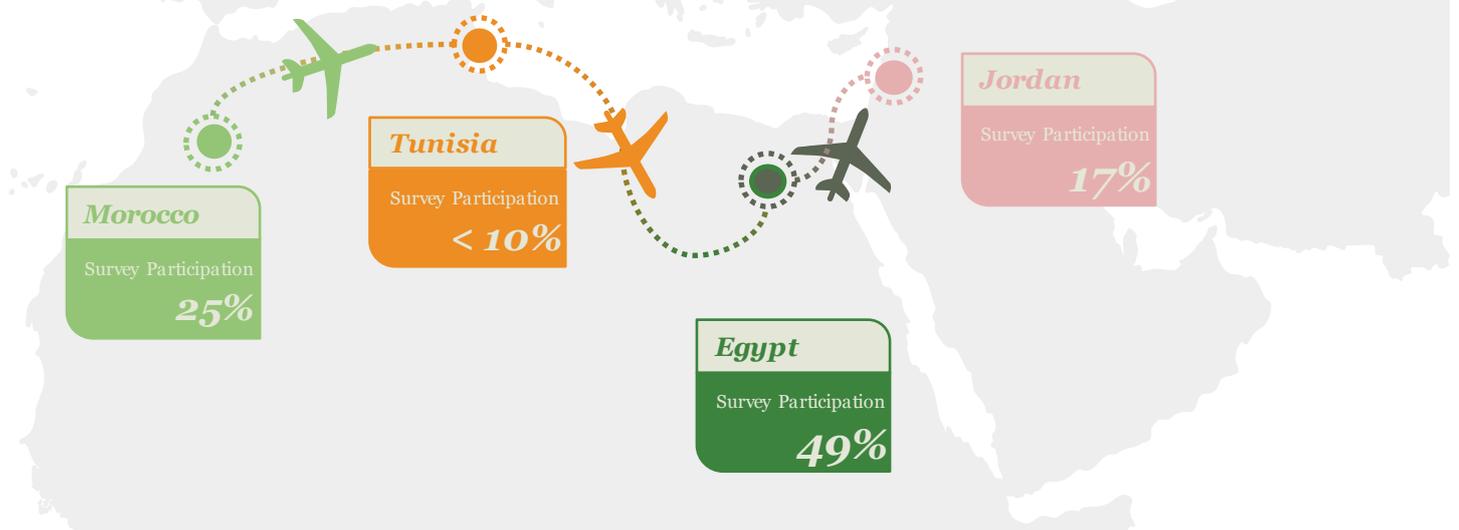
*The Survey results are intended as an help for policy makers in the region either to confirm their strategies or to identify actions for improvement.*

## Objectives

The analysis presented in this Survey is based on a wide **stakeholders' consultation**, carried out by screening potential **RE investors risk perception, related to legal, regulatory, economic, financial and environmental/social framework.**

Among others, the Survey aims at:

- **gathering viewpoints from stakeholders directly involved in developing RE**, although in different roles;
- **sounding their risk perception out**, when evaluating the **existing barriers/enablers to investing** in the selected Countries;
- **presenting unbiased results**, facilitating a **discussion on strengths, weaknesses in each country** and, overall, in the region;
- **identifying the main risk areas** where to work on **to improve the investment climate in each Country.**



# Participants profiling

Participants profile is sketched mapping three main features:

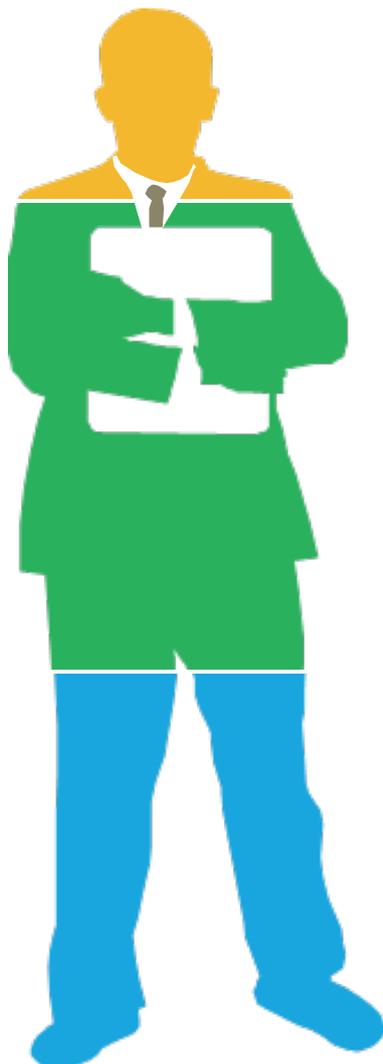
- Sector of activity
- Level of involvement in the analysed Countries
- Technology focus

To know about their profile is key to interpret the Survey results.

## Which sectors participants come from

In order to gather more viewpoints on the proposed matter, we involved actors playing different roles in the business community as they come from:

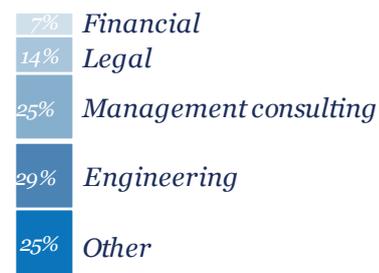
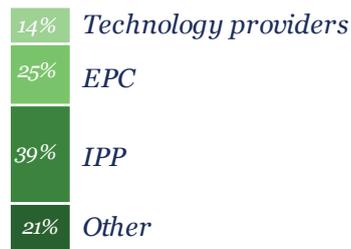
- the **Financial** sector
- the **Industrial** sector
- the **Professional services** sector as represented below.



**14%**  
**Financial**  
**players**

**43%**  
**Industrial**  
**players**

**43%**  
**Professional**  
**Services**



## Which involvement they have in the region

Participants knowledge about the business environment in the target countries has been mapped considering 5 main levels of involvement:

- 1) **Screening** (e.g. conducting introductory talks and/or preliminary analysis);
- 2) **Project design** (e.g. conducting technical studies, financial evaluation, gathering legal opinions);
- 3) **Financial closure** (e.g. closing agreements to get the necessary financial resources to perform RE investment);
- 4) **Construction** (e.g. technical investment phase);
- 5) **Operation** (e.g. generating and selling electricity).

The higher is the participants level of involvement in each Country, the more reliable is the evaluation they provide.

For each Country, in fact, respondents could express a different evaluation depending on the experiences they had.

For example, investors in the operation stage are able to express a comprehensive judgment on investment conditions, as they went through all the process.

This could be used to weigh up the average evaluation provided by all the respondents, either to stress it or not.

Egypt proved to be the country enjoying much of the attention from the participants, followed by Morocco, Jordan, and finally Tunisia.

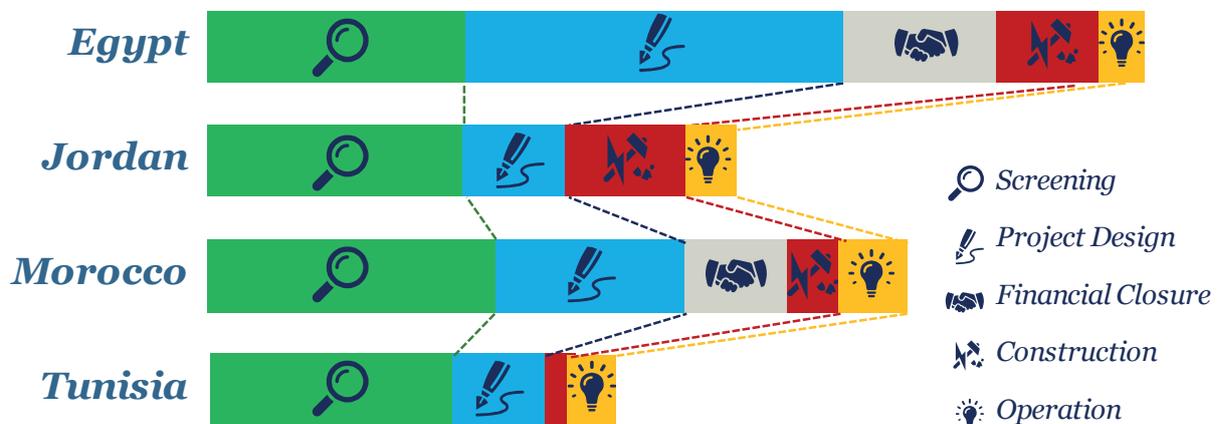
Looking at the entire region, **43%** of participants are currently carrying out a screening activity, while **28%** of them are in the project design stage. Only **10%** of respondents are closing financial agreements preceding project implementation, while **11%** and **8%** of participants are respectively in the construction and operation phase.

**Egypt** is characterized by the highest number of respondents currently designing a RE project and getting the needed financial resources.

When considering **Jordan**, many respondents are in the construction phase. More in detail, about 20% of respondents are currently involved in the physical development of RE plants.

**Morocco**, which hosts investors also in more advanced phases, enjoys the highest number of respondents in screening activity.

Finally, despite participants showed a lower involvement in **Tunisia**, 65% of them are currently performing screening activities.



Participants' level of involvement per country

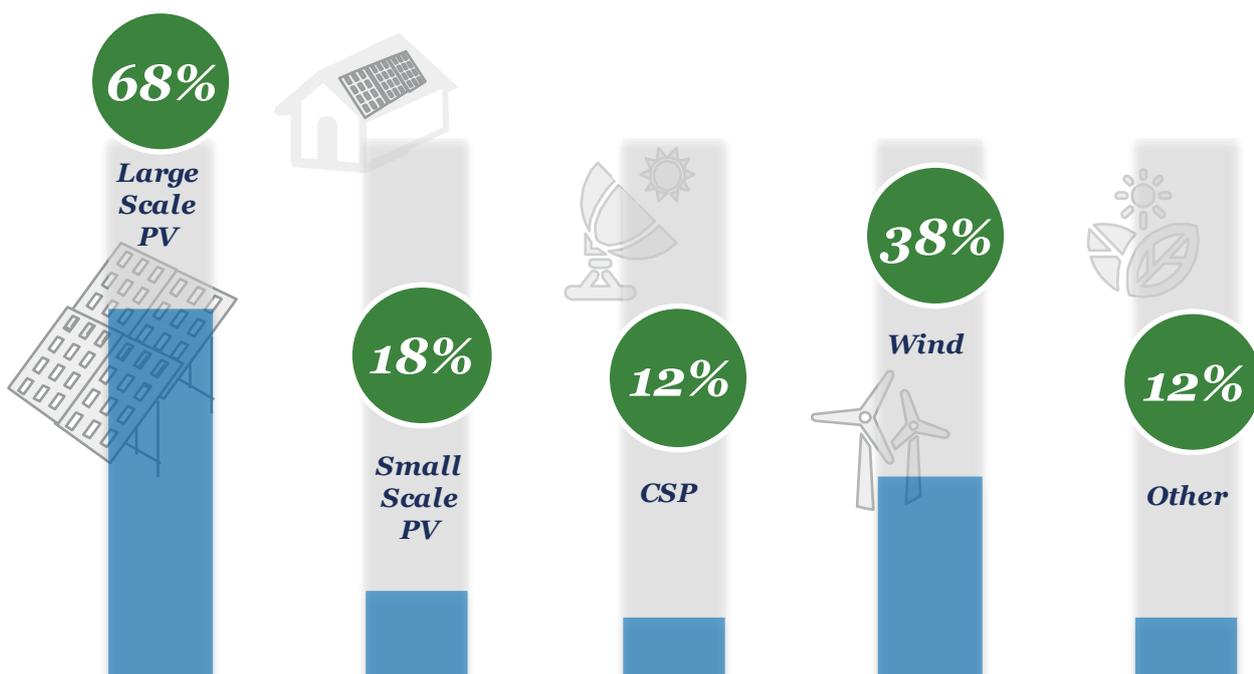
## Which technologies are attracting participants interests most

Survey participants have been asked to share their investment focus on the several renewable technologies available, with reference to the entire Mediterranean area investigated, regardless of the specific Country.

**Utility scale PV** technology raises the highest interest within the respondents. The **68% of them are either already investing in this technology** or they are willing to.

Looking at this result, together with, firstly, the interest shown about **small scale PV (18%)** and, secondly, the one emerging from **CSP (12%)**, it can be said that the market in the region is still concentrated **on big plants, where PV is preferred to CSP, but PV applications at Medium Voltage (MV)/Low Voltage (LV) scale are not in the agenda.**

**Wind technology comes second in terms of respondents' concentration (38%),** confirming the **market is open for large plants, High Voltage /(HV)-connected, than other solutions.**



## Concentrated Solar Power (CSP)

technology, according to the current feedback, represents the technology with the lowest concentration of interest, as said.

However, since several successful projects have been developed so far, demonstrating the existence of a space in the market for this technology, this feedback deserves further deepening in next Survey exercises.

It can be noted that **Egypt and Morocco strongly contribute to demand of such technologies**, thanks to the huge potential of natural resources and to the RE incentive programs set up in the recent years, including guaranteed investment environment.

In **Egypt**, for example, **RE supporting mechanisms have been designed to boost PV and Wind utility-scale projects**, whose deployment helps balancing RE supply with the capacity of the grid.

In **Morocco**, the Noor project in Ouarzazate has been focusing on **CSP** so far, while in the next step room will be made to **large scale PV** technologies. In the meantime, a tender for a **large Wind** plant has been awarded, contributing to further developments of this technology in the region.

# Methodology

Three main risk categories affecting investments in RE capacity have been identified as:

- Policy and regulatory risks;
- Financial and economics risks;
- Environmental and social risks.

Such risk categories have been divided in **5 areas of evaluation**, with **36 relevant topics** to be assessed where the topics were selected to get a more complete and detailed view of each risk issue.

The evaluation approach is based on:

- a **risk perception rating**;
- a **qualitative ranking of mitigation measures**.



Respondents have been asked to assign a **rate from 1 to 4** for each topic.

To each rate, a qualitative understanding of the risk related to that specific issue is associated, determined as follows:

- **Rate 1:** very low risk perception
- **Rate 2:** low risk perception
- **Rate 3:** high risk perception
- **Rate 4:** very high risk perception

***Moving from rate 1 to rate 4 the risk perception related to a topic increases.***

Following this approach, we collected and clustered the respondents' viewpoints on the main barriers and challenges hampering the development of RE.

Each topic is evaluated by a final score, which contributes to define an average value for the areas.

Considering the whole set of scores it is possible to get a global evaluation of the risk perception in each country.



**Risk perception rating**

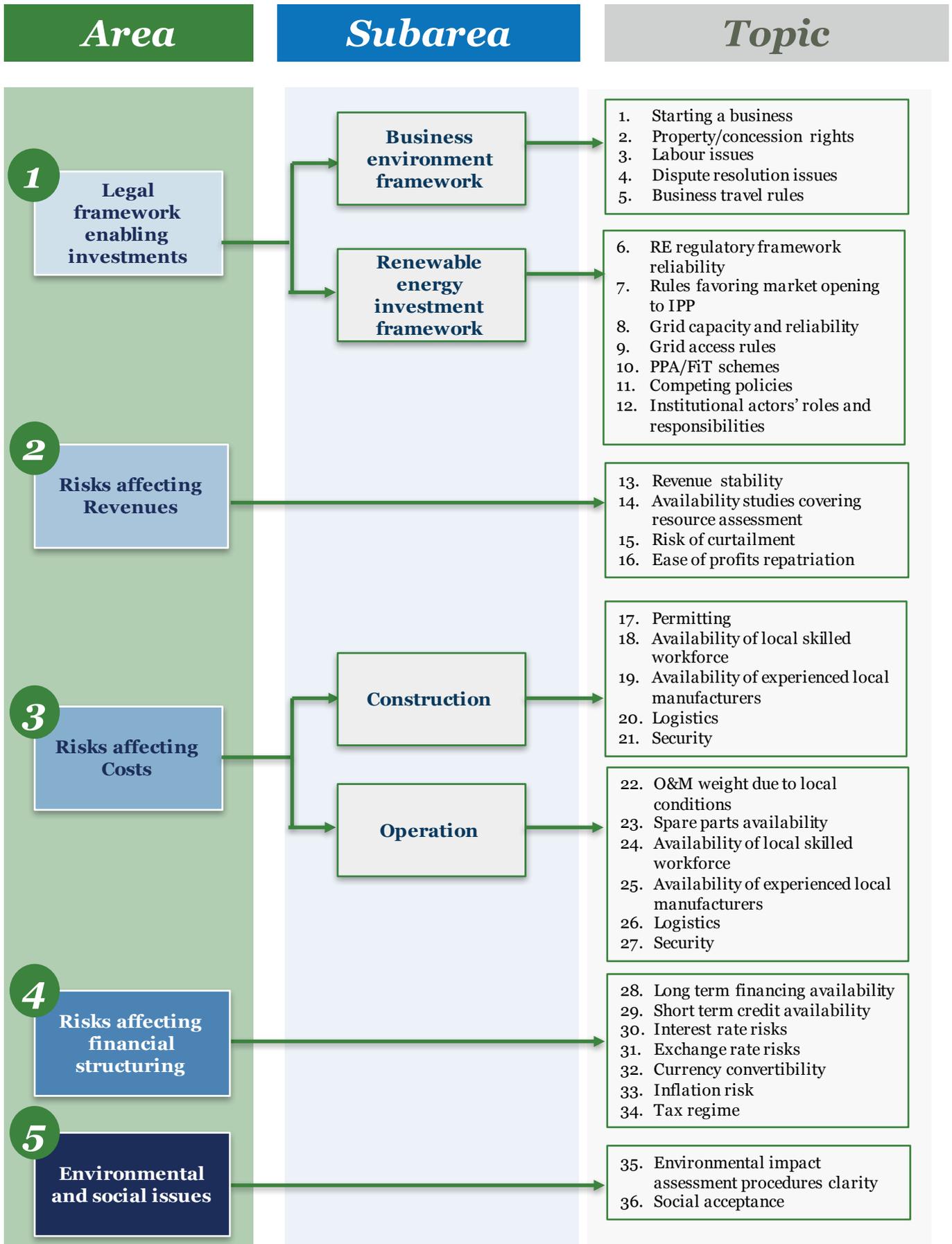
**Mitigation measures ranking**

For each topic, the respondents were suggested, or they proposed, risk mitigation solutions, to be ranked according to the perceived priority.

This approach contributed to delineate an overall preference order for potential policy recommendations and actions to be considered.

All suggestions have been taken in to account for drafting the final evaluation.

<b>Actions</b>	<b>Drag&amp;Drop</b>
Action #	1 <sup>st</sup>
Action #	2 <sup>nd</sup>
...	...



# Egypt

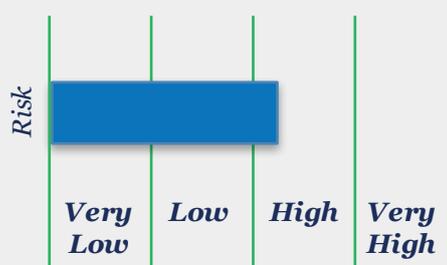
The perception of the overall investment risk in Egypt tends to be **medium-high**.

Risks are mainly recognized in the **financial area**.

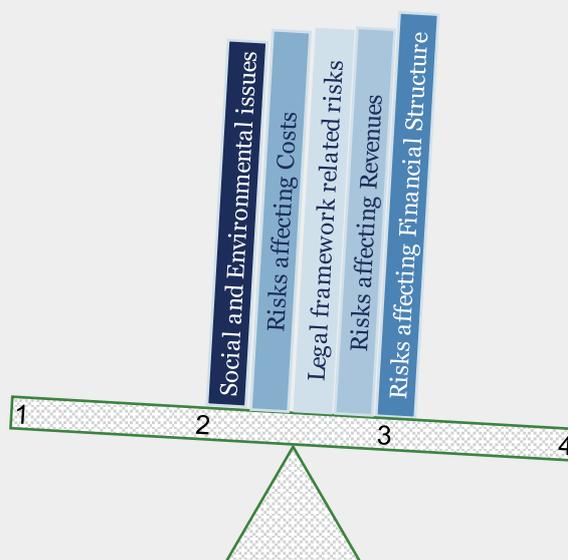
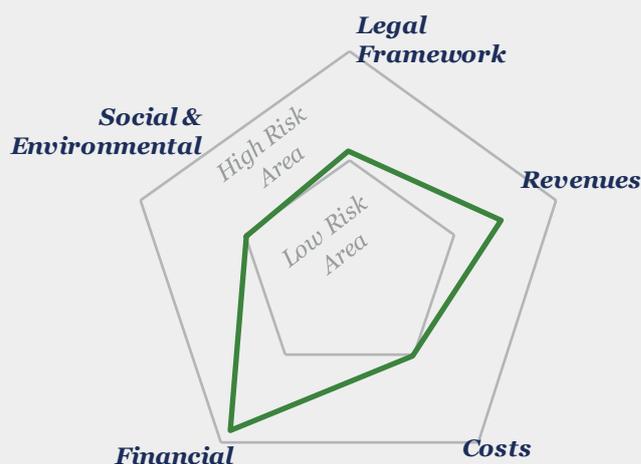
**Currency convertibility** represents the main risk for the development of renewable sector in its full potential, followed by the **inflation risk**.

Respondents who are either in construction or operation project phase highlight **the lack of foreign reserves** which hampers their operational effectiveness.

On the contrary, the Survey results show that Egypt has a strong potential in **local manufacturing** capacity and stakeholders express high confidence in **local workforce** and **logistics**.



Overall perception of risk in Egypt



## **Egypt Renewable Energy target:**

- **20% of electricity from RES by 2022**
- **30-40% by 2035**
- **65% by 2050**

In order to incentivize the private sector to develop RE projects and to reach its ambitious targets, the Egyptian Government has developed four implementation schemes:

- **Competitive bidding**, divided into:
  - **State-owned power plants**, developed by New and Renewable Energy Authority (NREA) through EPC model;
  - **Private power plants through a Build Own and Operate (BOO) scheme**;
- **Feed-in-tariff (FiT) system**, by setting a fixed price for RE energy producers;
- **Merchant schemes**.

For the each scheme, specific targets have been set in order to plan their respective contribution to RE market development in the Country.

In addition to these implementation schemes, several instruments have been implemented by the Egyptian government in order to incentivize the private sector to develop RE projects.

These instruments include:

- **Long term Power Purchase Agreement (PPA)** for 20-25 years;
- **Sovereign Guarantees** for projects over 20 MW;
- **a tax of 2% of the value or the current customs tariff**, for environmental monitoring equipment and its spare parts.

## **1. Legal and regulatory framework for RES**

Steeply increasing demand for electricity has forced the Egyptian Government to prioritize renewable energy and formulate new and more favourable legal framework.

In 2008, Egypt announced an ambitious target to generate 20% of the country's electricity from renewable sources by 2020, later modified to 2022, including a 12% contribution from wind energy (approx. 7.200 MW of grid-connected wind farms). Long-term targets have been also announced: 30-40% by 2035 and 65% by 2050, demonstrating Egypt's long term commitment to growing its share of power generation from renewable energy sources.

In order to put solar energy within the National Strategy, with the introduction of the FiT in 2014, the focus has swung in favour of Solar PV, with nearly 3 GW of projects in the current renewable energy plan, including 2.300 MW under the FiT scheme alone.

Only through FiT, Egypt will reach 4.3 GW of installed capacity by 2022 which implies \$6.450m of investment costs.

Despite RE target were proposed, the Survey findings clearly show that investors perceive these targets as not reliable enough. In fact, almost 60% of participants say that **stability of RE regulatory framework** is a concern for them. **Frequent changes in schemes** have a negative impacts on investors' perception. Respondents emphasize that there is no clarity about FiT future (especially whether there will be a second phase of FiT) and they highlight the need of long term planning.

Investors also add that the structure of the scheme should be more **focused on small-scale players**, rather than favouring large-scale players.

Still, the overall risk perception of implementation mechanisms is not perceived as significantly high thanks to **very favourable FiT tariffs**.

**Two thirds of investors in most advanced project phases (construction and operation) see in grid capacity as a low risk issue for investments in Egypt**

The Government's effort to improve **grid rules** has been appreciated, such as the introduction of priority on dispatch for renewable energies. Moreover, in March 2015 the Government has announced an agreement closed by the Egyptian Electric Transmission Company (EETC) to develop Egypt's electricity transmission grid, worth \$1.8bn.

If we focus on findings emerging only from investors who are in most advanced project phases (construction and operation), **nobody identifies grid capacity risks as very high.** This clearly demonstrates successful steps in grid improvement.

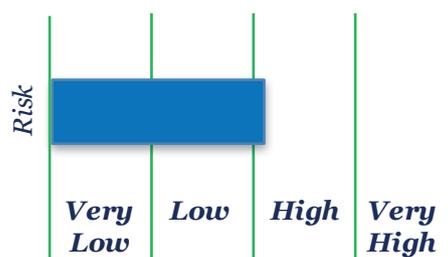
A barrier to RE development is identified in **subsidies.**

Electricity subsidies in Egypt equaled almost \$2bn in 2013-14 in addition to commodities (fuel and oil) subsidies of about \$14bn, which contributed to a high budget deficit.

**Heavy subsidies both to commodities and to the electricity** sector, and consequently low retail prices for electricity, made it very difficult for renewable energy to compete in the Egyptian power market.

This historic trend has influenced the opinion of 58% of the Survey participants who believe **subsidies are hampering RE development.**

In order to reverse this historic trend, the Egyptian Government initiated a huge reform during 2014 that aimed to **lift all subsidies on electricity** till 2019 and slowly bring the market at global price level.

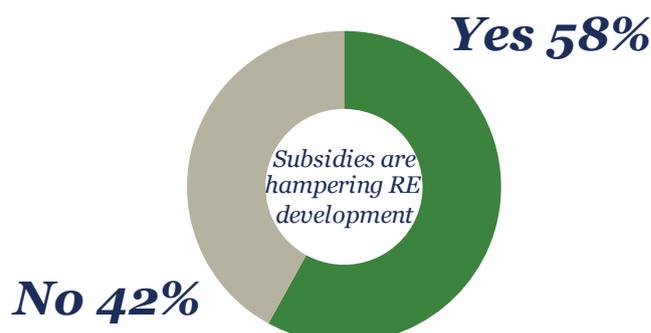


*Perception of risk related to legal and regulatory framework for RE*

Looking at the overall picture of legal framework, not related only to renewable energy, the participants show high satisfaction with **property and labour rights**, as well as **business travel rules.**

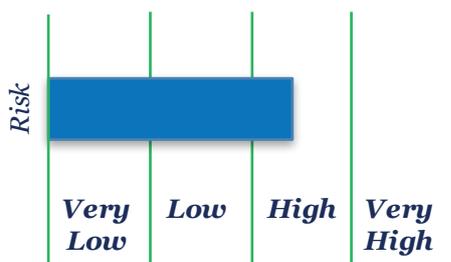
The key obstacle that emerges is **dispute resolution issue** for which investors highlight the lack of an international arbitrage. On the mentioned topics, the Survey participants have proposed improvements actions, as reported below.

<i>Topic</i>	<i>Proposed action</i>
<i>Starting a business</i>	To increase clarity and transparency of rules (start-up procedures and/or time and/or costs)
<i>Property rights</i>	To enhance transparency/clarity of rules in dispute process (judicial)
<i>Dispute resolution issues</i>	To shorten dispute resolution timeframe
<i>RE framework</i>	To define/improve a step by step implementation approach (by means of laws/by-laws)
<i>Competing policies</i>	To phase-out/down from fossil fuel subsidies



## 2. Risks affecting Revenues

Generally, in Egypt risks affecting revenues are not perceived as significant *per se*, but due to **convertibility problems** (see area 4 – risks affecting financial structuring).



Perception of risk affecting revenues

Another topic that stands out is **risk of grid curtailment**, which represents an important barrier for the power producers, especially for the wind energy producers.

The 75% of industrial players characterize curtailment risk as a high or very high, and this percentage goes even higher if we observe only wind energy producers.

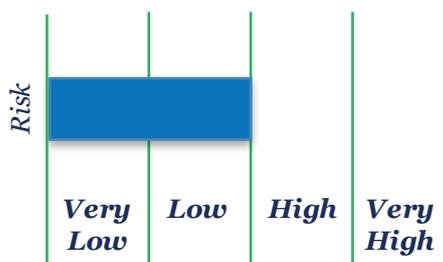
**86% of wind energy producers perceive curtailment risk as a high or very high**

As shown below, respondents ask for **profit repatriation rules clarity** and **improvements of the off-take price-setting mechanisms**, as mitigation measures.

Topic	Proposed action
Revenue stability	To improve off-take price-setting mechanisms
Curtailment	To ensure floors for lost production or grid detachment
Profit repatriation	To establish clear rules for profits repatriation

## 3. Risks affecting Costs

In general, the construction and operational phases are not considered as significantly risky. With exception of two issues (permitting process in construction phase and security), all topics were characterized as low risk.

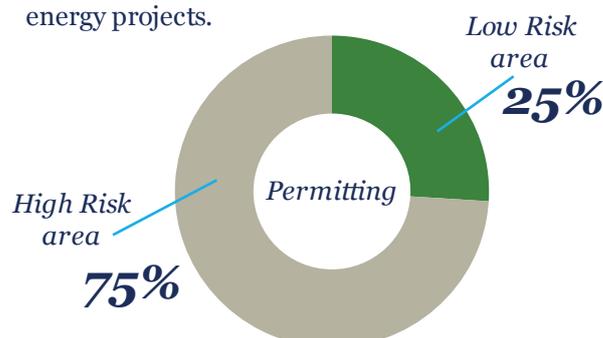


Perception of risk affecting costs

From the Survey results, it emerges that **permitting process in construction phase** is complex, especially for non-local investors. Almost 75% of investors think this is a high risk issue that needs to be improved. Some investors have described procedures as complex, time-consuming and involving many authorities.

For example, beside all permits related to incorporation of the SPV and the transfer of ownership, the production and sale of renewable energy must be authorized by Egyptian Electric Utility and Consumer Protection Regulatory Agency (EgyptERA). Furthermore, an operating license has to be obtained from the Industrial Development Authority for the generation of power. Construction permit must be obtained for any permanent constructions.

It is important that Egypt concentrates efforts on integrating administrative procedures, ensuring the functionality of the schemes and strengthening the institutional support to facilitate the deployment of private renewable energy projects.



**Logistics aspects are perceived as a low risk for almost two-thirds of participants.** Investors in Egypt benefit of a good road infrastructure thanks to the existence of many experienced companies in the logistic sector. The Logistic Performance Index of World Bank confirms this perception by ranking Egypt higher with respect to other countries in the region.

**As to the local manufacturing context, the availability of experienced local manufacturers is also often described as low risk topic,** thanks to the Egyptian government efforts in attracting technology developers to establish facilities manufacturing renewable energy components.

These initiatives are crucial to the local economic development as they provide permanent jobs. Additionally, training of employees creates a knock-on effect that contributes to increasing labour skills and the attraction of further manufacturers. One of such projects is a rotor blade manufacturing facility in Egypt's Ain Soukhna region, which will provide training and employment for up to 1,000 people. The facility is scheduled to go into operation in the second half of 2017.

**58% of respondents believe that the availability of experienced local manufacturers in construction phase is not a risk**

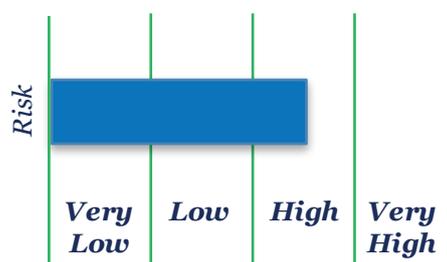
Topic	Proposed action
Permitting	To establish one-stop-shops for renewable energy permits
Capabilities	To train operational staff
Capabilities	To support international manufacturers establishment in the country

Topic	Proposed action
Security	To ensure the provision of security services by national governments
O&M weight due to local conditions	To ensure within the off-take price the coverage of costs when implied by the location weather conditions

## 4. Risks affecting financial structuring

Among all areas of the Survey, **risks affecting financial structuring in Egypt are clearly rated as the highest risk level.**

**Lack of foreign currency reserves** is at the core of the problem and many Survey participants highlight it has to be dealt with by macroeconomic policies.



Perception of risk affecting Financial structuring

**Currency convertibility issues affect the risk perception of the whole area, making the financial structuring the most relevant barrier for RE project in Egypt.**

All respondents who are currently in construction or operation project phase express concern regarding lack of foreign reserves, which hampers operational effectiveness.

**Long and short-term credit availability** are mentioned as part of the problems contributing to the high risk perception in the financial area.

Some respondents underline that **cost of financing** is not always compatible with RE projects. In particular, they suffer a higher interest rate ranging from 7% to a maximum of 15%.

According to some of investors interviewed, financing issues can be also attributable to a general lack of knowledge of RE investment process by the financial sector which is not completely ready for these kind of opportunities.

Considering that the role of financial institutions is central to any progress in RE sector, the Government is committed to attracting International Financial Institutions (IFIs) and to regaining lender trust which is crucial in displaying faith in the current economic and fiscal policies as well as sending positive signals to international financiers and investors.

**Inflation** is another concerning issue because it is already at double-digit levels. Egyptian Central Bank has devaluated the EGP in early 2016 aiming to bolster investor confidence, but at same time, this has increased the concern of over inflation and budget deficit increase.

**Exchange rate risk** is, on the other side, a potential barrier perceived by the respondents. The volatility of the Egyptian Pound contributes therefore to emphasize the risk perception.

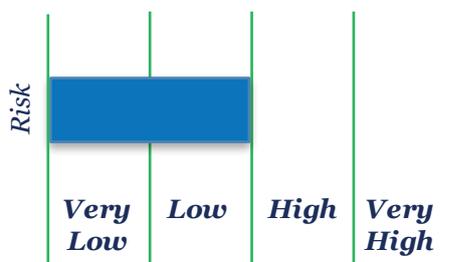
However, by reading the Survey's results it is possible to conclude that **currency convertibility** issues may once again exacerbate the perception of the risks related to inflation as well as the volatility of exchange rate.

<i>Topic</i>	<i>Proposed action</i>
<i>Long term financing</i>	To increase availability of financial resources to be committed in the field of RE
<i>Short term financing</i>	To enhance local short term credit banks capacity/instruments for supporting international investors
<i>Interest rate</i>	To establish a more stable monetary policy from the Central Bank
<i>Currency convertibility</i>	To encourage transactions and/or draft PPA contracts with a more stable currency
<i>Tax regime</i>	To establish a favourable tax regime for renewable energy generation

## 5. Environmental and Social Issues

According to the Survey results, in Egypt there is a **good level of social acceptance** of renewable energy projects thanks to the different awareness raising campaigns carried out by local and international organizations. Almost 65% of investors think that renewable energy projects are welcomed and well perceived in Egypt.

However, it's worth mentioning that there are also those who believe renewable energy in Egypt is seen as luxury and complementary, and not as essential as it should be.



Perception of risk related to environmental and social issues

**65%** of investors think that renewable energy projects are welcomed in Egypt

Regarding **Environmental Impact Assessment (EIA)**, more than 50% of investors agree that procedures are enough clear and fair. In Egypt EIA is required for new projects and for expansions or renovations of existing establishments according to the Law for the Environment (Law 4 for the Protection of the Environment Amended by Law 9/2009).

Despite EIA process is perceived as clear, the important issue affecting investors in Egypt is **is related to the bird migration**.

The Rift Valley/Red Sea is one of the most important bird migration flyways in the world, with over 1.5 million birds and including some globally threatened species. This creates problems for producers of the renewable energy, especially of the wind energy.

However, NREA has already engaged in developing studies related to this issue in order to demonstrate the commitment to facilitate support to investors.

Topic	Proposed action
EIA	To reduce administrative steps to obtain a full authorization
Social acceptance	To support RE development as an instrument to cover the local energy needs

# Jordan

The overall perception of risk in Jordan **tends to be low**.

Consistently with the favourable evaluation of the investment climate in Jordan, **RE investment risk perception is even lower**.

**Permitting procedures** are not considered as risk generators, nonetheless improvements are required by investors.

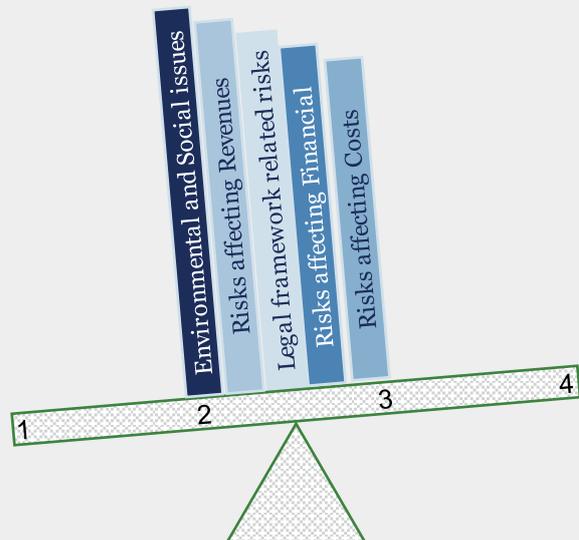
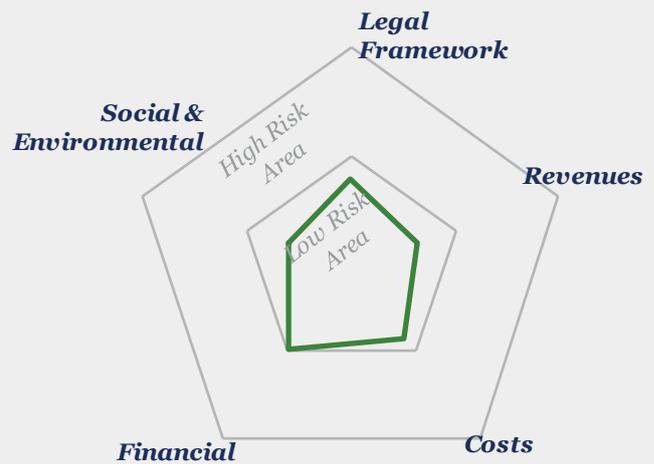
On the **financial and economic side**, the vast majority of respondents is **very positive** about the easiness in **making transactions and in profit repatriation**.

The availability of both short term and long term credit is not perceived as a high risk issue in Jordan.

**Environmental and social issues** do not represent a **barrier** for the development of the renewable energy sector.



Overall perception of risk in Jordan



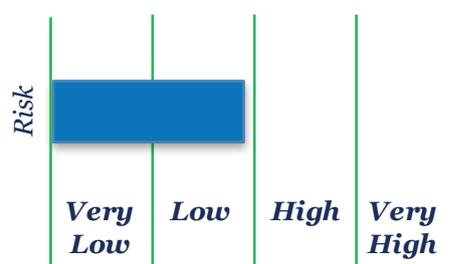
## Jordan Renewable Energy target:

- 10% RE generation by 2020
- 1800 MW of RE (600 PV, 1200 Wind) to be installed by 2018

Jordan has implemented a regulatory framework enabling RE investments through the Renewable Energy and Efficiency Law (REEL) in April 2012, setting the following mechanisms up:

- **direct proposal regime** for private companies to negotiate directly with Ministry of Energy and Mineral Resources (MEMR);
- purchase of electricity produced by the **national off-taker** represented by National Electric Power Company (NEPCO); and regional distribution companies;
- **customs duties** and sales tax exemptions for all systems and equipment for RE projects.

In this context, Independent Power Producers (IPPs) seem to find an inviting environment where to invest. Respondents underline that Jordan boasts the presence of a number of active small and international IPPs demonstrating to be an open country.



Perception of risk related to legal and regulatory framework for RE

## 1. Legal and regulatory framework for RES

The perception of risk related to the stability of regulation is considerably low. Jordan offers the greatest incentive in the MENA region to develop a renewable energy industry. Many respondents, in fact, are convinced that the **framework is well established** and any investor can easily know the rules governing renewable energy investments.

Moreover, Jordan has implemented a unique scheme in the MENA region which requires the Government to cover the cost of grid connection for developers.

Finally, in recent years, Jordan made starting a business lighter by offering a one-stop-shop service for company registration and by reducing the minimum capital requirement from 1,000 Jordanian dinars to 1 dinar. In almost 12 working days it is possible to achieve the full registration of a firm.

Partly in opposition, in 2016, Jordan counts at least 7 different procedures to register a property and their cost amounts on average to 5% more than OECD countries. A feeling emerged by the Survey claims that ownership evidence delays may jeopardize project implementation.

Jordan is definitely an **open country** with no particular limitation in traveling from abroad. The perception of some respondents is that rules for business travel are easy and ensure security.

**60%** of participants consider the risks related to business travel low

As to grid issues, grid capacity needs to be correctly addressed before developing any renewable energy programme. In fact, after 4 wind projects (230 MW) and 12 PV projects (202 MW) in 2013 and other 4 PV projects (200 MW) in 2014, grid capacity constraints have prevented a wider development of renewable projects. Despite it emerges from the Survey that grid capacity needs to be increased in order to facilitate the real development of projects, this topic is not considered as a critical barrier since in many cases all the constraints can be carefully studied by means of a number of available studies and analyses. This is considered as a mitigation element of this risk.

**67% of participants consider the RE regulatory framework reliable**

Furthermore, while **PPA scheme** is perceived on average as clear and stable, reducing the main barriers to RE investments, respondents require more **structured grid access rules** ensuring a real RE dispatching priority and enhancing clarity of costs related to grid.

Topic	Proposed Action
Starting a business	To provide legal and administrative support to applicants
Property rights	To enhance cadastral evidence showing property rights
Grid	To design Grid Investment Plans ensuring capacity increase and RE integration

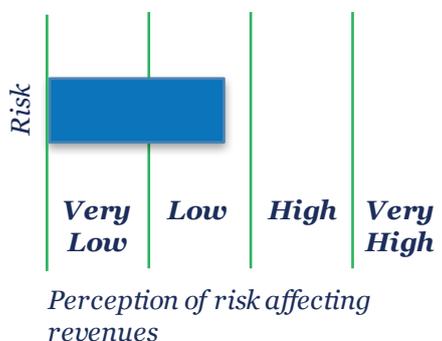
Topic	Proposed action
Grid	To enhance clarity on procedures and related costs for grid connection

## 2. Risks affecting Revenues

According to the perceptions collected in the Survey, revenues are not generally affected by relevant risks. The main revenues-related interest of respondents focus on:

- the availability of sound pre-feasibility studies covering resource assessment;
- the ease of profits repatriation.

About the former, despite 60% of respondents to the Survey believe that this aspect does not bring relevant additional risks to the investment, they suggest to improve an incentive mechanism such as grant funding for technical assistance to draft annual high quality resources assessment studies like a National-Wide Solar Assessment.

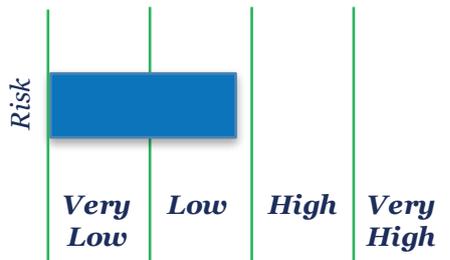


On the ease of profits repatriation, a common feeling among respondents is that Jordan has a **negligible risk in terms of profit repatriation.**

This findings is in fact strongly supported for instance by the fact that the Amman Stock Market (ASE) is characterized by a favourable fiscal regime with no taxes on capital gains, no taxes on cash dividends, free repatriation of investment principal and income, and no ceiling on foreign equity ownership and privatization.

### 3. Risks affecting Costs

**Risk perception on the cost side of RE investments is low.** As said, Jordan is considered by Survey respondents a country where to easily invest in RE and the feedback received on costs topics does not disprove it.



Perception of risk affecting costs

In particular, in both construction and operational phase of a RE plant, the Survey respondents show a low risk on the availability of local skilled workforce despite more training initiatives to enhance capabilities are welcome.



Evidences from the Survey show that Jordan enjoys a low risk perception in the field of logistics as well.

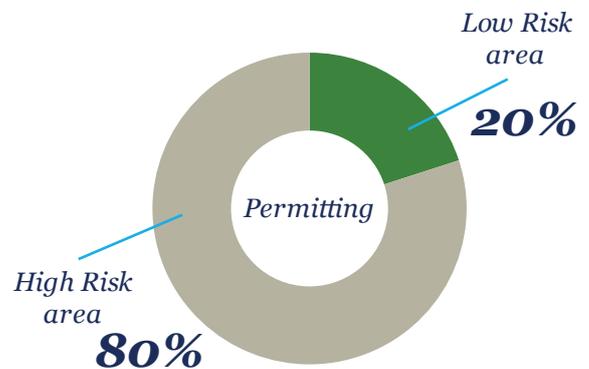
On one hand, in fact, the port of Aquba and the good infrastructure available ensure an easy connection with the Middle East. On the other, the Government itself decides plants location, contributing to lower the risk perception in Jordan.

Survey results do not emphasized higher Operation & Maintenance (O&M) costs due to particular geographical condition and the appreciable availability of spare parts confirms this evaluation.

It has to be underlined that respondents show on average a **high risk perception** on the topics related to **security and permitting**.

Permitting is perceived as high risk topic because in both the tender and the Direct Proposal processes, **the developer must apply for and obtain the necessary licenses and permits after its bid or proposal has been accepted**, even if the site has been acquired on a prepackaged basis.

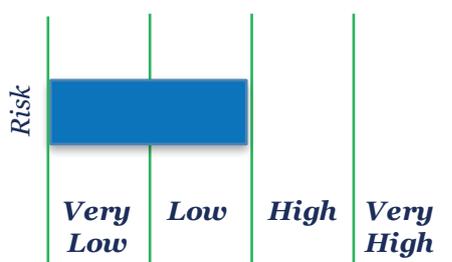
Moreover, an application for the generation license usually takes approximately **two months**.



Topic	Proposed Action
Permitting	To reduce time in permitting procedures
Permitting	To establish one-stop-shops for renewable energy permits
Security	To ensure the provision of security services by national governments
Security	To cover security costs with Grant Funding or national Financial Facilities
Capabilities	To train operational and management staff
Logistics	To support the development of capillary coverage of technical assistance

#### 4. Risks affecting Financial structuring

The perception of **risk affecting the financial structuring** of RE investments is quite balanced tending to low.



Perception of risk affecting financial structuring

**The availability of both short term and long term credit is not perceived as a high risk issue in Jordan.**

With this regards, it shall be mentioned that Jordan enjoys a valuable presence of multilateral development banks. In recent years, for example, it has been addressed by one of the most innovate financing scheme “Seven Sisters”, aggregating for seven smaller scale PV plants for a total amount of \$207,5 million and 190 MW capacity. The aggregation of plants brought therefore to a lower weight of transaction and fixed costs.

Despite some development banks are currently involved participating to several projects, **Survey respondents still miss the definition of a real Memorandum of Understanding between Multilateral Banks and the Jordan’s Government.**

The Survey results suggest, in some cases, that **local financial markets are not yet well prepared especially for long term investments in renewable energies.**

**73% of our respondents believe that interest rate risks is a significant barrier that affects investments in renewable energies in Jordan.**

**Risk perception of fluctuation of interest rate in Jordan get the highest score within the area.** Respondents, therefore, hope for the establishment of a more stable monetary policy from the Central Bank.

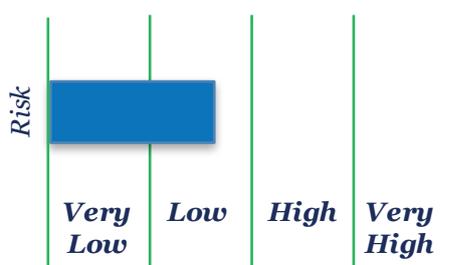
On the other hand, **the exchange rate risk is sufficiently mitigated because prices are set in dollars**, instead of local currency. Moreover PPA payments are directly in U.S. dollars, avoiding in this way risk concerned the currency convertibility.

For those reasons, both **the exchange rate risk and the currency convertibility risk are perceived as negligible.**

Topic	Proposed Action
Long term financing	To promote the definition of a MoU between Multilateral Banks and the Government
Short term financing	To open capital markets to players active in short term credit
Inflation risks	To encourage transactions and/or draft PPA contracts with a more stable currency (e.g. Dollar, Euro)

## 5. Environmental and Social Issues

Most of participants of this Survey clearly show that **social acceptance** is a **low-risk topic** within Jordan.



Perception of risk related to environmental and social issues

Jordan was one of the first countries in the region to introduce renewable energy projects in remote areas using PV and windmills. The installations have received both official support and community acceptance.

On the other hand, the risk perception of the clarity **Environmental Impact Assessment (EIA) procedures is quite balanced** between low and high risk.

The fact that Jordan has previously identified the suitable area where to construct any new RE plants, reduced the effort to perform EIA, and partly mitigated the risks associated to.

In Jordan the obtaining an EIA usually takes three to four months, but there are no significant Government fees or costs associated with obtaining approval, only those associated with preparing the EIA.

Topic	Proposed Action
EIA	To reduce administrative steps to obtain a full authorization
Social acceptance	To support RE development as an instrument to cover the local energy needs

# Morocco

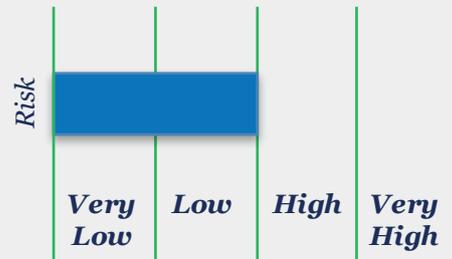
With announcement of new RE targets during COP21 and other improvements in place, Morocco's legal framework shows **readiness for RE transition**.

However, **grid capacity remains the main uncertainty**.

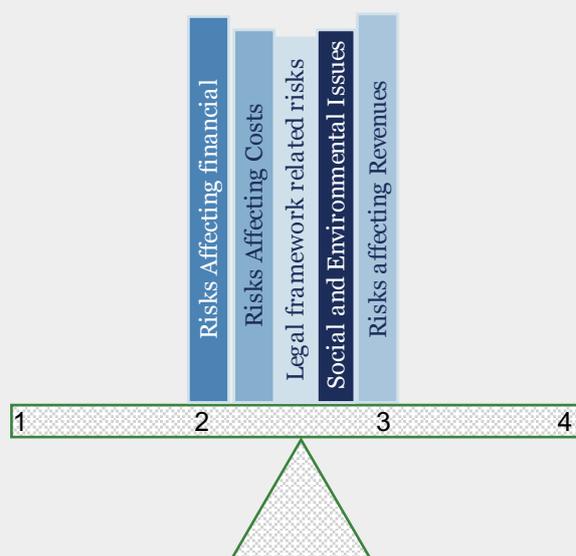
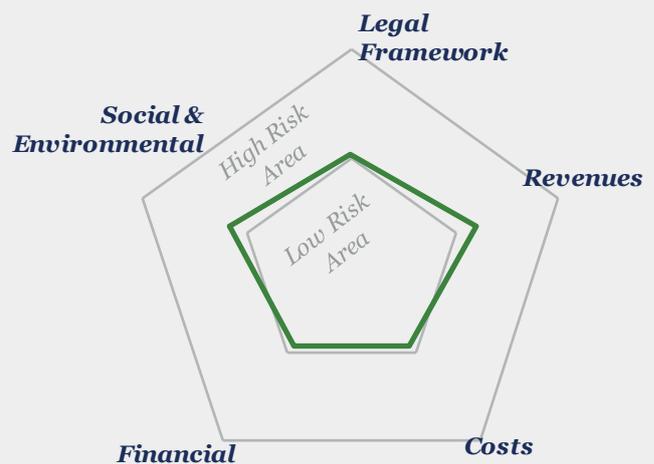
**Risks related to revenues remain perceived modestly high** as 2/3 of investors expressed a **concern related to risk of curtailment**.

Survey findings show **stability of financial structure** in the Kingdom, obtained through initiatives by SIE and Energy Development Fund.

While environmental risks have been dealt with and decreased, **slightly more attention** is required by **social acceptance** issue.



Perception of risk affecting revenues



**Morocco announced New Renewable Energy Targets: 52% of total installed capacity by 2030**

- **solar to 5 GW**
- **wind to 5 GW**
- **hydropower up to 3 GW**

Alongside the National Energy Strategy of 2009, Morocco announced one of the most ambitious renewable energy targets in the region, aiming to boast 42% of renewable energy sources in its total installed capacity by 2020.

During **COP 21**, a **target of 52% of total installed capacity by 2030** was announced.

The new target aims to bring hydropower up to (3 GW), solar to (5 GW) and wind to (5 GW) .

### **Moroccan Solar Programme**

Launched in November 2009 and implemented by Moroccan Agency for Solar Energy (MASEN), aims at developing 2000 MW of solar capacity by 2020, requiring an estimated investment of \$9 billion.

### **Integrated Wind Energy Programme**

Launched in 2010 and implemented by Office National de l'Electricité et de l'Eau (ONEE), intends to increase the wind capacity from 280 MW (in 2010) to 2.000 MW by 2020, requiring an estimated investment of \$3.5 billion.

## **1. Legal and regulatory framework for RES**

The Kingdom of Morocco does not have significant fossil reserves and it is forced to import 92% of its energy needs. This has a significant weight on country's balance of payments (energy bill equaled approximately USD 10 billion in 2011). For this reason the Government took important steps to enhance the legal and regulatory framework for **development of renewable energy sector**.

Two public programmes - Solar and Wind - were launched between 2009 and 2010 as cornerstones of the National Renewable Energy Strategy to foster the development of solar and wind capacities. According to the programmes, projects are developed through an **IPP competitive bidding process**, on a "build, own, operate and transfer" (BOOT) basis, supported by a 25 year for PV and 20 years for Wind fixed term Power Purchase Agreement (PPA). ONEE acts as the national off-taker.

To complement the implementation programmes, the **2010 Renewable Energy Law 13-09** set out a legislative framework for the promotion of renewable investments, establishing a procedure for the authorisation of renewable energy installations as well as production, distribution and trade.

Despite the efforts made, more than 50% of the Survey participants remains unsatisfied and feel that **risks arising from the legal and regulatory framework in RE are high**.

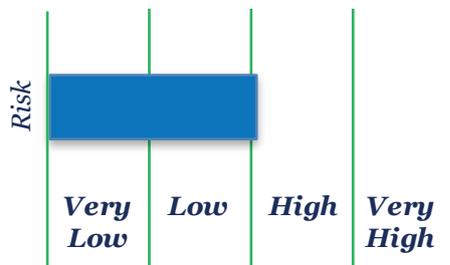
**The lack of independent regulatory authority is emphasized** and the introduction of such institution is a high priority for the participants.

Further complaints were made on **duration of law approval time** and discrepancy between public announcement and real regulation: **approved laws must be exercised in reality**.

Promotion of a step by step implementation approach is often cited as a needed improvement measure.

**Despite ambitious targets and other efforts made to improve RE framework, the 55% of respondents think this issue represents a high risk for development of renewables.**

Participants highlight that **management responsibilities of renewable energy policy are divided** between the Office National de l'Electricité et de l'Eau (ONEE) and the Moroccan Agency for Solar Energy (MASEN). They suggest that unification of these institutions or creation of one, which would be in charge for management of all renewable energy policies, could enhance system performances.



*Perception of risk related to legal and regulatory framework for RE*

Regarding the rules favoring market opening to IPP the Survey participants appreciate the introduction of Renewable Energy Law 13-09.

This law allowed, for the first time, to produce and to export electricity by private entities using the national grid. ONEE has kept the monopoly in energy transmission, but IPPs can sell power to ONEE through PPAs.

The market is based on IPP competitive bidding processes for small number of large-scale projects, making the **competition really high, the process quite long and the entry into the market rather difficult.**

**65% of respondents think reliability of grid capacity is frequently the most critical technical constraint for RE production.**

The 2020 **official target** (42%) imposes a **big challenge on stability of the grid** and the recent increase of the target further raises the concern.

Investors pointed out that there is **no clear information about the long term plan** that has been announced for improvement of the electricity grid. After more than six years since the Renewable Energy Law 13-09 was promulgated, the grid has not yet become a tool for development of renewables.

In fact, the possibility of connection to the electricity grid for private renewable energy systems (both at national level and at local level) remains extremely low.

**87% of investors who are in construction or operation phase express concern regarding grid capacity**

Legislative improvements that were expected to be made in the near future regarding **the access low and medium voltage grid for IPPs**, prove that the opening of those markets will ask for more time respect to originally appointed. For example, the recent decree, issued in November 2015, has upset traders.

In order to match the expectations, the future legislation related to low and medium voltage grid, foreseen for this year, should pay more attention on the **timeline for market opening**, as well as on **reducing the length of the overall process**. The uncertainties are also related to capacity that can be installed for each renewable source and off-take prices.

<i>Topic</i>	<i>Proposed Action</i>
<i>Starting a business</i>	To increase clarity and transparency of rules
<i>Property rights</i>	To improve land concession schemes
<i>Labour</i>	To incentivize local workers training and employment
<i>Dispute resolution issues</i>	To enhance transparency/clarity of rules in dispute process (judicial)
<i>RE framework</i>	To define/improve a step by step implementation approach
<i>Grid</i>	To design Grid Investment Plans ensuring capacity increase and RE integration
<i>Grid</i>	To enhance clarity on procedures and related costs for grid connection
<i>Competing policies</i>	To phase-out/down from fossil fuel subsidies

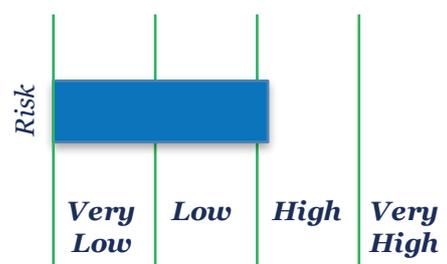
As to labour topic, currently in Morocco there are no obstacles which could hamper investments. Survey results confirm the stability of labour market and the fairness of worker rights.

This is partly enabled by the decision to use local content requirements in most of the tender processes which require bidders to incorporate local content including construction labor and engineering and professional services.

## 2. Risks affecting Revenues

When asked to evaluate availability of sound pre-feasibility studies covering resources assessment, half of the participants is satisfied by the current situation in Morocco. Those participants in fact appreciate the work done by the Institut de Recherche en Energie Solaire et Energies Nouvelles (IRESEN), which is entirely dedicated to perform studies in renewable energy sector.

The remaining half of the participants, who expressed concern regarding this topic, suggest to make the findings of national resources assessment publicly available.



*Perception of risk affecting revenues*

The main risk affecting revenues according to the Survey results is the **risk of curtailment**. The respondents express concerns about authorization for the Distributor System Operators (DSOs) to curtail electricity production at any time and without compensation, obliging the energy producers to face recurring financial and economic consequences.

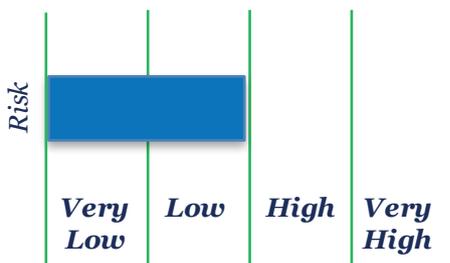
**2/3 of respondents argue risk of curtailment can significantly affect the revenues.**

Among other options to overcome this obstacle, investors suggest to carry out studies for grid capacity or to expand stability of network capacity through energy storage.

<i>Topic</i>	<i>Proposed Action</i>
<i>Curtailment</i>	To define technical rules for curtailment
<i>Profit repatriation</i>	To improve rules for profits repatriation (e.g. taxation)

### 3. Risks affecting Costs

A common perception of the participants is that risks that affect costs tend to be **higher in operational phase rather than during the construction**, although not significantly.



*Perception of risk affecting costs*

Morocco has been improving the knowledge on RE manufacturing sector, developing technology and promoting local content aiming at becoming a regional hub for the RE industry.

This policy has motivated some of the respondents to start producing parts of necessary components (example, blades) in Morocco and have positive experience.

Consequently, the investors were asked whether there is enough local skilled workforce available to sustain these policies and the response was balanced.

Half of the participants say there is **plenty of engineers and electricians, trained abroad and ready for jobs in RE sector**. The other half disagree claiming that **more training is needed to reach higher degree of experience** as this represents a key element for project development.

As to logistics, plants such as wind farms are usually located very far and require high amount of transport. Since 81% of wind energy producers is satisfied with connection of construction sites with the main ports and road, it emerges that transport in construction phase is well developed in Morocco.

**81%** of wind energy producers are satisfied with logistics connection of construction sites with the main ports and road

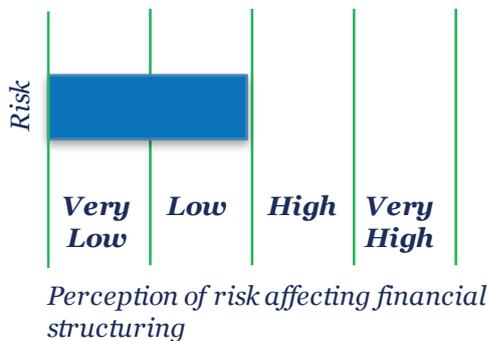
In general terms, we have noted that **risks affecting costs quite decreases when considered only the opinion by the most experienced participants indicating that overcoming these obstacles is easier than expected**.

<i>Topic</i>	<i>Proposed Action</i>
<i>Permitting</i>	To reduce time in permitting procedures
<i>Capabilities</i>	To support international manufacturers establishment in the country

Topic	Proposed Action
O&M weight due to local conditions	To ensure within the off-take price the coverage of O&M costs when implied by the location weather conditions
Logistics	To support development of strategic infrastructures with Grant Funding or national Financial Facilities
Logistics	To support the development of capillary coverage of technical assistance

## 4. Risks affecting Financial structuring

The participants appreciated the efforts made to improve the financial support to RE projects, highlighting that Morocco enjoys one of the most stable economic situations in the region.



In order to ensure a stable financial support required to reach the appointed RE targets Moroccan government has created the Société d'Investissements Energétiques (SIE) in February 2010. SIE is in charge for adoption of investments diversification policy, prioritizing renewable energy and energy efficiency projects. SIE can act as strategic co-developer in RE and EE projects, investor as trusted partner providing institutional support or sustainable investor.

All parties entering credit agreement, both banks and project developers, expressed satisfaction with the current situation. Short term and long term credit availability in fact, are generally perceived as a low risk issue.

In order to ensure the financing to private sector for renewable energy, especially the long term financing, His Majesty King Mohammed VI created the Energy Development Fund, with the budget of USD 1 billion.

**Credit availability is perceived as a low risk by both sides: banks and project developers**

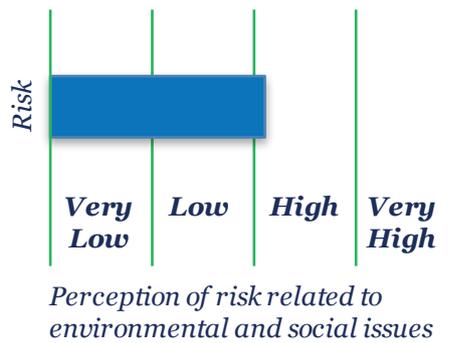
**more than 2/3 of them agree with this statement**

Inflation rates have been characterized as historically low because financial policy is limiting inflation, highlighting that they are now even lower due to historically lowest oil prices.

Topic	Proposed Action
Exchange rate	To encourage transactions and/or draft PPA contracts with a more stable currency (e.g. Dollar, Euro)
Tax regime	To establish a favorable tax regime for renewable energy generation

## 5. Environmental and Social issues

The Framework Law 99-12 approved in 2014 introduced economic, institutional and cultural reforms required for environmental governance and defined the commitments related to environmental protection. The Law focuses on designing and implementing a national strategy for environment and sustainable development by 2020.



The investors who participated in the Survey believe **environmental issues do not represent high risk** for development of renewable energy in Morocco. However, they express the concern related to social acceptance.

**56% of respondents think risk of social acceptance in Morocco is high**

Experience of our participants testifies to higher risk for social acceptance on the South of the country where they see many promising sites for future developments.

Topic	Proposed Action
Social acceptance	To support RE development as an instrument to cover the local energy needs
Social acceptance	To encourage a stronger local communication, stakeholder dialogue and workshops with end users, policy makers, and local residents

# Tunisia

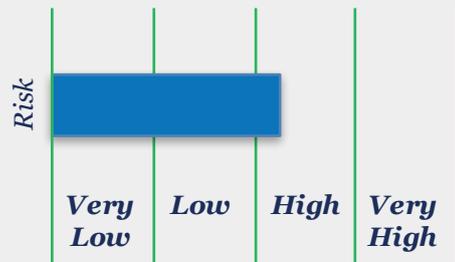
The perception of the overall investment risks in Tunisia tends to high.

**Security instability represents the main risk for expansion of investments in renewable energy in Tunisia.** This has negative impact on multiple investment steps.

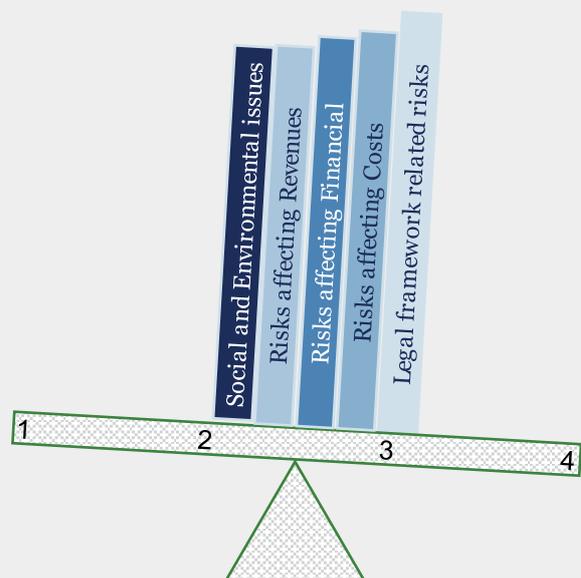
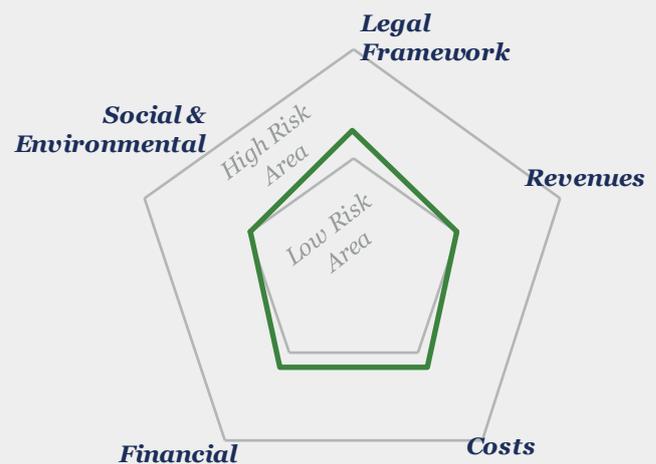
Besides security, **investors are not quite satisfied with RE legal framework** where they ask for more grid transparency and better timing regarding law implementation.

On the other hand, from the Survey it emerges the **high potential of Tunisian workforce** as well educated and trained.

Consequently, new job openings in renewable energy sector can help a growth of private sector and decrease youth unemployment.



Overall perception of risk in Tunisia



**Tunisia Renewable Energy target: 30% of total electricity production by 2030:**

- **Solar PV 1510 MW**
- **Wind onshore 1755 MW**

Tunisia does not provide incentives to RE producers in terms of FiT or bids.

The Tunisian power market is **not completely open for large-scale RE producers**.

In May 2015, **new law regarding electricity production** by renewable sources was approved with the aim of further stimulating the investments in renewable energy.

With the new law, for the first time, the **private investors can enter in the market** thanks to a concession secured by the Ministry of Energy. Once the operational decrees enter into force, Tunisia will start focusing on a pipeline of private renewable energy projects.

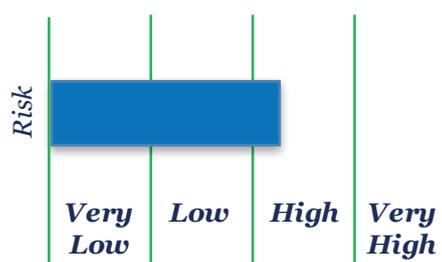
## 1. Legal and regulatory framework for RES

In 2005, the Government of Tunisia has developed the Solar Programme (PROSOL) that has been a subject of the first revision in 2009. Through developing the Nationally Appropriate Mitigation Action (NAMA) for **Tunisian Solar Plan (TSP)** the programme has been modified in 2012.

The plan aimed to boost the electricity from renewable energy sources by setting a target to 30% of total electricity production by 2030, focusing on solar photovoltaic and onshore wind energy (1510 MW and 1755 MW respectively).

The TSP is a Public-Private Partnership, promoting renewable energy production through a set of 40 projects and partnerships. Out of these 40 projects, 5 are publicly-led, 29 privately, 5 support the National Solar Plan implementation and one comprises the creation of a new institution, namely the STEG Renewable Energy.

The National Solar Plan aims to reduce national energy consumption by 22% in 2016 and it is financed by the National Fund for Energy Efficiency, STEG, private funding and international cooperation funds.



*Perception of risk related to legal and regulatory framework for RE*

Although there are progresses toward opening market by Tunisian legislation, Survey results suggest that **the regulatory framework has not still been fully developed and consequently represents a not negligible risk for current (and future) investments.**

There is no competitive bidding for private large-scale renewable energy projects. The participants expressed the **need for more reliable timing regarding implementation of laws for opening the market to IPPs and setting of RE targets**, as well as definition of a step-by-step implementation approach (by means of laws/by-laws).

**70%** of investors believe RE regulatory framework can be improved

Another **high risk is related to the grid.**

At the moment, only 3% of generation capacity connected to grid comes from renewable energy. Renewable energy has no priority access granted by law and there are no grid maps for appointed sites. Although access code for renewable energy has been developed in 2011, the Survey indicated **that rules are not clear** enough.

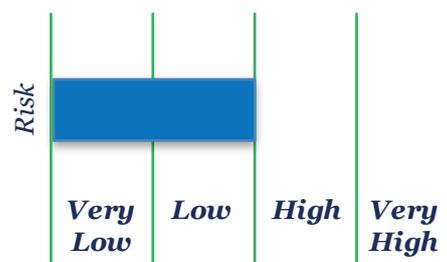
Survey participants think that **more transparent information on grid capacity** through mapping/monitoring activities are needed and enhancing clarity on procedures for grid connection could help to solve this problem.

Topic	Proposed Action
Grid	To provide transparent information on grid capacity through mapping/monitoring activities
Grid	To enhance clarity on procedures and related costs for grid connection

## 2. Risks affecting Revenues

The results of the Survey show that the risk perception related to the revenue side is perfectly balanced.

In particular, while it seems that the risks related to the stability of revenues and the potential **curtailment from the grid** are perceived as not negligible, on the other hand investors interested in Tunisian market seem to enjoy the availability of various studies such as those made by United Nations Development Programme (UNDP) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).



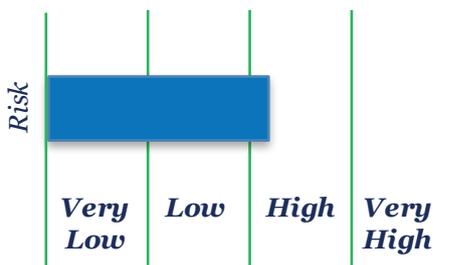
Perception of risk affecting revenues

Topic	Proposed Action
Revenue stability	To improve off-take price-setting mechanisms for revenue stability
Study availability	To make national resource assessment findings publicly available
Curtailment	To define technical rules for curtailment
Profit repatriation	To improve rules for profits repatriation (e.g. taxation)

### 3. Risks affecting Costs

Respondents indicate that **solving security issues** shall have high priority in the agenda for fostering RE investments.

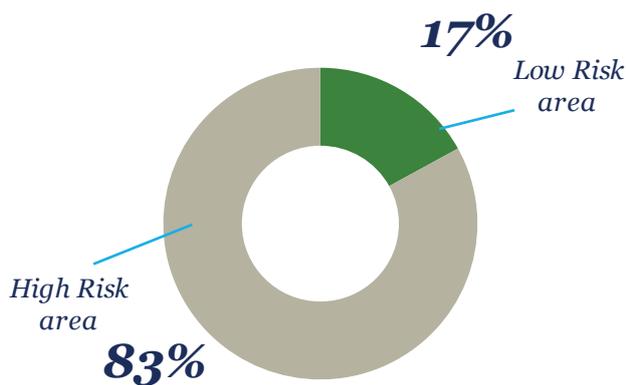
The same result can be obtained selecting responses from investors who are either in the construction or in the operational phase, confirming such conclusion.



Perception of risk affecting costs

**Solving the security issue in Tunisia has the highest level of priority in order to boost investments.**

All participants agree that security issues generate high or very high risks for investments in Tunisia and that the best way to overcome it is to ensure the provision of security services by the national government.



**Ensure the provision of security services by the national government.**

Moreover, Survey results show that security issues has negative influence also on other steps in investment procedure: when asked about business travel rules, the participants express the concern and suggested to increase security conditions for foreign workers.

**83% of investors think that risks related to business travel are high due to security issues**

Regarding logistics, Tunisian authorities have been working on improvement of the sector through development of strategic and integrated national network of logistics zones, policies for promotion of domestic logistic industry and upgrade of port infrastructure. Positive slipovers have been felt in renewable energy industry, as **83% of the Survey respondents** say they had **no problems with logistics**.

Topic	Proposed Action
Capabilities	To support local manufacturers growth through national incentives
O&M weight due to local conditions	To ensure within the off-take price the coverage of O&M costs when implied by the location weather conditions

While, **unemployment remains important obstacle** for overall economy growth of Tunisia, availability of local skilled workforce such as engineers and electricians isn't perceived as a threat by investors in renewable energy.

On the contrary, high percentage of unemployed people is young graduates, ready to enter into job market, but the step is obstructed by lack of sufficiently fast growth of private sector.

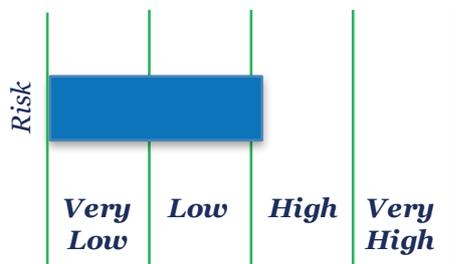
Increasing  
Unemployment rate  
(2015)

# 15%

## 4. Risks affecting Financial structuring

In 2009, Tunisia approved the Decree N°2009-362 which was focused on introduction of investment aids for the realization of electricity production projects from renewable energy sources.

Although the financial sector has been affected by the latest social tensions, it is generally believed that it has short term consequences on sector such as renewable energy. Survey results confirm this belief as respondents **do not show a significantly higher concern related to financial issues.**



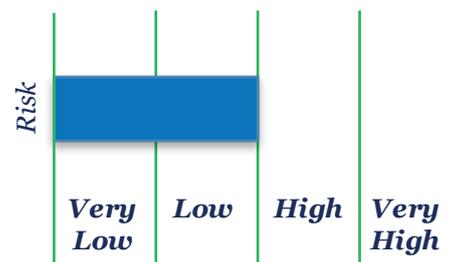
Perception of risk affecting financial structuring

Topic	Proposed Action
Short term financing	To allow easier cross border financial flows to support short term financial needs
Exchange rate	To establish a more stable monetary policy from the Central Bank
Currency convertibility	To encourage transactions and/or draft PPA contracts with a more stable currency (e.g. Dollar, Euro)

## 5. Environmental and Social Issues

According to the Decree No. 2005-1991 approved in 2005 Environmental Impact Assessments are required for plants with a capacity of more than 300 MW. The studies are done by consultants or experts and need to be approved by the National Agency of Environmental Protection (ANPE). Power plants with capacity less than 300 MW do not require an Environmental Impact Assessment but it remains a common practice.

Whether better organization of environmental impact assessment and further enforcement of environmental laws are needed, remains ambiguous as exactly half of the participants see the topic as low risk and the other half as a high one. The main measure suggested by the investors to deal with the topic is to reduce administrative steps to obtain a full authorization.



Perception of risk related to environmental and social issues

**Support RE development as an instrument to cover the local energy needs.**

Topic	Proposed Action
EIA	To reduce administrative steps to obtain a full authorization
Social acceptance	To support RE development as an instrument to cover the local energy needs

# Annex: All ratings

Area Subarea	#	Topic	Egypt	Jordan	Morocco	Tunisia	Average per Topic	
Legal framework enabling investments	Business environment	1 Starting a business	2,53	2,33	2,74	2,67	2,57	
		2 Property/concession rights	2,40	2,53	2,48	2,83	2,56	
		3 Labour issues	2,44	2,60	2,39	2,33	2,44	
		4 Dispute resolution issues	2,65	2,33	2,35	2,17	2,37	
		5 Business travel rules	2,37	2,27	2,26	2,83	2,43	
			<b>Business environment</b>	<b>2,48</b>	<b>2,41</b>	<b>2,44</b>	<b>2,57</b>	<b>2,48</b>
	RE framework	6 RE regulatory framework reliability	2,63	2,20	2,57	2,83	2,56	
		7 Rules favoring market opening to IPP	2,53	2,40	2,55	2,67	2,54	
		8 Grid capacity and reliability	2,42	2,47	2,83	2,67	2,59	
		9 Grid access rules	2,56	2,53	2,43	2,83	2,59	
		10 PPA/FiT schemes	2,67	2,47	2,52	2,67	2,58	
		11 Competing policies	2,63	2,40	2,52	2,33	2,47	
12 Institutional actors' roles and responsibilities		2,65	2,20	2,61	2,67	2,53		
		<b>RE framework</b>	<b>2,58</b>	<b>2,38</b>	<b>2,57</b>	<b>2,67</b>	<b>2,55</b>	
		<b>Area1: Legal framework enabling investments</b>	<b>2,54</b>	<b>2,39</b>	<b>2,52</b>	<b>2,63</b>	<b>2,52</b>	
Risks affecting Revenues	13 Revenue stability	2,79	2,33	2,57	2,67	2,59		
	14 Availability studies covering resource assessment	2,58	2,40	2,57	2,33	2,47		
	15 Risk of curtailment	2,67	2,40	2,78	2,67	2,63		
	16 Ease of profits repatriation	2,88	2,13	2,48	2,33	2,46		
			<b>Area2: Risks affecting Revenues</b>	<b>2,73</b>	<b>2,32</b>	<b>2,60</b>	<b>2,50</b>	<b>2,54</b>
Risks affecting Costs	Construction	17 Permitting	2,77	2,80	2,43	2,67	2,67	
		18 Availability of local skilled workforce (construction phase)	2,44	2,40	2,48	2,50	2,46	
		19 Availability of experienced local manufacturers (construction phase)	2,44	2,53	2,43	2,67	2,52	
		20 Logistics (construction phase)	2,37	2,13	2,35	2,17	2,25	
		21 Security (construction phase)	2,74	2,53	2,35	3,17	2,70	
			<b>Construction</b>	<b>2,55</b>	<b>2,48</b>	<b>2,41</b>	<b>2,63</b>	<b>2,52</b>
	Operational	22 O&M weight due to local conditions	2,44	2,33	2,57	2,33	2,42	
		23 Spare parts availability	2,40	2,33	2,52	2,33	2,40	
		24 Availability of local skilled workforce (Operational phase)	2,35	2,33	2,43	2,67	2,45	
		25 Availability of experienced local manufacturers (operational phase)	2,51	2,33	2,48	2,50	2,46	
26 Logistics (operational phase)		2,33	2,20	2,48	2,17	2,29		
27 Security (operational phase)	2,72	2,67	2,39	3,17	2,74			
		<b>Operational</b>	<b>2,46</b>	<b>2,37</b>	<b>2,48</b>	<b>2,53</b>	<b>2,46</b>	
		<b>Area3: Risks affecting Costs</b>	<b>2,50</b>	<b>2,42</b>	<b>2,45</b>	<b>2,58</b>	<b>2,49</b>	
Risks affecting Financial structuring	28 Long term financing availability	2,86	2,60	2,35	2,33	2,54		
	29 Short term credit availability	2,63	2,53	2,39	2,50	2,51		
	30 Interest rate risks	2,81	2,73	2,48	2,67	2,67		
	31 Exchange rate risks	3,30	2,20	2,43	2,50	2,61		
	32 Currency convertibility	3,26	2,20	2,70	2,67	2,70		
	33 Inflation risk	3,02	2,47	2,39	2,50	2,60		
	34 Tax regime	2,60	2,60	2,39	2,83	2,61		
		<b>Area4: Risks affecting Financial structuring</b>	<b>2,93</b>	<b>2,48</b>	<b>2,45</b>	<b>2,57</b>	<b>2,61</b>	
Environmental - Social issues	35 Environmental impact assessment procedures clarity	2,51	2,47	2,48	2,50	2,49		
	36 Social acceptance	2,47	2,13	2,70	2,50	2,45		
		<b>Area 5: Environmental and Social issues</b>	<b>2,49</b>	<b>2,30</b>	<b>2,59</b>	<b>2,50</b>	<b>2,47</b>	

---

## About RES4MED

**RES4MED (Renewable Energy Solutions for the Mediterranean)** is a non-profit association of international leaders among utilities, TSO, industries, agencies, technical service providers, consultancy and academia, with the mission to support the deployment of renewable energy in the Southern and Eastern Mediterranean Countries (SEMCs), both large scale and distributed energy, of energy efficiency solutions and facilitate their integration in the local and regional markets to satisfy local energy needs.

RES4MED, acts as integrated **platform for public-private dialogue** on renewable energy issues in the Mediterranean, aiming at building a dialogue with regional institutions, local governments and regulatory bodies by providing a practical outcome oriented “bottom up” approach.

RES4MED is engaged in the following key work areas:

- **Policy and regulation.** Engagement of regional institutions and national stakeholders to assess mitigation measures to de-risk investments. Organization of high level dialogue conferences and country specific workshops, “RES4MED Days”, to create awareness, strengthening institutional relations and set up an investment friendly framework.
- **Business models and financing.** Promotion of instruments for tackling the issues related to renewable energy and energy efficiency investments in Southern and Eastern Mediterranean Countries (SEMCs) and enhancing public-private dialogue by promoting supporting activities on regulatory frameworks, project development, innovative business models and financing, disseminating the best practices in the region.
- **Socio economic benefits.** Promotion of studies and analysis on socio-economic benefits of renewable energy investments, on the “true cost” of energy and transition from fossil subsidies. The evaluation of these along the value chain in economic and social terms will guide policy makers, local stakeholders and institutions.
- **Training and capacity building.** Organization of Advanced Training Courses aiming to create a network of skilled people and to strengthen the dialogue between academia and industry, and public and private sector by the use of not only frontal lessons but also site visits to Italian power plants/laboratories.

To carry out these activities, RES4MED has built a **wide and solid network** with the main institutions, association, agencies and research centers, among which the Union for the Mediterranean (UfM), the Arab Cooperation on Renewables and Grids, the Regional Center for Renewable Energy and Energy Efficiency (RCREEE), the Association of Mediterranean Energy Regulators (MEDREG), the Association of Mediterranean Transmission System Operators (MEDTSO), International Renewable Energy Agency (IRENA), Institut de Recherche en Energie Solaire et Energies Nouvelles (IRESEN), Société d'Investissements Energetiques (SIE), New & Renewable Energy Authority (NREA), Sonelgaz, STEG Energies Renouvelables (STEG ER), etc.

With all these partners, RES4MED started relevant partnerships and joint initiatives aimed at cooperating in specific fields in the Mediterranean Countries. This engagement activity is part of the RES4MED operating model set up for achieving the Association objectives’, based on the **public-private partnership model**.

### Contacts

RES4MED – Renewable Energy Solutions for the Mediterranean

Via Ticino, 14 - Rome

+39 06 8552236

[secretariat@res4med.org](mailto:secretariat@res4med.org)

<http://www.res4med.org/index.php>

