Regional SWIM-H2020 SM activity (WP3, REG-2)

Promoting the role of green banking in supporting investments in the water sector, particularly with the involvement of private banks

The potential role of banks in water financing in conjunction with green banking: a rapid regional overview

February 2019

Version	Document Title	Author	Review and Clearance
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	in supporting investments in the		
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	involvement of private banks		



THE SWIM AND H2020 SUPPORT MECHANISM PROJECT (2016-2019)

The SWIM-H2020 SM is a Regional Technical Support Program that includes the following Partner Countries (PCs): Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, [Syria] and Tunisia. However, in order to ensure the coherence and effectiveness of Union financing or to foster regional co-operation, eligibility of specific actions will be extended to the Western Balkan countries (Albania, Bosnia Herzegovina and Montenegro), Turkey and Mauritania. The Program is funded by the European Neighborhood Instrument (ENI) South/Environment. It ensures the continuation of EU's regional support to ENP South countries in the fields of water management, marine pollution prevention and adds value to other important EU-funded regional programs in related fields, in particular the SWITCH-Med program, and the Clima South program, as well as to projects under the EU bilateral programming, where environment and water are identified as priority sectors for the EU co-operation. It complements and provides operational partnerships and links with the projects labelled by the Union for the Mediterranean, project preparation facilities in particular MESHIP phase II and with the next phase of the ENPI-SEIS project on environmental information systems, whereas its work plan will be coherent with, and supportive of, the Barcelona Convention and its Mediterranean Action Plan.

The overall objective of the Program is to contribute to reduced marine pollution and a more sustainable use of scarce water resources. The Technical Assistance services are grouped in 6 work packages: WP1. Expert facility WP2. Peer-to-peer experience sharing and dialogue, WP3. Training activities, WP4. Communication and visibility, WP5. Capitalizing the lessons learnt, good practices and success stories and WP6. Support activities.

This report pertains to activities under package WP3, REG-2 on promoting the role of green banking in supporting investments in the water sector, particularly with the involvement of private banks. It is combined with a Peer-2-Peer exchange (P2P-4) on green economy approaches. In specific terms, it provides a background analysis of the enabling conditions for private sector involvement in the water sector, with emphasis and focus on the role of banks, in Jordan, Palestine (and potentially Morocco and Tunisia).



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Disclaimer:

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ABBREVIATIONS

APTBEF	Association Professionnelle Tunisienne des Banques et des Etablissements Financiers		
ABJ	Association of Banks in Jordan		
ADF	French Development Agency		
BDL	Banque de Liban, Lebanon Central Bank		
BRCP	Business Reform and Competitiveness Project (Tunisia)		
BRD	World Bank Group's International Bank for Reconstruction and Development		
CBJ	Central Bank of Jordan		
EIB	European Investment Bank		
GFA	GFA Consultants for GIZ (Society for overseas agricultural projects)		
GIZ	German Development Agency		
GPBM	Moroccan Bankers Association		
GWP-MED	Global Water Partnership - Mediterranean		
LCEC	Lebanese Centre for Energy Conservation		
LEA	Lebanon Environmental Action Program		
MDLF	Municipal Development and Lending Fund (Palestine)		
MENA	Middle East and North Africa		
MEW	Ministry of Electricity and Water in Lebanon		
MSMEs	Micro, Small and Medium Enterprises		
NDC	NGO Development Center (Palestine)		
OECD	Organization for Economic Development		
РМА	Palestinian Monetary Authority		
SEAF	Small Enterprise Assistance Fund (Tunisia)		
SMEs	Small to Medium Enterprises		
SUNREF	ADF credit line for local banks to finance green projects (Palestine)		
SWIM-H2020 SM	Sustainable Water Integrated Management and Horizon 2020 Support Mechanism		
UfM	Union for the Mediterranean		
UNEP FI	United Nations Environment Programme Finance Initiative		
UNIDO	United Nations Industrial Development Organization		
USAID	United States Agency for International Development		
VSE	Very Small Enterprise		



0. BACKROUND INFORMATION

A major regional meeting on "Water Governance in the MENA and wider Mediterranean region: Strengthening integrity and financing for water security and sustainable development" took place on 12-14 December 2017 in Barcelona, Spain. It was held under the auspices of the UfM and coorganised by the "Governance & Financing for the Mediterranean Water Sector¹" project implemented by GWP-Med and the OECD and the "Regional Water Integrity capacity-building programme for the MENA" implemented by the SIWI UNDP Water Governance Facility. Whereas the two projects concluded at the end of 2017, the Barcelona event was a forum whereby country officials and banks have learnt from the experience of the two projects and benefitting from another year and a half of SWIM-H2020 SM activities ahead of them.

Significantly, the "Governance & Financing for the Mediterranean Water Sector" project while conducting the assessment of four focus countries individually with respect to sustainable financing of water services, it joined forces with the SWIM-H2020 SM work in Lebanon. Since March 2017, and under the leadership of the Lebanese Ministry of Energy and Water, the "Governance & Financing for the Mediterranean Water Sector" project together with SWIM-H2020 SM (through the Expert Facility activity EFS-LB-2) have been jointly running activities for a structured national Policy Dialogue concerning the potential for Private Sector Participation in Water Infrastructure in Lebanon with emphasis on the role of Banks². Based on an interplay of technical work and open and inclusive consultation workshops, the activity was completed with a clear request from the involved stakeholders to continue this line of work through the on-the-ground implementation of pilot projects for demonstrating the practical application of the elaborated criteria aiming at greater involvement of the banking sector in water infrastructure. Importantly, the work in Lebanon involved a methodology that -through the necessary adjustments to better reflect national conditions- can be replicated elsewhere in the region and beyond. The Barcelona conference in December 2017 was an opportunity to showcase the outcomes of this joint activity.

The Lebanon experience aroused interest among Palestinian, Tunisian, Moroccan and particularly the Association of Banks in Jordan with regards to the P2P process. This report therefore: describes the Lebanese experience, presents the Jordanian efforts in the year that followed the Barcelona Conference to replicate the model, gives an assessment of the experiences jointly and separately, and proposes a way forward towards a regional approach for involving commercial banks in the financing of water projects, along with associated due diligence to the activities that have already been taking place with regards to green banking activities in the respective countries.

² The National Report along with all material from the consultation workshops are available at: https://www.gwp.org/en/governanceandfinancing/Resources/Project-Documents/ www.swim-h2020.eu



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¹ Information about the project and access to all produced material is available at:www.gwpmed.org/goveranceandfinancing

1. THE LEBANON EXPERIENCE

The Central Bank of Lebanon (BDL) initiated in 2010 a financial mechanism for lending towards energy efficiency and increased introduction of renewable energy projects and in 2015 a similar mechanism was introduced for environmentally related activities. In both cases, the BDL uses the Lebanese Centre for Energy Conservation (LCEC) as its informal advisor. The Centre is affiliated to the Ministry of Electricity and Water (MEW). Its activities are guided by a political platform where the government is committed, through policy papers, for the electricity sector to target increased contribution in energy savings and increased use of renewable energy among the sources of generation. These are manifested in the National Energy Efficiency Strategy Plan and the National Energy Action Plan.

The loan mechanism starts with the beneficiary who identifies its needs and conceptualizes the project technically and financially through a consultant, then submits its request for funds to a commercial bank. The LCEC conducts an unofficial review and proposes it to BDL for implementation if the loan is less than US\$ 20k. If the loan amount exceeds US\$ 20K, the LCEC conducts an official and detailed review and submits its recommendations to BDL

By the end of 2017, the financial mechanism was applied to 95 environmental projects totalling US\$ 61.5 million, with 8 projects in the pipeline amounting to more than US\$ 13 million, whereas in the Energy Sector, a total of 156 projects were funded with a total of US\$ 391 million for projects valued at US\$ 900 million with 42 projects in the pipeline totalling US\$ 12 million.

1.1 THE LEBANESE ENVIRONMENT ACTION (LEA)

The Lebanon Environmental Action Program (LEA) is a national financing mechanism introduced by the Central Bank of Lebanon with the assistance of LCEC. LEA allows private sector entities to apply for subsidized loans for any type of environmental conservation measure related to Water, Air Quality, Resource Conservation, and Environment: It covers loans by any Lebanese commercial bank with 0.75-1.075% interest rate and a repayment period of up to 14 years including a grace period of 4 years.

The project selection is guided by a set of criteria for eligibility. The following table summarizes these criteria.

Table 1-1: Eligible Measures for Loans Targeting Water Conservation

Measure	Criteria for Eligibility		
Sustainable Landscaping	Native Plants		
	Low water requirements/ Drought Resistant Plants		
Rainwater Harvesting	Harvested water quality suitable for further uses		
Efficient Irrigation	Drip standard, drip pressure compensating, fixed spray, micro spray,		



Measure	Criteria for Eligibility		
	 rotor Achieve 30% water savings from BAU Use of innovative practices such as Soilless Irrigation (Hydroponics/Aquaponics) 		
Wastewater Treatment Plant	Effluent water quality suitable for other purposes reuse		
Water Efficient Fixtures	Reduce Indoor Consumption by 30% compared to BAU		

The project portfolio at the end of 2017 is summarized as follows: 110 projects submitted, 85% were approved and 15% are under review. Total granted loans amount was 57 Million USD, whereby 45% of approved projects were water related costing 11.2 Million USD. Results are tabulated as follows:

Table 1-2: Outcome of the LEA Water-related Loans

Measure	Projects %	Loans %	Benefits
Sustainable Landscaping	34%	61%	Aesthetic
Rainwater Harvesting	15%	10%	7,600 m3/Year Captured
Efficient Irrigation	31%	10%	30,000 m3/Year Saved
Wastewater Treatment Plant	15%	17%	2,200 m3/Year Installed
Water Efficient Fixtures	5%	2%	1,800 m3/Year Saved

1.2 ASSESSMENT

The Lebanon experience is considered as successful in that it represents a model with sustainable methodology whose components, given in the following bullets, are ingredients for success.

- An active Central Bank spearheads the process
- A consultant affiliated with the Water Sector liaises between the various stakeholders
- · Projects eligibility criteria are identified beforehand
- The process is branded
- · Impacts are reported and disseminated
- Average loan amount per project is over US \$ 200,000.

In assessing the results, however, there seems to be an imbalance among the types of funded projects. Though 61% of the loans were used towards landscaping projects, benefits of these measures are not readily quantifiable, as shown in Table 1-2 above.



2. THE JORDANIAN EXPERIENCE

2.1 ASSOCIATION OF BANKS IN JORDAN

The Lebanese case has been showcased on several occasions, with the total experience shared at the Barcelona Regional Conference (December 2017). During a SWIM-H2020 SM Peer-to-Peer session dedicated to the potential role of banks in sustainable water financing, the Managing Director of the Association of Banks in Jordan (ABJ) picked up on the subject. Noting the interest to duplicate the Lebanon experience elsewhere, the matter was then pursued.

The ABJ Studies Department researched the extent and mood of Jordanian banks to finance water projects. A questionnaire, prepared in collaboration with SWIM-H2020 SM and GWP-Med, was sent to local banks investigating (a) the state of financing provided by banks to water projects, (b) the most important bank requirements in this regard, (c) problems and challenges facing the banks and (d) proposing incentives and measures that would improve/increase the level of financing. Key recommendations that emanated from the ABJ investigation targeted the various stakeholders in the finance process, specifically the Government, the Central Bank, donor and supporting agencies, as well as project developers and contractors.

Results of the survey and recommendations were reported in an ABJ publication entitled "A study on the Role of Banks in Financing Water Sector Projects: The Case of Jordan". The survey and recommendations were also conveyed to the Prime Minister who requested the Water Sector to pursue the matter with ABJ. The topic was then shared with representatives of the Jordanian Water sector also in the presence of representatives of the USAID and MERCY CORPS. With regard to regional P2P activity, the ADJ Study was presented and discussed at a workshop in Lebanon that deliberated on the next steps in water projects through bank involvement in the country.

On the specific context, the ABJ survey and analysis shed light on the relationship between local banks and the water sector. 72% of the banks in Jordan (18 out of 25) responded to the questionnaire of which 82% (15 out of 18) had financed water projects in one way or another. The three banks who did not respond to the survey felt that the water projects they encountered lacked feasibility and implementable financing opportunities. The financed projects were mostly in Jordanian Dinars and had as much as 17 years for loan amortization for mega projects. The projects had a wide range of public and private beneficiaries covering a wide spectrum of water project types totaling nearly 781 projects; reaching the value of JD 768 million during the period investigated (2013-2017). All except one bank, extended direct credit facilities (overdrafts and loans) and 13 out of 18 banks had granted indirect facilities such as letters of guarantee.

As for the financing relationship, interesting results that range between requirements for bankability and practical recommendations are worthy of attention, and are detailed in the bullets below. These are extracted from the ABJ report and are individually isolated because they will be the subject of assessment in the next section.

- Banks' requirements include:
 - Specific purpose of the loan





- Feasibility study
- Source of settlement
- Cash flow acceptability
- Debt to equity ratio not to exceed 80%
- Assignment of project proceeds
- Collaterals in the form of property mortgage
- Government guarantees
- Banks' concerns and challenges include:
 - High cost of due diligence for mega projects
 - o Extensive documentation for mega projects
 - Length of time that water projects usually take to generate cash flows
 - Often large number of stakeholders are involved including international donors
 - Risky contractors
 - Delayed payments due to contractors vs due installments in the course of the project
- Banks recommendations for Government to create incentives and improve financing include:
 - o Guarantee the granted facilities
 - Provide partial financing to the project
 - Utilize the public-private partnership modality
 - Grant tax incentives and benefits to the banks
 - o Guarantee settlement of contractors dues on time
- Banks recommendations for the Central Bank to be involved, as follows:
 - Indicate flexibility towards lending in foreign currency
 - Draft special programmes targeting water sector similar to midterm advances targeting other economic sectors
 - o Introduce special criteria for Islamic banks
 - Promote syndicated loans in line with Sharia Law
- Banks recommendations to Donor Agencies to increase chances of finance for water projects:
 - Continue and expand financial support
 - o Provide technical assistance towards project development
 - Development guarantee programmes for finance
- Banks recommendations to Project Developers and Contractors to help increase the volume of finance::
 - Increase amount of down payment
 - o Provide a clear-cut structure for project implementation
 - Qualify developers with good reputation and capabilities in public-private partnerships



2.2 ASSESSMENT

The ABJ process was a move in the right direction. The ABJ, sensitized to the water sector's needs, brought forward the banks concerns and communicated the matter to the Prime Minister's office that instructed the water sector to start the dialogue with the ABJ. To this effect, the ABJ held a brainstorming workshop inviting representatives of the water sector, banks and few donors. The results of the AJB study were presented in the said workshop where it was agreed that a list of projects needs to be prepared by the Ministry of Water and Irrigation, extracted from the overall investment plan. During the workshop, banks representatives identified a few more challenges that they face in financing water projects and specifically the issue of tariffs. Other challenges included the magnitude of finance, lending durations, risks associated with water projects, yet the workshop emphasized the need for a bigger role to the Ministry of Finance and the Central Bank in supporting the finance schemes. This is in addition to the fact that water projects require international cooperation and support from international finance institutions. The conclusion was that further dialogue is warranted to highlight the basic gaps encountering finance of water projects and to identify all the stakeholders in order to create a national forum on the subject.

Interestingly, the ABJ states in its monthly report of September 2018 that the Central Bank of Jordan (CBJ) launched the 'Innovative Startups and SMEs Fund' on September 23, 2018 with a capital of US\$ 98 million. The intention is to close the gap in financing startups which had difficulties in obtaining finance over 200,000 JD. The report also notes that the CBJ had allocated in the last four years a total amount of US\$ 440 million for SMEs, of which US\$ 240 million had been utilized to finance 15,000 projects at competitive rates and for suitable amortization periods. Additionally, the CBJ had started a scheme to finance projects in industry, tourism, renewable energy, farming, IT and engineering consultancies at interest rates of 1 to 1.75%. A total of 822 projects benefited from this scheme at a cost of 556 million JD.

It is clear therefore that dialogues are critical in moving forward. Establishing a mechanism to initiate and follow up on the subject of water and finance is therefore essential as evidenced by the clear absence of water projects in the CBJ portfolio of activities supported in selected economic sectors.



3. TUNISIA, MOROCCO AND PALESTINE

Introducing the cases below for Tunisia, Morocco and Palestine is in line with the scope of this activity, in that related national experiences in sectors other than water are delineated. These experiences relate essentially to green banking with most of them related to energy though some include environmental considerations. This facilitates the introduction of water as part of environmental concerns towards sustainable development. This natural progression from financing only energy efficiency or renewable sources to other sectors, including water and environment, is what makes the Lebanon experience a model for emulation. The examples used in the write-up on each country are mainly used as references, with a specific note that mentioning a particular donor or programme in a certain country is indicative and does not account for all donors or development partners involved in the greening efforts. Attempts are also made to identify the role of central banks and associations of banks in the greening efforts and hence to support the argument that water and wastewater projects are also, at the least, worthy of consideration and inclusion in the finance portfolio when environmental sustainability is a primary issue.

3.1 TUNISIA

Tunisia's 25 onshore banks offer the same services targeting only larger corporations. Within the process, SMEs and individuals often have difficulty accessing bank capital primarily due to high collateralization requirements. Private equity and microfinance are not well developed in Tunisia, thus limiting the financing options for entrepreneurs and businesses. A paradigm shift is therefore needed to apply the process for water finance as identified in this report.

The industry representative body is the Tunisian Professional Association of Banks and Financial Institutions (Association Professionnelle Tunisienne des Banques et des Etablissements Financiers, APTBEF).

To address the issue of micro-finance, several donors have undertaken efforts to activate the process. Examples include the following:

• The U.S. Agency for International Development (USAID) created the Tunisian American Enterprise Fund (\$100 million) to provide investment in small and medium enterprises, the engines of sustainable job creation in Tunisia. USAID is also implementing the Business Reform and Competitiveness Project (BRCP), a \$26 million, 44-month economic growth project, to increase the competitiveness of Tunisia's small and medium enterprises, driving economic growth and creating sustainable, private sector jobs. In addition, USAID is supporting the Tunisian private sector through a \$12.5 million public-private partnership with Hewlett Packard and UNIDO to facilitate enterprise development and entrepreneurship training in the interior regions of the country, and a \$1.5 million program with the Small Enterprise Assistance Fund (SEAF) to provide small grants to support and sustain local entrepreneurs.





- The World Bank Group's International Bank for Reconstruction and Development (IBRD) supports a variety of projects in Tunisia. IBRD efforts are focused on several areas including the environment, the financial sector, privatization and industrial restructuring, the road network, dams, and irrigation. In 2016, the IBRD approved \$18 million funding for a wastewater project in Northern Tunis.
- The European Investment Bank (EIB) is also active in Tunisia. In 2016 EIB signed funding agreements of \$130 million for a bridge in the town of Bizerte, \$50 million for electricity transmission, \$75 million for a sewage project, and \$110 million for telecommunication infrastructure.

3.2 MOROCCO

According to the Oxford Business Group, Morocco Country Report 2016, credit in Morocco can be problematic for local companies, with access to finance considered as an obstacle to doing business. This is the case for SMEs in particular. Recouping debt from SMEs has had difficulties, leading banks to demand collateral that borrowers often do not possess resulting in the loss of some value-creating projects. Nevertheless, the situation is good by Middle Eastern and African standards, with SMEs accounting for 38% of lending. It is the consensus in the finance world in Morocco that the issue does not lie in the availability of finance but rather in finding good projects to support, and SMEs becoming more transparent and efficient.

Notably, a working group co-led by Bank al Maghrib (the Central bank) and GPBM (Moroccan Banking Association) was formed to develop a roadmap for the country's banking sector. The roadmap is intended to contribute to achieving Morocco's impending national strategy on sustainable development, a policy framework that is currently being adopted in the wake of new environmental legislation passed in 2014. Additionally, UNEP supported Bank al Maghrib in launching a sustainable finance strategy in Morocco in 2015.

In consideration of efforts by international Donors, a GIZ project in 2013, aimed to reduce the MSME finance gap, from the principle that increasing access to financial services would enable MSMEs to contribute to economic growth and employment generation. The project, implemented in collaboration with the Moroccan Bankers Association (GPBM), provided technical assistance to a number of selected commercial banks through a Consultant retained by GIZ (GFA). They assisted in the design of tailored products and adequate services. In addition, GFA supported the GPBM in facilitating communication between banks, and the Central Guarantee Fund (Caisse de Centrale Garantie) in refining their guarantee product for loans to MSMEs, and the banks in their compliance with policies of the Central Bank (Banque Al Maghrib).



3.3 PALESTINE

The Palestine Monetary Authority (the future central bank of Palestine) is responsible for setting monetary policy as well as overseeing the activity of commercial banks. The Association of Banks represents the Palestinian banking sector and works to take care of its interests.

Perhaps Palestine is the furthest from the four other countries from having a well-established and a structured relationship between the Central Bank and the Association of Banks. However, due to its inherent decentralized social structure in most of the country, Palestine is ideal for SME size of activities to be piloted in one place and then replicated and upscaled at national level.

As for Donors' efforts, the French Development Agency (AFD) has introduced the SUNREF program to encourage the private sector to invest in renewable energy and energy efficiency projects. SUNREF is a credit line, which increases the capacity of local banks to identify and finance green projects, while encouraging project developers. The mechanism is, therefore, applied directly with local banks. Additionally, AFD supports municipalities (decentralized entities) in order to develop urban infrastructure and social services as well as strengthen the capacity of service operators. The main partners to AFD are the Municipal Development and Lending Fund (MDLF) and the NGO Development Center – NDC. As an example in project development, AFD took part in the creation of two landfill sites in the Gaza Strip in order to improve living conditions and health issues for local people. Of particular interest for this rapid assessment, is the AFD support to the private sector with non-sovereign financing tools.

Palestinian SMEs can cooperate in partnership with local banks via the ARIZ risk-sharing mechanism or specific credit lines (such as SUNREF). ARIZ is a non-subsidized funding tool developed by AFD as a portfolio guarantee to be signed with the Bank of Palestine and any other bank in support of the private sector. SUNREF, on the other hand is an AFD project scheme co-financed by the EU targeting green investments. Finance is three-prong; a credit line to two banks enabling them to grant loans to project developers, an investment premium allocating payments for project developers, and a technical assistance component set up for facilitating the identification and assessment of projects as well as strengthening the capacities of the different stakeholders.



4. THE REGIONAL PERSPECTIVE

Interestingly, the Association of Banks in Palestine signed in 2017 a cooperation agreement with Tunisia's Professional Association of Banks and Financial Institutions, while the Central Bank of Jordan (CBJ) and the Palestinian Monetary Authority (PMA) already have an agreement related to controls on financial institutions in both countries since September 2014. Such protocols and agreements are positive signs of the possibility of regional cooperation. This is strengthened by the existing, and fairly active Union of Arab Banks (UAB).

The UAB is "financially, administratively, and an organizationally autonomous entity and serves as a comprehensive organization representing the Arab banking and financial community giving key support to Arab Banks, financial institutions, economic organizations and banking institutions with mutual support and connections to the Arab world."

In summary, the Arab banking sector is starting to realize that it cannot cater for changing development goals without adopting new vision and innovative approaches. "Green Banking: The Road to Sustainable Development" was the theme of a forum organized by the Union of Arab Banks held on 26-28 July 2018 in Hurghada, Egypt, with the participation of leaders from the Arab banking sector, central banks and government agencies dealing with development. The meeting endorsed a shift to green banking and adoption of mechanisms to introduce green products as an integral part of banking services, with a focus on small and medium enterprises.

It further called for supporting investments in environmentally friendly technologies, especially in the field of renewable energy. To ensure efficient proper implementation, the banking forum called for the establishment of an independent department for sustainable development in each bank.

The forum also called for the development of training programs to raise awareness and knowledge of green banking measures and practices, as well as establishing a high-level committee to monitor the progress toward shifting to green banking, that can support the achievement of sustainable development goals.

As the effective commitment by banks to financing sustainable development projects requires rules and regulations that are applicable to all, the forum called on central banks to develop regulatory directives that require banks to take into account the objectives of sustainable development. This will secure fair competition and boost the transformation process, while adopting the best international practices and standards.

However, it is an accomplishment that Arab banks discuss financing sustainable development goals in a regional meeting; more so is the endorsement of green banking. This represents a new direction indeed and SWIM-H2020 SM has contributed in making it happen.



5. REPLICABILITY OF EXPERIENCES

The purpose of this section is to benefit from experiences gained in Lebanon and Jordan to propose a methodology that is tried in Lebanon, targeted in Jordan and is very likely applicable in the other focus countries. To achieve this, the parties of the organizational model are first proposed identifying followed by depiction of the steps from project conception to its realization alongside the process of managing the loan. A regional approach for sharing experiences is then suggested followed by an explanation of the critical role of the Central Banks in the process.

5.1 THE MODEL

The organizational model for integrating the citizen/enterprise with the nation's legislative body (Government and Ministries), the financial body (Central Bank and Local Banks) and the technical body (Engineering) has two levels; that of planning and implementation, as follows:

PLANNING LEVEL COMMITTEE

Economic Adviser to the Prime Minister

Representative of the Central Bank

Representative of the Water Sector

Representative of the Country's Association of Banks

Representative of the Ministry of Finance

Representative of the Ministry of Planning

President of the Engineering Society (Engineering Companies representation)

The planning level will determine the source and amount of funds and agree on the project eligibility criteria in a broad context.

The working level described below will provide the process details, templates for project applications, methodology of a transparent assessment, implementation method as well as reporting throughout the project phases and assessment of benefits. If beyond the capacity of this committee, the project may be transferred to other units such as the PPP/Ministry of Finance.

IMPLEMENTATION LEVEL COMMITTEE

Representative of the Central Bank

Representative of the Water Sector

Representative of the Country's Association of Banks

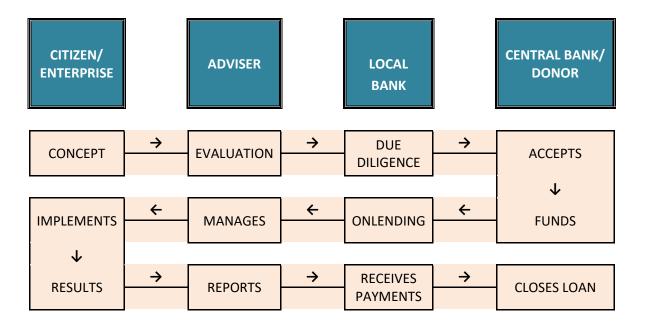
Independent Adviser for Project Development and Implementation

Ad hoc membership from Donors, Civil Society, Ministries, NGOs, and Private Sector



5.2 THE NATIONAL/LOCAL PROCESS

The following diagram shows the process that the loan goes through from the development of the project concept by the beneficiary and until the closure of the loan. Of special note is the need for the adviser to evaluate the concept for submittal to the local bank, to manage the project while implemented and to report about it after completion, outlining the benefits achieved.



5.3 THE REGIONAL PROCESS

In order to focus on water projects and widely spread finance by local banks, the nucleus for a Regional Forum could start by holding a set of Regional Roundtables involving the 5 countries in focus that have expressed interest, namely Jordan, Lebanon. Palestine, Tunisia and Morocco, with invitees from each country representing the Central Bank, the Water Sector and the Country's Association of Banks. EBRD and the World Bank and other development partners are to be invited as relevant. Along with three facilitators, the Roundtables would thus involve about 20 attendees. The agenda would deal with issues to institutionalize the process through sharing experiences and showcasing the outputs.

The Association of Arab Banks in Jordan (ABJ) has indicated interest in formalizing the process and hosting the launching Roundtable. Location of the meetings, hosting and lead at each roundtable would rotate periodically among the involved countries. The follow-up phase of SWIM-H2020 SM may also facilitate this process.



5.4 EXPLAINING THE ROLE OF CENTRAL BANKS

Green central banking can be defined as central banking that takes account of environmental risks, including risks from climate change, which may have a material impact on the short- and long-term stability and development of the financial sector and the macro-economy without pursuing a "sustainability agenda". On the other hand, central banks may be mandated to actively use the tools at their disposal to promote green investment or discourage brown investment and thus play a "developmental role" (Dafe and Volz 2015). This in essence calls for the Central Banks to play a regulatory role or fill the vacuum in this role until a regulatory process is formally developed. This is essential as this report has shown and concludes with the need to encourage and include the environment and specifically water in the segmentation of loans.

6. CONCLUSIONS

The green banking experience is widespread in all five focus countries, and in a nearly systemic manner albeit with respect to energy. Involvement of local banks in supporting water and other environmental projects has also been tried, though on individual basis and usually involving major donor agencies. The uniqueness in the Lebanon case is that environmental projects were expanded beyond energy to include water and wastewater thus re-branding the process. The same decision needs to be taken in all five countries. There are no legal or financial impediments for doing so in any of these countries.

The key in the process lies with the selection of projects that are acceptable to banks. This is not possible without the involvement of Central Banks to relieve stringency and rigidity and eventually facilitate the process. Local banks would be more willing to take risks if the projects are supported by the Central Bank, essentially through sums of grants provided by an outside donor for the purpose. Donor funds are usually matched by the Central Bank and the programme can then be implemented. Capacity is needed for the assessment of projects by the Central or Local Banks, which can be supported and would be more cost effective if an outside consultant is retained for the purpose or if such expertise was provided by the Donor as normally there is relevant in-house expertise. The process is not pre-packaged, but is more a matter of calculated trial in order to find the most suitable combination of ingredients.

The process suggested in this report will result in raising sensitivity levels to water needs in as much as it was done for energy, with clear admittance to the fact that water projects are not usually bankable in the same sense as renewable energy generation, for example. Nonetheless, innovative and out-of-the-box approaches need to be explored for meeting nationally-set and internationally-agreed upon goals and objectives, including the requirements of the Paris Agreement and the Agenda 2030 for Sustainable Development..

