

BOARD APPROVAL
Lapse-of-time Procedure
22 October 2014

FOR INFORMATION

MEMORANDUM

TO : THE BOARDS OF DIRECTORS

FROM : Cecilia AKINTOMIDE
Secretary General

SUBJECT : MALI - PROJECT FOR SCALING-UP RENEWABLE ENERGY IN MALI (PAPERM) *

SREP GRANT OF USD 1.5 MILLION
SEFA GRANT OF USD 530.000

The above-mentioned document together with the draft Resolution were submitted for your consideration **on a Lapse-of-time basis**, on October 8, 2014.

As no objection was received by 6:00 p.m., on October 22, 2014, the document is considered as approved and the Resolution adopted.

Attach:

Cc: The President

*Questions on this document should be referred to:

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AFRICAN DEVELOPMENT BANK GROUP



PROJECT : PROJECT FOR SCALING-UP RENEWABLE ENERGY IN MALI (PAPERM)

COUNTRY : MALI

APPRAISAL REPORT

Date: October 2014

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AFRICAN DEVELOPMENT BANK GROUP



MALI

PROJECT FOR SCALING-UP RENEWABLE ENERGY IN MALI (PAPERM)

APPRAISAL REPORT

ONEC/MLFO/GECL

October 2014

Translated Document

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Exchange Rate

[May 2014]

UA 1	=	US\$ 1.55
UA 1	=	€ 1.12
UA 1	=	CFAF 734

Fiscal Year

1 January - 31 December

Weights, Units and Measures

t	Tonne = 1000 kg	kw	kilowatt = 1000 Watt
GW	Gigawatt = 1 000 000 kW or 1 000 MW	kWh	kilowatt-hour = 1,000 Wh
MWh	Megawatt-hour = 1 000 kWh	tCO ₂	Tonne CO ₂ = 1000 kg of carbon gas

ACRONYMS AND ABBREVIATIONS

AfDB	:	African Development Bank
ADF	:	African Development Fund
AEDD	:	Environment and Sustainable Development Agency
AMADER	:	Malian Domestic Energy and Rural Electrification Agency
ANADEB	:	National Biofuel Development Agency
BD	:	Bidding Documents
CIF	:	Climate Investment Funds
CNE	:	National Energy Commission
CNESOLER	:	National Solar and Renewable Energy Centre
CPS	:	Mining and Energy Planning and Statistics Unit
CREE	:	Electricity and Water Regulatory Commission
CSP	:	Country Strategy Paper
DGMP	:	General Directorate of Public Procurement
DNE	:	National Directorate of Energy
ECOWAS	:	Economic Community of West African States
EDM-PLC	:	Energie du Mali – Public Limited Company
GDP	:	Gross Domestic Product
GEF	:	Global Environment Facility
GHS	:	Greenhouse Gas
GoM	:	Government of Mali
INSAT	:	National Institute of Statistics
IP	:	Investment Plan
IPP	:	Independent Power Producers
IRENA	:	International Renewable Energy Agency
IsDB	:	Islamic Development Bank
KfW	:	German Credit institute for Reconstruction
M&E	:	Monitoring and Evaluation
MDB	:	Multilateral Development Banks
MEA	:	Ministry of Environment and Sanitation
MEH	:	Ministry of Energy and Water
MWh	:	Megawatt/hour
NEP	:	National Energy Policy
NEPP	:	National Environmental Protection Policy
NGO	:	Non-Governmental Organization
NREDS	:	National Renewable Energy Development Strategy
ONEC	:	Energy, Environment and Climate Change Department
OPSM	:	Private Sector Department
ORQR	:	Quality Assurance and Results Department
PAPERM	:	Project for Scaling-up Renewable Energy in Mali
PIU	:	Project Implementation Unit
PP	:	Procurement Plan
PPA	:	Power Purchase Agreement
PRSP	:	Poverty Reduction Strategy Paper
RE	:	Renewable Energy
RISE	:	Readiness for Investment in Sustainable Energy
SC	:	Steering Committee
SEFA	:	Sustainable Energy Fund for Africa
SREP	:	Scaling-Up Renewable Energy Programme in Low Income Countries
TFP	:	Technical and Financial Partners
UA	:	Unit of Account
UNDP	:	United Nations Development Programme
USD	:	United States Dollar
WADB	:	West African Development Bank
WAEMU	:	West African Economic and Monetary Union
WB	:	World Bank

Project Information Sheet

Client Information

GRANT RECIPIENT:	Republic of Mali
EXECUTING AGENCY:	National Directorate of Energy (DNE) Ministry of Energy

Financing Plan

Source	Amount (UA)	Instrument
AfDB / ADF	-	
SREP	968.000	Grant
SEFA	340.000	Grant
Government of Mali	255.000	Contribution
Beneficiaries	116.000	Contribution
TOTAL COST	1 679 000	i.e. USD 2 602 000

Timeframe and Main Milestones

Concept Note Approval	(March, 2014)
Project Approval by SREP	(September, 2014)
Project Approval by the Bank	(October, 2014)
Effectiveness	(December, 2014)
Last Disbursement	(January, 2018)
Completion	(July, 2018)

Project Summary

Project Overview. The objective of the *Project for Scaling-up Renewable Energy in Mali* (PAPERM) is to foster the development of renewable energy (RE) in Mali. PAPERM is one of the projects of the Scaling-Up Renewable Energy Programme in Mali (SREP-Mali). The main expected outcomes are: improvement of the policy, strategic, regulatory and institutional framework for scaling-up renewable energy; capacity building for national stakeholders, as well as knowledge management, and improvement of communication and advocacy for RE; strengthening of the RE sub-sector monitoring and evaluation system, as well as strategic coordination of the SREP-Mali programme. The project covers the entire country and will be implemented over a three-year period.

Project Cost and Beneficiaries. The total project cost is estimated at USD 2,602,000. The project is co-financed by different Bank-managed funds (see the financing plan on the previous page), thereby creating synergies between the different available financing instruments. The project's beneficiaries at the direct level are the National Directorate of Energy (DNE) and the other institutions of the energy sector, as well as the beneficiaries of the capacity building activities (among which national public institutions and the private sector). At the indirect level, beneficiaries include private and public investors benefiting from an improved legal and regulatory framework, and other countries of the sub-region likely to benefit from the lessons learned from the PAPERM. The project was formulated through a participatory process involving national institutions operating in the energy sector, the private sector and NGOs, as well as technical and financial partners (TFP). This consultative process will be continued throughout the project's implementation on the basis of specific institutional arrangements.

Needs Assessment. Mali has great, although still untapped, RE potential. Over the past ten years, the country has implemented policies aimed at improving the population's access to modern energy services. However, the sector's development is still faced with major structural problems. In particular, the project will provide support for the revision of the institutional, policy and regulatory framework planned for 2015, which will contribute to the achievement of the sector's development objectives. The country's economic recovery is clearly dependent on the rapid and efficient development of the energy sector, and the contribution of RE to the sector's transformation is essential.

Bank's Added Value. The Bank has clear comparative advantages in supporting the implementation of this project. Indeed, for the past few years, it has been the lead TFP for the energy sector, effectively participated in the preparation of the SREP-Mali Investment Plan (IP), and will implement three of the IP's four investment projects. Through PAPERM, the Bank will help to transform the Malian energy sector and consolidate the environment required for the implementation of future RE investments.

Knowledge Management. By the very nature of its objectives, the project has been designed to promote RE knowledge management and information sharing in Mali. Knowledge generated under this project will foster RE development in Mali and create opportunities for the replication of good practices in the countries of the sub-region.

Results-Based Logical Framework

Note: Along with the other projects forming part of SREP-Mali, PAPERM will contribute to the achievement of common ‘impacts’ and ‘outcomes’ under the programme; the programmatic indicators are set out in Annex C1. The indicators reflected here only relate to the PAPERM project.

Country and Project Name: Project for Scaling-Up Renewable Energy in Mali (PAPERM)						
Project Goal: Foster the development of renewable energy in Mali						
	RESULTS CHAIN	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		INDICATOR	BASELINE SITUATION	TARGET		
IMPACT	Mali becomes a leader in the sub-region in RE	Improvement of country’s RISE* profile	The “traffic light” of the RISE initiative is set to “red” for RE	The “traffic light” of the RISE initiative is set to “yellow” for RE	RISE report	Risk: The country’s risk profile remains unsatisfactory. Mitigation measures: Regular monitoring carried out by the PIU helps to monitor progress and capacity building at DNE towards achieving the expected outcomes.
OUTCOMES	The number of RE projects in Mali rises as a result of a more favourable environment	Number of RE projects approved from 2015 (including mini-grids, grid-connected projects, etc.)	0	20 in 2015 25 in 2016 40 in 2017	Reports by the DNE and the General Directorate of Public Debt; CPS Statistical Bulletin	Risk: In the national post-crisis context, projects are more focused on fossil fuels. Mitigation Measures: The presence of SREP projects restores investor confidence and the project will improve the business environment as well as foster investment in the sector.
	RE investments in Mali increase	-Amount of public and private financing allocated to RE projects (in USD) -Proportion of RE projects in relation to total investments in the sector (as %)	USD 500 million (between 2009 and 2013) About 7%	USD 90 million disbursed by end 2015 and USD 300 million disbursed by end 2017 25% in 2015 40% in 2017	Reports by the DNE and the General Directorate of Public Debt; CPS Statistical Bulletin	Risk: In the national post-crisis context, more of the funds raised are allocated to humanitarian needs and private investors are reluctant to invest. Mitigation Measures: The project implementation unit will actively contribute to fundraising. It should be noted that donors intend to step up their support to the sector.

* “*Readiness for Investment in Sustainable Energy*”. The objective of RISE is to determine the country’s degree of readiness in terms of investment in sustainable energy. It entails monitoring the indicators on the basis of the three areas of interest of the “Energy for All” Initiative: access to energy, energy efficiency and renewable energy.

OUTPUTS	<p>A1. Policy and strategic framework revised A2. Regulatory and legal framework fine-tuned A3. Institutional framework adjusted</p>	<ul style="list-style-type: none"> - Key elements of the revised policy and strategic framework - Key elements of the regulatory framework for RE development made available 	Not applicable	<ul style="list-style-type: none"> - The NEP, the NREDS and other relevant strategies are revised - PPA and standard BD for RE are available 	<ul style="list-style-type: none"> - Periodic activity reports of the coordination unit - Supervision mission reports 	<p>Risk: Slippage on implementation due to the large number of national agencies and institutions involved in energy policies. Mitigation Measures: Establishment of the Steering Committee for strategic coordination and capacity building.</p>
	<p>B1. Capacity building programme implemented B2. Knowledge management programme implemented B3. Communication/ advocacy strategy implemented</p>	<ul style="list-style-type: none"> - Number of national experts, private operators, students and staff of banking institutions trained** - Number of knowledge products disseminated - Number of consultation or information workshops organized - Number of communication activities carried out 	Not applicable	<ul style="list-style-type: none"> - 15 national experts and 15 private operators and representatives of banking institutions trained annually** - 5 communication activities per year - 2 knowledge products per year - 5 workshops per year 	<ul style="list-style-type: none"> - Periodic activity reports of the coordination unit - Supervision mission reports - Workshop reports 	<p>Risk: The activities of the ‘capacity building’ component of the SREP-Mali investment projects are implemented in an independent and uncoordinated manner. Mitigation Measures: the Programme Coordination Unit – whose capacities will be strengthened – will carry out coordination.</p>
	<p>C1. SREP Programme coordination carried out C2. SREP programme monitoring and evaluation system operational</p>	<ul style="list-style-type: none"> - Annual work programmes and reports of the SREP programme disseminated to target audiences. - SREP-Mali monitoring and evaluation reports - Establishment of a harmonized results-measurement framework for the sub-sector 	Not applicable	<ul style="list-style-type: none"> - 1 annual work programme - 1 annual report - six-monthly Programme-monitoring reports - 1 programme evaluation report by the end of the project - A harmonized results-measurement framework for the sub-sector validated by stakeholders. 	<ul style="list-style-type: none"> - Consolidation of elements provided by the SREP project monitoring and evaluation systems and supervision reports - Supervision mission reports 	<p>Risk: The SREP-Mali investment projects operate in ‘business as usual’ mode. Mitigation Measure: the Steering Committee activities and institutional synergies created between MDBs and between the managers of the different SREP projects at government level. Risk: M&E system is not harmonized with the M&E system of SREP-Mali projects. Mitigation Measures: definition of a simple, harmonized M&E system, DNE capacity building and inter-MDB coordination.</p>

** At least 35% of women

KEY ACTIVITIES	COMPONENTS	RESOURCES
		<p>A. Improvement of the policy, legal, regulatory and institutional framework for scaling-up renewable energy investments (USD 521 700)</p> <p>B. Capacity building, knowledge management, communication and advocacy (USD 1 257 000)</p> <p>C. Monitoring and evaluation, project management and strategic coordination of the SREP-Mali Programme (USD 676 050)</p> <p><i>Price indexing and contingencies: USD 147 250</i></p>

Project Implementation Schedule

Task Name	Duration	Start	Finish	2015			2016				2017				2018			
				Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1			
BD Presentation and Approval	1 day	Wed 24/09/14	Wed 24/09/14			▼												
Grant Agreement Signature	1 day	Mon 20/10/14	Mon 20/10/14			▼												
Grant Effectiveness	1 day	Mon 03/11/14	Mon 03/11/14			▼												
Fulfillment of Conditions Precedent to Disbursement	1 day	Mon 12/01/15	Mon 12/01/15				▼											
Procurement																		
Preparation of BD	30 days	Mon 19/01/15	Fri 27/02/15				■											
Launching of BD	30 days	Mon 02/03/15	Fri 10/04/15				■											
Bid Evaluation	15 days	Mon 13/04/15	Fri 01/05/15				■											
Award of Contracts	5 days	Mon 04/05/15	Fri 08/05/15				I											
Implementation of Activities																		
Component 1: Revision of the Policy, Strategic and Regulatory Framework	669 days	Mon 11/05/15	Thu 30/11/17															
Component 2: Capacity Building, Knowledge Management, Communication and Advocacy	669 days	Mon 11/05/15	Thu 30/11/17															
Component 3:																		
Improvement of Sub-Sector Monitoring and Evaluation System	400 days	Mon 11/05/15	Fri 18/11/16															
Project Management and Strategic Coordination of Programme	776 days	Mon 12/01/15	Sat 30/12/17															
Supervision Mission	528 days	Mon 15/06/15	Wed 21/06/17															
Audit	526 days	Mon 04/01/16	Mon 08/01/18															

REPORT AND RECOMMENDATIONS OF MANAGEMENT TO THE BOARD OF DIRECTORS ON A PROPOSED GRANT FOR THE PROJECT FOR SCALING-UP RENEWABLE ENERGY IN MALI (PAPERM)

Management submits the following report and recommendations for a proposed SREP grant of USD 1.5 million to co-finance the Project for Scaling-Up Renewable Energy in Mali (PAPERM)¹.

I STRATEGIC THRUSTS AND RATIONALE

1.1 Project Linkages with Country Strategy and Objectives

1.1.1 In Mali, the 2012-2017 *Poverty Reduction Strategy Paper* (PRSP) is the sole reference framework for the country's development policies and strategies. The PRSP has three strategic axes: (i) promotion of accelerated, sustainable and pro-poor growth that creates jobs and income-generating activities; (ii) long-term consolidation of the foundations for development and equitable access to high quality social services; and (iii) institutional development and governance. With regard to the energy sector, the PRSP notes that the long-term vision is "to make renewable energy (RE) the country's main source of energy". The strategy also aims to "develop new and renewable energy in order to reduce the share of thermal power generation and develop access to energy for all uses". This strategy is buttressed by the *National Energy Policy* (NEP) and the *National Renewable Energy Development Strategy*² (NREDS) whose specific objectives are to (i) promote the widespread use of RE technologies and equipment; (ii) develop the biofuel sub-sector; (iii) create optimal conditions for the sustainability of RE services; and (iv) seek sustainable and adapted financing mechanisms. The PAPERM project is fully in line with these axes and will contribute to the achievement of the NREDS.

1.1.2 In May 2013, the Bank approved a 2013-2014 *Transition Management Support Strategy* for its collaboration in Mali. The main interventions concerned: (i) mitigation of the impact of the crisis and strengthening the resilience of the most vulnerable segments of the population; and (ii) consolidation of the rule of law with a view to laying the foundations for economic recovery. The Scaling-Up Renewable Energy Programme (SREP), approved by the SREP sub-committee, is aligned with Pillar 2 of the 2013-2014 strategy. Given the precarious energy situation in 2014, the new 2015-2019 CSP (under preparation) will include significant support to the sector. The different projects of the SREP programme will all be integrated into this context, including the Project for Scaling-Up Renewable Energy in Mali (PAPERM).

1.2 Rationale for the Bank's Involvement

1.2.1 Despite progress in recent years towards improving access to modern energy services, the development of the energy sector still faces major structural problems,³ which were exacerbated by the 2012/2013 events. Mali's national electricity access rate is estimated at about 32% in 2013. Energy demand is rising faster than GDP growth,⁴ which poses the problem of economic competitiveness on the one hand, and energy supply security, on the other.

¹ The project is also co-financed by a SEFA grant of USD 530 000 which was approved by the Bank on August 11, 2014 in compliance with SEFA rules and procedures.

² The sector is also governed by the following texts: the *Energy Policy Sector Letter* (2009), the *Rural Electrification Reference Framework* (2003), the *National Biofuel Development Strategy* (2008), and *Ordinance 019* on the organization of the electricity sector.

³ Cost of imported fossil fuels, population's limited repayment capacities, weak energy planning process, incomplete regulatory framework, limited human and technical capacities, etc.

⁴ Before 2012, annual GDP growth was about 5%, compared to 14% for primary energy demand excluding biomass and over 10% for electricity.

1.2.2 Analyses carried out during the preparation of the SREP-Mali investment plan (IP) revealed the existence in Mali of a policy, regulatory and institutional framework governing the RE sub-sector. However, this framework has weaknesses since it is not fully adapted to RE development. It has to be updated by taking into account the lessons learned from its past implementation. Similarly, the monitoring and evaluation framework of the sector is partial and poorly coordinated; it lacks the necessary resources to ensure high quality monitoring. It will, therefore, be necessary to strengthen it. Finally, capacity building and knowledge management are areas that have limited dedicated financial and human resources. PAPERM will help to address these gaps and strengthen the enabling environment in order to make it more conducive to the rapid and efficient implementation of future RE investments, while facilitating the process for the identification of additional investments. Through PAPERM, the Bank will thus contribute to the transformation of the Malian energy sector and will create the necessary environment for the implementation of future RE investments.

1.2.3 The Bank has clear comparative advantages in supporting the implementation of this project; indeed, for the past few years, it has been the lead TFP for the energy sector, and has engaged in dialogue⁵ with the Malian government regarding the preparation of the SREP-Mali IP. The Bank has committed to helping it prepare, co-finance and implement the different projects contained in the IP, namely: (i) The Grid-Connected Solar Photovoltaic Plant Project (ADB/OPSM); (ii) Rural Electrification Hybrid System Project (WB); (iii) Mini/micro Hydro-Power Plant Project (ADB/ONEC1); and (iv) the Project for Scaling-Up Renewable Energy in Mali (ADB/ONEC3). This operation also reflects the Bank's determination to increase the mobilization of climate finance for regional member countries either through the Climate Investment Funds (CIF) or the Sustainable Energy Fund for Africa (SEFA).

1.3 Aid Coordination

1.3.1 As part of the Paris Declaration implementation, Mali's technical and financial partners (TFPs) have structured consultation and coordination mechanisms at two levels: (i) at the policy level, through the Ambassadors and Agency Heads Group, led by a *troika* of three TFPs (current leader, outgoing leader and future leader), and (ii) at the technical level by sector, with thematic working groups. Despite the 2012/2013 crisis, the aid coordination mechanisms remain operational and all TFPs have now resumed dialogue with the country. AfDB is active in aid coordination in Mali; it was leader of the TFPs Group in 2011 and a *troika* member from 2010-2012. It is now the leader of the Economy and Finance thematic group and co-leader of the Infrastructure thematic group with the European Union.

1.3.2 For the past five years, the Bank has also led the Energy TFPs Group. It has been responsible for the coordination and monitoring of activities relating to the sector's development; the World Bank is in the process of taking over as group leader. The Bank, WB, European Union, AFD, GIZ, WADB and IDB are the sector's main financial partners. Between 2008 and 2013, the sector received investments equivalent to about USD 1.4 billion (including about USD 500 million invested in renewable energy projects), a large part of which was contributed by the partners. It is in this context that Mali was allocated USD 40 million from the SREP program. As a result of the 2012/2013 crisis in Mali, the energy sector has deteriorated. Thus, Mali's technical and financial partners have expressed their determination to further support the sector through various investments (electric power generation, power lines, institutional support for EDM.PLC, etc.). Against this backdrop of increasing needs, implementation of the SREP programme is especially important as it will significantly improve access to electricity in Mali both on the interconnected grid as well as in remote rural areas through rural electrification.

⁵ The Bank was the lead multilateral development bank (MDB) for the preparation of the SREP-Mali IP, and received support from the World Bank (WB) to successfully undertake the preparation activities.

II. PROJECT DESCRIPTION

2.1 Project Description and Components

2.1.1 PAPERM’s goal is to foster the development of renewable energy in Mali. The project’s specific objectives are to: (i) improve the policy, legal, regulatory and institutional framework for the scaling-up of RE investments; (ii) strengthen the capacities of stakeholders and ensure knowledge management, communication and advocacy to facilitate the development of RE; and (iii) improve the sub-sector’s monitoring and evaluation system, and strengthen the programmatic approach under the SREP-Mali.

Table 2.1: Project Components

N	Component Name	Estimated Cost (USD)	Component Description
1	Improvement of the policy, legal, regulatory and institutional framework for the scaling-up of RE investments	553 000	(i) Support the revision and harmonization of the texts governing the sector; (ii) preparation of a standard Power Purchase Agreement for RE; (iii) preparation of standard BD for RE; (iv) preparation of a guide for investors in RE; (v) capacity building programme in line with the policy and regulatory framework.
2	Capacity building, knowledge management, communication and advocacy	1 332 000	Preparation and implementation of a communication and knowledge management strategy for RE, including: (i) a national web portal for RE in Mali; (ii) sensitization campaign on RE challenges along with the production of information and communication tools; (iii) a digital and physical archiving system for the DNE documentation centre; (iv) organization of a renewable energy week every other year; (v) training workshops to build the capacities of the different actors; (vi) consultation workshops with all stakeholders at sub-regional and regional levels.
3	Sub-sector monitoring and evaluation, project management and strategic coordination of the SREP-Mali programme	717 000	A. Improvement of the sub-sector monitoring and evaluation system, including (i) an inventory of RE equipment installed; (ii) preparation of a detailed monitoring/evaluation handbook; (iii) strengthening of the sub-sector M&E capacities; (iv) development of a results-measurement framework for the new NREDS; (v) monitoring of RE indicators and dissemination of results. B. PAPERM project management and coordination of the SREP programme to create synergies between projects.

2.2 Technical Solutions Retained and Alternatives Explored

2.2.1 In preparing the SREP-Mali IP, government and MDBs considered two options for implementing the activities described in Table 2.1. These activities would either be integrated in each of the SREP-Mali investment projects, or folded into an independent technical assistance project which would ensure more efficient and coherent implementation of these activities. According to the analysis made in Table 2.2, government and MDBs considered that the creation of the PAPERM project was the most efficient option and the one that best met the country’s requirements (rapid and targeted intervention for the needs identified in paragraphs 1.2.1 and 1.2.2).

2.2.2 Compared to the Bank’s customary practices, this project has several innovative and interesting aspects: (i) it demonstrates the Bank’s capacity to simultaneously mobilize different climate funds and create synergies between them to achieve a common objective; (ii) with a limited budget, this project focuses on the drivers of change for the sub-sector’s transformation; (iii) it attaches great importance to improving knowledge management in favour of Res, and the monitoring

and evaluation system for the sub-sector as a whole.

Table 2.2: Project Alternatives Considered and Reasons for Rejection

Alternative	Description	Reason for Rejection
Policy, legal, regulatory and institutional framework for scaling-up RE investments	Activities aimed at improving the sub-sector's institutional, policy, strategic and regulatory framework are distributed among the three investment projects of the SREP-Mali IP	<ul style="list-style-type: none"> ▪ Real risk of creating an incoherent policy, strategic and regulatory framework that, in the end, would not be operational. ▪ Failure to take into consideration benefits arising from economies of scale.
Capacity building, knowledge management, communication and advocacy	Definition and implementation of knowledge management activities for the three investment projects of the SREP-Mali IP	<ul style="list-style-type: none"> ▪ Real risks of a plethora of fragmented initiatives lacking consistency; difficulty in coordinating the different communication and knowledge management activities within the SREP-Mali; difficulty in achieving a common objective at the programmatic level. ▪ Failure to take into consideration benefits arising from economies of scale.
Monitoring and Evaluation	Definition and establishment of an M&E system for the three investment projects of the SREP-Mali IP without ensuring sub-sector coordination	<ul style="list-style-type: none"> ▪ Impossibility of strengthening the existing national M&E system and difficulty in creating a consistent, comprehensive and harmonized monitoring and evaluation system for the RE sub-sector. ▪ Impossibility of relating to SREP programmatic level.

2.3 Project Type

2.3.1 PAPERM is a technical assistance project supporting the scaling-up of renewable energy in Mali. The main financing instrument proposed is a SREP grant to be awarded to the Republic of Mali, complemented by a SEFA grant already approved by the Bank. The SREP Sub-Committee approved the SREP-Mali investment plan in March 2012, including a USD 1.5 million allocation to the PAPERM project.

2.3.2 The project will contribute to invest in human capital, in the sector's policy and regulatory framework, and in knowledge management and information sharing mechanisms. Designed as a sub-sector support project, PAPERM will ensure the consistency of the SREP programmatic approach, as well as strategic coordination between the other SREP-Mali projects on the basis of national policy and strategic thrusts. PAPERM will ensure the smooth operation of the projects mentioned in paragraph 1.2.3 as part of a programmatic approach. It will also their implementation on the basis of a '*business as usual*' approach.

2.4 Project Costs and Financing Arrangements

2.4.1 The total project cost, excluding taxes and customs duties, is estimated at USD 2,602,000, comprising about USD 2,027,000 in foreign exchange and USD 575,000 in local currency. These costs include a 3% provision for price indexing and 3% for contingencies. The costs by component are presented in Table 2.3.

Table 2.3: Estimated Project Costs by Component (in USD)

Components	In USD			In UA equivalent			% F.E
	F.E.	L.C.	Total Cost	F.E.	L.C.	Total Cost	
Component 1	521 700	0	521 700	336 581	0	336 581	100
Component 2	992 000	265 000	1 257 000	640 000	170 968	810 968	79
Component 3	398 500	277 550	676 050	257 097	179 065	436 161	59
Total Base Costs	1 912 200	542 550	2 454 750	1 233 677	350 032	1 583 710	78
Price Indexing (3%)	57 366	16 277	73 643	37 010	10 501	47 511	
Contingencies (3%)	57 366	16 277	73 643	37 010	10 501	47 511	
Total Project Cost	2 026 932	575 103	2 602 035	1 307 698	371 034	1 678 732	78

2.4.2 The project will be co-financed by a SREP grant of USD 1.5 million and a SEFA grant of USD 530,000. USD 395 000 of national counterpart funds will be contributed by the government of the Republic of Mali through DNE to cover, in particular, part of the Component 2 costs, as well as part of the implementation unit's operating costs. Project costs by source of financing are presented in Table 2.4.

Table 2.4: Project Cost by Source of Financing

Sources of Financing	In USD			In UA equivalent			% of Total
	F.E.	L.C.	Total Cost	F.E.	L.C.	Total Cost	
SREP	1 414 000	0	1 414 000	912 258	0	912 258	58
SEFA	498 200	0	498 200	321 419	0	321 419	20
Beneficiaries	0	170 000	170 000	0	109 677	109 677	7
Republic of Mali	0	372 550	372 550	0	240 355	240 355	15
Total Project Cost	1 912 200	542 550	2 454 750	1 233 677	350 032	1 583 710	
Price Indexing (3%)	57 366	16 277	73 643	37 010	10 501	47 511	
Contingencies (3%)	57 366	16 277	73 643	37 010	10 501	47 511	
Total Project Cost	2 026 932	575 103	2 602 035	1 307 698	371 034	1 678 732	

Table 2.5: Total Project Cost by Expenditure Category

Expenditure Categories	In USD			In UA equivalent		
	F.E.	L.C.	Total Cost	F.E.	L.C.	Total Cost
INVESTMENT COSTS	1 468 690	434 000	1 902 690	947 542	280 000	1 227 542
WORKS	0	40 000	40 000	0	25 806	25 806
GOODS	20 000	144 000	164 000	12 903	92 903	105 806
Vehicle	0	75 000	75 000	0	48 387	48 387
Equipment	20 000	69 000	89 000	12 903	44 516	57 419
SERVICES	1 448 690	250 000	1 698 690	934 639	161 290	1 095 929
Training	177 200	30 000	207 200	114 323	19 355	133 677
Technical Assistance	185 000	0	185 000	119 355	0	119 355
Contractual Services	886 490	220 000	1 106 490	571 929	141 935	713 865
Studies	200 000	0	200 000	129 032	0	129 032
RECURRENT COSTS	443 510	108 550	552 060	286 135	70 032	356 168
Personnel	32 000	38 550	70 550	20 645	24 871	45 516
Operation, Overheads	411 510	70 000	481 510	265 490	45 161	310 652
Total Base Costs	1 912 200	542 550	2 454 750	1 233 677	350 032	1 583 710
Price Indexing (3%)	57 366	16 277	73 643	37 010	10 501	47 511
Contingencies (3%)	57 366	16 277	73 643	37 010	10 501	47 511
Total Project Cost	2 026 932	575 103	2 602 035	1 307 698	371 034	1 678 732

Table 2.6: Annual Disbursement Schedule by Component and by Year (in USD)

Component	2015	2016	2017	Total
Component 1	333 653	165 863	22 184	521 700
Component 2	522 750	270 250	464 000	1 257 000
Component 3	466 282	115 782	93 987	676 050
Total Base Costs	1 322 685	551 895	580 171	2 454 750
Price Indexing (5%)	39 681	16 557	17 405	73 643
Contingencies (5%)	39 681	16 557	17 405	73 643
Total Project Cost	1 402 046	585 008	614 981	2 602 035

2.5 Project Target Area and Beneficiaries

2.5.1 The project will cover the entire country since it is a technical assistance project. Its main beneficiaries will be: (i) at the direct level, DNE and the other state-owned institutions of the energy sector (AMADER, CNESOLER, ANADEB, EDM, CREE, etc.), as well as beneficiaries of the capacity building programme and coordinators of other projects included in the SREP-Mali programme; and (ii) at the indirect level, private developers benefiting from an improved legal and regulatory framework and the mobilization of additional financing, and West African countries likely to benefit from lessons learned and good practices generated by the PAPERM project. Ultimately, the Malian population will benefit from more reliable, sustainable power generated by RE.

2.5.2 The main expected outcomes for the above-mentioned beneficiaries are: improvement of the environment for scaling-up RE investments; capacity building for the main sub-sector actors; improvement of communication and knowledge management in favour of RE development; improvement of the M&E system to verify the outcomes of the investments made; and synergy between SREP-Mali projects.

2.6 Participatory Process

2.6.1 The project was prepared through a participatory process adopted at all the stages of project preparation. During preparation of the SREP-Mali IP, several missions were fielded with the organization of public consultation workshops, including the participation of the public authorities, the private sector, NGOs and technical and financial partners. Similarly, in order to create real synergies, the PAPERM project was formulated through consultations with the main national institutions operating in the energy sector, as well as with many directly concerned national stakeholders (see Annex C2).

2.6.2 This participatory process will be continued throughout the project's implementation. In fact, dedicated arrangements were considered for the consultative process, in particular, the establishment of a Consultative Committee (see paragraph 4.1.5), which will ensure widespread sensitization and consultation of all actors during PAPERM's implementation, and during the SREP-Mali programme as a whole.

2.7 Bank's Experience and Lessons Reflected in Project Design

2.7.1 The lessons learned from the Bank's other operations in Mali are reflected in the design of this project, in particular: (i) the need to ensure close coordination between donors, especially in the context of a project that will support the revision of the sub-sector's policy and regulatory framework; (ii) the need to establish dedicated operational mechanisms to ensure an efficient programmatic approach; (iii) the need to establish institutional arrangements that will ensure the sustainability of project activities even after project closure.

2.7.2 As for procurement, the 2013 Portfolio Performance Review recommended: (i) the selection of the most appropriate procurement methods at the time of project appraisal and negotiation; and, (ii) reduction of processing times for procurement documents and shortening of the procurement process. With respect to financial management, the same review recommended: (i) the preparation of a manual of procedures and establishment of a computerized management system from project start-up; (ii) ensuring timely submission (within 6 months of the closing of the fiscal year) of audit reports in order to avoid suspension of disbursements; and (iii) specifying the allocation of national counterpart funds in order to prevent difficulties in their use. Finally, as regards monitoring and evaluation, the review recommended: (i) establishing an effective monitoring/evaluation system and assigning a monitoring/evaluation expert to the project implementation unit; and, (ii) building the monitoring/evaluation capacities of projects and oversight ministries (CPS) through training. These recommendations are reflected in PAPERM's design. For instance, in addition to the planned launching mission during which the DNE will have an overview of the Bank's rules and procedures in the areas of disbursement, auditing and project management, training sessions are planned for the PIU to ensure efficient project implementation.

2.8 Key Performance Indicators

2.8.1 The project's key performance indicators are set out in the Results-Based Logical Framework. It will be necessary to differentiate between the PAPERM performance indicators (see complete logical framework in the Introduction) and consolidated programmatic indicators (see Annex C1), which are mandatory for all projects under the SREP programme. PAPERM's expected outcome indicators are improvement of the country's *RISE*⁶ profile, as well as the number of RE projects approved as from 2015, and the amount of investments allocated to REs by 2017.

2.8.2 In its capacity as project executing agency, DNE will be responsible for the monitoring and analysis of performance indicators and their trend over time by comparing them, in particular, with the projections of the logical framework. Since PAPERM targets the strengthening of the RE sub-sector M&S system as a whole, DNE's capacities will be enhanced to achieve the objectives set in this area. Reports will be addressed to the Ministry of Energy, the Bank, and the Climate Investment Funds. A close link will be established between the results generated by the M&E system (Component 3) on the one hand, and knowledge management and lessons learned (Component 2) on the other hand. The PAPERM M&E expert will work closely with the M&E experts of the other SREP-Mali projects to ensure the reporting of information on, and consolidation of the outcomes of the SREP-Mali programme.

III. PROJECT FEASIBILITY

3.1 Economic and Financial Performance

3.1.1 Since this is a technical assistance project, it is not directly concerned by financial or economic returns. However, in view of its expected impact on the creation of an enabling environment for RE investments, and insofar as the project must also facilitate SREP programme investments, certain *induced effects* in terms of economic performance may be considered. Indeed, on the macroeconomic front, this project – through the RE investments it will generate – will have a positive *induced* impact on the trade balance of Mali, which currently imports the totality of its primary sources of fossil fuel. This impact will be the result of savings on fossil fuels in the wake of their replacement by REs. Furthermore, the upturn in RE investments facilitated by PAPERM will help to improve the financial situation of the power utility, EDM.PLC, the deficits of which are now widening

⁶ *Readiness for Investment in Sustainable Energy.*

as a result of the increased share of fossil fuel in the energy mix. In addition, the planned activities under Component 1, such as the development of RE investments with higher financial returns (due, in particular, to the organization of competitive bidding followed by better negotiated power purchase agreements), will help to improve the financial situation of EDM.PLC and the sector in general.

3.2 Environmental and Social Impacts

Environment

3.2.1 Since it is a technical assistance project, PAPERM was classified in category III by the Bank on 19 February 2014 and does not require an Environmental and Social Management Plan.

Climate Change

3.2.2 The project is fully in line with the Bank's strategic guidelines as set out in the *Climate Change Action Plan*, in terms of climate change mitigation. It is also in line with the objectives of the SREP programme, which is aimed at reducing greenhouse gas (GHG) emissions. While the project will have no direct positive impacts in terms of avoided GHG emissions, as it focuses on technical assistance, it will have related induced effects as a result of the RE investments it will facilitate and/or generate. Under the SREP programme as a whole, it is estimated that avoided emissions will correspond to 169,563 tons of GHG CO₂ equivalent/year when all the projects mentioned in paragraph 1.2.3 are operational.

Gender

3.2.3 In terms of gender, the PAPERM is likely to have *positive direct and indirect impacts*.

3.2.4 With regard to the direct impacts: (i) the project will ensure that at least 35% of the beneficiaries of training and capacity building activities are women; (ii) sector policies and strategies will be revised taking gender issues into account; in particular, they must aim to increase access by women and youth to energy services, build the economic capacities of women and youth, and promote the RE technologies from which women will further benefit; (iii) the planned participatory process (in particular through the Consultative Committee) shall fully integrate women and young people, and/or associations representing the interests of women and young people; and, finally, (iv) the gathering and analysis of monitoring and evaluation data will include gender-disaggregated data. The project's M&E system will specifically address the project's potentially positive impact on women and, in order to measure it and define possible corrective measures, will support the conduct of targeted assessment studies.

3.2.5 With regard to indirect impacts, PAPERM's positive impact will be linked to that of the SREP programme as a whole. Indeed, the population's improved access to electricity (especially in rural areas) will help to improve the living and working conditions of women who currently carry out most of the domestic chores. In particular it will do so by increasing the time allotted to productive activities –sewing workshops, hairdressing salons, restaurants, food-product processing, outlets for the sale of cold drinks, etc. – and to child health care and education.

Social

3.2.6 As mentioned, special attention will be paid to the inclusion of social aspects in data collection and processing as well as in capacity building activities. Overall, the project will heighten the *positive social impact* generated by other SREP projects in terms of reducing social inequalities linked to access to electricity; improving the population's access to social services (especially health

care services provided by health centres that are connected to the power grid); and job creation, (especially ‘green’ jobs resulting from RE development).

Involuntary Resettlement

3.2.7 Since it is a technical assistance project, PAPERM does not envisage any type of expropriation, relocation or involuntary resettlement of the population.

IV. PROJECT IMPLEMENTATION

4.1 Implementation Arrangements⁷

Institutional Arrangements

4.1.1 With a view to ensuring the sustainability of the project’s activities after its closure, implementation of the PAPERM will be entrusted to the National Directorate of Energy (DNE) whose mandate covers project activities, in particular, formulation of the sector’s policy and strategic framework, and coordination and technical supervision of the regional and sub-regional services that contribute to the implementation of the strategic and policy framework. A Project Implementation Unit (PIU) will be established at the DNE. DNE’s technical and administrative capacities were assessed during the appraisal mission. Its staff comprised 17 active senior technical and administrative staff. However, for the development and implementation of the PAPERM, short or long-term experts will strengthen DNE’s capacities.

4.1.2 The PIU will have a multidisciplinary composition to address project-implementation-related challenges. It will engage three civil servants responsible for the implementation of project activities, namely: (i) a *project coordinator*, who will be an energy policy expert;⁸ (ii) a *monitoring and evaluation specialist*;⁹ and (iii) a *communication/knowledge-management technician*.¹⁰ A recruited expert will supplement this team: a *communication/knowledge management specialist* (contractual personnel for the project’s duration) who will work in tandem with a *communication/knowledge management technician*. Last but not least, an *accounting and finance officer* (a civil servant from the ME Directorate of Finance and Equipment) will be designated by Ministerial Order for secondment to DNE to ensure the routine management of the project’s activities from the financial management standpoint (see paragraph 4.1.10).¹¹ DNE members will receive appropriate training before and during project implementation. The project coordinator will report administratively to the National Director of Energy, who is the SREP national focal point; s/he will supervise the work of the other PIU members and will be accountable to the National Director and Steering Committee for the results achieved under the project. The Bank will monitor the performance of the PIU and of each of its members through the introduction of annually evaluated performance contracts. The PIU will also benefit from the periodic services of external experts depending on the needs identified and activities to be carried out.

⁷ See Annex B3 for a more detailed presentation of the project’s implementation arrangements.

⁸ The project coordinator will be selected on the basis of a competitive process within the Ministry of Energy; three CVs will be presented as well as a CV evaluation report for communication to the Bank for “no-objection”.

⁹ The monitoring and evaluation expert will be selected within the Ministry of Energy on the basis of a competitive process; three CVs will be presented as well as a CV evaluation report for communication to the Bank for “no-objection”.

¹⁰ The communication technician will be selected through a competitive process within the DNE; three CVs will be submitted to the Bank, together with an evaluation report, for non-objection. Working alongside the contractual specialist for three years will strengthen his/her capacities.

¹¹ The terms of reference of the PIU staff are set out in Annex C6.

4.1.3 According to the identified needs, the DNE will prepare cooperation agreements with other public agencies that have comparative advantages in the implementation of specific project activities. These agreements will define the roles and responsibilities of each of the parties. These cooperation agreements could be defined on the basis of needs identified during project supervision or mid-term review missions.

4.1.4 Since the PAPERM project is tasked to ensure coordination of the SREP programme, a *Steering Committee* (SC) will be established. It will be responsible for giving general and strategic directions, as well as for the supervision and evaluation of the progress made under the programme. The mandate of the Steering Committee, which will meet twice a year, will be to guarantee the programme's implementation in compliance with SREP principles, in light of the national energy policy and in the context of the National Renewable Energy Development Strategy. It will also play a guidance, support and advisory role for all activities carried out in the context of the SREP-Mali programme and projects. The SC will be the decision-making organ for PAPERM project activities (approval and monitoring of project activities).

4.1.5 In accordance with the SREP-Mali IP, a *Consultative Committee* will be established to allow all stakeholders involved in the programme (NGOs, private sector, etc.) to take note of the progress made by the project's activities and to share their views on how the programme is being implemented. The Consultative Committee, which will meet annually, will comprise representatives of the sub-sector stakeholders and could possibly convene during the RE week organized every other year.

Procurement

4.1.6 Procurements financed from Bank resources will be made in accordance with: (i) the Bank's Rules and Procedures (R&P), specifically the May 2008 edition revised in July 2012, for international competitive bidding (IBC) for goods and works, (ii) the Bank's R&P for the Use of Consultants, i.e. the 2008 Edition, revised in July 2012, and (iii) the provisions stipulated in the different financing agreements. The standard documents used will be those of the Bank, revised in 2012 for ICB, and in May 2013 for Requests for Proposals (RFP) for consulting services. Procurements of goods and works through national competitive bidding (NCB) with Bank financing will be carried out in accordance with the domestic public procurement legislation (Decree No. 08-485/P-RM of 11 August 2008) defining procedures for the award, performance and settlement of public contracts, and public service delegations as well as the provisions stipulated in the financing agreement. National standard bidding documents (NSBD) will be used for NCB. The procurement modalities will be set out in detail in the procurement plan.

4.1.7 Project procurement will be the responsibility of the Directorate of Finance and Equipment at the Ministry of Energy (DFM/ME). This structure, established at the ME, is responsible for the management of financial and physical resources allocated to the Ministry, in particular, the processing of all procurement documents in accordance with Decree no. 137/P-RM of 27 March 2009 determining the organization and operating modalities of the DFM. DFM's procurement capacities were assessed during the project appraisal missions. The main conclusions are that, in accordance with its organic framework, the processing of all procurement documents is the responsibility of DFM's Supplies and Public Procurement Division. Three of its staff are in charge of procurement: (i) the Division Manager, who chairs the Technical Evaluation Sub-Committee; (ii) the Head of the Public Procurement Section, who has worked in the Division for over ten years and has been required to process several Bank procurement documents; and (iii) an Officer in charge of the Division's Documents, who is a member of the Public Procurement Technical Sub-Committee. All three have sound knowledge of Mali's Procurement Code and the standard documents used. They also have strong experience with the Bank's R&P as a result of their participation in the bid evaluation committees for several Bank projects including DWSS I and II, as well as the PAGIRE

Implementation Support Project financed by the African Water Facility. Measures are envisaged to strengthen DFM, especially regarding the archiving of procurement documents and the provision of additional IT equipment and furniture.

4.1.8 The National Directorate of Energy (DNE) – the PAPERM executing agency that has been assessed during the project appraisal – has satisfactory experience in the preparation of technical data for the Bank’s bidding documents since it was the executing agency for the Rural Electrification Study Project (PDER) from 2003 to 2008. It is, therefore, proposed that the preparation of technical data for project bidding documents and requests for proposals be entrusted to DNE in its capacity as project executing agency; and that the preparation of the procurement aspects of the documents be assigned to DFM, which will be responsible for bid examination, analysis and evaluation, in keeping with the mission assigned to the latter (DFM), by decree, at the ministerial level.

Financial Management

4.1.9 The PIU will be responsible for the project’s administrative, financial and accounting management. It will also be strengthened by an accounting and finance officer. It is important that the executing agency be provided with sufficient technical, human and physical resources and a reliable institutional framework capable of ensuring: (i) correct and comprehensive accounting of all operations carried out during the project’s life cycle; (ii) the safeguarding of both the project’s financial data and assets; (iii) information on and auditing of available financial resources.

4.1.10 To that end, an assessment was carried out of the financial management capacities of the National Directorate of Energy. It found that DNE, in its capacity as a government technical service, had no financial management capacity which, including control, fell within the remit of the Directorate of Finance and Equipment (DFM) of the oversight ministry, i.e. the Ministry of Energy. The assessment of DFM’s financial capacities carried out in this context established that the existing reporting and accounting system will be unable to satisfy the Bank’s requirements as defined above. To address this situation, it was recommended to:

(i) designate, by Ministerial Order, a civil servant from DFM, for secondment to DNE to ensure the routine management of project activities from the financial management standpoint; (ii) build the capacities of the team to be formed in the use of the Bank’s procurement, disbursement and financial management procedures; (iii) prepare a manual of administrative, financial and accounting procedures, and organize for staff an intensive familiarization workshop on its use; (iv) procure an integrated management system (software) for operations accounting; (v) recruit a technical assistant for a six (6) month to one (1) year period to assist the civil servant designated by the DFM in all of the above-mentioned areas and ensure his/her autonomy to the end of the period covered by technical assistance; (v) recruit an independent external auditor on the basis of terms of reference acceptable to the Bank and in accordance with its rules and procedures; (vi) prepare, before the start of each year, the annual work programme and corresponding budget to be used as a basis for the budgetary management of the project’s resources and cash flow.

4.1.11 The overall fiduciary risks, comprising the inherent risk and risk of no control, was considered high and requires the urgent implementation of the preceding recommendations.

Disbursements

4.1.12 The available funds for the financing of this project are: (i) a SREP (Scaling Up Renewable Energy Program in Low Income Countries) grant; and (ii) a SEFA (Sustainable Energy Fund for Africa) grant. Disbursements from these funds will be made in accordance with the Bank’s rules and procedures using the following three methods: (i) the special account method; (ii) the direct payment method; and (iii) the repayment method.

4.1.13 Under the special account method, two special accounts (one for the payment of SREP funds and the other for the payment of SEFA funds) will be opened on the books of a local bank acceptable to the Bank. The two signatories of these accounts will be the Project Coordinator (or National Director of Energy) and the Finance and Accounting Officer (or Director of Finance and Equipment at the Ministry of Energy). They will receive Bank resources in the form of revolving funds to finance activities relating to operations, field missions and short-term training activities or workshops organized by the PIU. The direct payment method will be used for study-related expenditure as well as other consulting services, in particular, the auditing of accounts and/or the procurement of software, etc. The repayment method will only be used if it is necessary to reimburse to the project or government eligible expenditure pre-financed from project counterpart funds or central government funds, subject to the Bank's prior approval. Disbursements from counterpart funds will be made through a counterpart fund account opened on the books of a local bank, acceptable to the Bank and operating in accordance with the dual signature principle. This account will receive funds for the payment of the proportion of operating expenditure to be charged to the counterpart funds since the proportion of capital expenditure is subject to the different stages of the public expenditure execution procedure (commitment, validation authorization and payment at the level of the Public Treasury).

Audit

4.1.14 The project accounts – including both the SREP and the SEFA grants -- will be audited by a private independent external audit firm to be recruited on the basis of terms of reference and in accordance with the rules and procedures of the Bank, no later than three months after effectiveness of the financing agreement. It will be awarded a one-year renewable contract depending on the quality of services and for a period not exceeding three years. Its reports will be submitted to the Bank for approval no later than six months after the closing of the audited period.

4.2 Monitoring

4.2.1 The main project stages are presented in Table 4.2 below. Activities will be carried out in accordance with the project implementation schedule.

<i>Table 4.2 : Main Project Implementation Stages</i>		
Duration	Stages	Monitoring Activities/Feedback Loop
90 days	Approval and Effectiveness	Grant Approval
		General Procurement Notice
		Signature of Grant Agreements and Effectiveness
		AfDB's launching mission
120 days	Procurement	Preparation of Bidding Documents
		Bidding and Award of Contracts
		Signature of Contracts with Individual Consultants or Firms
800 days	Project Implementation	Contract Execution
		Preparation of periodic Project-Status Reports
		Bank Supervision Missions
		Bank Mid-Term Review
120 days	Auditing of Project Accounts	Recruitment of the Auditor for the Performance of Annual Audits
		Performance of Annual Audits
70 days	Project Completion	Executing Agency's Project Completion Report
		Preparation of Bank's Project Completion Report

4.3 Governance

4.3.1 Under PAPERM, poor-governance-related risks are fairly low. They could, however, occur during the procurement process and in the use of financial resources. In order to mitigate these risks, the Bank will ensure the strict application of its rules and procedures. From project start-up, a manual of administrative, accounting and financial procedures will be prepared and PIU staff will be trained in these areas. Subsequently, Bank supervision missions, as well as technical and financial audits, will help to ensure conformity between the specifications, the progress of operations as well as compliance with the disbursement and the Grant Agreement requirements. Finally, the country's authorities are involved in project steering (through their participation in the deliberations of the Steering Committee), which is a guarantee of good governance.

4.4 Sustainability

4.4.1 From a policy standpoint, project sustainability is guaranteed by: (i) government's commitment to increase the share of RE in Mali's energy mix; and (ii) the strong commitment of the Ministry of Energy to the SREP programme objectives and ownership of the programme by DNE, as clearly demonstrated over the past three years. The project's technical sustainability will be ensured by the fact that DNE will implement the project in keeping with its mandate, either with civil servants who will periodically undergo capacity building (M&E for example), or with experts under contract for the project's duration (knowledge and communication management, for example). They will work in tandem with the seconded DNE civil servants and ensure the transfer of skills so that the activities will continue even after project closure. Also, standard bidding documents and power purchase agreements, as well as the different tools provided to Mali by the project (RE Investors' Guide, dedicated website, digital archiving system, etc.) will help ensure sustainability of the project's outcomes.

4.5 Risk Management

4.5.1 *Risks related to the mobilization of financing and financial management of the funds.* Since the project will be implemented using, on the one hand, trust funds and/or technical assistance (SREP, SEFA, etc.) and, on the other, the government's contribution (national budget), delays in making these different funds available could compromise the project's efficient implementation. In order to mitigate these risks, government should ensure the timely availability of resources, starting with the 2015 national budget. The Bank, for its part, should ensure rapid mobilization of the earmarked resources.

4.5.2 *Risks related to the limited capacities of the National Directorate of Energy.* An assessment carried out by the Bank noted weak capacities in the areas of financial management, M&E, and knowledge management and communication. In order to mitigate these risks, the establishment of a capacity building system, as well as dedicated technical assistance support, will form an integral part of the project.

4.5.3 *Risks related to the lack of coordination.* PAPERM will be tasked with creating synergies between all SREP-Mali projects and ensuring their coordination, especially in terms of monitoring and evaluation, knowledge management and capacity building. Should the Project fail to provide this coordination, the programmatic approach inherent in the SREP would be compromised and the transformational impacts of the programme reduced. In order to mitigate these risks, effective coordination mechanisms will be introduced, involving both the coordinators of the different SREP-Mali projects and the representatives of the MDBs responsible for them.

4.5.4 *Risks related to delays in the adoption of the revised policy, strategic and regulatory framework.* The delays in the adoption and/or failure to implement the revised policy, strategic and regulatory framework could represent a risk for the achievement of the project's objectives. In order to mitigate these risks, PAPERM will implement a series of measures aimed at sensitizing and informing lawmakers and the media to the economic, environmental and social challenges of RE.

4.6 Knowledge Building

4.6.1 The project represents a unique opportunity for the consolidation and dissemination of new RE knowledge, both in Mali and in the sub-region. In line with the SREP vision, one of the project's objectives is to strengthen knowledge management and information sharing in favour of REs. Similarly, human, technical and financial resources will be allocated to these activities, and mechanisms will be established to ensure efficient management of knowledge generated in the context of the entire SREP-Mali programme (see Annex C4). A knowledge-management and communication specialist will be recruited for the project's duration who will work in synergy with the other SREP-Mali projects to develop and consolidate the lessons learned from the programme in the country. This knowledge will be used at national and sub-regional (ECOWAS) levels, as well as at the international level in the context of the SREP programme. Mali intends to become a leader among the SREP pilot countries and within West Africa for RE knowledge management.

4.6.2 For the Malian government, the knowledge generated in the context of the SREP programme will contribute to the efficient implementation of the National Energy Policy and other sector policy documents. The expertise acquired for example in the negotiation of Power Purchase Agreements (PPA) and the competitive bidding process will facilitate the development of RE, and could be disseminated in the sub-region with the backing of the ECOWAS Centre for RE and Energy Efficiency (ECREEE). The technical and policy experts, the Malian population, especially young people and women, will benefit from new knowledge on the technical and economic aspects of RE. For the Bank, this is the first project funded by the *Climate Investment Funds*, which attaches great importance to knowledge management; the lessons learned from this project could be applied to future SREP investments in other African countries.

V. LEGAL FRAMEWORK

5.1 Legal Instrument

5.1.1 To finance this project, the Bank will use a grant from the Scaling-up Renewable Energy Programme in Low Income Countries (SREP) in the amount of USD 1.5 million and a grant from the Sustainable Energy Fund for Africa (SEFA) in the amount of USD 530 000. The latter was already approved on August 11, 2014, in accordance with the Fund's rules and procedures.

5.2 Conditions Associated with the Bank's Intervention

a) Conditions precedent to effectiveness of the SREP grant

5.2.1 The SREP Grant Agreement will be effective on the date of its signature.

b) Conditions precedent to first grant disbursement

5.2.2 In addition to effectiveness of the grant agreement, the first grant disbursement shall be subject to fulfillment by the Donee, to the Bank's satisfaction, of the following conditions:

- (i) provide the Bank with the original or certified true copy of the certificate confirming the opening by the Donee, for receiving the grant resources, of two special accounts

(one for the payment of SREP funds, and the other for SEFA funds) in a bank acceptable to the AfDB, including the full bank account details and the names of the persons authorized to make disbursements from said accounts;

- (ii) provide the Bank with evidence of the opening of a special counterpart fund account in a local bank acceptable to the Bank, with full bank account details and the names of the persons authorized to make disbursements therefrom; and
- (iii) provide the Bank with evidence of the designation of all the key personnel of the Project Implementation Unit, comprising, in particular, a coordinator, a financial management and accounting expert, an M&E specialist, and a communication and knowledge management technician, whose qualifications and professional experience will have received the Bank's prior approval.

c) Other Conditions

5.2.3 The Donee shall, moreover, fulfill the following conditions to the Bank's satisfaction:

- (i) provide evidence within six (6) months of the first disbursement, of the availability of the counterpart funds; and
- (ii) provide the Bank with evidence, no later than six months after the date of the first disbursement, that the Donee has established a satisfactory accounting and financial management mechanism with, in particular, (a) the establishment of a computerized financial management system and internalization of the production of financial information; (b) the establishment of an accounting system capable of producing accounts to accepted standards and integrating analytical and budget monitoring; and (c) preparation of a project procedures manual acceptable to the Bank;

5.3 Compliance with Bank Policies

The Project for Scaling-Up Renewable Energy in Mali (PAPERM) complies with the Bank's applicable rules.

VI. RECOMMENDATION

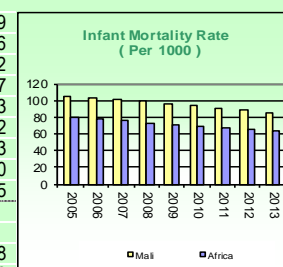
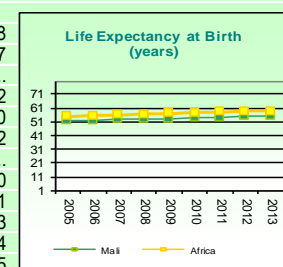
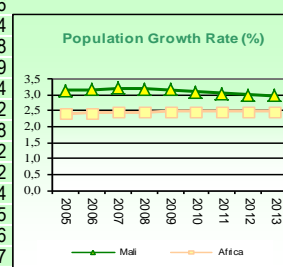
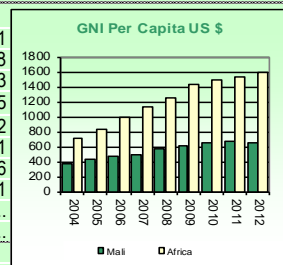
Management recommends that the Board of Directors approve the implementation of the Project for Scaling-up Renewable Energy in Mali (PAPERM), from the resources of the Trust Fund for the Strategic Climate Fund in an amount of USD 1.5 million, for the purposes and under the modalities and conditions stipulated in this report.

Annex I: Country's Comparative Socioeconomic Indicators

Mali

COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Mali	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2011	1 240	30 323	98 458	35 811
Total Population (millions)	2013	15,3	1 109,0	5 909,3	1 252,8
Urban Population (% of Total)	2013	36,2	40,2	47,7	78,3
Population Density (per Km ²)	2013	12,8	46,9	70,7	23,5
GNI per Capita (US \$)	2012	660	1 719	3 815	38 412
Labor Force Participation - Total (%)	2012-2013	30,5	37,4	67,9	72,1
Labor Force Participation - Female (%)	2012-2013	35,1	42,5	38,6	44,6
Gender -Related Development Index Value	2007-2011	0,353	0,502	0,694	0,911
Human Develop. Index (Rank among 187 countries)	2012	182
Popul. Living Below \$ 1.25 a Day (% of Population)	2008-2011	50,4	40,0	20,6	...
Demographic Indicators					
Population Growth Rate - Total (%)	2013	3,0	2,5	1,3	0,3
Population Growth Rate - Urban (%)	2013	4,8	3,4	2,5	0,6
Population < 15 years (%)	2013	47,4	40,9	28,3	16,4
Population >= 65 years (%)	2013	2,8	3,5	6,1	16,8
Dependency Ratio (%)	2013	96,7	77,9	52,4	49,9
Sex Ratio (per 100 female)	2013	101,6	100,0	103,3	94,4
Female Population 15-49 years (% of total populatic	2013	21,9	24,0	53,1	45,2
Life Expectancy at Birth - Total (years)	2013	55,0	59,2	68,4	77,8
Life Expectancy at Birth - Female (years)	2013	54,9	60,3	70,3	81,2
Crude Birth Rate (per 1,000)	2013	47,1	34,8	21,2	11,2
Crude Death Rate (per 1,000)	2013	13,0	10,4	7,6	10,4
Infant Mortality Rate (per 1,000)	2013	85,8	61,9	39,8	5,5
Child Mortality Rate (per 1,000)	2013	162,7	97,4	56,3	6,6
Total Fertility Rate (per woman)	2013	6,8	4,6	2,6	1,7
Maternal Mortality Rate (per 100,000)	2010	540,0	415,3	240,0	16,0
Women Using Contraception (%)	2013	11,0	34,9	62,6	71,3
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2004-2011	8,3	47,1	117,8	297,8
Nurses (per 100,000 people)*	2004-2011	43,0	132,6	202,7	842,7
Births attended by Trained Health Personnel (%)	2006-2011	49,0	52,6	66,3	...
Access to Safe Water (% of Population)	2012	67,2	68,8	87,2	99,2
Access to Health Services (% of Population)	2000	40,0	65,2	80,0	100,0
Access to Sanitation (% of Population)	2012	21,9	39,4	56,9	96,2
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2012	0,9	3,9	1,2	...
Incidence of Tuberculosis (per 100,000)	2012	60,0	223,6	144,0	23,0
Child Immunization Against Tuberculosis (%)	2012	89,0	83,0	81,5	96,1
Child Immunization Against Measles (%)	2012	59,0	74,0	83,0	94,3
Underweight Children (% of children under 5 years)	2005-2012	27,9	19,7	17,0	1,4
Daily Calorie Supply per Capita	2009	2 624	2 481	2 675	3 285
Public Expenditure on Health (as % of GDP)	2011-2012	3,1	2,9	3,0	7,5
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2012	88,5	101,9	109,4	100,9
Primary School - Female	2012	82,9	97,9	107,6	100,6
Secondary School - Total	2011-2012	44,5	47,4	69,1	100,2
Secondary School - Female	2011-2012	36,9	44,0	67,8	99,7
Primary School Female Teaching Staff (% of Total)	2011-2012	28,1	46,6	58,0	84,3
Adult literacy Rate - Total (%)	2011-2012	33,6	62,0	80,3	99,2
Adult literacy Rate - Male (%)	2011-2012	43,3	70,7	85,9	99,3
Adult literacy Rate - Female (%)	2011-2012	24,6	53,7	74,9	99,0
Percentage of GDP Spent on Education	2011-2012	4,8	5,3	4,3	5,5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2011	5,6	7,6	10,7	10,8
Annual Rate of Deforestation (%)	2000-2009	0,7	0,6	0,4	-0,2
Forest (As % of Land Area)	2011	10,2	23,0	28,2	35,0
Per Capita CO2 Emissions (metric tons)	2010	0,0	1,2	3,0	11,6



Sources: AfDB Statistics Department Databases;

last update :

mai 2014

United Nations Population Division, World Population Prospects: The 2012 Revision;

World Bank: World Development Indicators; UNAIDS; UNSD; WHO, UNICEF, WRI, UNDP; Country Reports.

For any given interval, the value refers to the most recent year available during the period

Note : n.a. : Not Applicable ; ... : Data Not Available.

Annex II: Summary Table of the Bank's Active Portfolio in Mali as at 31 January 2014

(Million UA)

PROJECT	Approval Date	Signature Date	Effectiveness Date	Closing Date	Approved Amount (MUA)	Disbursed Amount (MUA)	Disbursement Rate.	Risk Status	Performance Rating	
Bani and Selingue Basin Development Programme	27.05.2009	17.06.2009	12.11.2009	31.12.2016	44.00	8.63	19.61%	Non PP / Non PPP	2.43	
South Kayes Animal Production Development Project	18.04.2009	17.05.2007	14.11.2007	31.12.2014	15.00	7.30	48.66%	Non PP / Non PPP	1.97	
Cotton Sector Support Project-Mali	29.11.2006	01.02.2007	23.01.2008	31.12.2014	10.00	3.96	39.59%	Non PP / PPP	2.16	
Ruminant Livestock Sustainable Management Project- Mali	25.01.2006	16.10.2006	18.01.2008	31.12.2013	5.32	3.38	63.56%	Non PP / Non PPP	2.16	
RURAL DEVELOPMENT (4)					74.32	23.27	31.31%		2.18	
Bamako Urban Road	27.09.2010	14.10.2010	15.03.2011	31.12.2013	12.00	7.77	64.82%	Non PP / Non PPP	Not rated	
TRANSPORT (1)					12.00	7.77	64.82%			
Gao, Koulikoro et Ségou DWSS Project	11.06.2008	30.07.2008	06.02.2009	31.12.2014	32.73	9.25	29.85%	Non PP / Non PPP	2.08	
IWRM Plan Support Project	07.01.2010	28.05.2010	22.10.2010	30.06.2013	1.68	0.61	36.49%	PP / Non PPP	1.68	
WATER AND SANITATION (2)					34.41	9.86	28.65%		1.88	
Community Development Support Project	03.05.2006	02.06.2006	30.10.2006	31.12.2012	15.00	12.29	81.97%	Non PP / Non PPP	2.45	
Emergency Humanitarian Aid	12.07.2012	06.09.2012	06.09.2012	30.11.2012	0.65	0.65	100%	No Supervision		
SOCIAL (2)					15.65	12.95	82.73%		2.45	
Guinea-Mali Interconnection Study	12.01.2011	02.06.2011	19.11.2012	30.06.2014	0.83	0.0	0%	No Supervision		
SREP Investment Plan	15.11.2011	24.01.2012	24.01.2012	30.09.2013	0.13	0.13	100%	No Supervision		
ENERGY (2)					0.96	0.13	13.64%			
Economic Recovery Emergency Support Programme	08.05.2013	10.05.2013	21.10.2013	31.07.2014	40.00	40.00	100%	No Supervision		
Economic Management Support Project	01.07.2013	26.11.2013	26.11.2013	30.12.2018	9.97	0.0	0%			
MULTISECTOR (2)										
TOTAL ACTIVE PORTFOLIO (12)					193.15	107.2	55.52%		2,13	

Annex III: Development Partner Interventions in the Sector in Mali

PROJECT	PARTNER	COST	ZONE/PERIOD	COMMENTS
ONGOING PROJECTS				
Guinea-Mali Electricity Interconnection Project ‘Study on the Fomi-Bamako Link’	ADB – WAPP and govt. Mali and Govt. Guinea	CFAF 2 138 million	2013-2015	Electricity
Ségou-Markala-Niono 63kV HV Transmission Line Project		CFAF 12 000 million		Electricity
Energy Sector Support Project (PASE)	World Bank	US\$120 millions	2009-2014	Energy
Project for the Extension of the IDB Balingue Plant by an additional 23 MW	IsDB	CFAF 197 000 million	2013-2014	Electricity
Sikasso to Bamako 225kV Electric Power Transmission Line Project	BIMC-Exim Bank and Gov. of Mali	US\$100 million		Electricity
Taoussa Hydro-Electric Dam	Kuwait Fund; IsDB; WADB; Saudi Fund; OPEC; ABEDA; EBID; Abu Dhabi Fund and GoM	CFAF 130 billion		Hydro- Electricity
Village Electrification Project using Solar Energy (PEVES) Phase 2	India	CFAF 3,463 million	2010-2014	Village Electricity
NEW PROJECTS AND/OR PROJECTS UNDER PREPARATION				
SHER RURAL Electrification using RE	SREP-Mali; WB	US\$ 57.9 million	2014-2018	Multiple RE
Mini-Hydro-Power Project	SREP-Mali; ADB	US\$136.5 million	2015-2019	Hydro-Power
Solar Photovoltaic Plant Construction Project (20 MW)	SREP-Mali; IFC ; ADB	US\$60 million	2015-2018	Solar
Solar Photovoltaic Plant Construction Project (33 MW) in Ségou	SCATEC SOLAR WEST AFRICA; SREP-Mali.	€58 .3 million	2014-2017	Solar
Kénié Dam Construction Project	GoM; IFC.	€126.1 million	2014-2018	Hydro-Power
Gouina Hydro-Power Project	Mali, Mauritania, Senegal, China Import-Export Bank,	€275 million	2014-2018	Hydro-Power
Markala Power Plant Construction Project	ContourGlobal LLC-USA	CFAF 27 300 million	2014-2017	Electricity
Construction of a High Voltage Loop around Bamako.	GoM; China Machinery Engineering Corporation	CFAF 53 375 million	2015-2017	Network
50 MW _C Solar Plant in Kita	R20	CFAF 62 billion	2014-2016	Solar
50 MW _C Solar Plant in Sikasso	EXON	US\$ 122 billion	2014-2016	Solar

Source : DNE, February 2014

Annex IV: Map of Project Intervention Area



(Source : <http://hdrstats.undp.org/fr/pays/profils/MLI.html>)

AFRICAN DEVELOPMENT BANK

BOARD OF DIRECTORS

Resolution N° B/ML/2014/58

Adopted by the Board on a lapse-of-time basis on 22 October 2014

Grant to the Republic of Mali from the resources of the Trust Fund for the Strategic Climate Fund to finance part of the foreign currency costs of the Project for Scaling-up Renewable Energy in Mali (PAPERM)

THE BOARD OF DIRECTORS,

HAVING REGARD to: (i) Articles 1, 2, 12, 13, 14, 15, 16, 17, 18 and 32 of the Agreement Establishing the African Development Bank (the "Bank"); (ii) the Financial Procedures Agreement dated 6 December 2010 (the "FPA"), between the Bank and the International Bank for Reconstruction and Development (IBRD) as Trustee of the Trust Fund for the Strategic Climate Fund (SCF); and (iii) the Appraisal Report contained in Document ADB/BD/WP/2014/167/Approval - ADF/BD/WP/2014/114/Approval (the "Appraisal Report");

NOTING that the SCF was established as one of the two strategic funds under the Climate Investment Funds and is designed to support developing countries in their efforts to achieve climate-resilient, low-carbon development;

FURTHER NOTING that the IBRD, acting as Trustee of the Trust Fund for the SCF, has committed the sum of One Million Five Hundred Thousand United States Dollars (USD 1,500,000) to finance part of the foreign currency costs of the Project for Scaling-up Renewable Energy in Mali (PAPERM) (the "Project");

CONSIDERING that pursuant to the FPA, the Bank has been designated as one of the Implementing Entities of the SCF;

DECIDES as follows:

1. To approve the implementation of the Project by the Bank;
2. To authorize the President of the Bank to conclude a Protocol of Agreement between the Bank (acting as an Implementing Entity for the Trust Fund for the SCF) and the Republic of Mali, for an amount not exceeding One Million Five Hundred Thousand United States Dollars (USD 1,500,000), to finance part of the foreign currency costs of the Project, on the terms and conditions specified in the General Conditions Applicable to Protocols of Agreement for Grants of the African Development Fund, as applicable, and in the Appraisal Report;
3. The Grant shall be administered in accordance with the FPA;
4. The President may cancel the implementation of the Project by the Bank if the Protocol of Agreement is not signed within one hundred and eighty (180) days from the date of approval of the Grant; and
5. This Resolution shall become effective on the date above-mentioned.