

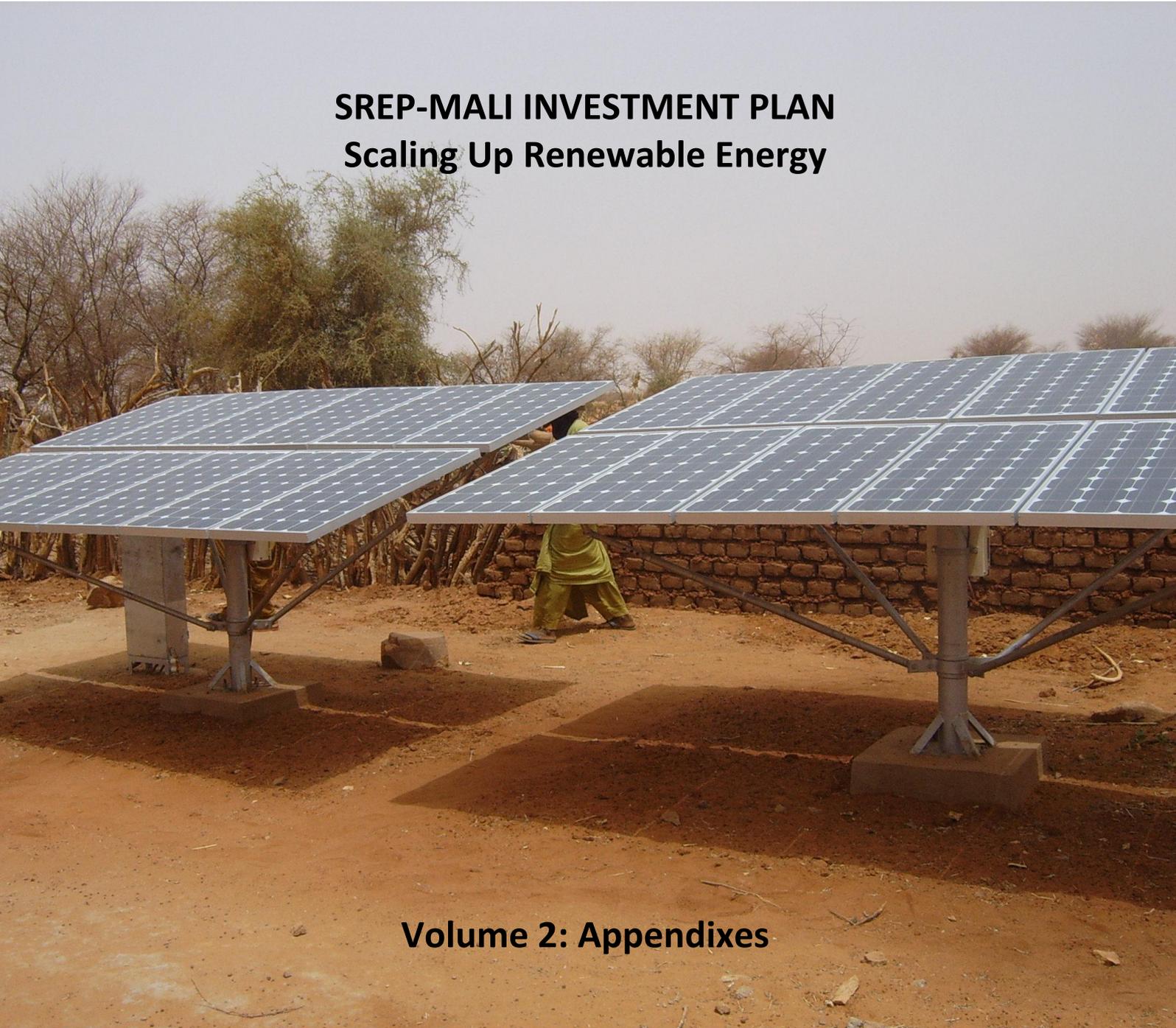


REPUBLIC OF MALI  
MINISTRY OF ENERGY AND WATER



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*NATIONAL DIRECTORATE OF ENERGY*

## **SREP-MALI INVESTMENT PLAN Scaling Up Renewable Energy**



**Volume 2: Appendixes**

# Appendices

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Appendix 1: Characteristics of mini/micro hydroelectric power plants

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## Appendix 1: Characteristics of mini/micro hydroelectric power plants

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Selected locations for micro-mini hydroelectric power plants (Project 3):

N°	Site	Region	Installed capacity (kW)	Energie moy annuelle (MWh)	Expected Time for the Studies	Expected Time for the Construction
<i>Phase 1</i>						
1	Farako 1	Sikasso	55	280	4 months	8 months
2	Billy	Kayes	170	968,0	6 months	12 months
3	Kéniéto	Kayes	280	1214	6 months	12 months
4	Woroni	Sikasso	393	1319	8 months	12 months
5	Djenné	Mopti	7000	30660	10 months	
6	Talo	Ségou	3700	16206	10 months	24 months
7	Kourouba	Koulikoro	10000	43800	10 months	24 months
<i>Phase 2</i>						
	Djenné	Mopti	7000	30660		24 months
			<b>21598</b>	<b>94446,59</b>		

## Appendix 2: Program Strategic Coordination

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### **Context and Rationale / Statement of Problem**

Mali was selected as pilot country for the Scaling Up Renewable Energy Program. In this context, an investment plan is being prepared and will be implemented through several projects. A Strategic Coordination Component will be in place for the SREP-Mali Program to ensure that the three proposed investment projects, targeting renewable energy (RE) technologies, do not operate as separate entities outside the programmatic approach defined by the Government in the light of existing national policies and strategies. Without this strategic coordination, the SREP projects would operate on a “business as usual” mode, which would work against SREP’s transformational objective and jeopardize the achievement of expected outputs.

### **Objective / Proposed Input to Drive the Transformation**

The general objective is to ensure the strategic/programmatic coordination of the SREP Program in Mali. That includes several specific objectives such as:

- Ensure that all projects activities are consistent with SREP guidelines and are in line with national policy orientations and strategies;
- Promote efficient knowledge management and exchange of best practices (information sharing and lessons learning activities) between projects and with other African countries, and define an efficient monitoring/evaluation system that contributes in improving SREP’s impacts;
- Ensure a favourable environment for the rapid expansion of REs, that is, promote a crosscutting approach aimed at building the capacities of all the stakeholders and review elements of the legal, regulatory and institutional framework, where necessary;
- Strengthen the Government’s political commitment and the involvement of sector stakeholders to ensure that a favourable environment is in place for the expansion of REs;
- Ensure that SREP activities and investments can be sustained beyond the SREP;
- Make the SREP known in order to raise additional funds and foster the large-scale replication of activities (countrywide and in the sub-region);
- Ensure that SREP projects are designed and implemented with a view to produce transformational impact and the expected catalytic outcomes in terms of development based on low GHG emissions.

The activities built into the Strategic Coordination Component are a key contribution to the transformation of the sector since they will clarify and consolidate the necessary environment for the rapid and efficient implementation of investments. They should also help to spur and facilitate additional investments in the coming years.

### **Project Supervision / Institutional Framework**

The proposed institutional set up to coordinate and implement the program tries to match the institutional responsibilities within Government departments as closely as possible, while considering the operational imperatives that are tied to program components. The proposed institutional

arrangement to coordinate and implement the program is based on the following key functions/structures:

- **A Steering Committee;**
- **A Program Strategic Coordination Unit;**
- The **Executing Agencies, namely** DNE, AMADER, ANADEB, and CNESOLER, EDM and
- **A Consultative Committee.**

#### Steering Committee

**Mandate.** The Steering Committee is responsible for general strategic orientation, supervision and implementation of the program, and for assessing progress. It will ensure that program implementation complies with SREP principles, in light of the national energy policy and in the context of the National Renewable Energy Development Strategy. It will also have the role of guiding, supporting and advising all activities implemented as part of investment programs and projects.

The Steering Committee that exists at the programmatic level justifies the fact that there is no steering committee for the three investment projects. The person in charge of the implementation unit of each project will sit in the Steering Committee of the program to ensure consistency between the "project" and "program" levels.

Specifically, the Steering Committee:

- Approves action plans and annual budgets of the program, and monitors the financial execution of credits allocated;
- Monitors the progress of the program and projects, identifies and updates the potential impact and expected outcomes, and decides on possible adjustments;
- Approves the annual programs of activities and budgets of projects;
- Audits and approves the technical and financial appraisal and the performance reports of the program;
- Ensures that program resources are effectively utilized to support planned activities;
- Proposes or takes necessary measures to tackle obstacles to the smooth implementation of the program;
- Ensures the effective involvement of all Program stakeholders;
- Ensures synergy between program activities and other projects/operations financed by development partners;
- Evaluates the performance of the program's Strategic Coordination Unit.

**Composition.** The Steering Committee comprises representatives from the following structures:

- The National SREP Focal Point;
- The managers of the implementation units of the investment projects;
- Three representatives of the Ministry of Environment (AEDD/DNEF/DNACPN);
- One representative of the Ministry of Economy and Finance;
- One representative of the Ministry of Agriculture (DNAGR);

- One representative of the National Directorate of Hydrology;
- One representative of the Ministry in charge of the Local Authorities.

Sessions of the Steering Committee are chaired by the SREP National Focal Point and the secretariat is managed by the Program’s Strategic Coordination Unit.

**Frequency.** The Committee meets four times every year in ordinary session. It may meet in extraordinary session whenever necessary, as convened by its Chairperson.

○ Meeting in Ordinary Session

For ordinary sessions, the agenda and working documents must be sent by the Chairperson to Committee members at least fifteen (15) days to the date of the meeting. Minutes of meetings will be drafted by the Program’s Strategic Coordination Unit. The Chairperson will verify their consistency with the deliberations of the Committee and appose his/her signature. Subsequently, the minutes will be circulated to Committee members by the Program’s Strategic Coordination Unit, latest fifteen days following the holding of the session.

○ Extraordinary Sessions

These sessions will be convened by the Committee Chairperson, when the need so arises. Generally, one or two items feature on the agenda and may relate to subjects such as:

- The provision of information that is crucial to the implementation of the Program;
- The search for a solution to a problem whose immediate resolution is necessary for Program continuation or smooth implementation;
- The consideration of recommendations arising from an external audit, supervision or appraisal report; and
- A budget review.

Deadlines for convening sessions and dispatching documents may be reduced to one week or at the convenience of members. The Program’s Strategic Coordination Unit will prepare a summary note on each agenda item for Committee members, highlighting the importance of the issues treated and the proposed decision to take. Minutes of extraordinary sessions will be prepared and circulated under the same conditions (addresses, deadlines) as those mentioned for ordinary sessions.

Program’s Strategic Coordination Unit

**Mandate.** Under the supervision of the Steering Committee, the Unit will implement its half-yearly work program, once validated by the Steering Committee. This work program must allow the implementation of the activities listed in the section below titled “Components”.

**Composition.** The Program’s Strategic Coordination Unit will be housed in the Energy Directorate, Ministry of Water and Energy. This Unit will comprise several experts, including:

- A policy/institutional expert – responsible for planning and general coordination of the Program, who will ensure consultation among all stakeholders and carry out reform-related activities at the institutional, regulatory and other levels.

- A monitoring/evaluation expert – responsible for M/E system operation, in collaboration with Energy and Environment CPSs<sup>1</sup>, the monitoring/evaluation experts of the three projects and in liaison with the communication/knowledge management expert.
- A communication/knowledge management expert – responsible for defining and implementing the Program’s communication strategy and for undertaking capacity-building/knowledge management activities (Country-managed information sharing and lessons-sharing activities).
- An energy/environment officer and a financial/procurement officer would eventually be added, depending on needs to be specified in the coming months.

Experts<sup>2</sup> of the Strategic Coordination Unit lodged in MEE, will be part of MEE staff. Each expert will be bound to the program by a *performance contract*, to be evaluated annually. Administrative modalities concerning the recruitment and remuneration of experts will comply with the malian regulations.

The Coordination Unit will also benefit from the *ad hoc* services of an *external expertise*, as the need arises (the Unit’s staff is responsible for preparing the ToR of external consultants and monitoring their activities). This could be the case of an expert capable of assessing the RE financing mechanisms used and mobilizing future mechanisms, etc.

### Consultative Committee

**Mandate.** The Consultative Committee must provide SREP Program stakeholders (including NGOs, the private sector, etc.) with information on the status of program activities and allow them to express their views/concerns on Program implementation.

**Composition.** The Consultative Committee comprises SREP and CIF National Focal Points, representatives of the Ministries of Energy and Environment, representatives of the national agencies implementing program activities, NGOs involved in Program implementation, representatives of the private sector, MDBs and other development partners including the UN, etc.

**Frequency.** The Consultative Committee meets once every year at the start of the year.

### **MDB Responsible for Supporting the Implementation**

Funds meant for Strategic Coordination activities will be channelled through one of the investment projects – namely, the project supported by the African Development Bank, the lead MDB for SREP-Mali.

### **Development Partners**

The Strategic Coordination will build on the existing activities financed by DPs (see table at the end of the investment plan) in terms of building stakeholder capacity, analytical studies, etc. Moreover, some strategic coordination-related activities will either be co-financed or strengthened by activities implemented by other DPs. Some examples are listed below:

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<sup>1</sup> National Statistical and Planning Units.

<sup>2</sup> See proposed ToR in annex.

- At the end of 2011, the IAEA will start a program aimed at building DNE capacity to improve national energy planning (amount = USD 200,000) ;
- At the end of 2011, the European Union will start an initial and continuing training program for rural electrification operators and actors (amount = USD 1,300,000);
- Etc.

### **Estimated Cost of the Component / Financing Plan / Rationale of SREP Financing**

The budget of SREP-Mali Strategic Coordination is estimated at USD 4 million in SREP contribution. This budget reflects the importance the Government of Mali pays to the programmatic approach, the efficiency of the monitoring/evaluation system of the program and projects, the improved effectiveness of investments through knowledge management and capacity building.

The use of SREP funds is justified by the fact that this Strategic Coordination is the very core of the SREP programmatic approach and must multiply the positive impact of investment projects. Strategic Coordination will ensure that projects are not implemented separately and that they benefit from knowledge acquired more widely at the country, regional and international levels. For activities related to Strategic Coordination, SREP funds will be allocated in the form of grant.

The financing plan is available in the investment plan.

### **Components and Sub-Components**

#### Component 1: Strategic Coordination- Budget: USD 500,000

- Ensure the Program's administrative/financial management and especially: (i) prepare the Program's annual work plans, incorporating the work plans of the three projects; (ii) prepare cash withdrawal requests under Financing; (iii) manage the Special Account and keep program-related books and accounts, making necessary arrangements for their audit; (iv) participate in the administration of bid invitation and contract procedures under the Program; (v) prepare quarterly consolidated progress reports for submission to the Steering Committee and the MDB supporting the Program's Strategic Coordination;
- Ensure the 'general coordination' of SREP-Mali, while strengthening collaboration among all stakeholders (put in place effective/appropriate communication/information channels);
- Ensure synergy between the three investment projects;
- Harmonize the SREP programmatic approach with the orientations of the national Poverty Reduction Strategy (PRSP) on the one hand, and those of the National Energy Policy and Renewable Energy (RE) Strategy on the other hand, to ensure sustainable social and economic development;
- Support the start-up of the National Renewable Energy Commission, an inter-sectoral entity, to mainstream REs in different sectors and thus facilitate the achievement of development objectives;

- Organize fundraising to ensure project co-financing and the sustainability of investments made (include the contributions of new co-financiers, prepare dossiers to benefit from carbon funds, trust funds, etc.)<sup>3</sup>. The result of this work must contribute to increase RE investments in the country;
- Anticipate the disbursement of new funds via the new funding mechanisms being prepared internationally (stemming from UNFCCC negotiations), and ensure Mali's readiness to benefit from these funds.

#### Component 2: Information Sharing and Lessons Learning (ISL), Communication and Advocacy-

Budget: USD 1,500,000

- Define and implement an RE communication strategy with a built-in advocacy component strengthening stakeholders' political commitment;
- Disseminate and communicate the SREP outputs at local, regional, national and international level (especially by posting knowledge management products online);
- Support the management of knowledge acquired by the program in RE (approaches, methodologies and lessons);
- Ensure linkage with the CIF Administrative Unit and draft regular program implementation reports meant for the SREP sub-committee;
- Conduct targeted studies, organize consultation workshops and develop/support dialogue to make project implementation more efficient;
- Review international experience on RE that has common points with SREP and ensure that the Strategic Coordination draws from the lessons of these projects to improve the implementation of SREP;
- Regularly monitor progress achieved in other SREP countries and share experience in the operational management of the program;
- Participate in fora organized by CIF or other partners to exchange experiences with other pilot countries, or other countries that are actively developing REs;
- Organize information and exchange sessions with countries of the sub-region to disseminate best practices and SREP's program-based approach (in collaboration with the ECOWAS/WAEMU Regional RE and Energy Efficiency Centre, and with Mali's Training Centre for Development);
- Strengthen institutional links and technical participation in activities with relevant institutions, for example the Regional RE and Energy Efficiency Centre, ECOWAS, IRENA, the international year of renewable energies organized by the United Nations, etc.

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<sup>3</sup> Distinguishing between contributions of MDBs, governments, multilateral and bilateral organizations, credit services bodies, the private sector).

### Component 3: Monitoring and Evaluation (M/E) - Budget: USD 500,000

- Develop an efficient data collection system and ensure regular data collection;
- In support of the strengthening of the national energy monitoring/evaluation systems, operate the SREP monitoring/evaluation system and fill-in the logical framework indicators;
- Based on outputs regularly obtained, make recommendations to improve Program implementation and its transformational impact;
- During monitoring/evaluation, determine the potential for further development of REs in the country and the investments needed in that regard;
- Assess the social, economic and environmental impacts of all project investments and program activities (including those related to ISL) and ensure the implementation of the SEA recommendations.

### Component 4: Capacity-building - Budget: USD 1,500,000

- *At the institutional level:* (i) review the RE sector's institutional framework and the mandate of national institutions (to ensure consistency between them) and build their capacity (especially in carbon finance); (ii) review arrangements (legal, legislative, regulatory, tariff<sup>4</sup>, fiscal, etc.) governing the sub-sector, notably in the context of the design of the new PRSP and gender mainstreaming; (iii) adapt RE technologies to the Malian context, deepen resource mapping works and build national energy planning capacity (in coordination with AIEA);
- *At the level of private operators:* (i) support training in management techniques (human and financial resources, administration, design of business plans, marketing, environmental impact of investments, sensitization on social issues, etc.); (ii) understand the regulatory frameworks governing the sub-sector (legal, legislative, regulatory, tariff, fiscal, etc.); (iii) transfer knowledge on technologies available at the international/regional level and on applications that may be relevant to the case of Mali;
- *At the level of commercial banks:* (i) assess needs, (ii) develop specific lending products for renewable energies; (iii) sensitize and train executives, especially on potential returns on investments for RE investments, RE technologies, etc.; (iv) present and discuss potential funding mechanisms that may enable better access to the RE technologies market.

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<sup>4</sup> Feed-in tariffs for instance.

## **Annex: Terms of Reference for Experts of the Coordination Unit**

### **Principal Coordinator, Institutional Expert**

#### **I. CONTEXT**

In July 2010, Mali was selected as pilot country for the Scaling Up Renewable Energy Program (SREP). The Program's objective is to test low carbon-intensive strategies in order to address climate change. This entails demonstrating the economic, social and environmental viability of these approaches by generating new economic opportunities and broadening access to energy services using renewable energies. The SREP program must enable beneficiary countries to initiate the process of transformational change that will lead the country to adopt a development method based on low greenhouse gas emissions. This will be possible by harnessing the country's renewable energy potential instead of resorting to expensive, polluting fossil fuels and the inefficient use of biomass.

In this context, an investment plan is being designed and will be implemented through several projects. A Strategic Coordination Component of the SREP-Mali Program is in place to ensure that investment projects are not managed as separate entities outside a program-based approach. SREP adopts a holistic approach and involves many State institutions, multilateral development banks (namely, the African Development Bank, the World Bank and the International Finance Corporation), and all national and international stakeholders, including the private sector. Moreover, efficient coordination is key to achieving the expected outputs of SREP-Mali.

The Strategic Coordination Unit housed in the National Directorate of Energy oversees the strategic coordination of the Program. It comprises three experts working under the supervision of the SREP National Focal Point and is answerable for implementing decisions taken by the SREP National Steering Committee. The Principal Coordinator is one of these three experts.

#### **II. TASKS AND RESPONSIBILITIES**

##### **II.1 Tasks**

The Principal Coordinator will be responsible for all aspects related to Program activity coordination and will manage activities linked to the revision of the institutional, policy, regulatory and legislative frameworks. S/he will work under the responsibility of the SREP National Focal Point and ensure the implementation of decisions taken by the SREP National Steering Committee. Relations of collaboration will be established with representatives of the sectoral ministries involved in implementing SREP-Mali activities.

##### **II.2 Responsibilities**

The Principal Coordinator / institutional expert will be responsible for coordinating SREP-Mali activities, in general, and the institutional aspects, in particular. S/he will implement the activities listed in the SREP-Mali Investment Plan concerning the Strategic Coordination. Generally, his/her activities will involve:

### ***In terms of program coordination***

- Supervising and coordinating, as appropriate, the implementation and completion of SREP-Mali activities, based on the annual work program.
- Ensuring the Program's compliance with key Government and MDB regulations and standards regarding all financial and administrative aspects.
- Ensuring collaboration with investment project coordinators to enhance the program's efficiency and effectiveness by identifying bottlenecks in activity implementation and appropriate solutions for their reduction or elimination.
- Creating, in relatively direct ways, synergy with the key development partners in the area of renewable energies.
- Organizing and conducting joint Government/MDB supervision missions, mid-term review and final evaluation of the Program.
- Organizing meetings of the National Steering Committee and producing/circulating reports and minutes.
- Supervising the preparation of the Program's annual activity report and submitting it to the National Steering Committee.
- Coordinating the management of Program assets, including office equipment, offices and facilities.
- Organizing fundraising to ensure projects co-financing and sustainability of investments.
- Making available new funds well in advance through the new funding mechanisms being prepared at the international level (especially stemming from UNFCCC negotiations), and ensuring Mali's preparedness to benefit from these funds.
- Actively overseeing the implementation of activities to ensure that they comply with SREP guidelines and are in line with the country's policy and strategic orientations.

### ***Regarding institutional and policy aspects***

- Coordinating all national institutions involved in Program implementation, to harmonize approaches.
- Coordinating all international institutions involved in Program implementation, to consolidate and firm up synergy.
- Forging partnerships with key development partners, to mobilize additional and complementary resources.
- Participating in meetings of existing social and economic development networks or working groups to represent SREP and guaranteeing the consideration of energy challenges.
- Implementing the Unit's activities relative to the revision of the institutional, legislative, regulatory and other frameworks that help to consolidate the environment and foster greater and sustainable investments in the sector.

### **II.3. Skills, Qualifications and Experience**

- A graduate degree (at least A-level+4) in the following fields: social/political sciences, economics, public administration, international development. Additional training in energy and/or environment/climate change will be an added advantage.
- At least 7 years' professional experience in project/program management with international partners in the energy and/or climate change sectors.
- Excellent knowledge of the energy sector's institutional landscape in Mali.

- Good knowledge of energy, environmental/climate-related issues in Mali.
- Self-driven, autonomous and capable of organizing his/her own work and that of the Unit (management and leadership skills needed).
- Excellent written and oral communication skills; excellent drafting and précis-writing skills.
- Excellent knowledge of written and spoken French; knowledge of spoken and written English will be an advantage
- Previous work experience on development programs/projects, especially in the energy sector.

## **Monitoring/Evaluation Specialist**

### **I. CONTEXT**

In July 2010, Mali was selected as pilot country for the Scaling Up Renewable Energy Program (SREP). The Program's objective is to test low carbon-intensive strategies in order to address climate change. This entails demonstrating the economic, social and environmental viability of these approaches by generating new economic opportunities and broadening access to energy services using renewable energies. The SREP program must enable beneficiary countries to initiate the process of transformational change that will lead the country to adopt a development method based on low greenhouse gas emissions. This will be possible by harnessing the country's renewable energy potential instead of resorting to expensive, polluting fossil fuels and the inefficient use of biomass.

In this context, an investment plan is being designed and will be implemented through several projects. A Strategic Coordination Component of the SREP-Mali Program is in place to ensure that investment projects are not managed as separate entities outside a program-based approach. SREP adopts a holistic approach and involves many State institutions, multilateral development banks (namely, the African Development Bank, the World Bank and the International Finance Corporation), and all national and international stakeholders, including the private sector. Moreover, efficient coordination is key to achieving the expected outputs of SREP-Mali.

The Strategic Coordination Unit housed in the National Directorate of Energy oversees the strategic coordination of the Program. It comprises three experts working under the supervision of the SREP National Focal Point and is answerable for implementing decisions taken by the SREP National Steering Committee. The Monitoring/Evaluation Specialist is one of these three experts.

### **II. TASKS AND RESPONSIBILITIES**

#### **II.1 Tasks**

The Monitoring/Evaluation Specialist will be responsible for all program monitoring/evaluation activities and must ensure coordination with the monitoring/evaluation systems of SREP projects. S/he will work under the responsibility of the Unit's Principal Coordinator, in collaboration with the other SREP and investment project experts, and in synergy with the monitoring/evaluation units of the ministries concerned.

#### **II.2 Responsibilities**

The M/E Specialist will in particular:

- Develop solid M/E mechanisms for SREP-Mali
- Collect data and implement the M/E system in collaboration with all the other program experts, particularly with persons responsible for the M/E of investment projects
- Ensure that the action plans of the program and projects adhere to the program logical framework
- Ensure adequacy between the financial data and physical achievements of the program

- Assist project executing agencies/implementation units to interpret activity-related data and to present them in a simple, concise manner, to help decision-making and improve the modalities of the program implementation structure
- Supervise the preparation of periodic program performance reports and, in collaboration with the communication specialist, contribute to disseminate them and present them to different audiences
- Prepare the terms of reference and contracts of external consultants involved in the monitoring/evaluation of SREP-Mali activities and supervise their activities
- Prepare regular comprehensive reports on M/E activities, for their inclusion in the annual activity report
- Based on the environmental and social analysis conducted during Phase 1, implement the program's SEA recommendations and ensure consistency between the ESIA and ESMP designed for investment projects. This work will be done in collaboration with DNACPN and could benefit from the support of environmentalists of MDBs
- Carry out any other activity agreed with the SREP-Mali Coordinator and the National Focal Point.

### **II.3. Skills, Qualifications and Experience**

- Graduate degree (at least A-level +4 years) in the following fields: social/political sciences, economics, public administration or international development. Specialized training in M/E is an added advantage.
- At least 5 years' work experience in monitoring/evaluation of development projects and programs, preferably in the energy sector and/or climate change.
- Good knowledge of the institutional landscape in the energy sector in Mali.
- Good knowledge of energy, environmental/climate issues in Mali.
- Self-driven, autonomous and capable of organizing his/her work.
- Excellent written and oral communication skills; excellent drafting and précis-writing skills.
- Excellent knowledge of written and spoken French; knowledge of written or spoken English is an added advantage.

## **Communication/Knowledge Management Specialist**

### **I. CONTEXT**

In July 2010, Mali was selected as pilot country for the Scaling Up Renewable Energy Program (SREP). The Program's objective is to test low carbon-intensive strategies in order to address climate change. This entails demonstrating the economic, social and environmental viability of these approaches by generating new economic opportunities and broadening access to energy services using renewable energies. The SREP program must enable beneficiary countries to initiate the process of transformational change that will lead the country to adopt a development method based on low greenhouse gas emissions. This will be possible by harnessing the country's renewable energy potential instead of resorting to expensive, polluting fossil fuels and the inefficient use of biomass.

In this context, an investment plan is being designed and will be implemented through several projects. A Strategic Coordination Component of the SREP-Mali Program is in place to ensure that investment projects are not managed as separate entities outside a program-based approach. SREP adopts a holistic approach and involves many State institutions, multilateral development banks (namely, the African Development Bank, the World Bank and the International Finance Corporation), and all national and international stakeholders, including the private sector. Moreover, efficient coordination is key to achieving the expected outputs of SREP-Mali.

The Strategic Coordination Unit housed in the National Directorate of Energy oversees the strategic coordination of the Program. It comprises three experts working under the supervision of the SREP National Focal Point and is answerable for implementing decisions taken by the SREP National Steering Committee. The Communication/Knowledge Management Specialist is one of these three experts.

### **II. TASKS AND RESPONSIBILITIES**

#### **II.1 Tasks**

Raising awareness among all national and local stakeholders about the challenges in the energy sector is a key element of SREP-Mali. Consequently, communication is a necessary tool for achieving the expected objectives. The very nature of SREP-Mali requires the efficient management of knowledge to measure the outputs obtained and share them with national and local stakeholders at all levels, as well as with the other pilot countries and, more widely, with countries of the sub-region.

The communication/knowledge management specialist must assume responsibility for all communication, information, knowledge management and advocacy activities of the Program. S/he will also support capacity-building activities by liaising with the "capacity-building" components of investment projects. S/he will work under the responsibility of the Unit's Principal Coordinator, in collaboration with the monitoring/evaluation expert, the other "communication" experts of investment projects and in synergy with the communication services of the ministries concerned.

## II.2. Responsibilities

1. Define and coordinate the implementation of all **activities related to the management of knowledge and sharing of lessons learned**, in order to timely incorporate them in the SREP investment plan and promote the replication of the approach throughout Mali and in other countries of the sub-region. As such, the communication/knowledge management expert must:

- Establish forms of dialogue with all institutional players involved in the energy sector in Mali in general, and in SREP implementation, in particular
- Define and encourage any initiative aimed at documenting and presenting the good practices of SREP (in terms of approaches, methodologies, techniques, forms of partnership, etc.), including through targeted studies on a range of topics. In this context, place emphasis on the good practices implemented for or dedicated to women
- Share SREP information by organizing consultative workshops attended by various categories of actors (representatives of technical services, local government authorities, the private sector and civil society associations, development partners, as well as specialists in different fields (foresters, agronomists, climate experts, socio-economists, etc.)
- Organize information and exchange sessions with countries of the sub-region to disseminate good practices and the SREP program-based approach (in collaboration with the ECOWAS/WAEMU Regional RE and Energy Efficiency Centre)
- Based on the existing site, create and maintain a dedicated website where SREP-related information will be posted
- Supervise the design of training modules on managerial techniques in RE for private sector operators (human and financial resources, administration, development of business plans, marketing, environmental impact of investments, sensitization on social issues, etc.).

2. Assume responsibility for the design and implementation of a suitable **communication strategy** for SREP-Mali, in order to:

- Develop communication tools and disseminate appropriate information on renewable energies and energy efficiency at country level (information tailored to different audiences and especially advocacy tools for the policy level)
- Supervise and ensure the production of annual reports and miscellaneous progress reports
- Assure linkage with the CIF Administrative Unit and draft regular program implementation reports addressed to the SREP sub-committee
- Collaborate with the M/E expert to identify key information on the SREP-Mali's general approach and key lessons learned, and share them at the regional and international levels
- Design documents facilitating fundraising.

3. Assume responsibility for the organization of **suitable capacity-building initiatives** on problems linked to renewable energies and present it in appropriate packages to different audiences, including community organizations and the private sector which operate production systems:

- Organize, in collaboration with all the investment project experts, general sensitization initiatives on renewable energies for rural communities

- By involving all investment project experts, organize more specialized training sessions for key actors, including decision-makers, elected local officials, representatives of deconcentrated services and private sector in the areas of opportunity and risk linked to renewable energies and available resources for the development of renewable energies in Mali
- For commercial banks, enlist the services of experts to: (i) assess needs, (ii) develop specific lending products for renewable energies; and (iii) sensitize and train senior staff
- Prepare the terms of reference and contracts of external consultants involved in communication/knowledge management activities and supervise their activities.

4. Carry out any other activity agreed with the Principal Coordinator and the National Focal Point.

### **II.3. Skills, Qualifications and Experience**

- Graduate degree (at least A-level +4) in one of the following fields: education, social sciences, communication. Additional training in the environmental and energy sectors will be an added advantage.
- At least 5 years' professional experience in corporate communication and/or knowledge management, preferably in the field of energy and/or climate change.
- Previous work experience on development programs/projects with international partners.
- Prior knowledge of the institutional landscape in Mali.
- Good knowledge of energy, environmental/climate-related issues in Mali.
- Self-driven, autonomous and capable of organizing his/her own work and to work in good collaboration with the rest of the team.
- Excellent written and oral communication abilities; excellent drafting and précis-writing abilities.
- Excellent knowledge of the information technologies and communication software.
- Excellent mastery of written and spoken French and ability to speak and draft documents in English.

# Appendix 3: Monitoring and Evaluation system of the Program

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## INTRODUCTION

A key component of the SREP-Mali program will be to define a participatory, coherent and permanent system for collecting, analyzing, monitoring/evaluating and reporting all activities. This system will allow for crosscutting management of all initiatives and investments undertaken in a pilot innovative project to give them internal consistency and build on them in the short-, medium- and long-term. Beyond the SREP-Mali's monitoring/evaluation system itself, the work will consist in incorporating the system into the larger national M&E system and strengthening it.

Based on the guidelines of the SREP Sub-Committee, this appendix has been prepared by the SREP National Committee to present the main aspects of the proposed M&E system.

## KEY CHARACTERISTICS OF THE SREP M&E SYSTEM

The key objective of the M&E system is to define principles and procedures for assessing outcomes, effects and impacts of all activities to be implemented under SREP-Mali. It concerns the financial and technical aspects of the program (as regards renewable energies), as well as the general environmental, social and economic implications of these investments.

A complementary objective is to incorporate this M&E system into the global national system, consolidated with the support of SREP.

By using an appropriate logical model, the M&E system will highlight the causal links between projected operations and their potential synergies. Specific indicators will concretely define the outputs (quantity and quality) so that, at the appropriate time, the Government will have all the information required for implementing and managing socio-economic development based on low carbon emissions.

The M&E system will operate in close association with the knowledge management system. Information gathered during M&E will be used not only for knowledge management activities, but also for identifying and sharing good practices, identifying problems and hence contributing to continuous improvement under the program and, beyond, at the national level.

The proposed M&E system in Mali will have a broad scope because it will seek to:

- Be fully integrated into a consolidated national monitoring/evaluation system, interconnected with climate change monitoring/evaluation.
- Be instructive, relevant and comprehensive, by analyzing targeted data collected and analyzed at an appropriate time and by adequately using this information (for possible revision of guidelines and making adjustments).
- Be simple and practical, containing a limited number of realistic indicators.
- Deal with the direct effects of energy operations, without necessarily neglecting the related benefits (for example, reducing the human-induced pressure on forest resources or strengthening local climate change adaptation and coping mechanisms).
- Include among its priorities the improvement of the people's means and modes of livelihood, the protection of the poorest and most vulnerable rural population, and attention to aspects related to gender equity (gender approach).

- Harmonize the SREP program's M&E mechanisms with those of its specific investment projects, by integrating its core indicators and the specific indicators of projects since such integration is very important for reflecting the fact that SREP is not a sum of individual projects but a unique and perfectly integrated program; and to ensure information feedback at the program level.
- Be comprehensive, by considering all the different levels (project, program, country and CIF).

In its structure, SREP-Mali's M&E system will take into account the indicators proposed by the SREP Sub-Committee to all pilot countries, while adapting them to the conditions in Mali and designing other indicators more specific for investment projects and to the Malian context.

To the extent possible, the SREP M&E system will include some baseline indicators from the National Energy Policy matrix table, while supplying the National Energy Policy system with data.

## **CHARACTERISTICS OF THE EXISTING NATIONAL ENERGY MONITORING/EVALUATION SYSTEM**

### Policy and Strategy

In the *National Energy Policy*, there are matrix tables for evaluating and monitoring the development of each sub-sector identified, including REs. The tables present the overall goals, specific objectives, strategic areas of National Energy Policy and indicators for each specific objective. The SREP M&E system will factor in these elements to ensure consistency with the National Policy indicators and sustain them. The assessment of SREP showed that the National Energy Policy monitoring framework was not effective. Therefore, in a sense, SREP should contribute to the review and revitalization of this framework.

There is no specific M&E system in the *National Strategy for the Development of RE*.

### Projects

RE-related M&E frameworks exist at the level of *projects*. Data emanating from these RE projects are a useful source of information, but need to be consolidated at national level and developed under a national M&E system. A subsequent revision of the National Energy Policy monitoring framework will take into account the work already done at project level to ensure the system's overall consistency from national to project level.

### Planning and Statistics Units

With regard to RE, relevant national Planning and Statistics Units (PSU) are mainly the Energy and Environment PSUs which centralize useful data at national level (gathered from national bodies/departments). A number of indicators have been defined for some years now, despite persistent difficulties in terms of data-collection. Such data are used, for example, in the Energy Information System, which is used for preparing the Annual Energy Sector Monitoring Report. The data will be developed within SREP-Mali's M&E system to supply baseline data.

## **STRENGTHS AND WEAKNESSES OF THE NATIONAL ENERGY MONITORING/EVALUATION SYSTEM**

There were some discussions with representatives from various departments and agencies of the Ministry of Energy to obtain their views on the strengths and weaknesses of the existing national energy sector monitoring/evaluation system. The analysis highlighted the following:

- the existing system focuses on the physical and financial monitoring of projects, and it collects, processes and disseminates information on project performance;

- the current system does not allow the Ministry of Energy to identify future trends because evaluations are not systematic for all projects. For some projects, evaluations are only circumstantial. A distinction should be made between : (i) evaluations at the request of the project sponsor for externally funded projects, and (ii) the annual sector review in which evaluation is sometimes not exhaustive, although it concerns all the projects ;
- the key strengths of the system are the existence of M&E-dedicated structures (National Energy Committee, Planning and Statistics Unit with its “M&E and IT Unit”, etc.), formal indicators and an Energy Information System;
- the irregularity of evaluation missions, the relative reliability of data and the inadequacies of the policies and strategies evaluation framework (all due to insufficient financial and material resources, inadequate and lack of qualified human resources) are the main weaknesses of the system (the Energy Planning and Statistics Unit lacks adequate financial resources for its evaluation missions and still awaits external financing). The number of PSU evaluation missions rose from 1 in 2010 to 2 in 2011 ;
- very few indicators monitored by the Energy PSU are specific to RE. The Environment PSU does not monitor indicators specific to climate change.

### Summary Table of Findings

Key Strengths of the Existing System		
Existence of an Energy Planning and Statistics Unit, with an M&E and IT Unit		
Existence of a series of indicators defined for project monitoring and implementation		
Existence of an Energy Information System (EIS)		
Existence of a framework for assessing the energy sector policies and strategies (CNE)		
Key Weaknesses of the Existing System and Mitigation Measures		
Weaknesses identified	Main Reasons Given	Proposed Mitigation Measures
Institutional framework (CNE) not operational	Lack of financial resources  Inadequate and lack of skilled human resources	Provision of adequate financial resources  Capacity building and revitalization
Absence of consolidated M&E system at national level for the energy sector, and much less for REs	Lack of financial resources  Inadequate and lack of skilled human resources	Strengthening of the financial, material and human capacity of the Ministry (PSU and DNE) to consolidate and strengthen the existing structures through better mainstreaming of REs
Irregular/unsystematic evaluation and data collection missions	Lack of financial resources Lack of material resources Inadequate human resources Lack of the M&E framework at the base	Strengthening of financial, material and human resources Devolution of the M&E framework (PSU) at the regional level
Lack of adequate data collection tools and poor reliability of data	Lack of financial resources Lack of material resources Inadequate human resources	Strengthening of financial, material and human resources Provision of data collection tools
Lack of national energy planning and clear targets based on a clearly identified and collectively validated development scenario.	A system exists, but does not correspond to national needs and is not operational due to lack of qualified human resources	Provision of resources to develop a suitable planning system and training of PSU and DNE for effective implementation

Aware of these constraints, the Malian Government will make arrangements to reduce or even eliminate their impact. In that regard, SREP should contribute to strengthen the national M&E system by carrying out activities to correct the identified drawbacks.

### **KEY MEASURES TO BE IMPLEMENT UNDER SREP**

Arrangements will be made by the Energy Department to sharply reduce or even eliminate these constraints within SREP and establish an effective system. The following measures will be particularly important in that regard (some of them could be initiated during the SREP preparatory phase under the Strategic Coordination of the Program):

- During the design of the new *Growth and Poverty Reduction Strategy Paper*, establish close partnership with the PRSP Technical Unit responsible for reviewing the number and nature of its indicators (depending on its thematic areas)<sup>5</sup> – since this PRSP is an indispensable reference of all the macro-economic, structural and social policies that Mali plans to implement to promote growth and reduce poverty.
- Establish synergy with the National Energy Policy's M&E system (information collected and analyzed at the level of SREP will supply the National Energy Policy's M&E system and vice-versa) and with indicators monitored by the Energy Planning and Statistics Unit.
- Set up an appropriate institutional mechanism which will be responsible for all M&E system-related aspects (creation of the Strategic Coordination Unit of the Program, with specific M&E responsibilities, in close collaboration with the Energy Sector Planning Unit – see infra).
- Coordinate and update Ministry of Energy's national M&E system.
- Use the services of institutions/resource persons to strengthen, coordinate or establish baseline scenarios.
- Give fresh impetus to the work of key public and private projects operating in renewable energy in Mali, for the production of quality baseline data (performance indicators).
- Set up and use a network of resource persons (belonging to universities, research centres, decentralized technical services, non-governmental organizations, private sector, etc.) to document best practices and lessons learned as part of renewable energy initiatives.
- Organize consumer surveys (even polls) to obtain local views on the strengths and weaknesses of the system of delivery of energy services to people.
- During the program's knowledge management and sharing activities, organize and hold special meetings or presentation workshops on the key outputs of the M&E system, with the participation of key national and local institutional stakeholders.
- Encourage Strategic Coordination Unit members to participate in meetings organized under the CIF and SREP to share the benefits of Mali's M&E experience.

### **KEY EXPECTED EFFECTS**

The Malian Government wants to set up an M&E system i.e. a system that will not be an “end in itself”, but a “key means” for achieving precise operational outputs. The system will aim, in particular, to:

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<sup>5</sup> Note that the 2<sup>nd</sup> generation CSLP (2007-2011) has only one indicator under the heading 'Infrastructure' concerning energy (“rate of access to electricity (rural and urban”).

- give the Malian Government, represented by the National Energy Directorate, the information necessary for optimal management of a countrywide program such as SREP;
- identify, in due time, possible factors of methodological and institutional problems concerning the collection, analysis and use of baseline data related to the supply of energy services to the people, as well as constraints linked to households' access and use of renewable energies, so as to adequately correct them;
- supply data to the knowledge management system used by all the national stakeholders;
- supply data to the knowledge management system at the international level (among SREP pilot countries and other countries having a similar environment, especially in the sub-region);
- identify more in-depth study themes on the renewable energy aspects that the M&E system will identify;
- give priority to harmonization between the M&E mechanisms of SREP, those of the *National Energy Policy* and, more widely, those of the *Growth and Poverty Reduction and Strategy Paper*, particularly the third pillar on "Infrastructure Development and Support to Key Production Sectors".

In addition to these key expected outputs, M&E activities should also strengthen the national energy M&E system.

## **IMPLEMENTATION**

A Program *Strategic Coordination Unit*, located in the Ministry of Energy, will be responsible for defining, installing and managing the SREP-Mali's general M&E system. This institutional arrangement has one major comparative advantage over other possible arrangements: since this same Unit will ensure the strategic coordination of the whole program, the M&E process will be implemented in synergy with knowledge management, capacity-building activities and mobilization of additional financial resources.

With regard to M&E, the Strategic Coordination Unit will, in particular:

- coordinate the optimum integration of the SREP outputs into the *National Energy Policy* M&E system and the *Growth and Poverty Reduction and Strategy Paper*, especially the methodological and institutional aspects;
- monitor and coordinate the implementation of the M&E systems of the three investment projects to harmonize their objectives and integrate them into the program's M&E system. Although these projects' M&E systems are in line with the procedures of MDBs, they must include some of the program's "compulsory" indicators;
- assume responsibility for an inclusive reporting system of SREP activities and its investment projects, by involving all the institutional levels;
- manage all aspects of stakeholders' M&E capacity assessment and appraise weaknesses in baseline scenarios, targeting mechanisms, technologies and human capacity;
- prepare comprehensive annual reports for the Government, SREP Sub-Committee and MDBs, which (in the spirit of the program approach) will help to consolidate any information from individual projects.

## **FINANCIAL ARRANGEMENTS**

The cost of M&E activities will be part of the overhead costs of the Strategic Coordination mechanism

of the Program (they are presented in the Investment Plan itself). A budget of USD 500,000 was earmarked for the M&E system at the program level. Additional budget, for the M&E systems developed for each of the three investment projects, will be included in the projects' budget.

### ***CONCLUSION***

The Malian Government considers the SREP M&E system as key to the success of the proposed investments, and will consequently make all necessary arrangements for its implementation.

## Appendix 4: How the proposed investment projects respond to SREP criteria?

SREP Criteria	How the proposed projects respond to the SREP criteria
Increased installed capacity from renewable energy sources	In 2011, the RE installed capacity is estimated at about 9 MW (including on-grid and off-grid systems). The SREP Program will increase this capacity by an estimated 38.6 MW including a utility scale IPP project (about 20 MW), thus scaling-up the installed capacity by close to four times compared to the current level.
Improved access to energy through renewable energy sources	Increased production capacities and <i>in-situ</i> sources of REs will allow a larger access of energy to populations living in targeted areas. Project beneficiaries (households, community institutions, SMEs, schools and clinics) with access to clean energy services will be accounted for in the program's M&E system once all feasibility studies are completed.
Low emission development	RE production facilities produce low quantities of GHGs and replace construction of thermal plants that would have otherwise produced high quantity of GHGs. This is why the adoption of these facilities is part of GHG mitigation strategies. The amount of CO2 avoided/replaced will be analyzed in detail during project preparation, in line with a request for carbon funds.
Affordability and competitiveness of renewable sources	Low lifecycle cost of electricity produced by REs in particular in rural areas after sustainable subsidy schemes, and the multiplication of facilities that would enable economies of scale are expected to reduce the cost per kWh of electricity produced.
Productive use of energy	Increased installed capacity in areas, which are still little or not deserved, will help meet the needs of populations and create/develop productive activities, such as small commerce, crafts, etc. The agricultural sector will also be supported, in particular through irrigation, thus improving agricultural yields. Directed and indirect jobs will be created by the proposed projects.
Economic, social and environmental development impact	Main impacts of the proposed projects will be the following : (i) Creation of potential markets, creation of employment, generation of revenues for households, etc.; (ii) Revitalization of the Malian private sector and mobilization of foreign private funding through forward and backward linkages of renewable energy supply; (iii) Improvement of rural livelihoods (especially for women and young people); (iv) Indirect effects on the quality of services provided by different socio-economic facilities (including schools and medical centers); (v) Reduction of the incidence of respiratory diseases (linked to indoor air pollution); and (vi) Significant reduction of GHGs, carbon sequestration, and protection of vegetation resources.
Economic and financial viability	The economic and financial viability of the proposed projects will be ensured, among others, by : (i) Regulatory /tariff measures making investment more attractive, while taking the affordability issues into consideration; (ii) SREP and MDBs attracting other investors; (iii) joint MDB policy dialogue on tariffs and subsidies in the energy sector and mobilization of additional financial resources (grants) by Mali's development partners; (iii) Development of adapted financial instruments by commercial banks and

	provision of concessional funds to the private sector by MDBs; and (iv) Formulation and implementation of a large range of incentives for private investments.
Leveraging of additional financial resources	The program will raise additional funds, by developing an innovative approach that is likely to attract the interest of other donors (in addition to the involvement of private operators, motivated to invest by a more favorable regulatory framework). Against the investment of US\$ 40 million from SREP, about US\$210 million additional will be mobilized by MDBs, other development partners, and the private sector.
Gender	The program will target specific support to income generating activities that are more particularly adapted to women. Rural electrification projects will contribute to: significantly improve the social and economic status of women in so far as its initiatives will contribute to reducing the time and chores involved in collecting firewood (thereby freeing them for other tasks, including children's education); and improve their access to energy for income generating activities. A 2011 gender assessment targeted to rural electrification initiatives identified a considerable potential for gender specific activities to be scaled up under the SREP program.
Co-benefits of renewable energy scale-up	Some of the co-benefits anticipated from the SREP program include: (i) conservation of forest and natural resources; (ii) protection of groundwater resources; (iii) local economic development and job creation; (iv) reduction of fossil fuel-dependency; (v) support to on-going decentralization efforts; (vi) improved investment climate for the private sector; (vii) empowerment of women; and (viii) improved health conditions among rural population.