



AIDE MEMOIRE

Scaling-up Renewable Energy Program in Benin (SREP)

Scoping Mission

22 - 24 April 2015

1. Introduction

- 1.1 A Mission composed of the African development Bank (AfDB), the International Finance Corporation (IFC) and the World Bank (WB) visited Cotonou from 22nd to 24th April 2015.
- 1.2 The objective of the mission was to (i) present the SREP program, with its modalities and activities related thereto; (ii) identify the different stakeholders and their respective role in the preparation of the investment plan; (iii) identify key programs / projects currently underway in the energy sector in general and the sub-sector of renewable energies, in particular; (iv) collect basic required data to prepare the investment plan; (v) identify potential technical assistance needs to reinforce capacities of the SREP National Task Force (NTF).
- 1.3 The Mission was welcomed and assisted by the SREP NTF in all of its working sessions. The NTF is currently composed of MM. Mathias Pofagi (appointed SREP focal point and Director of CePED), Valens Mulindabigwi (Water and Sustainable Development Expert), Dieudonné Padounou (Energy Specialist and Deputy Director of ANADER) and Mrs Chiquian Amegan (Expert CePED).
- 1.4 The Mission held a meeting with The Honorable Minister of Development, Economic Analysis and Prospective, Mr. Marcel de SOUZA. It met the Chief of Staff p.i of the Minister of Development, Economic Analysis and Prospective, and also the Deputy General Secretary of the Minister of Energy. The Mission also had daylong working sessions with other development partners, key public and private players in the energy sector and NGOs. Annex 3 presents a list of individuals and institutions that the Mission met.
- 1.5 The present Aide-mémoire summarizes the main findings and recommendations agreed between the Mission and the Government of Benin. A meeting during which those findings and recommendations have been discussed took place at the Ministry of Development, Economic Analysis and Prospective, 24th April 2015.

2. Brief description of the sub sector of renewable energy in Benin

2.1 Potential in renewable energy sources

- **Hydropower potential:** Hydropower potential is rather significant. It is likely to be valued to increase the national capacity of electricity production, both for the development of large hydropower plants and micro-hydro power plants in rural areas.

- **Solar Potential:** The average sunshine in Benin varies between 3.9 kWh / m² / day in the south to 6.1 kWh / m² / day in the North which represents a great potential to generate power from solar energy.
- **Wind energy potential:** Wind speed measured at an altitude of 10 m varies from 3 to 5 m/s. However, there are more favorable areas in the northern region, in the center of country and in the southern region, that are likely to host wind turbines. A more detailed study is being performing to measure the existing potential in wind energy potential.
- **Biomass potential:** Agricultural and food residues (hulls and cotton seed, palm or coconut husk), and household waste represent a raw material for power generation from biomass.

2.2 Obstacles to the Development of Renewable Energy

We note in Benin low exploitation of renewable energy potential. This is mainly due to:

- the absence of a legal incentive framework for IPPs ;
- the absence of a specific tariff policy for renewable energies;
- the initial investment cost in renewable energy is very high and induces unsustainable tariffs for the sector.

2.3 Government Energy Policy in favor of renewables

One of the objectives of government policy in the energy sector is to increase the production capacity of electric power in order to achieve a self-sufficiency of 70% by 2025. To achieve this goal, the Government intends to, among other measures, develop renewables and has set a minimum target of 25% of renewable energy in the national energy mix by 2025. Steps in this direction have been made such as:

- i) Enactment of Law No. 2012-11 of 26 January 2012 authorizing the ratification of the Statute of the International Renewable Energy Agency (IRENA);
- ii) Creation of the **National Agency for the Development of Renewable Energy and Energy Efficiency (ANADER) in 2014;**
- iii) Definition of a policy favorable to renewable energy which objectives are to increase the national generation capacity (6 solar energy plants financed by UEMOA) and to reinforce human capacities (creation of university courses and degrees, university research units in renewables);
- iv) Partnership between the State of Benin and Société Africaine de Biocarburant et des Energies Renouvelables (SABER) to mobilize funds in order to promote renewable energy in Benin.

3. Roadmap to elaborate the Investment Plan

The following schedule has been proposed for monitoring the development of the investment plan:

N°	Activities	Date	Deliverable	Recipient
1.	Documentation and interviews	21.04 – 04.05.2015	Collect of data : - List of documents - List of key players met - Energy needs in Benin - State of the potential - Technological capacities	AfDB, WB, IFC, NTF SREP
2.	Inventory and prospective analysis of valuation of renewables in Benin	05.05 – 25.05.2015	Strategic diagnosis	AfDB, WB, IFC, NTF SREP
3.	Mission to the field by the international consultant if needed	18.05 – 22.05.2015	Collection of additional data	
4.	Identification, analysis and prioritization of bankable projects	26.05 – 15.06.2015	Description of the identified bankable projects	AfDB, WB, IFC, NTF SREP
5.	Drafting of the IP document	16.06 – 30.06.2015	1st draft of the IP including projects conception notes	AfDB, WB, IFC, NTF SREP
6.	Delivery of the IP document- 1st version	01.07.2015	1st draft of the IP including projects conception notes	AfDB, WB, IFC, NTF SREP
7.	Joint mission in Cotonou	06.07 –10.07		
8.	Workshop : presentation and validation of the IP document	09.07	1st draft of the IP	AfDB, WB, IFC, NTF SREP, Development partners, Key public and private players in the energy sector, Project owners
9.	Finalization of the IP	13.07 – 24.07.2015	Amended IP document	
10.	Delivery of the final IP document	31.07.2015	Final IP document	AfDB, WB, IFC, NTF SREP
11.	Translation	August		
12.	Public consultation of the IP	August	Posting on the GoB web site	Public
13.	External technical review of the IP	October		
14.	Submission and approval by the SREP sub committee	November		

4. Needs to reinforce the NTF capacities

The Government of Benin endorsed the recruitment of an international consultant to support NTF in the production of the investment plan. However, given the additional workload for NTF members due to the SREP related activities, it seems essential to strengthen the NTF by two local consultants. Both consultants will be primarily contributing to the data analysis and finalization of the investment plan. They will interact with the different national players and the energy sector partners, specifically in renewable energy. Their involvement will substantially contribute to a better ownership and implementation of the SREP in Benin.

5. Conclusion et recommendations

5.1 The Mission work took place in good conditions and the main objectives were achieved. The mission expresses its appreciation to all the officials met during its visit for their invaluable contributions and excellent collaboration, which helped to ensure the success of the mission

5.2 The Mission recommends:

- To the Benin counterpart :

- (i). If confirmed, prepare in coordination with MDBs an IP PPG, taking into account that the mobilization of those funds could delay the submission of the investment plan;
- (ii). Send the ToR for the recruitment of the local consultants to the MDBs by 15th May 2015;
- (iii). Support the international consultant in getting all the data and information necessary to elaborate the investment plan;
- (iv). Ensure the quality of deliverables and the respect of the deadlines;
- (v). Propose a methodology, according to the SREP criteria and the national energy strategy, to enable a transparent selection of the private sector projects to be reported in the investment plan, by 29th May 2015;
- (vi). Ensure that all stakeholders are consulted during the preparation of the investment plan.

- To donors (African development Bank, World Bank Group) :

- (vii). Processing diligently the requests coming from GoB ;

- (viii). Ensure the quality of deliverables and the respect of the deadlines fixed to the consultant;
- (ix). Prepare the ToR of the joint mission.

Cotonou, 24 April 2015

Annex 1

Composition of the Mission

- MDBs
 1. Djamali Ibrahime, AfDB
 2. Komal Hassamal, AfDB
 3. MonylToga, IFC
 4. BendjinKpeglo, IFC
 5. Franklin KoffiGbedey, WB
 6. Mamadou Mustapha Lo, consultant recruited by AfDB

- SREP NTF
 7. Mathias Pofagi, Director, SREP Focal point,CePED/MDAEP
 8. DieudonnePadonou, Deputy Director of ANADER
 9. Valens Mulindabigwi, Water and Sustainable Development ExpertCePED/MDAEP
 10. Chiquian AMEGAN, Expert, CePED/MDAEP

Annex 2

SREP Mission Program Benin : 22-24.04.2015

Date	Heure	Activité	Parties prenantes	Lieu
22/04/15	8:30-9:30	Meeting with Chief of Staff p.i of the Minister of Development, Economic Analysis and Prospective	BAD, BM, SFI, point focal SREP, consultant	MDAEP
	9 :30 -10 :30	Direction Générale de l'Energie		DGE
	10:00 - 12:30	Briefing meeting	AfDB, IFC, WB, SREP NTF, consultant	CePED
	15:30 - 17:00	Meeting with Deputy General Secretary of the Minister of Energy	AfDB, IFC, WB, SREP focal point, consultant	Ministry of Energie
23/04/15	09:00 - 10:30	Meeting with development partners chaired by the Minister of Development, Economic Analysis and Prospective	UE, AFD, KfW, GIZ, PNUD, BOAD, FAGACE, WAPP, MCA, EnDev Benin, SNV	MDAEP, room 433, INSAE building
	10:45 -12:30	Meeting with key energy players (public side)	SBEE, ABERME, ANADER, ARE, CONTRELEC; DGIFD, DGPD, DGEau; DGEnergie, DGB, DGPD, DGCC; DGEenvironnement, SONAC OP, Direction OMD, CEB, FAST/UAC	MDAEP, room 433, INSAE building
	15 :30 -17:00	Meeting with key energy players (private side)	MDBs, point focal SREP, équipe national SREP, consultant, Nature Tropical, CNP-Bénin, Enerdas, Solaris Ing., Oryx Bénin, Centre Régional Songhai	MDAEP, room 213-214,
	17:15 - 18 :30	Briefing meeting	AfDB, IFC, WB, SREP NTF, consultant	MDAEP, room 213-214,
24/04/15	08 :30 - 09 :00	Meeting with representatives of private employers	AfDB, IFC, WB, SREP NTF, consultant	
	08:30 -11 :00	Drafting of the AM	AfDB, IFC, WB, SREP NTF, consultant	CePED
	11 :30-12 :00	Presentation of the AM and closing session of the mission	AfDB, IFC, WB, SREP NTF, consultant, representative of the Minister of Development, Economic Analysis and Prospective	MDAEP

Annex 3 : List of institutions and individuals met



MINISTÈRE DU DÉVELOPPEMENT, DE L'ANALYSE ÉCONOMIQUE ET DE LA PROSPECTIVE



CENTRE DE PARTENARIAT ET D'EXPERTISE POUR LE DÉVELOPPEMENT DURABLE

L'Anticipation au service du Développement

RESTITUTION DE LA 1^{ÈRE} PHASE DE LA MISSION DU SREP ET IDENTIFICATION DES AXES PRIORITAIRES D'INTERVENTION

Cotonou, le 22 avril 2015

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Cotonou, le 23 avril 2015

PROGRAMME DE VALORISATION À GRANDE ÉCHELLE DES ÉNERGIES RENOUVELABLES
MISSION PRÉPARATOIRE (SREP)

RENCONTRE AVEC LES PORTEURS DE PROJETS

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Performance et Création de Valeur

Programme de valorisation à grande échelle des Energies Renouvelables SREP













(Mission préparatoire)

Rencontre avec les partenaires

23 avril 2015

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Ministère du Développement, de l'Analyse Economique et de la Prospective

Cotonou, le 23 avril 2015

PROGRAMME DE VALORISATION À GRANDE ÉCHELLE DES ÉNERGIES RENOUVELABLES
MISSION PRÉPARATOIRE (SREP)

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Performance et Création de Valeur








SEANCE DE TRAVAIL AVEC LA MISSION PREPARATOIRE
DU PROGRAMME POUR LA RATIONALISATION A GRANDE ECHELLE
DES ENERGIES RENOUVELABLES AU BENIN (NRP)



Cotonou, CNP-Benin, le 24 avril 2015 - 08H30

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