

# Workshop Report

## Regional Workshop on Access to Modern Energy in Urban and Peri-Urban Areas: Policies, Practices, and Knowledge Sharing



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**CEMA**

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**GNESD**

GLOBAL NETWORK ON ENERGY FOR SUSTAINABLE DEVELOPMENT  
Facilitated by UNEP

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## **Executive summary**

The regional workshop on "Energy access in urban and peri-urban zones: Policies, Practices and Knowledge Sharing " was held in Dakar, Senegal from November 3rd to November 5th, 2009. The workshop was organized by ENDA with the support of UNEP. The event was a joint initiative of the GNEED (Global Network on Energy for Sustainable Development) and the Program of Capacity Enhancement and Mobilization Action for Energy in Africa (CEMA) within the framework of the Africa-EU Energy Partnership (AEEP).

With respect to GNEED, the workshop served as an opportunity to present the conclusions of the study on the problem of energy access in peri-urban zones conducted in Africa, Latin America and Asia.

Concerning, CEMA, the workshop as a framework for political dialogue allowed an exchange of thoughts on the way the institutional and human resources of the sub-region can be strengthened and mobilized so that the national and regional authorities are better equipped to benefit from the opportunities offered by the PAEE.

- Accordingly, the following themes were developed (See appendix 1)
- Stakes and challenges of access to energy in peri-urban zones: results of the last GNEED thematic studies;
- Development of a platform to exchange information on the solutions to the problem of access to modern energy in peri-urban zones;
- The Partnership Africa-Europe for Energy: Mobilization and Strengthening of capacity in the sub-region in order to fully benefit from the new support structures;
- The information and knowledge database on energy solutions in Africa (KIBESA) - a tool based on wiki and developed by CEMA.
- About forty participants from 18 different countries took part in this meeting.

## **Some Facts**

- Difficult to reach consensus for a sensible definition of peri-urban zones. In this area, the GNEED studies tried to describe these zones through their various characteristics;
- The lack of integration of peri urban zones in the energy planning process and more globally in development planning;
- The large number of people living in these zones (15 % of the total population in India, 13 % in Buenos Aires and 34 % in Kenya);
- The absence of differentiation between the energy needs of the different social segments present in these zones;

- The dynamic character of peri urban zones that stems from the important flows of people into these areas;
- The energy mix is present everywhere and especially in the domestic fuel sector;
- Lack of information exchange on proven solutions to energy access issues;
- The lack of information about analytical tools and frameworks of cooperation in the energy sector.

### **Key Messages**

- Because of the precarious conditions in rural zones and the existence of conflict areas in certain countries, migratory flows are going to increase more and more. This will stimulate the development of peri-urban zones which constitute the first centers of concentration for these vulnerable groups.
- Implementation of measures to anticipate migratory flows towards urban areas through integrated urban plans that combine the various structuring dimensions of development (water, energy, sanitation, etc.).
- The energy transition towards LPG as domestic fuel is almost inhibited because of the lack of production and storage infrastructures and the prohibitive price of the final product. This shows the need to work on the development of a well structured bioenergy market to strengthen the domestic fuel mix in peri urban zones.
- The necessity to bring forward other categories of actors in the field of energy through the development of leadership in energy at sector level.
- The necessity to identify the real needs in terms of training, information, management, technical support, etc. at the national and regional level.
- Development of an exchange platform on good practices supported by knowledge sharing tools and hosted by centers of excellence able to capitalize, initiate reflections and political dialogues at a regional scale.
- Creation of an annual award for good policies and practices

## **Introduction**

The workshop brought together about forty participants composed of policy-makers, energy experts, NGO representatives (NON-GOVERNMENTAL ORGANIZATION) from 18 countries of North, Western and Central Africa to think about issues related to energy access, particularly in the urban and peri-urban zones.

The workshop is a joint initiative of:

The Global network on energy for Sustainable development (GNESD) which has recently organized a series of case studies on access to modern energy in peri-urban zones of Africa, Asia and Latin America. These studies were conducted by Afrepren (Kenya), Enda (Senegal), ERC (South Africa), CENBO, COO-PETEC (Brazil), BARILOCHE foundation (Argentina), AIT (Thailand) and TERI (India).

and

And the Program of Enhancement of Capacities and Campaign of Mobilization Action for Energy in Africa (CEMA) within the framework of the Africa-EU Energy Partnership (AEEP).

## **Objectives of the Workshop**

Articulated around practices, policies and knowledge sharing in the area of access to energy in urban and peri-urban zones, the workshop focused on:

Discuss issues and challenges of the peri-urban zones in their energy planning;

Establish an information exchange platform on modern energy access solutions for peri-urban areas;

Identify specific needs of African stakeholders in relation to the AEEP, in particular with regard to accessing the EU instruments that exist to provide assistance to countries for increasing energy access.

Introduce stakeholders to the Knowledge and Information Base for Energy Solutions in Africa (KIBESA), a wiki-based tool being developed in the CEMA programme

## **Participants**

41 participants from 18 countries of North, East, Western and Central Africa took part in this meeting. They were composed of decision-makers, NGO officers(NON-GOVERNMENTAL

ORGANIZATION), Rural electrification agencies, consumers' associations, consultants and Development partners (UNEP, UNDP) (see list in Appendix).

## Workshop Structure

The workshop was organized around oral presentations and discussion panels.

After the opening ceremony, the workshop proceeded as follows:

**Chapter I: Presentation of the results of the GNESD study**

**Chapter II: Partnership Africa - Europe and the need of capacity building in the area of energy access.**

**Chapter III: strategies to lift the barriers to energy access**

**Chapter IV: Strategies to lift the barriers to energy services access**

## Opening Session

The opening session was jointly presided by Mr. Daniel Sarr, Adviser of the Minister of Energy, Mr. Louis Seck, Director of Renewable Energy and Mister Niane, Director of electricity. Short speeches were pronounced by Dr Jean Philippe Thomas (Enda), Lawrence Agbemabiese (UNEP, Paris) and Gordon Mackenzie (UNEP RISO).

After welcoming the participants, **Dr Jean Philippe Thomas**, coordinator of Enda-Energie raised the issue of access to energy and energy security in the context of climate change on the eve of the Copenhagen conference. The effects of climate change are felt by ecosystems in particular biomass resources which are the main source of energy for households in sub Saharan African cities and especially in peri-urban zones. The strategies of adaptation and their financing which constitute important discussion points of the Copenhagen conference have to associate the problem of energy access and energy security in all the strategic sectors of development.

**Dr Lawrence Agbemabiese** of UNEP, in his comments explained that the PEEA is a policy initiative developed by the European Union Commission and the Commission of the African Union. Its objective is to strengthen the dialogue Africa-Europe on the access to energy and energy security at the local, national, regional, continental and global level. The goal is to increase the mobilization of human and financial resources to support the development of the African energy sector through a change of scale in the volume of investments in infrastructure

and in the level of interconnections in Africa and between Africa and Europe including the promotion of renewable energies and energy efficiency.

The CEMA program emphasizes this vision in order to assist African actors to take part in the PAEE and better benefit from offered opportunities.

Accordingly , CEMA aims to: - make effective the dialogue between Europe and Africa in the area of energy access and energy security; - improve, at the level of both continents, access to reliable, affordable and sustainable energy services in conformance with the need to respect the Climate; - Increase the investments in energy infrastructures in Africa including the promotion of renewable energies and energy efficiency; strengthen the capacities of the national and regional institutions by mobilizing the existing expertise; and improve the capacities of the key energy actors with the aim of mobilizing investments in energy, including funds associated with PEEA.

**Gordon Mackenzie** of UNEP, in the name of the GNESD secretariat presented the network which aims at promoting sustainable development and fight poverty through knowledge sharing in the area of sustainable energy services. In this perspective, GNESD launches studies, which constitute a basis of information exchange; a tool to disseminate learnt lessons; a policy support and an advocacy tool with a focus on the problems of developing countries. The theme of access to energy services in peri urban zones, theme of the workshop, constitutes a perfect illustration of the methodological approach of GNESD.

**Daniel Sarr**, the representative of the Minister of energy, considered that the problem of access to energy services in peri-urban zones is a reality we must not ignore for several reasons. These reasons justify the commitment of ECOWAS countries to make 100 % of their rural and peri urban populations benefit from modern energy services. For the case of Senegal, many initiatives were launched to meet electrification targets of 75 % at the national level, 50 %, in rural areas, and 95 % in urban zones before 2015. These objectives were set in the policy letter for the development of the energy sector (LPDSE, 2008).

**Strong messages from the opening session:**

- The problem of energy is intimately linked to that of climate change. This latter is going to experience a decisive turning point in Copenhagen where agreements are expected on the post 2012 regime.
- The cities of Sub Saharan Africa are big consumers of wood and charcoal.
- The demand for wood and charcoal of the urban and peri-urban zones for domestic uses constitutes the determining factor responsible for the imbalance of natural ecosystems.
- Networking activities around the issue of energy are absolutely critical: exchange of knowledge and information, advocacy to influence policies (policy influencing).

- The political commitment of countries is indispensable both at the national and regional level. ECOWAS is a good example as it aims at ensuring a wide access to energy services for rural and peri-urban populations.

## Chapter I: Access to Energy in Urban and Peri Urban zones

This session featured two presentations each followed by the projection of a film to illustrate the issues raised with concrete cases: The first film had global implications while the second one focused on the specific case of Dakar in Senegal.

### 1 - Results of the GNESD studies on UPEA

The issue of access to available, accessible, acceptable and viable modern energies for the peri-urban zones must remain a major political concern for several interrelated reasons:

- The heavy demographic trends in these zones caused by the large number of migrants (rural exodus, farmer's, movement of refugees, etc.). About 1/3 of the world population lives in the peri-urban zones. These inhabitants represent 15 % of the total population in India, 13 % in Buenos Aires and 34 % in Kenya.
- Also, the dynamic and spontaneous character of these areas characterized by uncontrollable flows of populating give rise to a poor housing environment without legal status, the development of insecurity, a lack of proper waste management and the weakness of the basic social infrastructures.
- Finally, with respect to energy, the energy consumption profile is similar to those of rural areas with the ascendancy of biomass in the total energy consumptions figures; this represents a situation of energy transition marked by the coexistence of several fuels for cooking.

However, these zones remain complex due to their delineation, the legal status of the housing and the existing supply mode for modern energy sources, electricity in particular.

The GNESD study brings to light the dual nature of the current electrification policies which are only concerned with urban and rural areas ignoring de facto the peri-urban zones in the energy planning process even through these areas are neither rural, nor urban.

It is this gap that motivated the GNESD study which aimed at identifying the outlines of this problem and the possible political options required to improve access to energy for the poor living in the peri-urban zones with the perspective of reducing poverty and fostering environmental protection.

Short of giving a consensual definition of the peri-urban zones, the study gives in a rather complete way, their main characteristics which are: the lack of infrastructures, poverty, overpopulation, diversity, insecurity, overcrowding, lack of planning, lack of regulation, etc.

With respect to energy access, the various case studies gave the results below:

- The existence of a mix of fuels in the peri-urban zones;
- The lack of coherent policies for the introduction of modern fuels in these zones;
- The insecurity in the supply chain of modern fuels;
- The existence of administrative barriers which hinder energy access in the peri-urban zones;
- The deficit of data and information on the peri-urban zones (populations, incomes, energy needs, energy profiles, behavior, etc.);
- The absence of well targeted policies, which is related to the lack of information;
- Lack of integration between access to energy and other poverty alleviation programs.

## **2- Access to modern energy services in Peri urban zones of Dakar, Senegal**

Dakar has many peri-urban districts (approximately 20) among which seven (7) were surveyed during our study. The literature on the peri-urban zones of Dakar gives several definitions for these areas. This variety of definitions explains the difficulties encountered in delineating these peri-urban zones, buffer zones or irregular zones.

With respect to electricity access, illegal connections constitute an alternative for populations to gain access to electricity considering the moderate connection cost applied in these zones. However, the scale of the phenomenon creates problems of cost, pricing and insecurity for the populations due to the poor quality of the illegal installations. Indeed, in the peri-urban zones of Dakar, more than 26 % of electric connections are illegal. The initial costs for illegal connection are between 7 \$ and 9 \$ and are significantly lower than the real cost of subscription practiced by utility companies which is between 50 \$ and 100 \$.

For people with illegal connections, the billing of electricity is made by equipment type (A lamp for 2 to \$3 every 2 months; A TV between 3 and 5 \$ depending on the zone). These figures reveal a striking reality: The populations of the peri-urban zones pay a higher price for their electricity.

In addition, the illegal connections raise severe security problems as illustrated in the video film shot in the peri-urban zones of Dakar.

These two presentations were followed by in depth debates. We shall retain of these debates, the main points below:

- The definition of the peri-urban zone: the concept refers to the geographical localization of the zone. The described zones are not only located in the suburbs of the city but also in the heart of the city itself. This is why it is very difficult to delineate these zones;

- The notions of «energy " and " energy services ". In this workshop, the notion of energy service is better suited if we want the participants to have the same understanding. The notion of energy service refers to the final usage of energy such as cooking, lighting, motive force etc.; irrespective of the source of energy;
- The difficulties to identify the poor men in urban zones because all the inhabitants of these zones are not necessarily poor .There are no statistics on the social stratification of the populations living in these zones;
- There is a necessity to launch this kind of study in other countries such as Sierra Leone;
- The absence of control of the electric installations by the utility companies;
- The necessity to widen the debate in order to raise awareness among public authorities about the scale of the phenomenon and its social and economic implications;
- The clarification of the land tenure situation in these zones;
- The problem associated with the level of responsibility of the different actors in electricity fraud;
- The lack of awareness raising activities / information of the populations of the PZ on the dangers associated with illegal connections.

The Peri-urban, is the zone of refuge of urbanites who are disenchantated and disorientated by the system, but also, the shelter of the optimistic rural migrants. The first group has welcomed the second; the second has upset the lifestyle of the first group. Between the two groups, the expected reorganization was not made, because of the lack of an institutional mediator. We understand by institutional mediator, a regulatory framework, an urban development scheme, a coherent development policy.

## Chapter II - Barriers to the access to energy services

The barriers to modern energy access were explored in two separate panels of discussion focused on the topic of access to electricity and modern domestic fuels.

### 1 - The barriers to electricity access in the urban and peri-urban zones

The discussions of the first panel were structured around three points: i) the reasons behind the lack of access to electricity; ii) the consequences and iii) A sketch of the actions to be undertaken to improve access to electricity in peri-urban zones.

Panel members presented their experiences on the topic. This experience sharing session was followed by a big debate. Generally speaking, we shall hold that the reasons behind the lack of access to electricity in the PZ are related to administrative, institutional, political, economic and cultural issues.

**At the administrative and institutional level**, the absence of urban planning in the peri-urban districts sometimes stems from the fact that:

There is a lack of control of migratory flows towards urban areas and also for political reasons; the decision-makers have difficulty relocating squatters. Accordingly, these spontaneous and in priori precarious habitats expand gradually over time without proper planning of basic services including electricity. The answers offered by the city are not adapted to the lifestyle of these populations. «By coming in these districts, the populations came to look for some money, not comfort. The domestic staffs (cleaning ladies), for example, because of their low incomes, settle down spontaneously in available spaces that have not been carefully planned ».

In addition, because of the illegal nature of the peri urban housing, the suppliers of electricity are often unable to delivery electric services.

**At the economic level:** the financial weakness of the companies of electricity limits the possibilities of extension of the electricity network. In addition, the demand for electricity is low because this form of energy is primarily used in these impoverished areas only for lighting. The costs of connection defined by the utility companies and the costs associated with the necessary internal installations are not in adequacy with the incomes of the poor population of the PZ. This constitutes a barrier to access in spite of the existence of physical infrastructures (electricity grid).

**At the political level,** Energy planning is often short term in its scope and does not anticipate migrants' flows. There is no generalization of targeted policies in favor of the poor such as for example the policies of social connections in Ivory Coast.

**At the technical level,** the extension of the grid constitutes the technical solution preferred by companies of electricity. This is done without trying decentralized options such as solar energy as a pre-electrification step for these zones.

The autonomous research of solutions by the populations themselves: Accordingly, in zones serviced by the grid, we notice the development of electricity fraud with the retrocession of electricity by subscribed households to neighbors through illegal connections. It has at least two inconveniences: i) Loss of incomes for the utility companies; ii) Higher electricity costs for the poor.

**The lack of electricity in the PZ causes:**

- Problems of law and order. The PZ are often niches of criminal activity this is proven by the frequency of stickups, drug activities, prostitution etc.
- The slowdown in the development of these zones because of the impossibility to perform modern work. The development of the informal and manual activities just like in rural areas remains dominant.
- Lack of quality in social services such as education and health because of the absence of electricity.
- The intensification of the financial deficit of public utility companies because of energy fraud.

**Proposed Solutions**

- Make the government participate in the payment of electricity connection costs for the poor. This will strengthened the notion of public utility through the coverage of social connections (costs of connection supported by the State, as for example in Ivory Coast) using diverse mechanisms such as Revolving credit funds; gradual payment of the cost of access etc.
- Develop and follow specific programs of access to electricity for these urban and peri urban zones similar to what is done for the rural areas.
- Set up the PZ as electrification concessions operated through **public, private and community partnerships (PPCP)** involving thereby the local authorities
- Promote solar systems as alternatives to grid electricity in the peri urban zones.

## 2 - Barriers to the access to cooking fuels in the peri-urban zones (LPG, modern Biomass)

The problem of domestic fuels is very old but still remains very important. On one side, because biomass constitutes and will continue to be the main domestic fuel used for cooking (more than 90 % of the final consumptions of energy of households) in the cities of Sub Saharan Africa with the associated perverse effects on the management of natural resources, environment and public health. On the other hand, because the transition towards the use of butane gas is blocked by financial constraints for countries with weak economy that have difficulties maintaining subsidies on LPG and also by households considering their low level of income and their lack of will to switch cooking fuel.

Panel members used experiences and examples from their countries to debate widely about the constraints and solutions to the issue of modern fuel access (LPG, improved stoves including wood and associated coal).

Further to the exchanges the following barriers were identified:

- The variety of the culinary customs and the difficulty for the households to adapt to a single cooking technology;
- The variety of institutions in charge of the problem of domestic fuels: Ministry in charge of energy, Ministry for the Environment / forestry; Ministry of commerce etc. depending on the structure of the countries;
- In the PZ, many people pull their incomes from the transport and sale of the coal (example of Kenya);
- The lack of structure of the coal and wood market in most of the countries because of the dominance of informal circuits;
- The cheaper price of wood in comparison to other modern fuels;
- Difficulties maintaining subsidies in the absence of outside support / example of the distribution of improved stoves in Ghana (2005);
- It has been shown that subsidy programs for modern fuels often do not target the right category of population and are not sustainable in the long term;
- The absence of regulation and control in the PZ explains the increases of the prices of modern domestic fuels;
- Proposed alternative fuels (LPG) remain expensive, their supply is not secure and distribution networks are costly and not very successful in peri-urban zone. For example, in Ghana, the initial cost of the distribution infrastructure of LPG is about 50,000 \$. This cost must be included in the unit cost of LPG which makes it inaccessible in poor areas.

### The Solutions

- Institutional harmonization at country level. It has already started with the creation of agencies dedicated to domestic energy in several countries. For example, AMADER in Mali; the Agency for domestic Energy and the Environment in Chad. However, these supposedly light and flexible structures operating according to a « faire faire » approach have grown heavy (non-strategic recruitment) and raise the problem of their sustainability (Large operating costs).
- Exploration of the other alternative fuels such as the briquettes, biogas and other biofuels. The conditions of production, marketing and use of these alternative fuels will have to be the object of fine analyses.
- Rationalization of the consumption of fuels through the development of structured markets for the distribution of improved stoves.
- Necessity to launch **studies on the concept of modern fuel and the promotion of modern energies for domestic use.**

# Chap III: Africa-EU Energy Partnership and capacity building needs in the area of energy access

## 1 – Evaluation of needs

An important element of the Partnership Africa - Europe for Energy is to identify and to implement proven solutions to the problem of access to energy and energy security. In Africa, in spite of the existence of capable human resources, information update is often lacking and as a consequence we have a weak utilization of the instruments of the partnership.

In this regard, the CEMA project is introduced by UNEP for duration of four years in order to mobilize African expertise around the capitalization of proven solutions to the issue of energy access. The evaluation of the needs for capacity building and the various limits encountered at the national, regional level in the area of access to energy and energy security constitute the first actions of CEMA.

“The UNDP defines **capacity** as “the ability of individuals, institutions and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner”. **Capacity development** is thereby the process through which the abilities to do so are obtained, strengthened, adapted and maintained over time”

“A **capacity assessment** is defined as an analysis of current capacities against desired future capacities, which generates an understanding of capacity assets and needs, which in turn leads to the formulation of capacity development strategies (UNDP, 2007)”

These evaluations of capacity building needs were launched in the different sub regions of Africa: North, Central, southern and the West.

Tools used for the realization of surveys were:

- Questionnaires
- Phone contacts
- Country visits. This last approach was the most relevant in the preliminary appraisal of results.

Preliminary results on the capacities and needs for capacity buildings are resumed in the table below.

Country	Capacity building needs
Central Africa	

<p><b>Joseph kenfact, EED, Cameroun</b></p>	<ul style="list-style-type: none"> <li>• Planning (investment, concession in network and outside network) ·</li> <li>• Collection of data and management of the distribution of electricity,</li> <li>• Cooperation between institutions in charge of energy ·</li> <li>• Evaluation of existing capacities in countries ·</li> <li>• Strengthening of governments capacities in the mechanisms of energy integration.</li> <li>• Improvement of the investment environment to attract more business in the sector of energy</li> <li>• Support for the clarification of the institutional structure at a regional scale,</li> <li>• Development of hydroelectric dams and optimization of the interconnection networks ·</li> <li>• Facilitate the creation of interconnection networks.</li> </ul>
<p><b>West Africa</b> <b>Dr Ibrahim Togola</b> <b>Pierre Dembele</b> <b>MKC, Mali</b></p> <p>Needs are specified according to the following target groups: Public actors, Private sector and local authorities</p>	<ul style="list-style-type: none"> <li>• Planning and formulation of energy policies ·</li> <li>• Development of leadership ·</li> <li>• Partnership (Negotiation skills to effectively engage partners)</li> <li>• Training (control and energy efficiency, elaboration / assembly of business plans, explore financing options, information system for the energy sector, Upgrade in the field of energy, planning, evaluation, management and follow-up of projects and programs;</li> <li>• Training of executives and technicians in specific domains of control and energy efficiency and evaluation and follow-up of investments,</li> <li>• Loan collection techniques; software (accounting, energy, invoicing etc.) within the framework of the rural electrification <ul style="list-style-type: none"> <li>· Mobilization of resources ·</li> </ul> </li> <li>• Evaluation and follow-up of investments;</li> </ul>
<p><b>North Africa</b> <b>Dr Samir Amous, APEX,</b> <b>Tunisia</b></p> <p>Evaluation of capacities and</p>	<ul style="list-style-type: none"> <li>• Studies on how to reduce the cost of electricity for the poorest (Capacity to identify the “niches” ; Project/Mechanism Design)</li> <li>• Capacity to evaluate the Energy potential and Economic analysis of the EE&amp;RE options</li> </ul>

<p>needs</p> <p>The practical experience of APEX in the region could be even strengthened and enriched through targeted etudes.</p>	<ul style="list-style-type: none"> <li>• Studies to evaluate the Interconnection/Integration/Regulatory issues</li> <li>• Undertake relevant survey/studies for current/future biomass use/profiles + Updating process</li> <li>• Perspectives for biofuel oil use(wear out) in the Region in the intended (studies + capacity development to identify alternatives and potentials) · alternative(alternate) Project / Mechanisms to improve access / sustainability and security of supply and to responses ·</li> <li>• Mobilize resources to implement the projects ·</li> <li>• Developing Energy Outlook for medium and follow terms ·</li> <li>• Developing Energy Policies ·</li> <li>• Evaluating the resources needed to implement voluntary EE*RE programs</li> </ul>
<p><b>South Africa</b> <b>Dr. Peter Zhou</b></p> <p><b>EECG Consultants Pty, Ltd</b> <b>Botswana</b></p>	<ul style="list-style-type: none"> <li>• Capacity for the packaging of viable projects with the aim to mobilize funds and develop agencies</li> <li>• Communication and negotiation ·</li> <li>• Processes and procedures of access to funds ·</li> <li>• formulation of policies</li> <li>• planning of projects</li> <li>• Management of the projects ·</li> <li>• Capacity for the mobilization and t management of resources ·</li> <li>• capacity in Follow-up and evaluation</li> <li>• Sensitization on the PAEEE and how Africa can take advantage of it</li> <li>• Capacity of the regional institutions for research and development of coherent and relevant policies and the sharing of the knowledge Information about different sources of energy and the technology market</li> <li>• ·Information about the different types of financing, the market strategies</li> </ul>
<p><b>Eastern Africa</b> <b>Benard Muok, PhD</b> <b>ACTS, Kenya</b></p>	<ul style="list-style-type: none"> <li>• Development of the capacities of decision-makers of the region in the elaboration of energy policies that take account of the emergence of new sources of renewable energy.</li> <li>• Training for the institutions of the region in term of facilities of development of curriculum susceptible to produce experts</li> </ul>

	<ul style="list-style-type: none"><li>• Capacity of negotiation ·</li><li>• Entrepreneurial Capacity in the field of the energy</li><li>• Mobilization of funds for energy projects</li><li>• Establishment of a circuit of collaboration between CEA(ATOMIC ENERGY AUTHORITY), IGAD and the other regional commissions</li><li>• Development of policies relative to biofuels</li></ul>
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**2 – The Development of a Knowledge Sharing tool**

Developed by UNEP through CEMA and based on Wiki, KIBESA is a tool of knowledge sharing. Its presentation was done to allow the participants to get acquainted with this knowledge management tool.

KIBESA aroused the interest of participants who see it as a platform able to facilitate access to informative data but also foster experience exchange. However, considering the existence of other platforms, the question of its dynamism and its added value was raised. The participants called for a more pragmatic and strategic reflection to insure the implication of the actors in the perfection and betterment of the tool.

## Chapter IV: Strategies to lift the barriers to energy services access

The strategies used to lift the barriers to energy access must be deepened through practical experiences so as to allow for a change of scale and the multiplication of experiences in the other countries.

From national experiences (example of Tunisia, Dr Samir Amous) to regional plans such as the development of sustainable energy enterprises (UNEP, Lawrence Agbemabiese) and regional policies (UNDP, Metsi), a number of approaches, policies of access were presented. The presentations showed that:

**National political will** is determinant for the success of the programs of access to modern energies. In the case of the distribution of CES, the lifting of the economic barriers was insured by the implementation of a strategy which consisted in lowering the investment burden through a subsidy of 20 % of the cost of CES (with an upper limit set at 53 € / m<sup>2</sup>e) associated with the implementation of a system of attractive financing (system of credit with low interest rate).

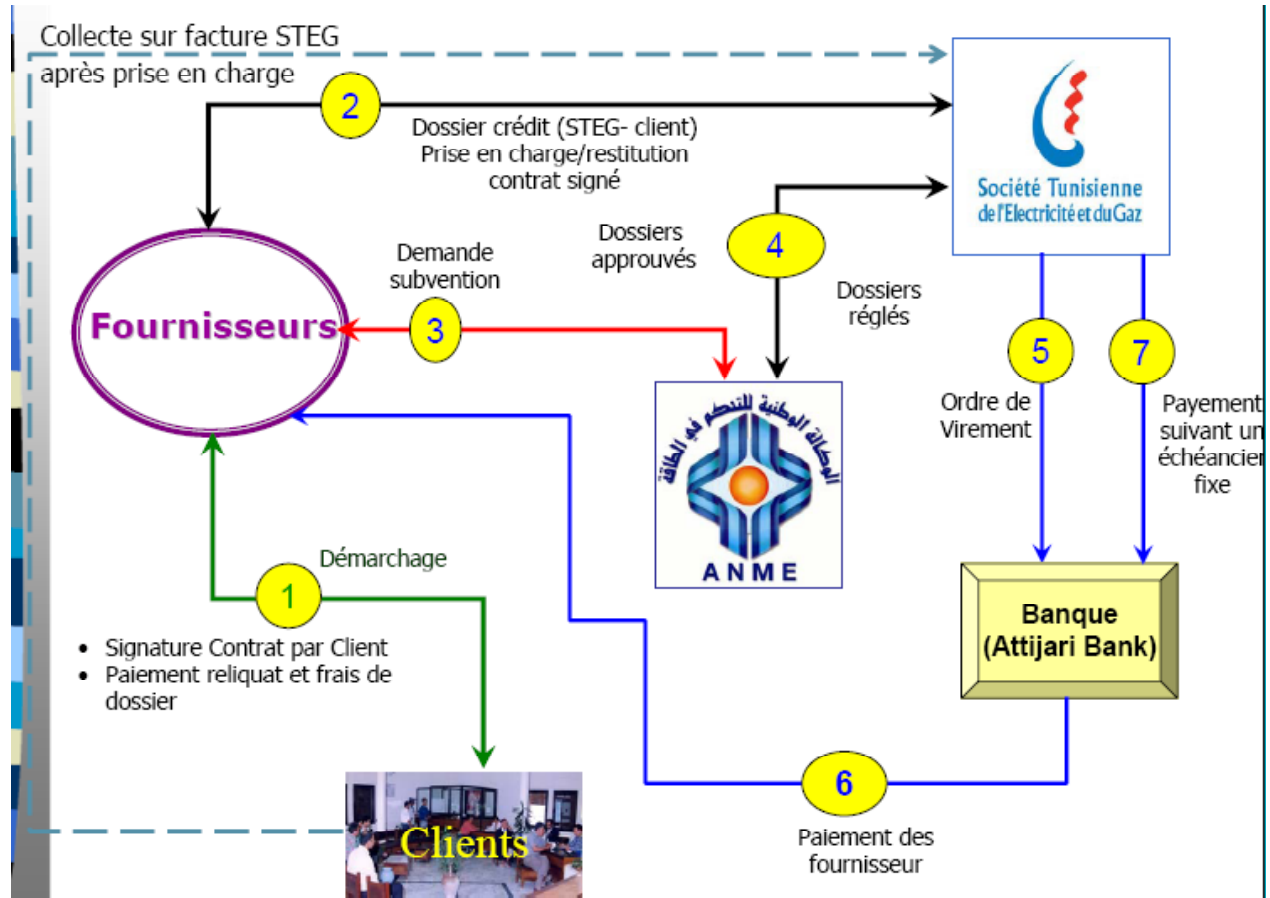
Foster the development of the market through the support granted to suppliers (importers, manufacturers, fitters) in term of market development, simplification and clarification of procedures, certification and communication.

### 1 – SME support coupled with end user finance as an optimal strategy to lift financing barriers

This national experience of the CES was strengthened by a program of support for the development of enterprises introduced by the UNEP.

The model centered on the development of entrepreneurship through the «African Rural energy Enterprise development " ( AREED) program allowed to come to the realization that the technical and financial support given to the SME(SMALL AND MEDIUM-SIZED ENTERPRISE) does not guarantee, the development of the market for energy services. In addition to the guarantee of an energy service, it is necessary to associate the support for the development of the market so as to reach the poor populations through microfinance mechanisms. At this level, the approach of AREED II consists in setting up enterprise development services (EDS) in collaboration with Microfinance institutions (MFIs). So, the approach shifted from giving support only to energy services suppliers to a mixed approach that consists in supporting both the entrepreneurs and the end users.

From the lessons learned through the AREED process, we can retain that: i) small and medium-sized enterprises can play a vital role in the extension of energy access in developing countries. The concept AREED provided evidence of that; ii) the support for SME (SMALL AND MEDIUM-SIZED ENTERPRISE) and end users always has to go hand in hand in any strategy of development of the market of access to energy services when targeting the poor; iii) the governments have to create a climate favorable for investments, underlain by good governance and the integration of carefully planned resources management strategies.



## 2 – The implementation of a regional political will to benefit from opportunities offered through cooperation and knowledge sharing

The example of the ECOWAS white book on the access to energy services for rural and peri urban populations with the aim to achieve the UN MDG's :

### **A Regional Energy Access Vision & Objectives Targeting MDGs / ECOWAS**

#### **Objectives**

100% Access to modern Cooking Fuels (urban and peri-urban)

At least 60% Access to energy for productive uses (ex. motive power, targeting rural areas)

66% Access to electricity (100% in urban & peri, 36 % rural)

#### **Results Areas by 2015**

Harmonized political and institutional frameworks with access to energy services reflected as national priority for achieving HD

MDG based energy access investment programs

Contribution to regional integration by pooling good practices, sharing information & exchanging experiences to inform practice and guide capacity development interventions

This political document emphasizes the importance of a political vision, to impulse access to energy, through very precise quantitative objectives. In conformance with its strategy, the implementation of national multisector-based Committees has to serve as a frame for the appropriation of this approach. Today, the implementation of its action plan around the intensification of capacities; the integration of energy in planning; management, knowledge sharing and networking; the promotion of local production of equipments and energy services have given some important lessons:

- The political slowness and the need of mobilization of the member states of ECOWAS through the energization of the multisector-based committees with the aim to stimulate a real planning of the access to the energy services;
- The necessity of a steady effort and targeted support during a period of time (of approximately one year) to help mature the multisector-based committees;
- The existence of leadership and the national context are determining factors in the facilitation of the integration of energy in the formulation of programs of investment.

#### **Key Discussion Points**

By creating the conditions of an organized exchange (Dr Samir Amous), the workshop allowed the participants to highlight certain ideas and to facilitate knowledge sharing between actors on the problem of access to energy. This will help in the implementation of policies favorable to the access to energy and decision-making, and the implementation of concrete actions.

These points were studied through questions such as: what, how and which?

### 3 – Knowledge Sharing

Considering the variety of the experiences, capitalization has to be a permanent reflex in order to reach the objectives of the knowledge sharing strategy. As such, the approach would consist in listing many experiences in every zone, document them and share them with decision-makers. These materials could constitute a base community of practice or a database. The type and quality of the information to be shared require that we find approaches and tools adapted to the various levels (local, national, international). The differentiation between the information needs of the different levels gives an opportunity to make choices on the most appropriate tools. Mechanisms of incentive to share information and experiences were clarified by the participants. The idea to create a Prize for best practices in the area of access to energy «was retained.

With regard to the **political vision and decision-making**, the exchanges emphasized the following points:

- The delay of certain countries such as Sierra Leone, with regard to the rate of access to energy, especially, electricity;
- The role and the place of the multisector-based Committees in the countries, to highlight the cross cutting nature of energy and its potential contribution in the achievement of the MDGs, throughout the various sectors of development, whether social or economic;
- The non-existence of reporting which prevents the follow up of the evolution of the sector and the respect for the taken commitments;
- The necessity of a visible incentive framework to contribute to the commitment of the private sector to the efforts to increase access to energy;
- The necessity of a favorable institutional framework capable of creating a leadership favorable to voluntarist policies of access to energy.

With regard to the concrete actions, certain points were evoked which concerned:

- The launch of specific studies according to the specific needs of different regions or country.
- Development of leadership in the field of energy. That is the necessity of having champions who can play the role of catalyst for initiatives that can lead to change.
- Conclusions of the Workshop

## **The workshop was closed by a high-level panel led by DR SAMIR AMOUS.**

By arguing the necessity to «think bigger and act faster », the participants drew from their respective experiences to develop a certain number of perspectives for the access to energy for the disfranchised and poor populations.

And so the propositions focused on:

- A methodological approach based on **technological neutrality**. One of the most controversial elements was the multifunctional platform because of its advantages and limits, for some, and its novelty and perspectives, for the others.
- The promotion of the PPPs
- The establishment of " excellence centers ", to facilitate sharing of experiences;
- The promotion of the Bioenergy, especially for domestic uses such as cooking;
- The possibility of conducting precise studies, with the aim of showing the real impact energy access on the health of children, for example; as well as the hybrid usage of PTFM ( solar energy);
- The promotion of regular meetings to follow advances of the ECOWAS white book. The harmonization of national and regional policies becomes more and more a necessity;
- Particular attention should be granted to follow-up / evaluation, as a key dimension which allows demonstration of headways and promotion of data acquisition. Besides, the lacks of quantitative data constitutes a real barrier that prevents us from conducting objective analyses and adopting a forward-looking approach;
- The possible integration of this knowledge through an academic curriculum;
- The place to be granted to lobbying for the sensitization of the decision-makers. This way, attention should be granted to categories of actors such as the Members of parliament who can play a major role as relay between the populations and the political decision-makers;
- The integration of the objectives energy access to the local dynamics of development;
- The implementation of transitory solutions for the satisfaction of the energy needs of the populations.

## Annex 1: Detailed programme with links to presentations



Regional Workshop on Access to Modern Energy in Urban and Peri-Urban Areas:  
Policies, Practices, and Knowledge Sharing  
3-5 November 2009, Dakar, Senegal

Tuesday, November 3, 2009	
8:00 – 9:00	Registration and Reception
	<b>Opening session</b>
9:00 – 9:20	Welcome Address: Dr Jean Philippe Thomas ENDA Energy Coordinator
9:20 – 9:40	<a href="#">GNESD : Gordon A. Mackenzie, UNEP Risø Centre, on behalf of GNESD Secretariat</a>
9:40 – 10:00	<a href="#">CEMA and the AEEP: Lawrence Agbemabiese, UNEP DTIE</a>
10:00 – 10:20	Official Opening Address: Ministry of Energy, Senegal
10:00 – 10:30	Coffee break
	<b>Session I: Urban and Peri-Urban Energy Access (UPEA)</b>  Chair: Dr Jean Philippe Thomas, ENDA  Rapporteur : Cheikh Ahmed Sanago, Direction de l' Energie, Mali
10:30 – 11:00	<a href="#">Key findings of GNESD UPEA study: Akanksha Chaurey, TERI (resented by Sécou Sarr, ENDA)</a>
11:00 – 11:20	<a href="#">Urban and Peri Urban Energy Access : Dakar Case study, Abdou Ndour, ENDA</a>

11:20 – 11:30	<a href="#">Video documentary on GNESD UPEA studies in Argentina, Thailand and Kenya</a>
11:30 – 12:00	Discussion
12:00 – 13:00	<b>Lunch</b>
13:00 – 14:30	<p>Panel discussion : Barriers on to electricity access in urban and peri-urban areas</p> <p>Moderator: Samir Amous, APEX Conseil, Tunisia</p> <p>Rapporteur :</p> <p>Panelists : Bedoui Khaled (MEDREC), SENELEC, Adamou SOW (Club of African Rural Electrification Agencies), Ibrahim Soumaïla (Niger), Kouame kadjo ( Côte d’Ivoire)</p>
14:30 – 15:00	Coffee break
15:00 – 1700	<p><b>Panel discussion: Barriers to cooking fuel access in peri-urban areas (LPG, modern biomass)</b></p> <p>Moderator: Dr Ibrahima Togola, Mali Folkecenter</p> <p>Rapporteur : Mme Fadoua Rouis (APEX)</p> <p>Panelists: Frank A. Owosu (KITE), PERACOD/GTZ, Agassou Z.Evariste (Benin), Mignede Modingam (TChad)</p>

<b>Wednesday, November 4, 2009</b>	
9:00 – 10:30	<b>Session II: Capacity needs in North, West and Central Africa related to the Africa – EU Energy Partnership</b>
	<p><a href="#">The AEEP and CEMA: Gordon Mackenzie, UNEP Risø Centre, Denmark</a></p> <p><a href="#">CEMA Needs Assessment – Southern Africa: Peter Zhou, EECG</a></p>

10:30 – 11:00	Coffee break
	<b>Session II (continued)</b>
11:00 – 13:00	<a href="#">CEMA Needs Assessment: East Africa, Benard Muok, ACTS (Kenya)</a>
	<a href="#">CEMA Needs Assessment: Central Africa, Joseph Kenfack (Cameroun)</a>
	<a href="#">CEMA Needs Assessment: West Africa, Dr Ibrahim Togola, MFC (Mali)</a>
	<a href="#">CEMA Needs Assessment: North Africa, Dr Samir Amous, APEX (Tunisia)</a>
	<a href="#">Participatory Capacity Needs Assessment in ECOWAS Member States, Frank Atta-Owusu, KITE (Ghana)</a>
13:00 – 14:00	<b>Lunch</b>
	<b>Session II: Presentation and demonstration of the online knowledge tool KIBESA</b>
14:00 – 17:00	<a href="#">Introduction and presentation followed by hands-on exercise in KIBESA in small groups</a>

## Thursday, November 5, 2009

9:00 – 13:00	<b>Session III: Barrier removal strategies for improving energy access</b>
	<p>Successful policy implementation:</p> <p><a href="#">Access to Solar Water Heaters: Dr Samir Amous, APEX, Tunisia</a></p> <p><a href="#">Financial mechanism for Clean Energy Access in the UNEP AREED programme: UNEP, ENDA, KITE, MFC</a></p> <p><a href="#">Expanding Access to Modern Energy Services -Actions, Lessons &amp; Sustaining Capacity Development, Metsi Makheta, UNDP</a></p> <p>Discussion</p>

13:00 – 14:00	Lunch
	<b>Session V: Addressing energy access needs through policy, implementation and knowledge sharing – Panel Discussion</b>
14:00 – 16:30	<p><a href="#">Chair: Samir Amous; APEX, Tunisia</a></p> <p>Rapporteur : Jean Pascal Correa, ENDA</p> <p>Panelist: Dr Alioune Fall (Sénégal), Ms Metsi Makhetha (UNDP); Dr Cheikh El Motar (Mauritania); Kouame kadjo ( Côte d’Ivoire); Dr Ivan Nygaard ( UNEP Risoe)</p>
16:00- 16h30	<b>Closing Remarks</b>

## Annex 2 : List of participants

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