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**AFRICAN UNION CONFERENCE  
OF MINISTERS RESPONSIBLE  
FOR ENERGY  
1- 5 NOVEMBER 2010  
MAPUTO, MOZAMBIQUE**

**AU/EXP/Energy/Rpt  
Original: English**

**REPORT OF THE EXPERTS' MEETING  
2 - 4 NOVEMBER 2010**

## **I. INTRODUCTION**

1. A meeting of experts was held in Maputo, Mozambique from 2 to 4 November 2010 as a preparatory session for the African Union Conference of Ministers responsible for Energy.

## **II. ATTENDANCE**

2. Delegates from the following African countries (28) took part: Algeria, Angola, Benin, Botswana, Burundi, Burkina Faso, Central African Republic, Comoros, Cote d'Ivoire; Democratic Republic of Congo, Egypt, Ethiopia, Gabon, Gambia, Guinea, Kenya, Mali, Malawi, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Sudan, Tanzania, Togo, Zambia and Zimbabwe.

3. Also in attendance were the representatives of the following continental organizations: African Energy Commission (AFREC), the Regional Power pools (CAPP, EAPP, and SAPP), African Petroleum Producers Association (APPA), APPA Fund, UPDEA, AFUR, AFSEC, United Nations Economic Commission for Africa (ECA), African Development Bank (AfDB) and Regional Economic Communities (ECCAS, COMESA, and UEMOA).

4. Development partners and International organizations took also part in this meeting, namely: EU, UNIDO, WB, UN Habitat, UNEP, UNDP, IEA, etc.

5. The list of participants is attached to this report.

## **III. OPENING CEREMONY (2 November 2010)**

6. The Minister of Energy of Mozambique, the Representatives of the ECA, the African Development Bank and the Commissioner for Infrastructure and Energy of the African Union Commission addressed the meeting, after an introductory speech by the Director of Infrastructure and Energy of the AU Commission. The opening ceremony was marked by the following speeches.

### **Introductory Speech by the Director of Infrastructure and Energy**

7. Director of Infrastructure welcomed the participants, presented the work programme and introduced the presenters.

### **Statement by the Minister of Energy of the Republic of Mozambique**

8. His Excellency the Minister for Energy of Mozambique, Honourable NAMBURETE, welcomed all participants to Maputo, reiterated the readiness of the Mozambican authorities to make their stay very pleasant and to provide the most conducive conditions for the work ahead.

9. He underscored the importance of the experts meeting for the success of the Ministerial Conference and urged them to devote utmost attention to the deliberation on the items on their agenda for the report that would be submitted for consideration

and approval of African Energy Ministers at their session due to start on 5 November.

10. With regard to the agenda items, Honorable Namburete, apart from the issue pertaining to CEMA's Structure and Functioning, dwelt on the other documents and the presentations on themes, such as the outcomes of the All Africa Energy Week, the Pan African Investment Forum, the Solar Energy Study for Saharan Africa, the Progress Reports on the Operationalization of the African Petroleum Fund, the Geothermal Development Programme for Eastern African countries, as well as the Second Plan of Action of Africa-European Union Energy Partnership and the Renewable Energy Cooperation Programme with the European Commission.

**Statement by the Representative of the United Nations Economic Commission for Africa**

11. The representative of the ECA noted that African countries are vigorously pursuing programmes of regional cooperation and integration so as to achieve robust and self-sustaining economic growth and development of the continent and also for the continent to be a significant partner in the global economy. He therefore stressed the need for Africa to have safe, reliable, efficient, affordable and sustainable physical infrastructure to support economic activities and to provide basic social services, especially for the poor. He also emphasized that Africa needs to develop energy infrastructure such as electricity grids and oil and gas pipelines that will facilitate cross-border energy trade, thereby enhancing security and reliability of energy supply.

12. The representative of ECA indicated that for regional integration to be a successful strategy for the sustainable development of the continent it is essential that we strengthen the continent's infrastructure, particularly energy generation. However. He noted that a major challenge confronting the development of infrastructure is the lack of adequate financing. Despite recent efforts by African countries, the representative called for innovative strategies to address the financing gaps needed to address infrastructure deficits on the continent.

**Statement of the Representative of the African Development Bank**

13. The Representative of the African Development Bank stated that the Bank has clearly demonstrated its support to the development of infrastructure on the continent as evidenced by the increase in the allocation of its resources to the infrastructure sector to the tune of about 70% of the approvals made by its Board, the major part of these resources during these recent years being devoted to support the energy sector.

14. He further indicated that over the years, AfDB had strengthened partnership with the African Union Commission and would continue to work closely to design and implement solutions to the challenges facing the continent in its development.

15. He concluded his statement by highlighting the need for a continental framework such as the All Africa Energy Week.

**Speech by H.E. Dr. Elham M.A. IBRAHIM, Commissioner for Infrastructure and Energy of the African Union Commission**

16. Taking the floor, the Commissioner for Infrastructure and Energy underscored the need to resolve the problems in the energy sector so to upscale the competitiveness of our economies and the quality of life of our populations. She recommended that the outcomes of the first two days devoted to Investment Forum be incorporated in the report to be submitted to the Ministers.

17. On the meeting of experts, the Commissioner emphasized the expectations of the authorities regarding the recommendations and the draft resolutions on CEMA, the All-Africa Energy Week, the Pan-African Investment Forum, Programme for Infrastructure Development in Africa (PIDA), the Africa-EU Energy Partnership, regional integration, the African Petroleum Fund and Geothermal Development in Eastern Africa.

**IV. ELECTION OF THE BUREAU**

18. After consultation and according to African Union procedures, the Bureau was set up as follows:

Chairman	:	Zimbabwe (Southern Region)
1 <sup>st</sup> Vice-Chairman	:	Gabon (Central Region)
2 <sup>nd</sup> Vice-Chairman	:	Nigeria (Western Region)
3 <sup>rd</sup> Vice-Chairman	:	Kenya (Eastern Region)
Rapporteur	:	Egypt (Northern Region)

**V. ADOPTION OF THE AGENDA AND WORK PROGRAMME**

19. The following agenda was adopted without amendment:

***Election of the Bureau***

***Adoption of the Agenda and Work Programme***

**WORK SESSIONS**

**SESSION 1:** *Outcomes of the Solar Energy Study for Saharan Africa*

**SESSION 2:** *Structure and Functioning of the Conference of African Energy Ministers (CEMA).*

**SESSION 3:** *2<sup>nd</sup> Action Plan of Africa-EU Energy Partnership and the Renewable Energy Cooperation Program (RECP) with the European Commission*

**SESSION 4:** *Progress reports on the operationalization of African Petroleum Fund (APF) and geothermal development program for the Eastern African Countries*

**SESSION 5:** *Outcomes of the All-Africa Energy Week and African Energy Investment Forum.*

**SESSION 6:** **Consideration of the Draft Ministerial Declaration, Draft Resolutions as well as Draft Agenda and Work Programme for the Ministerial Session**

**SESSION 7:** *Adoption of the documents to be submitted to the Ministerial Session*

## VI. ORGANISATION OF WORK

20. The meeting adopted the following work schedules:

Morning: 9:00 – 13:00  
Afternoon: 14:00 – 17:00

## VII. WORKING SESSIONS

### **SESSION 1: Outcomes of the Solar Energy Study for Saharan Africa**

21. The presenter recalled that the XIV Assembly of the AU Heads of State and Government held in Addis Ababa in February 2010 adopted Resolution Assembly/AU/Res.2 (XIV) on Solar Energy in the Sahara requesting the AU Commission to conduct a study on the solar energy issue to support the efforts underway to harness solar energy, and to report to the Assembly at its next Ordinary Session in January 2011. According to the Resolution, the Assembly decided as follows:

- i. Request all countries which have part of the Sahara within their territories to consider that the solar energy potential in this part of our Continent is a precious asset which should be managed for the benefit of our Continent;
- ii. Request the Commission to conduct a study on the solar energy issue at technical experts' level to backstop efforts to harness solar energy and to report to the Assembly at its Ordinary Session in January 2011 through the Executive Council and the Permanent Representatives' Committee on the financial implications of implementation of this Resolution.

22. The presentation was covered the conclusion of a study analysis on implementation of wide scale solar-based electricity generation in the Sahara Desert of North Africa, with plans for integrating renewable energy sources for electric power production in three sub-regions of Africa namely: North Africa, the Sahel Belt and West Africa. It outlined the endowed solar radiation potential and its capability to satisfy the electricity needs and offset the shortage of supply within each country and sub-region by 2050. It also showed Africa's chances to become an electricity

exporter to Europe. This study is the first phase of three phases of comprehensive continental study that is being conducted by AFREC in response to a mandate given by the African Union Commission.

23. The study for solar development plans was analyzed through four scenarios which produced good results in terms of the amount of annual renewable-based electricity technologies and the total cost of implementation. All the scenarios indicated that all the member states analyzed by the study would be fully electrified within the timeframe of the study which is up to year 2050.

24. A comparison between the estimated costs of project implementation by AfriSun Concept with that of European DESERTEC Concept showed that both studies are in close agreement. It should be noted that while DESERTEC is the most well publicized international initiative in renewable based electricity generation, AfriSun is still in its first stages of elaboration. DESERTEC is managed and processed by a consortium of European companies and financial institutions (including ABB, Deutsche Bank, E.ON, Munich Re, RWE, SIEMENS, etc.) aiming to build CSP plants in North Africa and export the produced energy to southern and central Europe through HVDC grid.

25. Development of solar energy for electricity generation in Africa will improve living standards and help in combating poverty.

26. Renewable-based electricity potential within the 3 sub-regions of the study is capable to fully electrify the member countries and export 20% of Europe's needs by 2050.

27. The current implementation of CSP in some countries of North Africa will help in facilitating rapid deployment of these and similar solar generating technologies and add to the African learning curve for adopting these technologies.

28. Regardless of the scenario selected for implementation, millions of jobs can be created in addition to millions of tons of CO<sub>2</sub> which can be avoided, thus resulting in a healthy environment.

29. There are real chances for the reform of national electric utilities and creation of sub-regional and regional power markets.

30. Development of solar energy will enhance cooperation with EU through power transfer resulting in a win-win exchange of benefits and contributing to Africa-EU Energy Partnership.

### **Key Issues Raised**

31. The issues raised during the discussion can be summarized in the following points:

- This is an ambitious long-term plan that needs to be followed step by step towards real implementation.

- The importance of coordinating and consultation among different member states, sub-regional and regional bodies within the African Union and international players.
- The strategy is to be driven by African countries' needs.
- Solar energy projects should be implemented in an integrated way compatible with the capacity of the member states to make full use of the supplied power.
- There is an urgent need for technology transfer, capacity building and local manufacturing of equipment.
- Take into account the existing initiatives on solar energy such as the MENA Project, ECOWAS Solar project, etc.
- Review all data and information collected.

### **Recommendations**

- Conduct wide consultations which will bring together all parties and energy stakeholders at regional and continental levels to provide consensus documents on the development of solar energy in Africa.
- The study is too broad and should focus in the first phase on solar potential technologies and the existing plants and initiatives.
- To align demand forecast with PIDA data.
- Holistic and realistic approach to be aligned with PIDA spirit.
- Hold consultative workshops to validate the study and develop a road map for future activities.
- Promote ownership and political will in support of all actions and programmes aimed at the development of solar energy.
- Strengthen job creation, capacity building, technology transfer and local manufacturing of equipment.

32. Finally, the meeting congratulated the AFREC for the work done so far. However, further consultation is required to focus the study on its objective and to improve its overall quality.

**SESSION 2 – Structure and Operation of the Conference of African Ministers in charge of Energy (CEMA) and Institutional Architecture for Infrastructure Development in Africa**

33. **Presentation of the Structure and Operation of CEMA** with the objective to put forward proposals on the structure and operation of a single continental coordination organ for the energy sector in Africa to:

- a. Align the energy sector to the decision making process in the African Union through the establishment of a Specialised Technical Committee;
- b. Become the central organ of the energy sector, take charge of the functions of the energy sector and, where necessary, delegate the functions, and rationalize initiatives and decision making process;
- c. Create a single and sustainable platform for the energy sector capable of interacting with other development sectors, more especially the infrastructure sectors, and promote the principles of subsidiarity, specialisation and complementarities;
- d. Within the framework of AU institutions, contribute to improving resource mobilisation strategies and technical cooperation with the development partners, and to facilitation of the conduct of operational activities, particularly the coordination of mega integrative projects construction.

34. **Presentation of the Institutional Architecture for Infrastructure Development in Africa** with the objective to:

- a. Put in place a well defined decision making process
- b. Clarify and rationalise the roles and responsibilities of AU Institutions;
- c. Create a platform conducive to planning, establishment and implementation of PIDA;
- d. Build programmes planning, establishment and implementation capacities;
- e. Develop well-defined mechanisms and platforms for technical cooperation and resource mobilisation;
- f. Reduce the costs of transactions and contribute to the integration process.

35. The presentation was also designed to explain the ways in which CEMA decision making process articulates into the global, Institutional Architecture Framework for infrastructure development in Africa which covers all infrastructure sectors:

**Key issues discussed:**

- Need to establish CEMA and integrate it into the organs of the African Union;
- Operation of CEMA organs and the issue of financial resource availability for CEMA and its organs;



- Choice of AFREC as the Secretariat of CEMA in view of the financial and technical capacity problems (human resources) facing this institution, and clarification of the exact functions of this Secretariat;
- The question of mainstreaming the other structures of the energy sector (FEMA, APPA, etc).

#### **Conclusions and recommendations:**

- Support to the establishment of CEMA and agreement on the designation - Conference of African Ministers in charge of Energy (CEMA);
- CEMA will henceforth become the only Continental Ministerial Conference for coordination of the energy sector and, in this regard, will assume all the functions of the existing conferences and forums;
- Take into account the study on global institutional architecture for infrastructure development in Africa, and the need to develop an institutional architecture specifically for the energy sector;
- Align the operation of the energy sector with the regulatory texts and to African Union processes, particularly within the framework of operationalization of the Specialized Technical Committee on Energy (STC) in conformity with the Abuja Treaty Establishing the African Economic Community (AEC); so as to put in place a robust organ to harmonize, coordinate and provide the necessary leadership for development of energy policies and strategies;
- Agreement on the organs of CEMA as proposed, with the choice based on regional representation:
  - The Ministerial Bureau is to be made up of representatives of ministerial rank from each region of Africa, two Energy Ministers per region;
  - For the management of its operations, the Ministerial Conference is to elect a Bureau according to AU Rules, comprising:
    - ✓ One (1) Chairperson
    - ✓ Three (3) Vice-Chairpersons;
    - ✓ One (1) Rapporteur

36. Members of the Bureau are selected from the five regions of the Continent.

37. In addition to the five members of the Bureau, CEMA will agree to elect five other members to assist in and facilitate the work of the Bureau. It will be the responsibility of the Bureau to determine the criteria for selection of the five additional members.

38. The Rules of Procedure are to define the modality of operation of the intermediary structures with will backstop CEMA in its functions, namely:

- Monitoring Committee;
- Permanent Secretariat; and
- Thematic Ministerial Committees to deliberate on specific sectoral themes.

- The cost of establishment and operation of CEMA is to be part of the normal budget of the African Union for the STCs and will not necessitate the contribution of the countries, except the cost of meetings, and of implementation and monitoring of CEMA programmes which will require also partners' support;
- AfDB reiterated its commitment to support AFREC financially;
- AFREC is a Specialized Institution of the Africa Union with the institutional responsibility to act as the Secretariat of CEMA, and thus needs to have its human resource capacity enhanced;
- The African Union Commission is to mobilise financial resources for AFREC to enable it to perform its function as CEMA Secretariat;
- Agreement regarding the Road Map:
  - Establishment of CEMA and its Bureau by 5 November 2010
  - Establishment of the Panel of Experts to draw up the Rules of Procedure of CEMA by 10 November 2010
  - Validation of the Rules of Procedure and the institutional framework from 13 to 15 December 2010

### **SESSION 3: 2<sup>nd</sup> Action Plan of Africa-EU Energy Partnership and the Renewable Energy Cooperation Programme (RECP) with the European Commission**

39. The meeting recalled the strategic objectives of the Ministerial Declaration adopted at the Vienna Conference of 14 September 2010 on energy access, energy security, renewable energy and energy efficiency.

40. It discussed the programme for renewable energy cooperation between the two Continents which calls for the use of renewable energies to attain the 2020 strategic objectives.

41. The Second Plan of Action 2011-2013 covers specific initiatives on the instruments to be implemented to execute the projects.

#### **Key issues raised:**

- Involvement of the States in the selection of projects;
- The place of partnership in the joint Africa-EU strategy;
- Transfer of technology;
- Exeditious establishment of the projects.

42. The point was made that the AEEP is part of the Joint Africa-EU strategy signed in Lisbon in 2007.

43. The projects submitted to the partnership are the outcomes of the consultations with the Regional Power Pools and the Regional Economic Communities which are responsible for coordination of regional projects, under the authority of Energy Ministers. It was also indicated that the States are represented in the African group for implementation of the partnership.

44. In the course of the Second Plan of Action, the financing and technology transfer mechanisms will be defined.

**Recommendations:**

45. Given the fact that the strategic objectives and the renewable energy cooperation programme have already been adopted at the Vienna Ministerial Conference, it was recommended that note be taken of the Second Plan of Action which forms part of the documents to be submitted to the next Africa-EU Summit due to take place in Libya from 29 to 30 November 2010.

46. It was further recommended that urgent action be taken to implement the projects.

**SESSION 4: Progress reports on the operationalization of the African Petroleum Fund (APF) and geothermal development programme for the Eastern African Countries**

**Progress report on the operationalization of the African Petroleum Fund (APF)**

47. The presenter made a summary of the progress on the APF from its inception to its present status. He also presented the background to and rationale for the APF and the process for its establishment including the main outcomes of the validation workshops. The presentation also indicated that the Heads of State have adopted the APF and its operationalization instruments, namely the strategy and the Action Plan.

48. The present status of the APF is such that the AUC is in the process of forming the Task Force Group to include the Member States. The main objective of the Task Force is to advocate and lobby at the high level diplomacy to explain and negotiate the operationalization of the APF including fund raising.

49. The APF process includes the training of Member States on the Model for the Simulation of the Impacts of high oil prices in the national economies. The funds are now available for such process and the regional trainings will start shortly.

50. One of the participants noted that contributions to the APF are voluntary and that there is a need to facilitate the formation of a Task Force Team to operationalise the APF.

51. Additionally, the participants indicated that the APF should be seen in a holistic and integrated way for the whole energy sector.

**Progress Report on geothermal development programme for the Eastern African countries**

52. The East African Rift System (EARS) is one of the major tectonic structures of the earth which extends for about 6,500 km from the Dead Sea-Jordan Valley) to Mozambique in the south. The geothermal resources of EARS have a potential to

generate over 15,000 MW. However, this resource is currently used to a limited extent in the EARS countries.

53. Geothermal energy is a clean, renewable, environment-friendly and indigenous resource that can improve the energy-generation mix. The challenges for development of geothermal resources in EARS are: (i) inadequate policy and regulatory framework to attract investment; (ii) large upfront cost of geothermal resource exploration and development; (iii) risks in resource “exploration” and “power development”.

54. Department of Infrastructure and Energy (DIE) of the African Union Commission (AUC) took the initiative to be involved in coordination and facilitation of the Regional Geothermal Programme in the 11 countries of the EARS: Burundi, Comoros, Djibouti, DRC, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, Uganda, and Zambia. The genesis of this initiative is: (i) AUC’s Strategy to develop renewable energy; (ii) the mandate given to the DIE/AUC by the EARS Ministers responsible for energy in the Addis Ababa Declaration on Geothermal Energy (June 2009) recommending suitable actions on strategy and regional cooperation on development of the EARS’s geothermal energy potential; (iii) the “Action Plan” as an outcome of the Regional Geothermal Stakeholders’ Workshop (organized by AUC in March 2010); and (iv) the AUC as the host of Geothermal Risk Mitigation Fund initiated by the German Development Bank (KfW).

55. In this context, DIE has implemented various tasks and activities, including: (i) organized the above mentioned Stakeholders Workshop (March 2010); (ii) assessed needs and expectations of EARS countries to develop their geothermal resources in the next 5 years; (iii) developed the above-mentioned “Action plan” and “Way Forward”, (iv) start implementing key issues of the “Action plan”, and (v) AUC selected as host organization to manage and administer the Geothermal Risk Mitigation Fund (Fund) initiated by the German Development Bank (KfW) after screening other possible host organizations (EAC and COMESA).

56. The German Ministry for Economic Cooperation and Development (BMZ), through the German Development Bank (KfW), initiated the FUND for Eastern Africa countries. The objective is to overcome the relevant challenges and to mitigate the risks for geothermal resource development in EARS countries by providing fund grants for surface exploration and drilling. The Fund would encourage public and private sector investors to accelerate development of geothermal resources and power generation in EARS.

57. The expected initial “Fund” size is €50m. Of this, KfW will provide grant funding up to €20 million. The EU-Africa Infrastructure Trust Fund has proposed co-financing of up to €30 million.

58. The Fund’s vision is to support all the East Africa Rift System countries. Initially, it will focus on geothermal prospects in Ethiopia, Kenya, Rwanda, Tanzania and Uganda. This is due to limited funding available at present. Upon receipt of more money, the “Fund” will assist more countries.

59. At present, DIE is working on the establishment phase of the “Fund” by consulting the AUC management and relevant stakeholders.

**Key Issues Discussed:**

- Criteria for getting benefits from various geothermal support programmes in the region;
- Competitiveness of geothermal energy resource in terms of cost and capacity factor, compared to other renewable energy resources;
- Expected life of a geothermal reservoir
- Why limit the Programme to the East Africa Rift System?
- How the Regional Geothermal Programme can be integrated into the PIDA programme?
- Clarification with the application and modality of the Risk Mitigation Fund.

**Recommendations:**

- The tasks and activities accomplished and progress made in the programme were acknowledged;
- Holistic and integrated approach of the regional geothermal programme with other renewable energy programme is recommended.

**SESSION 5: Outcomes of the All-Africa Energy Week and the African Energy Investment Forum**

**Outcomes of the All-Africa Energy Week**

**Session 1: Twenty Years of Progress in Infrastructure Development in Africa**

*Presentation 1: Financing Energy Infrastructure*

60. Highlighted statistics characterizing the period of 1990-2000, and 2000-2010; and noted the financing patterns, whereby AfDB financing patterns have been dominated by power generation projects, with some transmission projects, and the development of complex regional projects, and interventions in Energy efficiency and Renewable Energies, as well as the role of private sector.

*Presentation 2: Twenty years of Progress in Institutional, regulatory and knowledge capacities*

61. The presentation identified four main groups of institutions in the sector that should be well monitored for progress, namely: government and associated institutions; market operators; educational, training research institutes; and the civil society.

62. It noted the progress made in setting up the new institutions (e.g. NEPAD, ICA, Power Pools, AFREC), regulatory frameworks and policies, such as power sector reforms and rural electrification policies.

63. It also stated the need for practical training and knowledge processes.

Presentation 3: *Defining consensual monitoring indicators and methodologies*

64. The presentation highlighted the need for having indicators developed in order to monitor progress achieved in different areas, and proposed a set of indicators that could be used for future assessments within the framework of the All Africa Energy Week.

**Key Issues discussed**

- What additional approach and mechanism should be put in place to increase investment in the sector (private sector, emerging financiers)?
- Tariff structure: what should be done to have affordable tariff while ensuring reasonable return on investment?
- Capacity building: need to strengthen the capacity of different stakeholders but what kind of skills is needed and how should the skills be provided?
- Coordination mechanisms: how best to create a coherent link to different levels of coordination: national, regional and continental?
- Difficulties to obtain data: the proposed elaboration of indicators is important. How can harmonized data be obtained during the process?

**Recommendations**

- Since most funds seem to target generation capacities, there is need to attract investments in transmission and distribution infrastructure.
- Regional integration patterns should be further developed, considering the small size of national markets
- Further develop strategies for the involvement of private sector and other sources of financing, such as emerging Asian financiers
- Design capacity building tools and best fill gaps
- The development of indicators is needed and should be strongly considered.

**Session 2: Energy Infrastructure and Services in the Context of Climatic Challenges**

Presentation 4: *Attaining the right energy mix for security and sustainability*

- Better national and regional planning and execution of these plans will help to diversify supply sources and enhance energy security;
- The right energy mix to be defined in economic terms as supplying electricity and other forms of modern energy in a sustainable way at the lowest possible cost

Presentation 5: *Energy Efficiency for Scaling up Energy Access*

- Majority of buildings in most African countries are not adapted to these climatic conditions, so there is an important potential for energy saving in buildings, from 10% to 50%;
- Majority of the population still rely on biomass as the main energy sources, and use it in an inefficient way which is costly and contributes to energy waste and climate change.

Presentation 6: Sustainable Bioenergy Development in Africa

65. The presentation noted that the development of sustainable bioenergy would address the low penetration of bio-energies in Africa's energy mix leading to high production and consumption of biomass, low consumption of renewable energy, high energy insecurity, high cost of domestic fuel with impact on health and environmental deterioration.

Presentation 7: Climate Change Mitigation and Carbon Finance

- The presentation highlighted issues on financing the transition to a Low-Carbon Society;
- While Africa did little to contribute to the problem, the world will not be able to limit global temperature increases to below 2 degrees Celsius without reducing emissions from land use. Africa has a central role to play in that process.
- Special carbon finance and access mechanism were presented.

Presentation 8: Mozambique's Contribution to Southern African Power Pool (SAPP)

66. The presentation highlighted the role of Mozambique as the closest major hydro generation source in SAPP, next to a large load centre.

67. A combination of HVAC and HVDC transmission lines are used to transport the power.

**Key issues discussed:**

- Participants noted the lack of efficiency, coherence and coordinated actions towards increasing energy access and developing the energy sector in Africa
- The need to search for opportunities to mitigate climate change while simultaneously addressing development concerns

**Recommendations:**

- Enhance partnerships to increase energy access through the development of Africa's substantial renewable energy resources (hydro, geothermal and wind) together with the expansion of regional transmission networks, in the context of regional integration.

- Accelerate preparation of potential generation and regional transmission projects through adequate energy system planning.
- Increase capacities and investments towards harnessing the benefits of energy efficiency in buildings, in cooking system, industries and in the power sector.
- Prioritize establishment of appropriate institutional, regulatory and policy frameworks; promote green energy technologies and projects, and the utilization of existing green funds.
- Strengthen the capacity of member states to develop, implement and monitor proper bioenergy policies and development.

### **Outcomes of the African Energy Investment Forum**

68. The Pan-African Investment Forum focused on the following themes:

- investment for infrastructure development in Africa,
- investment for infrastructure development and country best practices,
- regional infrastructure development, and
- emerging opportunities and institutional support.

69. Presentations were made by speakers from a wide range of institutions:

#### **Key Issues:**

- Africa has seen a robust growing flow of foreign direct investment, with the majority going to the oil sector, and to South Africa.
- Emerging economies are currently contributing significantly to investment in Africa.
- Main barriers to private sector participation include lack of access to finance and land, corruption, and lack of support infrastructure.
- PPP has emerged as a key financing mechanism for infrastructure development in Africa. Funding requirements for infrastructure development in Africa are massive.
- While sectors, such as ICT, have managed to attract investment, other sectors, such as water, have lagged behind.
- Growing trend in IPPs in Africa, with more success cases in North Africa due to solid investment climate.
- ICT strategies and modalities could increase energy efficiency, reduce costs and scale down around 15% percent of global emissions by 2020.
- Country experiences on private sector promotion in Africa highlights the importance of stable business environment, credible information, PPP implementation framework and harmonization of standards.
- The relative under-development of infrastructure in Africa provides significant opportunities for private investment.
- Challenges to infrastructure development in Africa include: absence of finance, slow implementation of regional agreements at national level,



weak regulatory environment, weak governance, poor capacity planning, corruption in tendering for projects, poor regional infrastructure.

- Africa's infrastructure financing needs are estimated at US\$93 billion per year, with US\$40 billion for the power sector, with a financing gap of US\$48 billion.
- Main challenges to involve the private sector in infrastructure include regulatory, legal and institutional frameworks, market size, lack of capacity to deal with PPPs, low level of regional integration and political support.
- Power is Africa's largest infrastructure challenge. However, there are emerging opportunities in hydropower and natural resources.
- PIDA is a strategic tool and reference framework for the development of infrastructure in Africa.
- The focus of traditional partners favours the social sectors over infrastructure.
- Emerging partners provide much needed investment for infrastructure in Africa, providing lines of credit as the most common means of financing.

### **Recommendations:**

1. Accelerate efforts to promote a conducive business environment, as well as transparent and credible regulations which are essential for promoting infrastructure development.
2. African countries, development partners and stakeholders should provide all the necessary support for the implementation of PIDA.
3. Support all initiatives and efforts aimed at fostering regional infrastructure development; regional infrastructure is critical for regional integration and Africa's economic development.
4. African countries need to strategize on how to engage with emerging economies and the private sector including building the required capacity and enhance the business environment
5. Encourage further engagement of the private sector and the civil society in decision making processes
6. Due to lack of sufficient public financing and decreasing ODA, innovative arrangements should be considered to promote public-private partnership, as an effective alternative financing mechanism, within the African context.
7. Enhance the technical capacity of African institutions to improve compilation of reliable and accurate data as well as data management for sound decision making.
8. Build on African success cases; further develop indigenous technologies and locally available knowledge resources in renewable energy.
9. Sustainable IPA improvement should keep a balance between investment and development outcomes.
10. Encourage the implementation of ICT strategies to increase energy efficiency and reduce costs and gas emission.
11. Support the designation of a Year of Energy Access and call upon the United Nations to declare 2012 as the International Year of Universal Energy Access.

**SESSION 6: Consideration of the Draft Ministerial Declaration, Draft Resolutions as well as the Draft Agenda and Work Programme for the Ministerial Session**

70. The experts examined the annexed Draft Declaration and Draft Resolutions, amended and then adopted them.

71. They then adopted the Draft Agenda and Work Programme for the Ministerial Session.

**SESSION 7: Adoption of the documents to be submitted to the Ministerial Session**

72. The Rapporteur presented the report of the experts and the draft Ministerial Declaration and Resolutions.

73. The experts debated and adopted the documents to be presented at the Ministerial Session.

**CLOSING CEREMONY**

74. The closing ceremony was presided by the Chair of the Bureau who thanked the experts and the participants for the fruitful deliberations.

75. The meeting was closed on 4 November 2010 at 7:00 p.m.