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Verein Kamerunischer Ingenieure und Informatiker (VKII e.V.)
Association des Ingénieurs et Informaticiens Camerounais (AIIC)
Association of Cameroonians Engineers and Informaticians (ACEI)

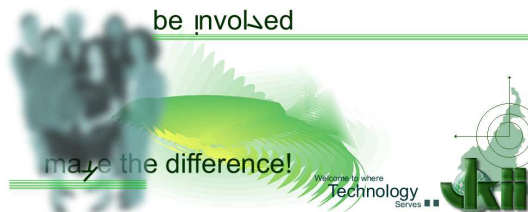


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Together great things happen... VKII let's build it Together...

Memorandum of the 7th VKII International Symposium about Chances and perspectives of the renewable energies in Africa particularly in Cameroon,

From the 09th - 10th of October 2009 in Karlsruhe, Germany



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I. Introduction

The “Cameroonian association of engineers and computer scientists” (VKII) staged its 7th international symposium in Karlsruhe (southwest Germany) October 9 till 10. The subject was “challenges and perspectives for renewable energies in Africa and especially in Cameroon” it was organised together with the Cameroonian community in Karlsruhe. The event was under the auspices of His Excellency Jean Marc MPay, ambassador of Cameroon in Germany and as well under professor Dr. Horst Hippler, director of the elite university, Karlsruhe Institute of Technology (KIT), an institute for high technology, inspired by the famous “Massachusetts Institute of Technology (MIT)”. KIT is a unique fusion between an elite university and the research centre in Karlsruhe; this makes one sense the future development of the German research landscape.

The aim of the symposium was to highlight and develop new strategies, to facilitate the access to renewable energies and to put attention on the challenges related to energy policies in Africa and especially in Cameroon in the 21st century.

During the symposium, several presentations, discussions and communication took place. Some suggestions were made on how to make it possible for Cameroon to develop environment friendly energy, to consider the use of other energy sources with support of lucrative investments and also how to satisfy the great need for energy, which would, as consequence accelerate the urban and rural development.





II. Presentation of the actual situation and measures of the government

Cameroon has the second largest potential of Africa concerning supply with hydropower. But the actual production of 933 MV (77% waterpower and 23% heat) is not enough to cover the current demand for energy. Therefore it is important to accelerate the construction of hydroelectric power plants to reach an adequate energy supply for further development, industrialisation and for the population of the country. On the long run this would be a profitable project for Cameroon on the economical and geopolitical side. VKII welcomes in this context the efforts of the government with regard to the actual expansion of the hydroelectric power plant Memve'ele (200 MV) and encourages to agree to feasibility studies and start construction projects in Nachtigal and Lom Pangar.

III. Recommendation Chapter A – Examination of the functional strategies and energy supply

The maintenance of already existing hydroelectric power plants and thermal power plants in Cameroon (especially in Edéa, Lagdo, and Song Loulou) would enable to increase the capacities and decrease electrical power outages under which the affected population suffers. More maintenance (especially preventive) from qualified and available staff and the empowerment of the functional instruments are also important factors. These efforts should also expand on the distribution of power. The connection of already existing networks, especially the collaboration of the different regions should also play an important role in the development policy and the energy supply planning. The emphasis should lie on the education and qualification. Especially in the area of the maintenance, could the Cameroonian community abroad, represented by VKII, be an important network for skills and a reliable technology partner. This would ensure and support a real transfer of occupational skills in Cameroon in the technological field.



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VKII suggests the following:

- 1- The already existing potential in the area of renewable energies should be used to the fullest.
- 2- The following sources of renewable energies must play an important role:
Solar heat, photovoltaic, biomass, wind energy, and geothermal energy.
- 3- These energy sources should be used and adjusted to the natural potentials and chances of the individual regions in Cameroon. For example, solar heat in the north, biomass energy in the south, geothermal energy in the south-west and wind energy as well as photovoltaic in the whole of the country.

IV. Recommendation Chapter B - The big challenge, opportunities of international collaboration

A sustainable support of projects and initiatives in the whole country, which already depend on international aid, would be greatly important. The Cameroonian government should develop a partnership with its Diaspora, especially with the Cameroonian community in Germany. This partnership should actively help to multiply the cooperation projects. For example projects like:

- 1- The project of Solar villages in Ngaoundéré in the Adamaoua region, initiated by VESEDI in France (Vent Eau Soleil Environnement pour le Développement International Solidaire) listed in the solar village register of the UNESCO
- 2- The project SLAK or ELPC (Electricity and light for the poor in Cameroon) realised by I.S.C (International Research Centre for photovoltaic in Germany) in the village Botbadjang which is situated in the coastal region of Cameroon.



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- 3- The project of water treatment with the help of solar energy and photovoltaic realised by AIA (Association of African engineers in Italy) in the villages Bandoum and Bandoumbé in the western region of Cameroon.

V. Recommendation Chapter C – political, economical, scientific, and social challenges

Besides the praiseworthy efforts of the Cameroonian government to satisfy the needs of the energy industry, one should realise that Cameroon still has a large unused potential regarding the energy business. For this reason we give further recommendations on how the government could establish a background for better use of these potentials regarding renewable energy in the country.

a. From a political and economical view

Even though there are recent efforts of the government, one should not forget that there is still a lot to improve.

Therefore the government should:

- 1- Define clearly the energy policy with special attention on the diversification of energy sources, to foster the use of renewable energies.
- 2- create legal and fiscal conditions to support the development of renewable energies
- 3- Organise regular regional seminars, so that elected representatives and decision-makers (governors, ministers, village eldest) are more sensible for the importance and the promising potential of renewable energies in their own regions and urban areas.



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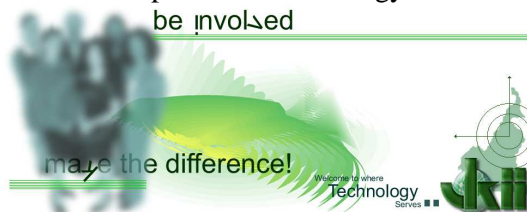
- 4- Facilitate the import of technologies for renewable energies from abroad, because they are the key for applied research and the creation of new job opportunities.
- 5- Reduce the taxes on materials which are needed for the energy sector.
- 6- Support the establishment of industrial companies as well as investments in the energy sector form foreign scientists and entrepreneurs. This support should also apply for the mass production of solar bulbs, normal batteries, solar water boilers, fridges and water treatment machines working with photovoltaic or wind energy, and other practical domestic appliances for the daily use.

b. From a scientific and researcher view

From this angle governments and the private business sector should:

- 7- Create excellence centres or alternatively facilitate the establishment of such centres, to find solutions for energy related issues.
- 8- Establish local structures for the education of personnel regarding design, installation, maintenance and modernisation of already existing facilities.
- 9- Strengthen research and development in the universities by creating new study courses, faculties and laboratories.
- 10- Launch new technical universities and higher education facilities to cultivate new talents, here are also foreign investors important
- 11- encourage collaboration and exchange:

- between the Cameroonian universities and the universities in the Western, Asian and South American countries.
- between the Cameroonian universities and the Cameroonian, respectively the African Diaspora, specialised in this area
- to ensure the further education of university professors, scientists, and students to improve the technology transfer



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12-Implement new subjects and projects about renewable energies in the educational system to create an early awareness in the young generation. Broaden initiatives like JERSIC in primary schools and high schools to foster the spirit of research and innovation in the young population of Cameroon.

c. From a social view

Regularly a campaign should be planned and organised to create awareness and inform the population in the rural areas of the possibilities to realise micro projects concerning renewable energy, like for example the usage of biomass. A programme of micro credits should be launched, so that the rural population can realise such projects.

VI. Conclusion

At the end of the organized symposium, VKII aims to establish a technical excellence centre, consisting of Cameroonian and German experts in the field of renewable energies. The target is to find sustainable solutions for the energy crisis and in particular for the support of renewable energies in Cameroon. VKII agrees to work hand in hand with the local authorities and local and international organisations to realise strategies and projects in this field. Further VKII agrees to act upon the recommendations listed in this memorandum.

The Cameroonian association of engineers and computer scientists (VKII) is ready and has the will to rise to the challenge and foster opportunities for a real and sustainable growth in Cameroon.

