

**Plenary Session V/B:
Strengthening Capacities, Research
and Technology Development,
Institutions**

Wednesday, 2 June, 16.00 – 17.30 h

Venue: Plenary Hall IKBB

Internationale Konferenz
für Erneuerbare Energien, Bonn
International Conference
for Renewable Energies, Bonn



SESSION REPORT

A. The Challenge

The increased use of renewable energies requires enhance public awareness, well-trained both female and male professionals (“brainware”), a coherent and functioning institutional framework (“orgware”), and the availability of appropriate and affordable technologies (“hardware”). Given the changing nature of energy markets, capacity development, research and development (R&D) in the renewable energy sector must address a broad range of public and private actors.

Needs vary between developed and developing countries-while the energy sector in developed economies is well established in general, there is an imbalance between conventional markets and renewable energy in the capacity available and resources dedicated to technology and institutional development. In developing countries, capacity, skills and expertise are often much more limited in general, and priorities for renewable energy need to be addressed within the wider context of the development of the energy sector as a whole.

B. Highlights from Presentations

Mr. Brian Hollingworth, Consultant UNEP Dams and Development Project

Mr. Alberto T. Calcagno, Coordinator UNEP Dams and Development Project

A Successful Multi-Stakeholder Approach to Improve Decision-Making on Dams and Development

This paper reviewed the multistakeholder approach to dams and development recommended by World Commission on Dams. Although the paper underlined that full consensus on all recommendations of the World Commission on Dams is yet to be accepted by all concerned parties, the paper used the case study of South Africa to demonstrate that the multistakeholder approach is an effective tool for mediating the interests of various affected groups. Among the factors contributing to success were the committed participants, the realisation that South Africa could not afford to repeat past mistakes and the open and constructive debate. It has also proven effective in ensuring that the voice of certain marginalized stakeholders are heard.

**Plenary Session V/B:
Strengthening Capacities, Research
and Technology Development,
Institutions**

Wednesday, 2 June, 16.00 – 17.30 h

Venue: Plenary Hall IKBB

Internationale Konferenz
für Erneuerbare Energien, Bonn
International Conference
for Renewable Energies, Bonn



Mr. Frederick H. Morse, Chairman US Solar Energy Industries Association

The Concentrating Solar Power Global Market Initiative (GMI) as a result of Research and Development

The paper focussed on a global market initiative aimed at promoting concentrated solar power (CSP) technology. Emphasizing that CSP has 15-year track record of good technical performance. In addition to PV technology, the paper urged the conference to also consider CSP as an important option for renewable energy development in both industrialized and non-industrialized countries with the requisite solar resources. A key pre-requisite for effective implementation of CSP is the existence of an enabling policy and regulatory framework with supportive targets and tariffs and financing mechanisms.

Mr. Jean-Louis Bal, Director ADEME

Mr. Mohamed Ezzedine Khalfallah, Director General ANER, Tunisia

Applications of solar thermal energy in the Mediterranean basin

The presenters described a multi-country collaborative program on solar water heaters involving European countries and Mediterranean countries of North Africa and the Middle East. The paper addressed one of the key challenges facing the development of the solar water heater industry, namely how to ensure that the benefits from solar water installations are equitably shared by both the supplier of equipment/services and the client. The central activity was to transfer the concept of Guarantees Solar Result (GSR) which has proven successful in Europe to seven South-Mediterranean countries. This initiative showed how multi-country programs can be effective in sharing policy lessons learned, skills and knowledge.

Mr. Ingvar Fridleifsson, Director UN University, Iceland

Energy Geothermal Energy Training in Iceland for Professionals from Developing Countries

The paper reviewed a global geothermal training program undertaken by the United Nations University (UNU) with support from the Government of Iceland. Providing both specialized short courses and Masters level courses, the training program has proven effective in building a large cadre of committed and skilled geothermal experts in numerous developing countries who have ensured effective operation of geothermal installations in their respective countries. The UNU geothermal training program effectively demonstrate how capacity building and training can be instrumental in facilitating the wider expansion and faster development of the global geothermal industry.

**Plenary Session V/B:
Strengthening Capacities, Research
and Technology Development,
Institutions**

Wednesday, 2 June, 16.00 – 17.30 h

Venue: Plenary Hall IKBB

Internationale Konferenz
für Erneuerbare Energien, Bonn
International Conference
for Renewable Energies, Bonn



Prof. Joachim Luther, Director Fraunhofer-Institute Solar Energy Systems, Germany

Research and Development on Photovoltaics in Germany - main emphasis and approach

The last paper reviewed an innovative German solar photovoltaic research program that brings together a wide range of independent solar PV research institutes working together with the academic community and industry to ensure rapid uptake of R&D findings by the corporate sector. The main research themes are mutually defined by the government, industry and the participating R&D institutes leading to a voluntary division of work between potential adversarial institutions. The paper emphasized that collaboration is best undertaken by agencies with complementary interest and skills but competition is kept alive with at least two institutes working on the same research theme.

C. Summary of the Session

The session covered a wide range of capacity building, research and development experiences in both developed and developing countries. It addressed both small, relatively simple renewable technologies such as solar thermal water heaters and large-scale utility level options such as concentrated solar thermal electric power.

Although the session covered a variety of technologies and approaches, it did identify an important commonality, namely: rapid and effective technology development, transfer and experience as well as skills sharing is best undertaken in open, flexible programs involving a wide range of key stakeholders, and if possible, involving different countries. A large number of actors ensures that all participating entities are able to benefit from the resultant rich array of complementary expertise and experiences amongst them.