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"Renewable energy technologies: Technology trends, patents and policy implications" SB40 Side Event Report

Overseas Environmental Cooperation Center, Japan (OECC)
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This is a report of a side event held at the 40th Session of the Subsidiary Bodies of Implementation of the UNFCCC from June 4th to 15th 2014, in Bonn, Germany.

- Title : "Renewable energy technologies: Technology trends, patents and policy implications"
- Date : June 13, 2014 (13:15-14:45)
- Organizer(s) : World Intellectual Property Organization (WIPO), International Renewable Energy Agency (IRENA)
- Venue : Tram, Ministry of Transport
- Presenter(s) :
  - Ms. Sarah Helm, Senior Associate, Cambridge IP.
  - Dr. Linus Mofor, IRENA
  - Mr. Kuni Shimada, TEC Vice Chair
  - Mr. Fred Onduri, Chair of CTCN Advisory Board
  - Mr. Ged Owens, European Patent Office (EPO)
  - Unidentified representative from Électricité de France S.A. (EDF)
  - Moderator: Mr. Victor Owade, Department of External Relations, WIPO

- Abstract: The Workshop looked at key trends in renewable energy technologies, based on analysis of evidence from patent literature, and considered the implications for policy making.

Summary

1. Mr. Victor Owade: Opening remarks

- Mr. Owade made a brief introduction of the side event and also introduced the panelists.
- He congratulated Ms. Helm for the conclusion of the WIPO report titled: "Renewable Energy Technology: Evolution and Policy Implications -Evidence from Patent Literature"

2. Ms. Sarah Helm: "Renewable Energy Technology: Evolution and Policy Implications - Evidence from Patent Literature"

- Ms. Helm introduced the study which was commissioned by WIPO to promote policy discussion by providing evidence of innovation trends and technology ownership.
- The report supports the key role of technology development and transfer emphasized in negotiations at the UNFCCC.
- She provided some of the key findings such as proof of strong innovation and patent filing rates across four key renewables energy sectors. Innovation and patent filing rates in these sectors grew by 24% annually between 2006 and 2011, outpacing the 6% global average increase in patent filing. The highest rate of technology investment is centered in the solar PV sector.
- Results show that there is an increasingly globalized market and growing influence of Asian markets reflected in patent filing locations. Over 30% of patents filed made use of the Patent Cooperation Treaty (PCT) system, and China accounts for the highest percentage of patent filings location in biofules, solar thermal and solar PV during 2006-2011.
- Strong commercial interest from Asia evidenced through patent ownership. The top 20 technology owners in solar PV are from Asia (Japan:14, Korea:3, China:3)
- One of the main conclusions is that there is a lot of space for commercialization opportunities as well as for establishing public private partnership. While at the same time, it is necessary to underline the role of research institutions and universities which also saw an increase in patent filings.
- Some key implications are a diverse industry structures and technology maturity levels impact sector based innovations; technology deployment at global scale creates opportunities for global solutions (market penetration and manufacturing are an increasingly globalized pursuit); technology intelligence and the provision of patent based research can assist in the development and deployment of climate change and mitigation technologies.
- M. Helm also suggested that there is a lot of room for partnerships through the WIPO technology library for collaboration opportunities.
- She concluded by indicating that a global engagement in discussions on the role of technology innovation policy and transfer conditions has occupied an increasingly central role; and that supporting international dialogue around IP related issues and supporting technology transfer mechanisms such as UNFCCC's CTCN and WIPO will remain important.

3. Mr. Linus Mofor: “Ocean energy technology and patents outlook”

- Mr. Mofor made a brief introduction of IRENA and its activities and presented results of a research on ocean energy technologies (OET).
- On this regard, IRENA’s mandate is to promote accelerated and widespread sustainable deployment of all forms of renewable energy, including ocean energy, worldwide.
- As for the potential deployment of this technology, ocean energy system’s goal is to generate 746 GW by 2050.
- For the moment, the potential of ocean energy is high but its contribution to global energy mix is still small in the short to medium terms. The idea of the presentation was to analyze opportunities for technology/patent developers.
- Mr. Mofor introduced the recent publication from IRENA titled “Ocean Energy - Technology Readiness, Patents, Market Status and Outlook”
- He concluded by providing some data of the following technologies: tidal stream, wave energy converters, among others.

■ Q&A

Q.1 (Victor Owade): To Mr. Shimada: How the TEC can use this information patents
A.1 (K. Shimada): The TEC is the policy arm of the UNFCCC for technology transfer issues. It actually handles many mandates for innovation barriers under this framework, however it does not work on property rights problem. It has been mandated that the TEC will only discuss enabling environments.

Q.2 (Victor Owade): How do you react to geographical shift of energy sources and what kinds of activities are necessary to conduct investments in renewable energy?
A.2 (Unidentified representative from EDF Group): Renewable energy is very important today and my group is investing a lot in renewable energy in EU, USA and also developing countries in technologies such as hydro, solar, etc. EDF New Energy is the new unit in charge of renewables, and they conduct a lot of research including IPR barriers in order to find the right conditions. You need to have the right policies in place to do research or commercialization, demonstration, etc. and use the right instruments. You also need to check if the market design is already done and if appropriate policies are in place.

Q.3 (Unidentified representative from IRENA): Question about licensing. There is no data

base on licensing. Are there any plans to make it accessible?
A.3 (Sarah Helm): I agree that there are number of challenges that need to be tackled. However, there are licensing models and information is available such as in the WIPO green.
A.3 (Ged Owens): There is no data of licensing with some exceptions such as in Brazil. At the moment we do surveys and we ask technology owners if they have considered licensing in developing countries. There is a will to do it but more soft conditions needs to be considered.

Q.4 (Victor Owade): About the reports presented today. Who should take it too to make the best use of them?
A.4 (Linus Mofor): The reports should be important for policy makers obviously. These issues should be addressed to the private sector. This is crucial.
A.4 (Sarah Helm): This should be useful to exactly the same audience as for the CTCN, etc. This information can be used by governments so that they can understand where they are in the discussion or negotiations process.

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English:
http://www.mmechanisms.org/e/info/event/details_oecc_SB40report.html