

## Japan-China-Korea Green Technology Forum 14 mars 2012

Som en del av Tillväxtanalys löpande bevakning inom området hållbar utveckling följer här anteckningar från Japan-China-Korea Green Technology Forum i Tokyo. Rapporten ger en överblick av den diskussion som förs i Japan, Kina och Korea om politik för miljöteknik och olika insatser för att minska utsläppen av klimatgaser. Diskussionen är relevant för Sverige att följa då den kan inspirera till aktiviteter till exempel inom ramen för Regeringens miljöteknikstrategi. Presentationsmaterial finns tillgängligt på: <http://www.zencom-inc.co.jp/jck-gtf2012/program.html>

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Vill ni ha flera nyheter från Tillväxtanalys utlandsverksamhet så går de att följa via [www.tillvaxtanalys.se/globalutblick](http://www.tillvaxtanalys.se/globalutblick). Där kan man även skriva upp sig för att få dem direkt per epost.

### Sammanfattning:

Den 14 mars 2012 hölls Japan-China-Korea Green Technology Forum vid Japan Science and Technology Agencys<sup>1</sup> (JSTs) huvudkontor i Tokyo. Forumet organiserades av japanska Ministry of Education, Culture, Sports, Science and Technology (MEXT) och JST, kinesiska Ministry of Science and Technology (MOST) samt koreanska Ministry of Education, Science and Technology (MEST). Forumet är ett resultat av en diskussion under Japan-Kina-Sydkorea Trilateral Summit år 2011. De tre ledarna enades då om att stärka samarbetet mot en hållbar tillväxt genom främjande av förnybar energi och energieffektivitet och att hålla Green Technology Forum, förutom samarbetet inom nuvarande internationella ramverk som Clean Energy Ministerial, APEC och IPEEC. Forumet syftar till att dela de grundläggande forskningsresultaten och att bygga täta nätverk mellan

<sup>1</sup> JST har idag samarbetsprojekt med Vinnova och Stiftelsen för strategisk forskning (SSF) inom området multi-disciplinär bioteknik.

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politiska beslutsfattare och forskare i de tre länderna inom ”green technology” (cleantech/miljöteknik) genom att fokusera på ämnen som ”Low Carbon Society”, ”Climate Change” och ”Water Management.”

Denna rapport ger en översikt av Low Carbon Society sessionen där talare från Japan, Kina och Korea berättade om insatser i sina respektive länder för att uppnå ett utsläppsnått samhälle.

## **Introduction**

Japan is at present actively pursuing means to increase the collaboration among Asian countries, with China being the most important trading partner both for Japan and for Korea, and Korea being both a competitor and sometimes collaborator. On March 14, 2012 representatives from Japan, China and Korea met to present national work on green technology development at the Japan Science and Technology Agency (JST) Tokyo Headquarters. The forum began with a plenary session with presentations by representatives from the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), China’s Ministry of Science and Technology (MOST) and the Korean Ministry of Education, Science and Technology (MEST). Three parallel sessions covering Low Carbon Society, Climate Change and Water Management followed. This event report gives an overview of the plenary session and the Low Carbon Society session. PowerPoints are available upon request.

## **Plenary session**

During the opening ceremony, Dr. Michiharu Nakamura, President of the Japan Science and Technology Agency (JST) expressed JST’s long term goal of developing innovative technology to help solve environmental issues. However, he was also clear to point out that such issues cannot be solved by a single country alone. Toshihide Fukui presented on behalf of Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT) and gave an overview of many different initiatives and programs that Japan is pursuing. Some of the initiatives and programs discussed include SATREPS (Science and Technology Research Partnership for Sustainable Development), the Global “Environmental-Leaders” Training Program and GEOSS (Global Earth Observation System of Systems). Others were also mentioned but these were the ones with international connections. SATREPS consists of international activities and efforts by MEXT and JST, the leadership training program is aimed at providing practical training to help students from developing countries learn from Japan and GEOSS is being developed by the Group on Earth Observations (GEO) with 75 member countries (Sweden is one) and an executive committee made up of 13 different countries.

Fangneng Zheng and Jun Xu, both representing China’s Ministry of Science and Technology (MOST) emphasized the importance of international cooperation in terms of information sharing and technology transfer. Mr. Zheng expressed the importance of involving all different stakeholders, like the government, companies, researchers, universities etc in the process. China has implemented policies and

laws relating to green technology and CO<sub>2</sub> emission reduction, and is set to increase the budget for environmental sustainability technologies during its 11<sup>th</sup> five year plan. The mention of an increased budget was echoed by Korea's speaker as it in 2012 has doubled its investment in research and development of green technology in comparison to 2008. Il Soo Kim from Korea's Ministry of Education, Science and Technology (MEST) explained that the government is working on a program to support university studies and students in order to promote green technology development. Korea's goal is to develop world leading technology while promoting sustainable economic growth. Neither Mr Kim nor Professor Jongheop Yi from the School of Chemical and Biological Engineering at the Seoul National University in Korea, however, mentioned any international Korean efforts.

### 1.1 Low Carbon Society

Following the morning plenary session, the forum continued with a set of parallel sessions. This report covers the session on low-carbon society. Professor Ryuji Matsuhashi, from the University of Tokyo and Research Director at the JST Center for Low Carbon Society Strategy **spoke about introducing photovoltaics (PV) in order to reduce Japan's CO<sub>2</sub> emissions.** The Hatoyama target seeks to reduce CO<sub>2</sub> emissions by 25 per cent from the 1990 basis by 2020. The Basic Energy Plan, which is currently being revised, seeks to reduce CO<sub>2</sub> emissions from energy by 30 per cent or more from 1990 levels by 2030. Professor Matsuhashi thinks this may be difficult to achieve. In his presentation, simulation of CO<sub>2</sub> emission of varying scenarios on utilization of nuclear power and energy efficiency measures are shown but none showed 30 per cent decrease from 1990. His presentation focused on the Japanese domestic market and did not mention any international efforts or collaboration projects.

Professor Zheng Li, Dean of the Department of thermal Engineering of Tsinghua University in China followed with a presentation about low-carbon efforts in China. He gave an overview of low-carbon towns in China that have been or are being developed to promote the reduction of CO<sub>2</sub> emissions. Included as examples were the Shijingshan District in Beijing, Xi'an and Hangzhou, the Yujiapu Finance District in Tianjin, Dezhou in Shandong, and Shanghai. Some of the efforts in these areas to reduce CO<sub>2</sub> emissions include, but are not limited to, wind power and solar PVs, electric vehicles, high speed trains, promoting walking, free public bicycles at stations around the city, and credit to people for recycling their electric products properly. Professor Li explained that China is part of several different international collaboration efforts like APEC and WWF. **Also mentioned was that there are bilateral cooperation initiatives with Singapore, the UK and Sweden.** International design teams have also participated and helped with the development of the Yujiapu finance district in Tianjin. He expressed a strong interest in continuing the cooperation through APEC and mentioned that international collaboration efforts are very important to China when it comes to developing its low carbon towns.

Professor Yong Tae Yoon, Associate Professor at the School of Electric Engineering and Computer Science at the Seoul National University in Korea gave an overview of green technology in Korea. Korea depends to 97 per cent on energy from overseas which is difficult for the country to sustain in the long term. **Long term solutions targeted by Korea are the promotion of electric vehicles and the use of efficient renewable energy sources, with the key to the success of these solutions being the implementation of smart grid architecture.** Related to this is the current buzz word in Korea – “green growth, smart grid”, i.e. this being part of the overall presidential “low-carbon, green growth” strategy of the Myung Bak Lee government. Professor Yoon did not explain the implications of “green growth smart grid” further or discuss any international collaboration projects that Korea is taking part in, but he explained that the domestic focus is on the development of smart grid architecture.

## 1.2 Conclusion

Overall the forum was very informative regarding efforts and paths being pursued by Japan, China and Korea, and it serves as an example of an emerging pattern of tri-lateral collaboration between Asia’s most influential economies. Perhaps because this was the first time the forum was held, there was limited coverage regarding concrete collaboration efforts amongst the three countries. However, this forum is still of relevance in a Swedish context, as an illustration of the said collaboration pattern and its further development, as inspiration for paths to pursue domestically and as inspiration for areas and countries for further collaborations.