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## **NATIONAL**

## Forum mulls nuts, bolts of Kyoto aims

## Clean-development mechanism touted as way to fight global warming

By SACHIKO HIRAO

Global warming poses a formidable challenge to the

Yet if industrialized and developing states cooperate to combat climate change, this may be the impetus to forge sustainable development and an advantageous situation for all, according to participants at a recent forum in Tokyo. The 1997 Kyoto Protocol re-

quires signatory industrialized nations to achieve quantitative reduction targets for greenhouse gases, including carbon dioxide.

Under the so-called cleandevelopment mechanism (CDM) scheme, the protocol allows these nations to support projects for improving energy efficiency in develop-ing countries to offset their own domestic emissions.

Not just government-funded aid programs but projects carried out by the private sec-tor can be counted in a country's overall credit.

While helping industrialized

nations achieve their emission-reduction targets, many experts expect the scheme to facilitate investment and technology transfers to developing countries.

'The facilitation of probable investments and technology transfers from developed countries to developing countries will be beneficial not only to the mitigation of climate change, but also sustainable development of developing countries as well as economic activities of developed coun-tries," Carlos Magarinos, di-rector general of the United Nations Industrial Development Organization, said at the June 24-25 forum.

In this context, UNIDO is ready to make efforts to help developing countries respond adequately to an emerging opportunity under the Kyoto Protocol to attract foreign investment and acquire indus-trial technology, Magarinos said in his opening address to the forum on international cooperation to achieve the goals of the global warming pact.

UNIDO and the Mitsubishi Research Institute organized the forum, titled "CDM and the Kyoto Protocol: Opportunities for Japan in Asia," attracting about 290 scholars, government officials and businesspeople from across the globe. The Japan Times supported the event.

CDM is one of three "flexi-ble mechanisms" built into the Kyoto Protocol that countries can use to meet their reduction pledges. The two other are joint implementation and emissions trading.

Joint implementation is a scheme similar to CDM that is applied to cooperation projects conducted between de-veloped countries.

Emissions trading enables countries and private-sector firms to buy and sell carbon dioxide emission rights

During the forum, Yoichi Kaya, director general of the incorporated foundation Research Institute of Innovative Technology for the Earth, stressed that Japan needs the developing world's cooperation in waging an uphill battle to curtail its emissions.

"For Japan, achieving its Kyoto Protocol targets will be very difficult and costly,"

Kaya said.
"If Japan tries to achieve the target only with domestic measures, it would be very expensive. It is important that Japan work with other countries, instead of relying on domestic measures only

Under the Kyoto Protocol, Japan must slash its greenhouse gas emissions by an average of 6 percent from 1990 levels in the years 2008 through 2012. Japan ratified the protocol in June, following in the footsteps of the 15-na-tion European Union.

Government officials say the target is especially tough for Japan because, prompted by the oil crises of the 1970s, the nation has already intro-duced various energy-efficiency measures, leaving relatively little room for improvement.

While the clean development mechanism can be a less-costly tool that allows industrialized countries like Japan to achieve their emission targets, it also paves the way for developing countries to take part in efforts to reduce carbon dioxide and five other greenhouse gases, according

to the participants.
"CDM is an instrument to



CARLOS MAGARINOS, director general of United Nations Industrial Development Organization, addresses a symposium on global warming and the Kyoto Protocol at United Nations University in Tokyo. YOSHIAKI MIURA PHOTO

link developing countries to developed countries" in ef-forts to curb both emissions and global warming, said So-zaburo Okamatsu, vice chairman of the CDM Executive Board.

The latter is mandated under the 1992 U.N. Framework Convention on Climate Change to hammer out detailed clean development mechanism rules.

The Kyoto Protocol does not require developing countries to curb their greenhouse gas emissions.

The participation of these nations is crucial, however, in the climate-change battle because they already emit a major portion of the world's greenhouse gases. As of 1998, developing na-

tions accounted for roughly 40 percent of the global total, with China alone responsible for 13 percent. Emissions by these nations are expected to increase further as their economies grow.

The role of developing countries in combating global warming will become more important in the decades to come, Kaya said.

Although concrete clean development mechanism rules have yet to be established. governments and the private sector are stepping up prepa-

rations to promote the system because countries are allowed to count CDM projects initiated in and after 2000 as emissions-reduction efforts for the initial 2008-2012 target period.

The World Bank set up the \$180 million Prototype Carbon Fund to support CDM projects, 23 of which are currently being carried out with the help of the fund, according to Ikuo Nishimura of Tokyo Electric Power Co., one of the firms that is investing in the

Axel Michaelowa of the Hamburg Institute of International Economics said Asian countries are lagging behind Latin American nations in terms of CDM readiness, in-cluding preparations for domestic institutionalization.

Asian countries account for just 19 percent of the CDM projects funded by the World Bank's carbon fund, he said.

Speaking from the perspective of developing countries, Jyoti Parikh, a professor at the Indira Gandhi Institute of Development Research in Bombay, stressed that CDM projects should come with technology transfers and capacity building in host countries. This would enable the poorer nations to adapt and continue to use the technology for their future sustainable

development. Vute Wangwacharakul, a researcher from Kasetsart University in Bangkok, said governments should give the private sector a clear picture of the conditions attached to CDM projects as they are not merely business transactions but also concern social and environmental issues.

In contrast, Morihiro Kurushima of the New Energy and Industrial Technology Development Organization said the key to a successful clean-development mechanism is the private sector's ability to profit from such projects and reduce the risks involved, as it will mainly be the private sector implementing them and carrying out technology transfers

NEDO, a government affiliate, has conducted feasibility studies on about 200 candidate CDM plans involving Japanese firms since 1997, and on-ly two of them have been turned into full-scale projects so far, according to Kurushi-

Despite the many activities related to the clean-development mechanism, there are lingering concerns whether the Kyoto Protocol will eventually take effect after the United States, the world's largest emitter of greenhouse gases, pulled out from the pact last year.

To put the protocol into force, at least 55 signatory countries to the 1992 U.N. Framework Convention on Climate Change need to ratify

Developed countries that have ratified the protocol must also account for more than 55 percent of the indus-trialized world's total emis-sions in 1990.

Japan's ratification put the number of ratifying countries at 74, which represents nearly 40 percent of total carbon dioxide emissions. The endorsement of Russia, which ac-counts for about 17 percent of global emissions, is now es-

Yuzuru Nonaka of Electric Power Development Co. said an important factor in the emission trading equation will be whether the U.S. rejoins the Kyoto pact in the fu-