

**Q. India and China have similar problems such as huge population growth and dependence on coal. Would you please compare and analyze their similarities.**

**(Kumar)**

①Both countries have growing huge populations that account for nearly 35% of the total world population. As population expands, despite GDP per capita and energy consumption per capita are still much lower than the world average, improvement in quality of life will increase CO<sub>2</sub> emissions.

②Also, huge gap exists in current economic growth and sustainable development. We need to improve the level of economy and society, reduce poverty, and narrow urban/rural divide. This is a huge challenge for the government authorities who have responsibility for all citizens. However, if we keep traditional way of development, fossil-fuel consumption and CO<sub>2</sub> emissions will expand. Developing countries have to promote sustainable development in which economic growth and global warming countermeasures are compatible each other. This is a huge challenge for developing countries.

③Also we have a problem in energy structure and energy security. If there is no technology innovation or some reform, coal will remain the major energy source for India and China. The rise in oil price at international market is another serious problem for developing countries.

④In the last 15 years, we reduced 50% of CO<sub>2</sub> emissions per GDP which is an outstanding outcome of energy conservation promotion in both countries. Moreover there is room for improvement in industry and commercial sectors, which indicates large potential of technology transfer, adoption and technology innovation to mitigate CO<sub>2</sub>.

⑤To mitigate global warming, large-scale efforts have been made in R&D of renewable energies. In China solar energy and in India wind energy is growing rapidly.

**(Wang)**

We have problems in the level of technology development. We lack capacity and mechanism to develop new technology, and we could not accommodate social and economic requests.

Also there are financial constraints. Although developing countries have large potential to reduce CO<sub>2</sub> emission, they can not afford huge expenditures for the measures. All of these are key challenges facing developing countries. Developing countries willingly accept international cooperation and investment.

**(Hamanaka)**

In the international dialogues led by the IGES, politicians of developing countries speak out that global warming is hard to receive citizen's support.

The politicians of developing countries must first aim at the eradication of poverty, the economic gap in their countries, traditional air and water pollution, or other concrete problems inside their countries. We should seek co-beneficial countermeasures for both global warming and local problems, and support developing countries to move on to global warming mitigation. I hope that developing countries will set their target of global warming mitigation with citizen's support in the near future.

**Q. What sort of technology transfer is required from developed countries like Japan? Should this be a business-to-business contribution, government-oriented promotion or CDM-oriented? Are there any challenges against technology transfer?**

**(Kumar)**

In the case of CDM, the technology transfer essentially means assisting developing countries with advanced efficient technology of developed countries to achieve a particular target. At the same time, this technology transfer will also promote the use of efficient devices within a business system. The idea of technology transfer is not only to provide financial assistance to developing countries' industry, but also to provide technical support in order to implement these particular activities. Normally it is a business-to-business activity.

**(Wang)**

I think it is not just requests for specific technology transfer from developed countries, but requests for systematic and institutional cooperation between the countries with advanced technology and the countries without it. I think it's something like a protocol.

**(Hamanaka)**

Technology transfer includes not only vertical transfer from developed countries to developing countries, but also horizontal transfer inside developing countries. Both of them are important and need political efforts to promote efficient technology in the country.



Also in steel and cement industries, dialogue and cooperation on energy conservation technology are promoted. However intellectual property rights have made those efforts difficult, since most of technologies are possessed by private corporations. Developing countries have to pay royalties for such intellectual property rights which become a bottleneck for developing countries. Various ideas are coming up, which relate to public assistance from developed countries to

developing countries against this royalty, or the system to count exhaust reduction in developing countries as a CDM credit. Establishment of workable system or institution is strongly demanded.

**(Sugano)**

We have been implementing CDM projects in the Matsushita Group overseas companies. In Malaysia, we have conducted a CDM project which is usually avoided for long depreciation period.

Another example is in China. We have promoted energy-efficient fluorescent lamps, whose reduction will be brought back to Japan. Although Business to Consumer (B-to-C) projects is difficult to get certification,

we will keep trying to promote energy-efficient home electrical appliances in developing countries as a part of our CDM projects.

**Q: Do you conduct any training programs regarding environmental issues in Asia?**

(Sugano)

We have provided training programs in response to the RoHS activity in Europe. Also we have conducted 1-week energy conservation activities assembling altogether 130,000 Chinese and Japanese workers to mitigate CO<sub>2</sub> emissions. We selected different themes for Japan and China at the event.



**Q. What is the general public awareness about environmental issues in China and India? Do you have any particular examples of voluntary environmental approaches by citizens?**

(Wang)

Public awareness of environmental protection in China has increased very much. The citizens in one city requested that some industries be closed because of the heavy pollution of the rivers basin. However, they struggled for a long time because of the local government. I think that the public awareness is more than that of some local governments.

Environmental issues are categorized into global and local ones. If we look in detail about the awareness, generally pollution or other local environmental issues are cared about more than global issues so far in China.

(Kumar)

Although there are a number of specific examples of voluntary actions taken by citizen's group, I would like to focus on the mechanisms in place which assist the ordinary citizens.

For example, in India the Parliament passed the Right of Information Act 3 years ago, in which the government has to respond to any question from citizens within a small specified period of time. That means that if there is any issue, any citizen can obtain the information.

People who have knowledge about information and can use the internet are very well-aware. At the school level, children learn about the implication of waste and resource use and so on.

## Q. Please make some comments on Environmental Ministers' Meeting in May.

(Sugano)

In the medium-to-long-term view, overall we have to reduce the global CO<sub>2</sub> emissions. We have to establish a mechanism which all countries can join.

I hope that efficient use of natural energy and practical application of capture and storage will be discussed well in the meeting. By when and to what extent we should promote the mitigation are also expected to be determined. I hope the world including Japan will make any concrete progress in this meeting.

(Kumar)

The meeting in Bali actually gave 2 years for the countries to come out with specific targets for the post-Kyoto era. This is the next major meeting after the COP. I hope that the ministers understand each others' needs and capacities and move at least a little bit forward so that in 2 years time all of the countries can agree on very specific targets.

(Wang)

To have some real action for CO<sub>2</sub> emission reduction, COP-13 initiated the next round of negotiation covering all of the developed countries and Asian developing countries. It will be very challenging. What I wish is that the G8 Environmental Ministers' Meeting will constitute a very effective and real contribution to the international negotiation for the next round of the Kyoto Protocol.

(Hamanaka)

Based upon the Bali meeting, global warming is not just a matter of developed countries, but developing countries also have to consider available contribution they can make. We also need to consider what kind of contribution or assistance the international society can provide to the developing countries.

I think the leaders of the developing countries have to resolve various internal problems to get citizens' support toward global warming mitigation which requires international supports.

I hope that developing countries will agree to set target in the near future.

Regarding the remarks at the Davos Forum, Japan seems to be trying to establish new financial mechanism. Also Japan, the US and the UK are cooperating together to make funds for clean energy. I hope that the G8 Environment Ministers' Meeting will be a big step to global warming mitigation inside developing countries.