Opening Remarks

Your Excellencies, distinguished guests, ladies, and gentleman I would like to welcome you all to the first symposium on “ICTs and Climate Change” which is held here in Kyoto. My name is Takashi Hanazawa from NTT, Japan. I am greatly honored to have this opportunity to chair this symposium.

Also, I would also like to thank Vice Minister Ninoyu for his warm welcome address to all the participants and the Director of the TSB, Mr. Johnson for his kind introduction of myself.

As you all might be aware, the problem we are currently facing is so complex and huge, that we need to collect a wide range of knowledge that reaches beyond the ITU-T’s expertise. In that sense, I am now very happy to be with the distinguished participants from the private sector, research institutes, international organizations, and governments to request their aid and take advantage of their vast expertise.

With your cooperation, in this symposium, I would like to lead the floor to encourage discussion on the relationship between ICTs and climate change. The objective of this symposium is to develop a mutual understanding on various aspects of ICTs and climate change.

Talking about ICTs and Climate Change, some may think that we can achieve a reduction in the environmental impact produced by ICT itself, while others may consider the possible contribution to the reduction of the environmental impact in different sectors by using ICT.

Keeping in my mind such varying aspects, I would like to share some thoughts with you in this symposium.

Before reviewing the environmental impacts of ICTs in the opening remarks, let me consider the breathtaking developments in ICT, referring to the current status in Japan. The number of mobile phone users has surpassed 100 million in Japan. This means that almost everyone has his own mobile phone and is free to communicate anytime and anywhere. Talking about the Internet, its penetration is practically universal. In Japan, more than 30 million subscribers have been enjoying it using broadband access such as ADSL or FTTH. The Internet has become the platform for public users for their email, Web browsing, online shopping, and downloading music. Of course, the Internet also supports business applications such as electronic commerce and videoconferencing.

ICTs have thus had an enormous impact on our life styles and on our work styles, making our lives more comfortable and convenient while making our work more productive and efficient. The pace of change will only accelerate in the years ahead with the widespread deployment of the Next-Generation Network and penetration of Beyond 3G.

In terms of the negative environmental impact, we notice massive resource consumption associated with the production of ICT equipment, power consumption for their operation, and waste generation upon their abandonment. This is especially problematic with even small devices such as mobile phones which are constantly being replaced by new ones. As new higher performance models appear on the market, users will purchase new ones, so the average lifetime is very short. In addition, if used ICT equipment is not disposed of properly, it might cause soil and water pollution.

Since ICTs spread so quickly, these negative impacts have gotten worse.

Now turning to the positive side, we notice three particular aspects. The first aspect is that ICTs can be used to control energy consumption to achieve more efficient use of energy. The second aspect is that ICTs will allow for more efficient manufacturing, while reducing energy consumption. The third aspect is that ICTs provide virtual means through which we can reduce the physical movement of people and things.

With regard to the first aspect, ICTs can be used to implement building and home energy management systems that enable energy savings.

In the second aspect, which is the simultaneous attainment of more efficient manufacturing and less energy consumption, we can imagine efficient supply chain management for example. This can reduce speculative production and excess inventory of a product by quickly feeding back the actual demand from the demand side to the supply side. In other words, this aspect considers the possible saving of resources and energy that go into extra stock.

Also, if we convert information that currently appears in hardcopy newspapers and magazines to digital format, for example, we could save on paper consumption and energy that might be used to produce newspapers and magazines. Similarly, if we download music directly over the Internet, we could save on the cost and materials of CDs and other physical media.

Finally, with regard to the third aspect, a great deal of travel and physical commuting can be eliminated through videoconferencing and telecommuting arrangements.

In addition, ICTs can be used as a means of monitoring and transmitting useful information for environmental protection. The distribution of environmental information can contribute to peoples' higher awareness of environmental issues and promote better stewardship and pro-environmental behavior.

Considering that ICTs have both beneficial and negative effects on the environment as I mentioned, it is essential that we develop accurate means of assessing the impacts of ICTs.

In fact, for this purpose, we have had many qualitative measures in the past. Nevertheless, I believe it is the quantitative assessment that we really need in order to determine and weigh the beneficial effects versus the adverse effects. If we could acquire such means, we would be able to determine the beneficial effects of ICTs accurately. Such a capability is particularly important for demonstrating the contribution of ICTs to the environment. Certainly the amount of energy consumption in ICTs has rapidly increased over the years, but on the other hand ICTs have contributed to an even greater reduction in the amount of energy consumption in other sectors. It is very important that we try to let the general public outside the ICT sector know of these contributions that ICTs have made.

The environmental challenges that we face today—and particularly climate change—are very serious indeed. These problems cannot be resolved without making fundamental changes to our life styles and our work styles. Obviously, we are not going to reverse the course of civilization and revert to the way people lived before the Industrial Revolution. I'm therefore convinced that we can create a society where we can enjoy creature comforts and convenience while greatly reducing the environmental impact by fully utilizing ICTs. Let us take this opportunity to discuss ways to reduce the impact of ICTs on the environment, ways to mitigate the impact of society on the environment by leveraging the potential of ICTs, and seek a course toward an ICT-based greener low-carbon society.

Taking into account these viewpoints, in this symposium and the coming London symposium in June, I encourage you all to discuss how and what the ITU can do to mitigate global warming. Furthermore, as a result of the constructive discussions we will have, I also hope that the Member States and Sector Members will solicit contributions to the coming TSAG

meeting in July and WTSA-08 in October as well.

Thank you very much for your attention and cooperation in advance.