WSIS+10: OVERALL REVIEW OF THE IMPLEMENTATION OF THE WSIS OUTCOMES

WSIS 10 Year Country Report by Japan

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Japan

WSIS+10: OVERALL REVIEW OF THE IMPLEMENTATION OF THE WSIS OUTCOMES

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Section I: Executive Summary

1. Introduction

1.1 Rapidly advancing infrastructure development and a lagging service penetration / utilization rate

- In Japan, while essential broadband infrastructure has made progress, service penetration and utilization rates lag behind.

- However, examining the specifics of infrastructure (penetration), we find that mobile broadband penetration and fixed broadband fees are relatively high on a global scale.

- In terms of utilization, individuals and corporations have high rates compared to government, which lags behind.

1.2 ICT infrastructure environment has become richer and more personalized over the last 10 years

- Adoption of broadband has progressed rapidly to the spread of DSL and cable Internet. Service has become faster, higher capacity and progressively richer in content as users convert to FTTH.

- The percentage of people who access the Internet using mobile devices has risen to 83.8% in 2011(compared to 40.2% in 2002), and the Internet environment is becoming progressively more personalized.
  Meanwhile, content is progressively richer, with nearly all users switching to 3G (third-generation) mobile phones (98.8% of all subscriptions in 2011).

- Broadcasting is shifting to digital, with analog TV broadcasts being replaced by digital terrestrial broadcasts. With a greater number of channels through satellite or cable, viewers can select from an ever wider range of content.

1.3 Increase in number of people perceiving the Internet as important in a wide variety of situations

- An increasing number of people perceive the Internet as a vital means of obtaining information. In the 20-29 age group in particular, the percentage has risen 28.8% in five years (52.3% in 2005 → 81.1% in 2010).

- 95.8% of students at four-year universities access job-search websites, indicating that the Internet is an indispensable tool for job hunting.

1.4 Lifestyle changes as a result of the evolving ICT infrastructure environment

- People aged 10-29 make frequent use of mobile phones for communication, through e-mail, etc. (average of approx. 50 min./day among people aged 10-29). Teenagers have a strong desire for connectedness, expressing fondness for the sense of "constant connection with friends and acquaintances"

- A purchasing process unique to Internet shopping has developed, which often follows a pattern of Search → Comparison of multiple sites → Examination based on user feedback, etc. → Purchase

- Many watch TV and text message or view websites on their mobile phones at the same time. "Multi-tasking" is the norm among those aged 10-29.

2. Country at a Glance - Factsheet on various developments and ICT indicators including achievement of national targets for connectivity and access in the use of ICTs in promoting objectives of the Geneva Plan of Action

2.1 Status of diffusion of major ICT tools (households)-While ICT tool diffusion reached maturity, smartphone holders increased rapidly

The household penetration rate at the end of 2012 was 94.5% for cellular phones and personal handyphone systems and 75.8% for personal computers. The rate for smartphones included into the total number of cellular phones and PHSs stood at 49.5% (up 20.2 percentage points from a year earlier), indicating a rapid diffusion(Figure 1).
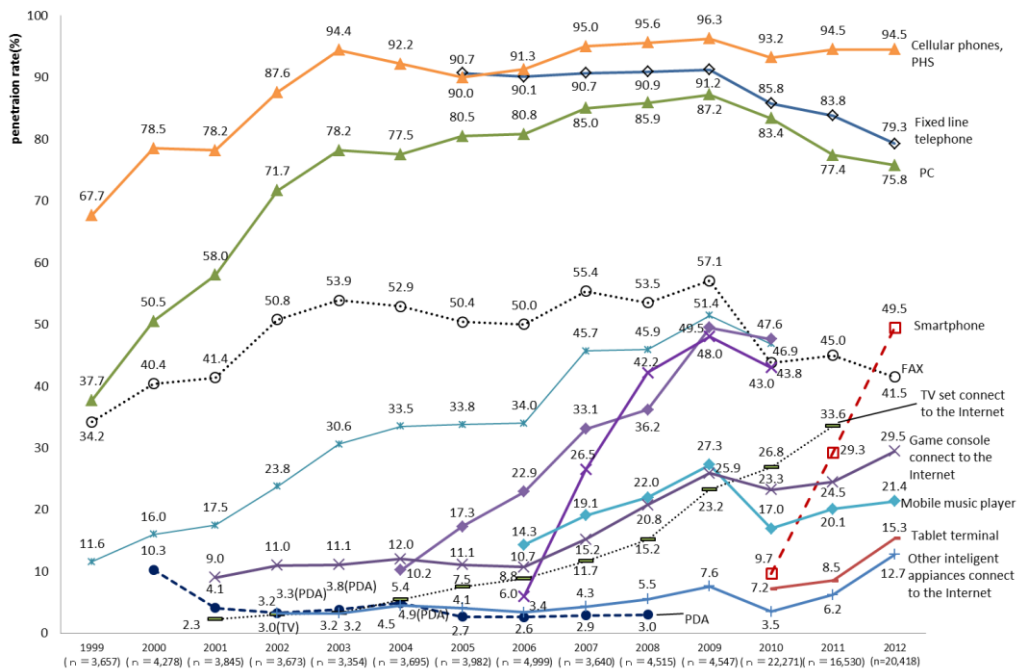
Figure1 Transitions in household penetration rates for ICT terminals

2.2 Status of Internet utilization-Both the number of Internet users and the Internet population, penetration rate continued to increase

In 2013, the number of Internet users at the end of 2012 reached 96.52 million, an increase of 0.42 million (0.4%) from the end of 2010. The Internet population penetration rate was 79.5% (up 0.4 percentage points from the previous year) (Figure 2). Those using personal computers at home to access the Internet accounted for 59.5% of total Internet users, the largest portion, followed by 42.8% for cellular phones, 34.1% for other personal computers and 31.4% for smartphones (Figure3)
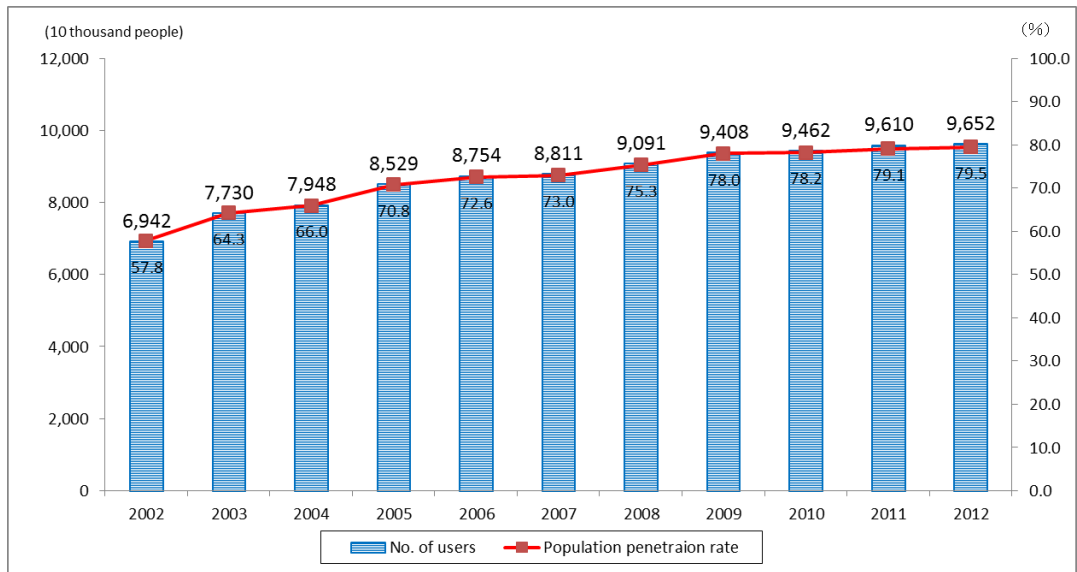
Figure2 Transitions in the number of Internet users and the population penetration rate
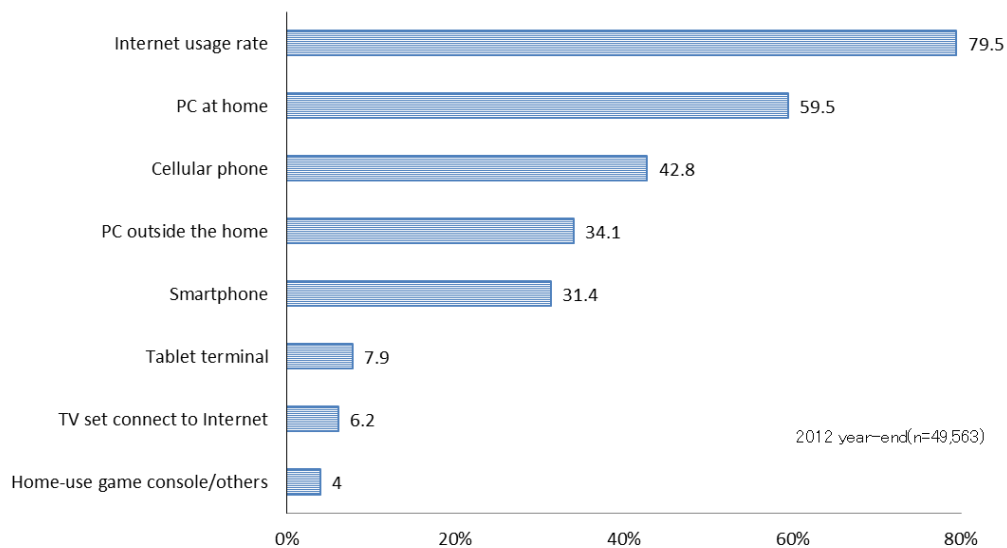
Figure 3 Breakdown of Internet access terminals (at the end of 2012)

2.3 Purposes for Internet utilization-"Receiving and sending emails" was cited by 63.2% of users at home, becoming the most frequently cited purpose for these users in 2013

"Receiving and sending emails" was cited by 63.2% of users at home, becoming the most frequently cited purpose for these users, followed by "browsing websites or blogs" (62.6%) and "purchasing and trading goods and services" (56.9%) .

2.4 Subscriptions to telecommunications services-Subscriptions to fixed-line communications and 050-type IP phone services have tended to decline while those to mobile communications and 0ABJ-IP phone services have persistently increased

Subscriptions to fixed-line communications services and the 050-type IP phone services have been

declining, while those to mobile communications services (cellular phone and PHS services) and the 0ABJ-IP phone services have been growing steadily. Subscriptions to mobile communications services overtook those to fixed-line communications services in FY2000 and were about 4.3 times as many as fixed-line service subscriptions at the end of FY2012 (Figure 4).
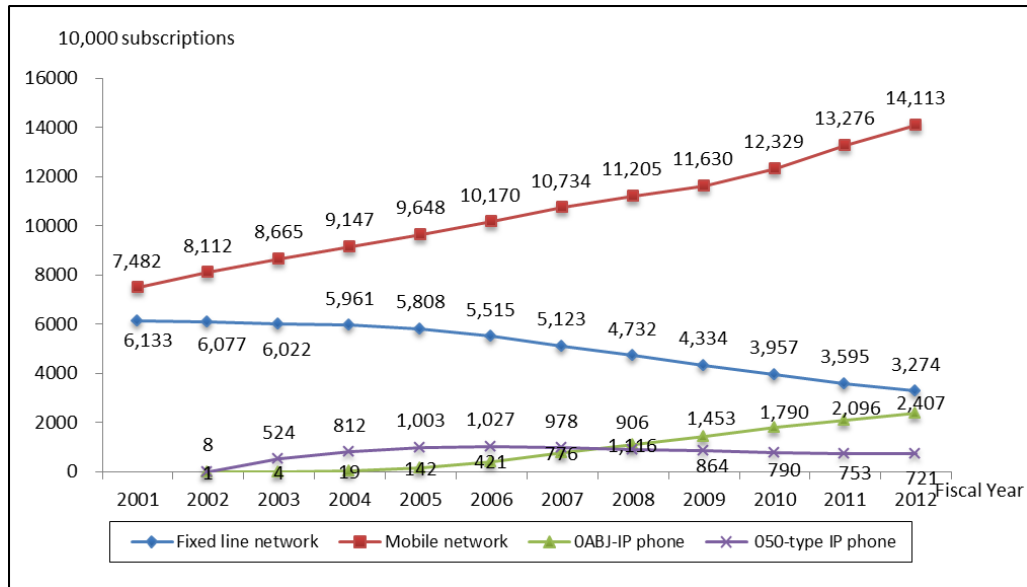
Figure 4 Transitions in subscriptions to telecommunications services

2.5　Broadband development and utilization

2.5.1　Ultra-high-speed broadband services were available for 97.3% of Japanese households at the end of March 2012

At the end of March 2012, ultra-high-speed broadband services were available for 52.35 million households or 97.3% of total Japanese households. Broadband services were available for 100% of Japan's 53.77 million households (Figure5).
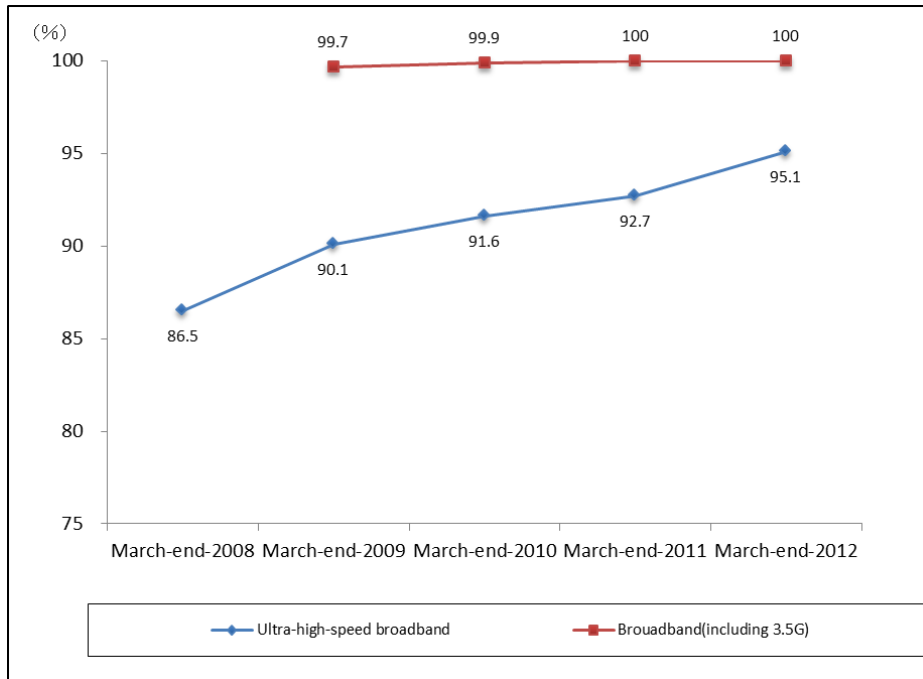
Figure5 Broadband infrastructure development

2.5.2   Broadband service subscriptions have increased year by year, with a substantial increase seen in
         subscriptions to 3.9G (LTE) mobile phone services in FY2012

  The number of subscriptions to broadband services at the end of FY2012 increased by 54.3% from a
year earlier to 60.98 million (Figure6). Of the total, the number of DSL service subscriptions declined by
19.1% to 5.42 million, indicating a downward trend. But the number of FTTH service subscriptions
increased by 7.0% to 23.86 million and that of 3.9G (LTE) mobile phone service subscriptions by about
8.9 times to 20.36 million. FTTH subscriptions accounted for 39.1% of total broadband service
subscriptions and 3.9G (LTE) mobile phone service subscriptions for 33.4%.
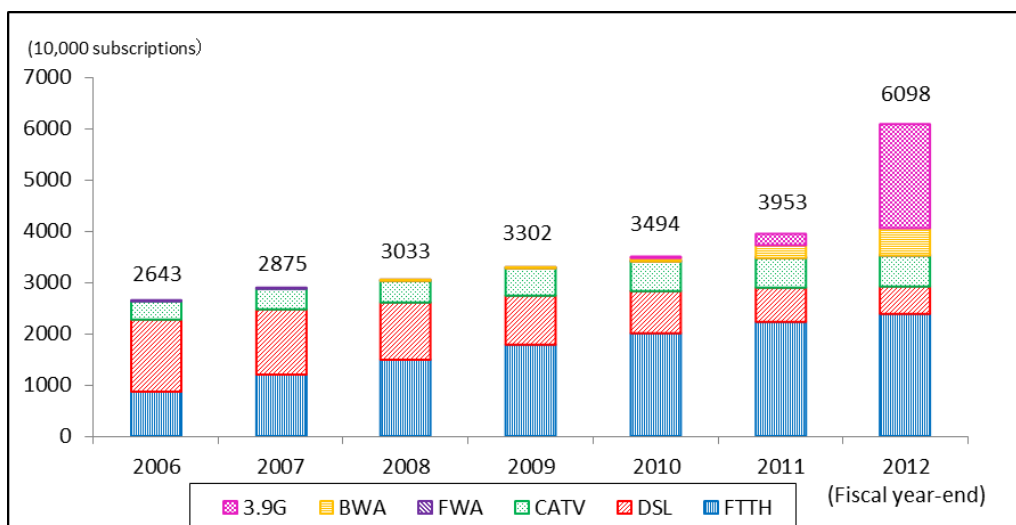
Figure6 Transitions in broadband service subscriptions

2.6 WSIS Targets Questionnaire's Data

Partnership on Measuring ICT for Development - WSIS Targets Questionnaire

Please provide data for the indicator for the years 2010, 2011 and 2012. If the latest available data correspond to another year, indicate the date (uner 'latest year available') and the year of reference

| Indicator	2013	2013 source	2012	2012 source	2011	2011 source	2010	2010 source	Latest year available (before 2010)	Year of reference (before 2010)	Note/comment
Target 1. Connect all villages with ICTs and establish community access points											
1.1: Proportion of rural population covered by a mobile cellular telephone network, by type of mobile cellular telephone technology (%)	Indicator will be calculated by ITU based on data collected through its regular data collection										
1.2: Proportion of households with telephone, by type of network, by urban/rural (%)	Indicator is part of ITU's regular data collection										
1.3: Proportion of households with Internet access, by type of access, by urban/rural (%)	Indicator is part of ITU's regular data collection										
1.4: Proportion of individuals using the Internet, by location, by urban/rural (%)	Indicator is part of ITU's regular data collection										
Target 2. Connect all secondary schools and primary schools with ICTs											
2.1: Proportion of schools with a radio used for educational purposes (%)	-	-	-	-	-	-	-	-	-	-	we have no data.
2.2: Proportion of schools with a television used for educational purposes (%)	-	-	97.5	http://www.	97.2	http://www.	92.2	http://ww	-	-	The source is only in Japanese.
2.3: Learners-to-computer ratio.	6.6	Statistics – from the	6.6	Statistics – from the	6.6	Statistics – from the	6.8	Statistics – from the	8.8	2004	The source is only in Japanese.
2.4: Proportion of schools with Internet access, by type of access (%)	98.6	Statistics – from the	98.4	Statistics – from the	97.7	Statistics – from the	96.7	Statistics – from the	71.6	2004	High speed internet
	75.4	Statistics – from the	71.3	Statistics – from the	67.1	Statistics – from the	65.9	Statistics – from the	35	2007	(over30Mbps)
Target 3. Connect all scientific and research centres with ICTs											
3.1: Proportion of public scientific and research centres with broadband Internet access (%)	-	-	-	-	-	-	-	-	-	-	We have no data. But it seems about 100 %.
3.2: Presence of a national research and education network (NREN), by bandwidth (Mbit/s)	80Gbps	http://www.sinet.	80Gbps	http://www.sinet.ad.jp/Network/	40Gbps	http://www.sinet.ad.jp/Network/	40Gbps	http://ww w.sinet.ad p/Network	40Gbps	2007	This data is from SINET(Japanese NREN).
3.3: Proportion of public scientific and research centres with Internet access to a NREN (%)	100	http://www.sinet.ad.jp/N etwork/	-	-	-	-	-	-	-	-	National universities with internet access to SINET.
Target 4. Connect all public libraries, museums, post offices and national archives with ICTs											
4.1: Proportion of public libraries with broadband Internet access (%)	100		100		100		100		100	1995	This data have no open data(no source)(. This answer
4.2: Proportion of public libraries providing public Internet access (%)	100		100		100		100		100	2006	This data have no open data. This anwer is from National
4.3: Proportion of public libraries with a web presence (%)	100		100		100		100		100	1996	This data have no open data. This anwer is from National
4.4: Proportion of museums with broadband Internet access (%)	100		100		100		100				This data is about four national museums.
4.5: Proportion of museums with a web presence (%)	100		100		100		100				This data is about four national museums.
4.6: Proportion of post offices with broadband Internet access (%)	Indicator is part of UPU's regular data collection										
4.7: Proportion of post offices providing public Internet access (%)	Indicator is part of UPU's regular data collection										
4.8: National archives organizations with broadband Internet access	yes	-	yes		yes		yes	-	-	-	archives team in
4.9: National archives organizations with a web presence	yes	-	yes		yes		yes	-	-	-	archives team in
4.10: Proportion of items in the national archives that have been digitized (%)	-	-	8.5	items=1,	7.9		7.8	-	-	-	archives team in
4.11: Proportion of digitized items in the national archives that are publicly available online (%)	-	-	100		100		100	-	-	-	archives team in
Target 5. Connect all health centres and hospitals with ICTs											
5.1: Proportion of public hospitals with Internet access, by type of access (%)	100	http://w ww.hosp	100	http://w ww.hosp	100	http://w ww.hosp.	100	http:// www.ho	-	-	Bandwidth 10Mbps. This data is from 157
5.2: Proportion of public health centres with Internet access, by type of access (%)	-	-	-	-	-	-	-	-	-	-	We have no data.
5.3: Level of use of computers and the Internet to manage individual patient information.	-	-	-	-	51.30%	kantei.go.jp/ jp/singi/it2/			30%	2002	
Target 6. Connect all central government departments and establish websites											
6.1: Proportion of persons employed in central government organizations routinely using computers (%)	100		100		100		100				http://www.soumu.go.jp/mai n.content/000211868.pdf
6.2: Proportion of persons employed in central government organizations routinely using the Internet (%)	100		100		100		100				
6.3: Proportion of central government organizations with a Local Area Network (LAN) (%)	100		100		100		100				
6.4: Proportion of central government organizations with an intranet (%)	100		100		100		100				
6.5: Proportion of central government organizations with Internet access, by type of access (%)	100		100		100		100				
6.6: Proportion of central government organizations with a web presence (%)	100		100		100		100				
6.7: Level of development of online service delivery by national governments.	Indicator is part of DESA's regular data collection										
Target 7. Adapt all primary and secondary school curricula to meet the challenges of the information society, taking into account national circumstances											
7.1: Proportion of ICT-qualified teachers in schools (%)	-	-	-	-	-	-	-	-	-	-	We have no data.
7.2: Proportion of teachers trained to teach subjects using ICT (%)	28.2	http://www. mext.go.jp/a	22.2	http://www. mext.go.jp/	22.9	http://www. mext.go.jp/ a	19.4	http://ww w.mext.go	-	-	The source is only in Japanese.
7.3: Proportion of schools with computer-assisted instruction (%)	76	http://www.	68.3	http://www.	58.7	http://www.	52.3	http://ww w.	43	2006	The source is only in Japanese.
7.4: Proportion of schools with Internet-assisted instruction (%)	31.7	http://www.	27.1	http://www.	-	-	-	-	-	-	
Target 8. Ensure that all of the world's population has access to television and radio services											
8.1: Proportion of households with a radio (%)	Indicator is part of ITU's regular data collection										
8.2: Proportion of households with a TV (%)	Indicator is part of ITU's regular data collection										
8.3: Proportion of households with multichannel television service, by type of service (%)	Indicator is part of ITU's regular data collection										
Target 9. Encourage the development of content and put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet											
9.1: Proportion of Internet users by language, country level (%)	-	-	-	-	-	-	-	-	-	-	We have no data.
9.2: Proportion of Internet users by language, top ten languages, global level (%)	Data for this indicator are estimated by Internet World Stats suiing a variety of data sources										
9.3: Proportion of webpages, by language (%)	-	-	-	-	-	-	-	-	-	-	We have no data.
9.4: Number of domain name registrations for each country-code top-level domain, weighted by population	Data for this indicator are collected through the regional top level domain associations (CENTR, APTLD, AfTLD and LCTLD).										
9.5: Number and share of Wikipedia articles by language.	Data for this indicator are publicly available fom Wikipedia's Statistics page.										
Target 10. Ensure that more than half the world's inhabitants have access to ICT's within their reach and make use of them											
10.1: Mobile cellular telephone subscriptions per 100 inhabitants.	Indicator is part of ITU's regular data collection										
10.2: Proportion of households with telephone, by type of network.	Indicator is part of ITU's regular data collection										
10.3: Proportion of individuals using a mobile cellular telephone.	Indicator is part of ITU's regular data collection										
10.4: Proportion of individuals using the Internet.	Indicator is part of ITU's regular data collection										
10.5: Proportion of households with Internet access, by type of access.	Indicator is part of ITU's regular data collection										
Annex 1. Connect all businesses with ICTs											
A.1 Proportion of businesses using computers	Indicator is part of UNCTAD's regular data collection										
A.2 Proportion of businesses using the Internet, by type of access	Indicator is part of UNCTAD's regular data collection										
A.3 Proportion of businesses using mobile cellular telephones	-	-	-	-	-	-	-	-	-	-	We have no data.

3. Financial mechanisms in place for meeting challenges of ICT for development

The MIC is aiming at enabling all households to use broadband services by around 2015, in order to realize a society in which people can feel and enjoy the benefits of ICT in a swift and fair manner through acceleration of preparation and utilization of broadband infrastructure.

Through the competitions among operators, which promote establishing of broadband infrastructure and

offer telecom services, people can use much cheaper, various forms and higher-speed broadband services throughout Japan regardless of where they live.

By using suchthose broadband services, ICT utilization will be promoted in various aspects of life, such as e-medicine and e-learning,with this leading to realizing an enriched society in which people feel the merits of ICT.

As of the end of September 2011, 95% of all households in Japan could access ultra-broadband infrastructure. A large amount of money will be necessary to establish infrastructure for the rest of the 5% of households who cannot access broadband. In addition, only 43% of 95% of households use broadband services in effect.

To solve these issues, MIC decided to establish the supporting financial and tax measures   promote infrastructure for remaining 5% of households. MIC supports fair competition among the telecommunication carriers providing these services. In order to promote ICT utilization for various aspects of daily life such as medical services and education, for local vitalization and to solve issues for local public authorities which were devastated by the Great East Japan earthquake, MIC will comprehensively promote concrete measures to realize its goal.

Section II: Reporting on Each Action line

- C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development
- C2. Information and communication infrastructure
- Promotion of dissemination of broadband[stocktaking2012]
  - In order to comprehensively verify the degree of achieving indices on the spread of broadband and the status of compliance with fair competition requirements, the "Fair Competition Review System for Promoting Broadband Dissemination" was established. This system began operating in FY2012, and now required policies are being executed, such as revisions of other related laws and guidelines.
- C3. Access to information and knowledge
- Promotion of Research and Development Strategy[stocktaking2012]
  - With a view towards maintaining and developing the vitality of the Japanese ICT industry and realizing sustained economic growth and employment creation, the Ministry of Internal Affairs and Communications (MIC) is promoting efforts for research and development with social implementation and global deployment in mind, based on the "Comprehensive Strategy for the Rebirth of Japan" (July 2012 Cabinet Decision), "4th Science and Technology Basic Plan" (August 2011 Cabinet Decision), and "Strategy for Active Japan ict" (July 2012 Information and Communications Council Report). R&D contributing to the promotion of green innovation, promotion of life innovation, promotion of technical innovation which will lead to a paradigm shift, recovery and restoration from the Great East Japan Earthquake, and measures for safety improvement in preparation for disasters are raised as R&D themes which should be addressed.
- C4. Capacity building
- Promoting measures to improve Internet literacy in young people
  - To improve Internet literacy in young people, Japan intends to uncover the actual state of the Internet literacy. To that end, Japan develops an indicator (Internet Literacy Assessment indicator for Students), conducts tests and utilizes their results for educational activities to improve literacy.
- C5. Building confidence and security in the use of ICTs
- Establishment of the NISC (National Information Security Center)
  - The Government of Japan establishes the NISC (National Information Security Center) within the government to promote measures relating to information security. The NISC establishes basic strategies on information security, promotes and assists measures on security for the government.
- Development of Security Policy[stocktaking2012]

- Under the circumstances in which the everyday lives of the people and socioeconomic activities are increasingly dependent on ICTs with the development of affordable and high-speed broadband networks, enhancement of information security is essential in order to realize a secure and safe environment for the use of ICTs.

  Based on such policy packages as the "Information Security Strategy for Protecting the Nation", the Ministry of Internal Affairs and Communications (MIC), as the ministry in charge of information communication, one of the critical infrastructure, is actively promoting measures for information security in order to realize an environment for people to use information communication networks with ease. Such measures include implementing the project "Proactive Response Against Cyber-attacks Through International Collaborative Exchange (PRACTICE)", promoting measures for smartphone security, promoting the sharing of information between telecommunications operators, promoting the application of personal data with consideration given to privacy protection, enhancing educational and awareness-raising activities for the public, and researching and developing technologies on information security.

- Ensuring security in utilization of ICT services
  - To ensure appropriate handling of user information through smartphones, Japan promotes the establishment of privacy policies for each application based on the recommendation, "smart phone privacy initiative", in August 2012. Besides, based on the recommendation, "smart phone privacy initiative II", in September 2013, Japan promotes measures such as establishing mechanisms to validate applications by third parties.

- Promotion of personal data utilization and circulation considering privacy protections etc.
  - Under the cognition that it is necessary to clarify rules regarding utilization of personal data that considers the balance between free circulation of information and protection of privacy, MIC held a study group on "utilization and circulation of personal data" and, in June 2013, the group announced a report which directs a framework on personal data utilization and how to realize the utilization. In the same month, basic strategy on governmental IT policy, "Declaration on Becoming the World's Most Advanced IT Nation", was approved in a Cabinet meeting. To investigate and consider the clarification etc. of utilization rules on personal data, "the study group on personal data" is established under the IT Strategic Headquarters.

- C6. Enabling environment
- C7. ICT Applications
- E-government
- Since March 2013, the government of Japan has operated the "Government Shared Platform" that uses cloud computing technology.

- The government of Japan has established a plan to promote online service offerings, in which users can sense conveniences, and to optimize jobs and systems of the government to seek further efficiency and rationalization of administration management
- Promotion of e-government[stocktaking2013]
  ➢ Based on the "Declaration to be the World's Most Advanced IT Nation"(June 2013 Cabinet Decision and the IT Strategic Headquarters Decision), etc. in order to achieve the society that anyone can use public One-stop services anywhere and anytime, the government of Japan promotes to providing administrative e-services which are available, to reforming administrative information systems through the government and local government, and to strengthening IT governance in the government of Japan. For this purpose, the government of Japan is promoting the Open Government and the consolidation or integration of the governmental information systems by constructing the "Government Shared Platform" (began operation in March, 2013) which utilizes cloud computing technologies.
- ✦ E-business
- ✦ E-learning
- ✦ E-health
- ✦ E-employment
- Promotion of Telework[stocktaking2012]
  ➢ It is expected that Telework can improve business efficiency, while maintaining a healthy balance between an individual's work and personal life through the realization of a home office, etc., by utilizing information and communications technologies.   Telework is also expected to contribute toward resolving various social issues, such as ensuring equal opportunities and treatment between men and women in the employment environment, contributing to a more gender-equal society, addressing the declining birthrate and the aging population, and reducing the environmental burden. Telework is also expected to contribute to the creation of BCPs (Business Continuity Plans) and to electricity saving in the case of a large scale disaster or pandemic .

  From such an expectation, the Government of Japan has developed the "Action Plan to Double the Number of Teleworking Population" and is promoting and familiarizing people with telework with the aim of doubling the number of teleworkers and having 20% of the working population under appropriate working conditions by 2010. "The New ICT Strategy (May 2010 the IT Strategy Headquarters Decision)"has set the goal of increasing the number of teleworkers based at home to seven million by 2015.

  The Ministry of Internal Affairs and Communications (MIC), in 2012, plans to provide private companies nationwide with human-resource support for the introduction and operation of

telework, establish good introduction models which suit the security levels and operations content, and thereby encourage the full-fledged spread of telework.

✦ E-environment

- Relating to management of demand and supply of electricity, to establish a system that enables consumers to actively participate in energy management, such as "demand response" in which consumers can choose their own demand based on conditions of suppliers

- Diffusion of smart meters

- Enhancing diffusion of effective and stable energy management that utilizes "demand response"

- To avoid traffic accidents and traffic jams and to realize a safe, low-environmental-load and economical road transportation society through utilization of Intelligent Transport Systems (ITS) technologies with which vehicle and vehicle, road and vehicle, and vehicle and human can mutually and in timely form change information, people can use geographical information (G-space information) such as map information and location information on vehicles and people and utilize accumulated data

✦ E-agriculture

✦ E-science

● C8. Cultural diversity and identity, linguistic diversity and local content

● C9. Media

● C10. Ethical dimensions of the Information Society

● C11. International and regional cooperation

    - To implement international projects on ICT and bridge digital devide

    - Sophistication of ICT environment in Asia-Pacific region through Asia Pacific Telecommunity

    - Implementation of ODA projects in the field of ICT

Section III: Profiles of Progress : Select Case Studies

- Lessons of the Great Earthquake and the Role of ICT-

The FY 2011 White Paper on Information and Communications in Japan covered information and communications conditions in northeastern Japan until May 2011 after the Great East Japan Earthquake. Now that more than one year has passed, this chapter builds on the past surveys to once again compile what role ICT played in the Great East Japan Earthquake and what challenges surfaced through the disaster.

1. Impact of the Great East Japan Earthquake on Information Behaviors

1.1 Information behaviors and ICT's role in disaster-damaged areas

The two parts of Section 1 analyze information behaviors in the disaster-damaged areas, based on interviews on disaster-affected people's information behaviors and ICT utilization between the March 11 earthquake-tsunami disaster and late April 2011.

1.1.1   Evaluation of media used upon the disaster

Radio, a nearly instantaneous information source, was given a higher evaluation than other media during the disaster, according to the face sheet (Figure 7). The AM radio was given the highest rating of 60.1%, followed by the FM radio. "But the radio failed to inform us of regional disaster conditions, leading us to lag behind in knowing how serious the damage from the tsunami was," an interviewee said, indicating problems with the radio. After the disaster, the evaluation rose for the interactive mobile phone and E-mail for safety confi rmation purposes as well as for the terrestrial television broadcasting providing footage. In late April, the rating for the terrestrial TV broadcasting exceeded that for the radio.
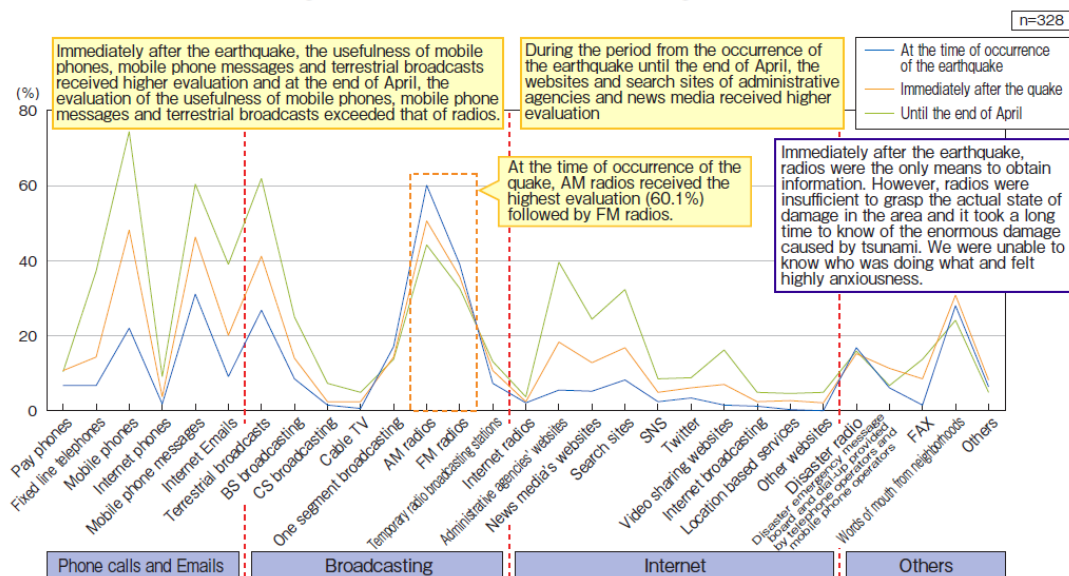

Figure 7. Evaluation of media used during the disaster

1.1.2   Alteration in methods of information-gathering

An analysis of interview comments regarding information-gathering media in the disaster-damaged areas indicates that highly instantaneous broadcasting tools such as the TV, radio and disaster radio were used more frequently than other media for collecting tsunami and other information just after the earthquake's occurrence. Particularly, the radio and TV turned out to be very useful. But comments about information-gathering media just after the earthquake occurrence and their evaluation indicate that the percentage share for interviewees viewing the radio as the most useful tool was limited to half the radio utilization rate. One comment said, "The radio, though being useful for obtaining information, failed to provide details." Mobile phones were given a lower rating. One comment said: "I had believed that wireless mobile phones would be useful upon disasters. But I was shocked at finding mobile phones not useful." The radio, for which the utilization rate just after the earthquake occurrence was the highest among information- gathering tools, was evaluated as useful by only 40 plus percent of interviewees, suggesting that providers of nearly instantaneous information should use multiple information provision channels.

Interview comments on media for gathering tsunami information indicate that the utilization rate was as high as 25% each for the TV, radio and disaster radio.

Administrative information obtained through information-gathering efforts was described as "sufficient" by 30.2% of interviewees and as "insufficient" by a majority of 53.8%.

1.1.3   Trends by media

a. Disaster radio

Of interviewees who were able to hear the disaster radio, 65.6% said they became aware that the tsunami was coming, indicating the recognition that the disaster radio played a key role in leading disaster-affected people to take evacuation actions.

b. Mobile phone

Questioned about information terminals that interviewees carried with them upon their evacuation in the disaster- damaged areas, 95.1% of respondents cited the mobile phone. But a specific interview comment said, "I think that if I were able to use the mobile phone, I would have been fortunate." Another comment said: "I had believed that wireless mobile phones would be useful upon disasters. But I was shocked at finding mobile phones not useful." After the disaster occurrence, particularly, mobile phones were left unusable for a long time due to network congestion, physical damage to base stations and other facilities, out-of-fuel standby power systems and other factors. Interview comments indicate that disaster-affected people even with mobile phones remained isolated, failing to confirm whether their relatives were safe.

c. Broadcasting

Many interviewees depended on the radio, TV and other broadcasting media. They gave high ratings to the provision of regional information using news tickers and community broadcasting. Among comments

on needs for regional information through broadcasting media, however, one said, "The radio, though being useful for obtaining information, failed to provide details." Another said, "I am considering whether some community FM radio system for a limited region can be developed to improve the current situation where it is difficult to collect town information." They pointed to some constraints on the capacity of these broadcasting media for providing daily living-related and other detailed regional information.

d. Internet

When voice communications and E-mails through mobile phones were unavailable just after the earthquake occurrence and when disaster-affected people completed their evacuation, people including advanced Internet users took advantage of blogs, the Google Person Finder, Twitter and other Internet services to confirm relatives' fates and collect detailed regional information. In the disaster-damaged regions, Internet users were generally limited. But those who effectively used the Internet for gathering daily living-related and other information gave a high rating to the Internet, suggesting the Internet's high potential as an information provision tool for disaster-damaged areas.

1.1.4 ICT conditions

Interviewees' specific requests or needs regarding communications infrastructure indicate that many (10.8%) of them cited the secured usability, reliability and redundancy of communications infrastructure along with or rather than a secure power source as a lifeline (cited by 6.2%).

As for ICT tools available at evacuation centers, many comments said evacuees depended only on the radio when almost all other ICT tools were unavailable due to blackouts in the first week after the disaster. On ICT needs at evacuation centers, one interview comment said: "There were great needs for mobile phones. Although mobile phones gradually became usable, mobile communications were unstable. I wanted mobile phone communications to be more stable." Among information and communications tools, the mobile phone posted the highest popularity rating of 52.6%, followed by the TV and radio.

Opportunities to match the supply and demand of ICT tools were seen by 28.8% of respondents. Such opportunities were also seen by 41.2% of local governments and by 47.4% of residents at temporary houses Information rich administrative organizations and residents of temporary houses during the post-disaster restoration/reconstruction period saw more opportunities to match ICT tool supply and demand.

1.1.5 Handling of personal information and consideration to elderly people

As for handling of personal information in the disaster- damaged areas, 86.7% of residents said they saw no particular problems. Meanwhile, 45.4% of local governments said they had experienced considerable difficulty in collecting and disclosing personal information. There was a consciousness gap between residents feeling no particular problems and local governments making painful efforts.

People affected by the Great East Japan Earthquake included many elderly persons. Interviewees were asked about how consideration was given to elderly persons in information conveyance. A majority of

67.7% said they saw no special consideration given to elderly people. But 8.1% said multiple information provision means were used. This indicates that consideration was given to elderly people in some cases.

1.2 Information behaviors of metropolitan residents upon the disaster

We here would like to analyze "Joint Research on Anshin in Internet Usage," a joint study by the University of Tokyo, Toyo University, Kansai University and Nippon Telegraph & Telephone Co. on information behaviors of residents in the Tokyo metropolitan region. The study is based on an Internet poll of residents in Tokyo and the three neighboring prefectures of Kanagawa, Saitama and Chiba.

1.2.1 Through what media or means did you initially know of the earthquake?

Looking at the media through which respondents first knew of the earthquake, the TV was cited by 53.4% of respondents, the highest percentage followed by 16.1% for news sites and 11.3% for one-seg broadcasting, indicating that mass media served as a main information channel (Figure 8). Percentage shares for respondents citing social media were lower, including 0.9% for SNS (social network services) through personal computers and mobile phones and 0.7% for Twitter.
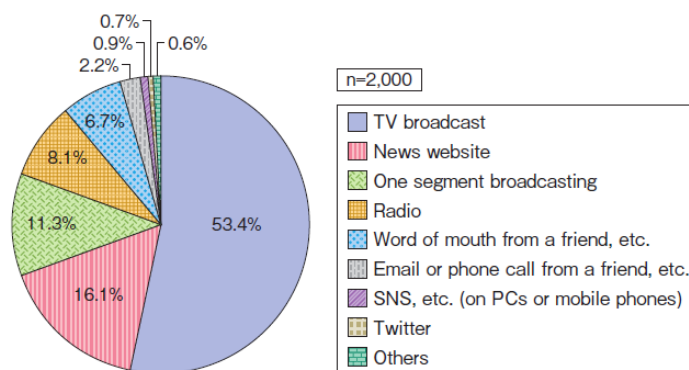
Figure 8 Through what media did you know about the earthquake first?

1.2.2 What communications means did you attempt to use on the earthquake day?

Nearly 80% of respondents attempted to use the voice communications of the mobile phone. A similar percentage of respondents were planning to use the mobile phone E-mail. We would like to check the availability of communications means on the earthquake day for respondents who attempted to use some means and found them unavailable. The mobile phone voice communications was the most difficult to be connected among communications means, cited by 65.4% as unavailable. Following this was the fi xed-line phone communications cited by 55.1% (Figure 9). Far fewer respondents attempted to use the personal computer e-mail or the web service. But only 17.9% of them found the PC e-mail unavailable and 11.3% found the PC web service unavailable. Indications are that the PC E-mail and web service were far easier to be connected.

Figure 9 Availability of communication means

1.2.3　Useful media for dealing with the disaster

The TV was cited by 86.3% of respondents as the tool providing information they wanted (sufficiently or to some extent) during the week after the disaster. Following the highest percentages were 71.8% for news sites, 54.7% for newspapers, 51.5% for E-mails or calls from relatives, friends and acquaintances, and 29.3% for the radio.

The TV was the most popular information source for collecting disaster information, cited by 63.1% as the most useful information source for obtaining such information. Th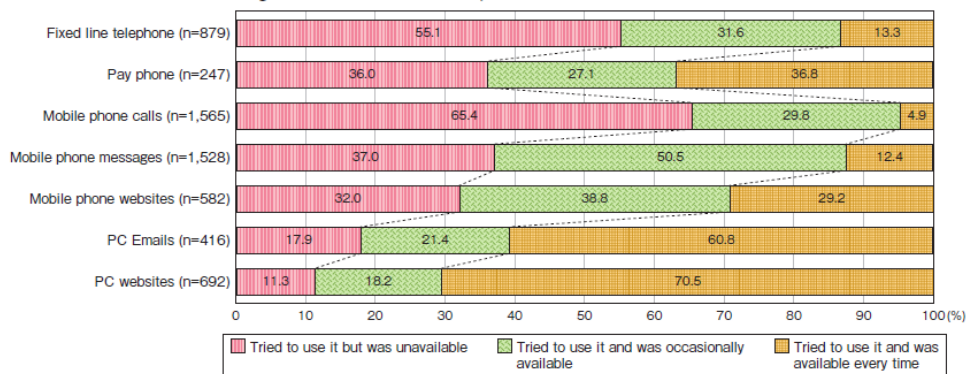e next highest percentages were 12.1% for news sites, 5.8% for the radio, 4.8% for E-mails or calls from relatives, friends or acquaintances, and 3.7% for newspapers (Figure 10).
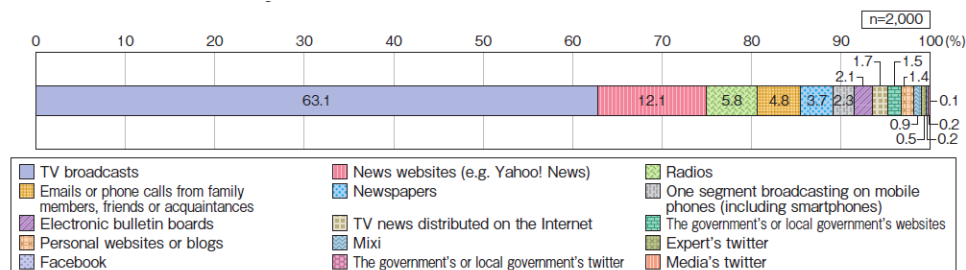
Figure 10 What was the most useful information source?

2.　The Great East Japan Earthquake and Business Continuity

We conducted a survey of local governments and enterprises in disaster-damaged and other areas in Japan concerning the Great East Japan Earthquake and business continuity, looking into how business operations were continued on the occasion of the disaster and what challenges emerged then.

2.1　Business continuity in disaster-damaged areas

Our interview survey on data losses at hospitals and schools through the Great East Japan Earthquake in the disaster-damaged areas indicate that 27.3% of hospitals and 40.0% of schools lost data. One interview comment at a hospital said: "We failed to recover the reception computer and electronic health record data that had not been backed up." Another said, "USBs were dropped and data lost." Multiple interviewees at hospitals reported substantial data losses. In some cases, hospitals minimized data losses

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through data backup measures. One interviewee said: "We lost all paper health records and reception data. But we recovered some receipt data by matching data sent to the center." An interviewee at a school with the school administrative system said, "All data was lost due to flooding."

2.2 Local governments' change in thinking after the Great East Japan Earthquake

2.2.1 "What are challenges with information provision to residents upon disasters?"

Given the Great East Japan Earthquake, we conducted a poll of local governments concerning challenges related to information provision to residents during disasters.

The biggest challenge was the prompt and accurate information provision upon a disaster occurrence, cited by 68.5% (Figure 11), indicating that local governments are very interested in how best to provide information to residents just after a disaster occurrence.
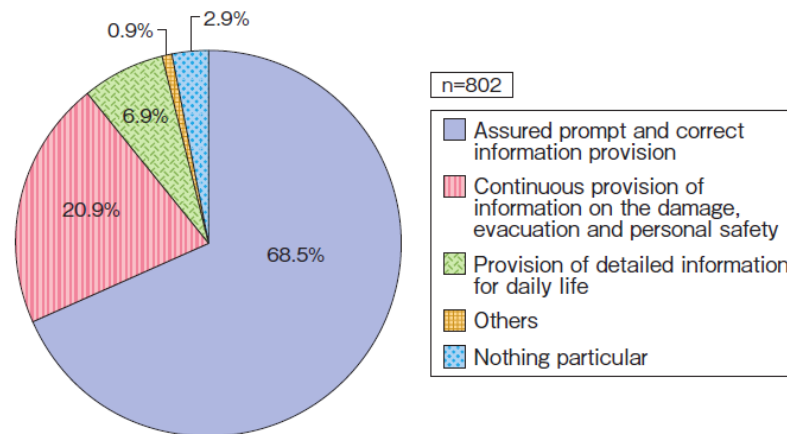
Figure 11 "What are challenges regarding information provision to residents upon disasters?"

2.2.2 Internet utilization upon disasters

Responses from local governments concerning the utilization of the Internet upon disasters indicate that the Great East Japan Earthquake prompted about 70% of local governments to change their thinking and enhance the utilization of the Internet (Figure 12). Specifically, their Internet utilization focused on their respective websites. Some local governments cited the utilization of social media and portal sites, suggesting that the disaster led local governments to make diversified Internet utilization efforts.

n=590

30.4%

69.6%

☐ Reactions such as the use of Internet, as well as the increase in and consideration of such use are made
☐ No particular reactions

	0 20 40 60 80 (%)
Increasing the use of Internet mainly by websites	77.1
Intensifying the use of Internet including social media	24.7
Considering the use of portal sites	4.9
Others	9.0

Figure 12 "What actions are taken for Internet utilization upon disasters based on experiences with the Great East Japan Earthquake?"

2.2.3   ICT and business continuity plans based on experiences with the Great East Japan Earthquake

Since the disaster, the importance of business continuity plans has reportedly attracted attention anew both in the public and private sectors. We asked local governments whether they had worked out business continuity plans. Those that have prepared BCPs are limited to some 10% of the total. While some 40% of prefectural governments have prepared BCPs, only 3.5% of town and village governments have done so (Figure 13). But the Great East Japan Earthquake has prompted 34.6% of city and ward governments and 33.0% of town and village governments to consider preparing BCPs, indicating that local governments have grown more conscious of BCPs irrespective of their size.

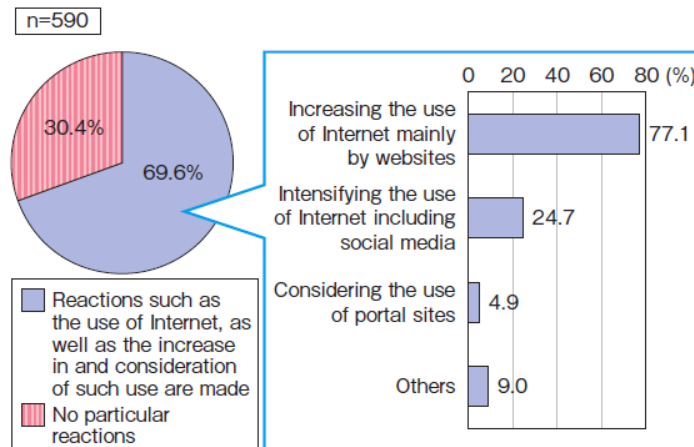|	0 20 40 60 80 100 (%)
Overall (n=800)	5.8 / 33.5 / 4.0 / 19.0 / 37.8
Prefectures (n=27)	33.3 / 25.9 / 11.1 / 29.6 / 0.0
Cities and wards (n=382)	8.1 / 34.6 / 5.5 / 24.3 / 27.5
Towns and villages (n=391)	1.5 / 33.0 / 2.0 / 13.0 / 50.4

☐ Prepared and was further revised (or is under consideration for revision) following the Great East Japan Earthquake
☐ Yet to be prepared but consideration for preparation is made after the occurrence of the Great East Japan Earthquake
☐ Prepared but not especially revised following the Great East Japan Earthquake
☐ Yet to be developed but consideration for preparation had been made before the occurrence of Great East Japan Earthquake
☐ Yet to be developed and no consideration for preparation has been made

Figure 13 State of BCP Preparation

2.2.4   Expectations for cloud services

When we questioned local governments on their cloud service utilization, only 6.3% said they fully introduced cloud services. But cloud service users including partial users accounted for 45.0%. Local governments considering introducing cloud services accounted for 79.0% of the total. All prefectural governments are considering doing so (Figure 14). Particularly, 40.2% of all local governments are introducing or considering introducing cloud services more proactively in response to the Great East Japan Earthquake. Some 40% of city, ward, town and village governments are doing so. The Great East

Japan Earthquake might have prompted local governments to introduce or consider introducing cloud services.
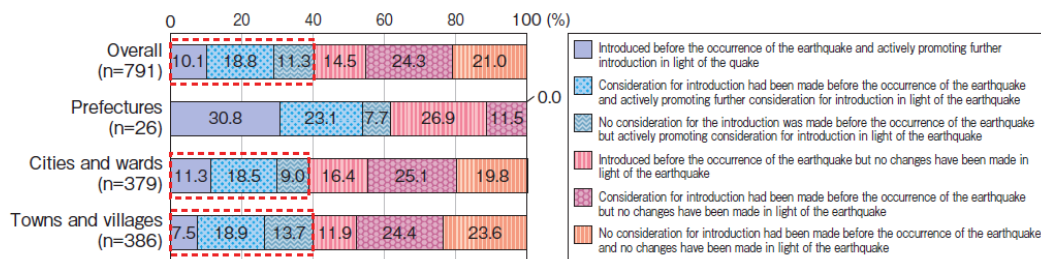
Figure 14 Introduction of cloud services and consideration of cloud service introduction

2.3 Private enterprises' change in thinking after the Great East Japan Earthquake

2.3.1 ICT and business continuity plans based on experiences with the Great East Japan Earthquake

When we questioned private enterprises about the introduction of BCPs in a poll, 20.8% of them said they had prepared BCPs, indicating that private companies have promoted their BCP preparation efforts more than the abovementioned local governments (Figure 15). But those that had prepared BCPs or were considering their preparation after the disaster were limited to some 40% of all responding enterprises, less than the 60% for local governments. Private enterprises' change in thinking after the disaster was smaller than that of local governments. Large companies have promoted their BCP preparation efforts more than small and medium-sized ones, indicating a BCP preparation gap between size groups. Those that have prepared BCPs accounted for 43.3% of large enterprises compared to only 14.0% of SMEs.
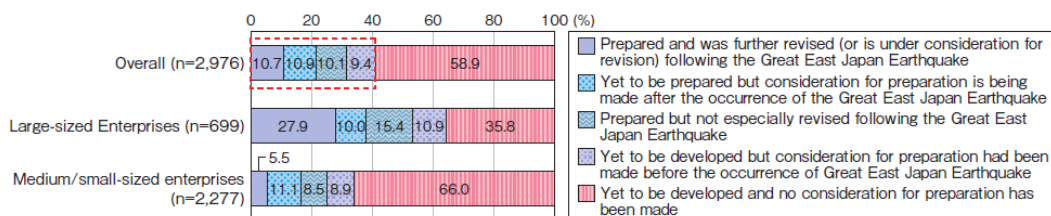

Figure 15 State of BCP Preparation (private enterprises)

2.3.2 Expectations for Cloud Services

When we questioned enterprises about their cloud service utilization, only 8.9% of responding companies said they had fully introduced such services. Those using cloud services fully or partially accounted for some 30%. This percentage is smaller than for local governments. Of large enterprises, 45.2% are unaware or only slightly aware of cloud services or have never used them with no plan to use them in the future. Of SMEs, some 60% are unaware or only slightly aware of cloud services or have never used them with no plans to use them in the future. Private enterprises have not promoted the utilization of cloud services as much as local governments. As for some change in the cloud service utilization policy after the disaster, some 40% of enterprises were prompted to more proactively introduce or consider introducing cloud services.

3. Lessons of the Great East Japan Earthquake and ICT

We here would like to cite major challenges as indicated by surveys that have been introduced so far.

3.1 Information conveyance in disaster-damaged areas and ICT

3.1.1   Quick, certain information provision using diverse information conveyance means

In interview surveys, high ratings were given regarding the performance of the nearly instantaneous radio during the disaster occurrence and to the interactive mobile phones and E-mail just after the disaster, once again indicating the importance of broadcasting and the mobile phone during disasters. While broadcasting means including the community broadcasting were frequently used, the highest utilization rate was limited to 40 plus percent for the radio. Broadcasting was found as failing to sufficiently provide instantaneous and regional information. While information provision through community broadcasting and extra disaster broadcasting stations was conducted along with information gathering through personal communications widely, advanced Internet users took advantage of social media for effective information collection. Mobile phones had been expected to be useful and have turned out unusable during the disaster occurrence and during the evacuation. Administrative information was viewed by many interviewees as insufficient. But Internet users were among interviewees who were more satisfied with administrative information. Administrative information was given high ratings by nonprofit organization officials and volunteers who made effective use for the Internet.

Given the abovementioned indications, diverse information conveyance means including not only broadcasting and mobile phones but also that the Internet and social media should be used simultaneously to secure prompt, accurate information for residents, workers and tourists.

We must take note of the fact that the disaster indicated the importance of securing power sources for both the transmitting side (including base stations and broadcasting station equipment) and the receiving side (including mobile phone terminals and TVs). Meanwhile, Japan is required to diffuse the "public information commons" to quickly and efficiently provide such administrative information as disaster evacuation advisories and orders to relevant local residents through various media including the TV, mobile phones and radio.

3.1.2   Importance of mobile phones during disasters

Mobile phone terminals are rated high as familiar information terminals. At the time of the disaster occurrence and during their evacuation, most people in the disaster-damaged areas carried mobile phone terminals with them. But many of them complained that the impact of these terminals' prolonged unavailability was serious. An interviewee went so far as to say, "Measures for securing communications with mobile phones are more necessary than the enhancement of embankments." Interviewees also pointed out that mobile phone functions should be improved to allow emergency information to reach mobile phone terminals that people always carry with them.

Needs for mobile phones were strong not only during the disaster occurrence but also during evacuation. It could be said that discontent with mobile phones as information sending and receiving tools

disappeared with the recovery of the network. While the importance of mobile phones has once again been recognized through the disaster, mobile phone companies are required to enhance mobile phone networks' resistance to disasters and terminals' functions.

3.1.3   Securing ICT tools

  Regarding needs for ICT tools in the disaster-damaged areas, we saw strong demand for mobile phones at evacuation centers and for TVs at temporary houses. Supply-demand matching efforts are required to secure supply meeting demand for these basic information terminals for people over a wide area forced to live at evacuation centers or temporary houses for a long time, as seen after the Great East Japan Earthquake. A majority of interviewees said no special consideration was given to elderly people at evacuation centers. The introduction of tablet computer terminals, etc., to give elderly people easy access to ICT tools has surfaced as a challenge.

3.2 Information behaviors and usage of ICT in neighboring areas

3.2.1   Importance of Internet-based information provision

  The disaster seriously affected not only the disaster damaged areas but also their neighbors including the Tokyo metropolitan region. Information behaviors of commuters in the metropolitan region indicate that they dominantly used TVs for obtaining information. They saw news sites as more important than newspapers. They pointed out that while it was difficult to obtain service on mobile phones, websites and personal computer E-mails were more accessible. Especially, information through the Internet was very useful. Meanwhile, social media, though attracting much attention after the disaster, generally failed to provide necessary information to commuters sufficiently. How best to make necessary information easily accessible through social media is a challenge.

3.2.2   Smooth provision of transportation information to stranded commuters failing to return home

  Mainly in the metropolitan region, a large number of commuters were stranded and failed to return home on the disaster day. What these stranded commuters wanted for their return home were information-gathering goods, including portable TVs and radios, and batteries for mobile phones. This indicates that it is important to secure various information conveyance means and convey information accurately not only in the disaster-damaged areas but also in neighboring areas. After the earthquake-tsunami disaster, there were strong needs for information on railway, subway and road transportation services, suggesting that efforts are required to smoothly send such information. Such efforts are discussed as part of measures for stranded commuters failing to return home at a panel of representatives from central and relevant local governments. This summer or autumn plans to compile such measures to be taken on a big earthquake with its epicenter below Tokyo.

3.3 Business continuity and utilization of ICT in and after disasters

3.3.1   Addressing consciousness and effort gap between size groups

  Given that the disaster affected business continuity in many cases, local governments and private enterprises both in the disaster-damage areas and others have grown more conscious of business

continuity. Many of them have prepared and are considering preparing business continuity plans. However, BCP consciousness and effort gaps have emerged between size groups - between prefectural and municipal governments and between large enterprises and small and medium-sized ones. We must appropriately address these gaps in order to enhance the entire society's resistance to disasters.

3.3.2   Developing an environment where cloud services are used securely

  Local governments place great expectations on cloud services to be used for ensuring business continuity and are making cloud service-introduction efforts. But private enterprises have lagged behind local governments in this respect. Problems with the cloud service introduction include the absence of measures to customize cloud services to meet specific needs, information leaks and other security fears, and network safety fears. A poll of local governments shows that more than 40% of respondents cited these three points. These problems represent challenges facing the entire cloud services. With a view to ensuring business continuity in disasters, we may be required to develop an environment where enterprises and other entities can securely use cloud services.

4.   Enhancing anti-disaster ICT measures based on lessons of the Great East Japan Earthquake

4.1 Government measures

4.1.1   Cabinet Office responses

  In an effort to thoroughly review earthquake and tsunami countermeasures in response to the Great East Japan Earthquake, the Central Disaster Prevention Council on April 27, 2011, established a special panel on earthquake and tsunami countermeasures based on lessons of the Great East Japan Earthquake. Based on final recommendations given by the panel on September 28, the council revised its basic disaster prevention plan on December 27.

4.1.2   IT Strategy Headquarters responses (IT disaster-prevention lifeline promotion council)

  On March 9, 2012, the IT Strategy Headquarters established an IT disaster-prevention lifeline promotion council to consider and diffuse disaster-prevention lifelines using ICT and enhance information-sharing and cooperation between the public and private sectors.

4.2 MIC responses - Enhancing ICT's resistance to disasters

4.2.1   Enhancing communications' resistance to disasters

a. Securing communications in emergencies including large disasters

  In April 2011, the Ministry of Internal Affairs and Communications created a panel on how to secure communications in emergencies including large disasters. The panel submitted final recommendations on December 27, 2011.

b. R&D for enhancing communications infrastructure's resistance to disasters

  The MIC has launched research and development efforts to improve communications infrastructure's resistance to disasters under the third FY 2011 supplementary and FY 2012 principal budgets. Under the FY 2012 budget, the MIC is implementing the research, development and evaluation of "satellite

communications networks effective in disasters" and "technologies to quickly increase communications capacity in emergencies" as information and communications network infrastructure technologies to be required for secure information conveyance in disasters.

c. R&D and demonstrations of information and communications technologies responding to wide-area disasters

Under the FY 2011 budget, the MIC implemented an early adoption of research and development fruits and demonstration tests in disaster-damaged areas to help contribute to the reconstruction of areas damaged by the Great East Japan Earthquake.

4.2.2   Enhancing broadcasting's resistance to disasters

Based on an analysis and assessment of damage to broadcasting equipment in the Great East Japan Earthquake, the Information and Communications Council gave additional consideration to technical conditions for broadcasting safety and reliability that had been under consideration since before the disaster. The council then concluded that blackout countermeasures should be enhanced.

Based on the council's recommendations regarding this point (May 17, 2011), the MIC implemented the technical standards for broadcasting safety and reliability on June 30, 2011.

4.3 Restoration and reconstruction from the Great East Japan Earthquake

In order to revive societies and economies and reconstruct the livelihood in the disaster-damaged areas and revitalize the entire Japan, the government must make all-out efforts to promote restoration from the Great East Japan Earthquake and far-sighted reconstruction efforts including the creation of safe, secure and future oriented towns using sophisticated ICT technologies.

Under the FY 2011 supplementary and FY 2012 principal budgets, the MIC has ensured key communications in the disaster-damaged areas, deployed power source vehicles for disaster countermeasures, supported the recovery of information and communications infrastructure and helped local government's ICT-using efforts to promote the post-disaster restoration and reconstruction. In order to implement these measures steadily, the MIC created a Great East Japan Earthquake Reconstruction Support Office at the Tohoku Regional Bureau of Telecommunications on May 9, 2011. MIC officials have been sent to disaster-damaged municipalities to support municipal governments' restoration and reconstruction of the information and communications environment.

Section IV: The Way Forward and the Vision Beyond 2015

1.   Outlook for Information and Communications Policies

1.1 Recovery and Reconstruction from the Great East Japan Earthquake

As The Great East Japan Earthquake, which occurred on March 11, 2011, caused great damage in various areas of East Japan, a wide variety of initiatives toward recovery and reconstruction from the earthquake are being carried out on a nationwide basis in order to rehabilitate the socio-economy and rebuild the people's lives in the disaster-affected areas and revive Japan as a vigorous country.

Regarding information and communications, the MIC has secured important communications and supported the recovery of information and communications infrastructures and local governments' initiatives using ICT. In addition, in May 2011, it established the Office for Support for Measures for Reconstruction from the Great East Japan Earthquake at the Tohoku Bureau of Telecommunications so as to continue activities to support recovery and reconstruction of the information and communications usage environment and local governments' operations through the dispatch of overnment officials to disaster-affected municipalities.

2. Promotion of a Comprehensive Strategy

2.1 Promotion of a National Strategy

  The Japanese government put into force the Basic Act on the Formation of an Advanced Information and Telecommunications Network Society and set up the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (Comprehensive IT Strategic Headquarters) in January 2001; this worked for fast, high priority implementation of policy on the formation of an advanced information and telecommunications network society.

  In addition, a cabinet decision was made on a new IT strategy ("Declaration on the Creation of the World's Most Advanced IT Nation.") in June 2013.

2.2 Development of cloud services-Activities of the Japan Cloud Consortium

  In order for industry, academia and government to cooperate with each other in promoting the dissemination of cloud services, the Japan Cloud Consortium, a private organization, was established in December 2010. This consortium, comprised of more than 400 companies and organizations as of April 2013, and nine working groups are conducting such activities as considering a specific service model, sharing of information and identifying new tasks.

2.3 ICT productivity acceleration

  In addition to being a resource-starved country with a declining birth rate and an aging population, Japan faces the pressing challenge of stimulating economic growth. For this reason, we need to take advantage of our worldleading broadband infrastructure and work actively to raise productivity through the application of ICT. Therefore, in cooperation with related bodies of related ministries, agencies and

municipalities, the MIC is implementing initiatives to support small, medium and venture companies, etc. for business in the fields of information and communications.

3. Development of Information and Communications Policy

3.1   Development of telecommunications business policy

3.1.1   Promote dissemination of broadband

In order to comprehensively verify the degree of achieving indices on the spread of broadband and the status of compliance with fair competition requirements, the "Fair Competition Review System for Promoting Broadband Dissemination" was established. In March 2013, the results of the review (FY2012) of the status of activities related to the dissemination of broadband and the status of compliance with regulations by telecom carrier in japan were published based on this system. Starting in the March 2012, in the "Wireless LAN Business Research Society," the MIC sorted out the current situation of wireless LAN, and it also identified and sorted out issues concerning safe and secure use and dissemination and put together a report in July 2012.

Moreover, regarding the public wireless LAN service business, which provides various services and into which more business operators are expected to enter, the MIC formulated the "guideline for the wireless LAN business," which specified the matters to which attention should be paid in operating service businesses, and published it in June 2013.

3.1.2   Promotion of IPv6

In the "Study Group on Advanced Use of Internet with IPv6," the MIC investigated policies and issues concerning the status of IPv6 compatibility, and put together and published its "Third Report" in December 2011.

In addition, the MIC reviewed the progress status of efforts to resolve various issues pointed out in the report and conducted a study on the basic idea for future actions (default provision of IPv6 Internet connection service, cooperation between business operators to resolve the issues early, etc.) and put together and published the "Third Progress Report" in July 2012.

3.1.3   Development of a fair competition environment

a. Assessment of competition conditions in the telecommunications sector

In order to correctly ascertain the status of competition in the increasingly complex telecommunications sector and reflect this understanding in government policy, the MIC has been issuing the annual Competition Assessment of the Telecommunications Industry since FY2003.

The MIC determined and published the "Implementation Items for 2012" in December 2012 and defined BWA and LTE, for which the number of subscriptions is increasing substantially, as part of the mobile communications market (ultra-high-speed mobile broadband market).

3.2   Development of broadcasting policy-Development of broadcasting policy after a shift to terrestrial digital broadcasting

a. Promotion of distribution of broadcast content

In order to conduct a study on how to secure overseas platforms for overseas distribution of content and how to improve the efficiency of rights processing, the MIC held meetings of the "Study Group on Measures for Promotion of Circulation of Broadcast Content" starting in November 2012 and put together a report in June 2013.

b. Advancement of broadcast service

As the Information and Communications Council presented proposals concerning "4K and 8K (super-highvision)," "smart TV," and "cable platform" in July 2012, the MIC held meetings of the "Study Group on Advancement of Broadcast Service," starting in November 2012, in order to put them into practice and put together a report in May 2013.

c. Various Issues concerning broadcasting policy

Starting in November 2012, the Research Society for Survey on Broadcasting Policy held meetings and conducted a study on (1) international broadcasting and (2) designated broadcast holding companies, regarding which it was required that a study be conducted five years after the entry-into-force of the Act to partially Amend the Broadcast Act.

d. Strengthening disaster resilience of broadcast network

While the effectiveness of radio broadcast in the event of a disaster was strongly recognized after the Great East Japan Earthquake, it also became clear that it is necessary to take disaster management measures regarding transmission stations of medium frequency waves (AM radio) located in low lands and waterfront areas.

In light of this situation, the MIC held meetings of the "Study Group on Enhancement of Broadcasting Networks"starting in February 2013 and conducted a study on strengthening the disaster resilience of broadcast networks among other issues.

3.3　Development of radio policy

3.3.1　Overview of radio policy

a. Promotion of effective use of radio spectrum

Starting in April 2012, the MIC held meetings of the "Study Group on Promotion of Effective Use of Radio Spectrum" amid the rapid tightening of the supply of frequencies due to the development of wireless broadband. The study group conducted a study on flexible review of regulation in response to changes in the environment for radio wave usage, promotion of effective use of radio waves from the perspective of users and use of radio wave usage fees, and put together a report in December of the same year.

In light of the findings of the study group, the MIC submitted a bill to partially amend the Radio Act to the Diet to partially subsidize the cost of the digitalization of radio communications for disaster prevention and administration and radio communications for firefighting and emergency rescue, which play an important role in municipalities' grasp of the disaster damage status as well as emergency aid and

rescue activities and which use the 150MHz and 400MHz bands, and their shift to the 260MHz band. The amended act was put into force in June.

3.3.2   Radio usage advancement and diversification initiatives

a. Study on the fourth generation mobile communications system

Against the backdrop of global dissemination of wireless broadband systems in the past several years, the use of smartphones and high-speed data communications is growing rapidly, and users have high expectations for early introduction of the fourth-generation mobile communications system (IMT-Advanced), which provides faster and higher-capacity communications and which is more convenient.

Regarding the fourth-generation mobile communications system, the Action Plan for Spectrum Reallocation (revised in October 2013) called for a study on technical requirement that enable practical use of the 3.4GHz to 3.6 GHz band from FY2015, and a technical standard is scheduled to be developed in 2014.

b. Advancement of Broadband mobile wireless access system

Regarding the Broadband mobile wireless access system(BWA), which enables wireless high-speed Internet access, an extraordinary survey was conducted on the usage of radio waves in order to promote a study on the allocation of frequencies in the 2.5GHz band, and the results of the survey and evaluation were published. In light of the results of evaluation, a guideline for the assignment of frequencies in the 2.5GHz band (assignmentpolicy) was formulated in May 2013 in order to respond to a rapid increase in data communications traffic in recent years and promote the advancement of the BWA.

c. Promotion of Intelligent Transport Systems

In order to realize safe and comfortable movement of people and goods, initiatives are ongoing to reduce traffic accidents and resolve traffic congestion through Intelligent Transport Systems (ITS).

Recently, some of the frequencies in the 700MHz band that were freed up by the digitalization of terrestrial TV broadcasting have been allocated to systems to support safe driving using inter-vehicle communication and road-to-vehicle communication, and technical standards have been developed, enabling nationwide use of such systems starting in April 2013. In addition, in December 2012, a technical standard for obstacle detection radar (79GHz high resolution radar), which can use the 79GHz band to detect small objects, including pedestrians, was developed, thereby enabling the use of the radar.

3.3.3   Development of a radio usage environment

a. Promotion of bioelectromagnetic environmental policies

The progress of wireless technologies has brought more diverse wireless devices, and wireless devices used near the body other than the head area are becoming widely used, so deliberation was conducted by the Information and Communications Council with regard to methods to measure the specific absorption rate of wireless devices used near the human body except for the head area, and a partial report was received from the Council in October 2011.

The MIC is currently proceeding to prepare more advanced safety criteria for such wireless devices as an institutional framework.

In addition, an investigation of the effects of radio waves emitted from mobile phones and various other devices using radio waves on embedded medical devices was conducted, and the "Guidelines for Prevention of Effects on Implantable Medical Equipment Caused by Radio Waves from All Kinds of Machinery and Tools using Radio Waves" was formulated. The "Investigative Commission for Living Electromagnetic Environments"conducted a study on the review of that guideline. In January 2013, the guideline was revised so as to change the minimum allowable distance between a mobile phone and an embedded medical device from 22 centimeters to 15 centimeters.

b. Electromagnetic damage countermeasures

Regarding electromagnetic damage countermeasures related to unnecessary radio waves, the MIC is conducting surveys and studies at the "Radio Wave Utilization Environment Committee" established in the Information and Communications Council Technology Subcommittee. The MIC is contributing to deliberations of international standards in CISPR (Comite International Special des Perturbations Radioelectriques), and in September 2011, based on international criteria established in CISPR, the Information and Communications Council provided partial reports regarding allowable values and measurement methods for damaging waves from home electronics, conductive tools and similar devices.

c. Prevention of radio wave jamming and obstruction

Amid the expanding use of radio waves, it is an increasingly important task to maintain a favorable environment for radio wave usage by preventing radio wave jamming and obstruction. Therefore, in addition to monitoring radio waves and preventing radio wave jamming and obstruction, the MIC is strengthening efforts to deal with appliances that could cause jamming and obstruction.

3.4   Handling of disputes between businesses in the fields of information and communications

3.4.1   Mediation and arbitration by Telecommunications Dispute Settlement Commission

The Telecommunications Dispute Settlement Commission is a specialized organization for quickly and fairly handling the increasingly diverse cases of conflict in the telecom field. The Commission has three functions: (i) Mediation and arbitration to resolve conflicts between carriers, etc., (ii) When the Minister for Internal Affairs and Communications issues an order or ruling etc., the Commission receives an inquiry and deliberates and reports, (iii) As part of mediation, arbitration, and reports to inquiries, the committee recommends competition rule improvements to the Minister for Internal Affairs and Communications.

3.4.2   Discussion orders and rulings by Minister for Internal Affairs and Communications

In the telecommunications field, when negotiations on topics such as connection of telecommunications equipment stagnate between telecommunications carriers, a telecommunications carrier can apply a request to the Minister for Internal Affairs and Communications that he/she issues an order to start negotiations or an order to restart discussions, or issues a ruling. Also, in the broadcast field, if

negotiation on such matters as a rebroadcast agreement stagnates between a cable TV operators and terrestrial core broadcasters, the cable TV broadcast operators can submit a request to the Minister for Internal Affairs and Communications that he/she issues a ruling. In FY2012, the Minister for Internal Affairs and Communications inquired with the Commission with regard to a ruling in one case in the broadcast field.

3.5　Ensuring safety and reliability of infrastructure

　Regarding the safety of telecommunications infrastructure, as the Great East Japan Earthquake caused congestion and breakdown etc. in telecommunications infrastructure over wide areas and for a long period of time, and data burst due to the dissemination of smartphones caused telecommunications accidents, the Information and Communications Council started deliberation on the review of the safety and reliability of communications equipment in April 2012 in response to the arrival of the era of smartphones. In November 2012, the Council provided a partial report concerning safety and reliability measures adapted to the dissemination of IP networks.

　In response to the report, in March 2013, the MIC partially revised the standard for the safety and reliability of information and communications networks and business use telecommunications equipment rules as an improvement of rules related to countermeasures against data burst regarding mobile phone equipment.

　Regarding broadcast infrastructure, along with the June 2011 enforcement of the revised Broadcast Act, based on the partial replies by the Information and Communications Council, the MIC developed rules concerning technical standards, major incidents subject to reporting, etc.

　Based on those rules, the MIC is currently conducting proactive measures, such as obligating broadcaster to appropriately maintain broadcast equipment, and, when a serious accident has occurred, requiring them to identify the cause and thoroughly prevent the recurrence.

4.　Ensuring Citizens' Lives Are Safe and Secure

4.1　Consumer administration in relation to telecommunications services

4.1.1　Response to various problems concerning ICT services, considering the viewpoints of users

　In order for relevant people to quickly conduct a study on specific measures to deal with various issues associated with the development and dissemination of the Internet and mobile phones in recent years while taking account of the perspective of users, the MIC held meetings of the "Study Group on Examining Issues around ICT Services from the User Perspective" starting in April 2009 and put together and published proposals related to various issues.

4.1.2　Developing a safe and secure usage environment in the smartphone era

　It has been decided that in order to develop an environment for youth to use the Internet in a safe and secure manner, the public and private sectors should work together to implement specific activities, with

"enhancement of ITC literacy" and "promotion of filtering, etc." as two pillars of the development of an Internet environment for youth.

In addition, regarding various user information accumulated through the use of smartphones, "Smartphone Privacy Initiative," a proposal which includes the "Guideline for Handling Smartphone User Information," which should be voluntarily followed by relevant business operators, was put together and published in August of the same year.

While smartphones enable users to receive various services by using applications, it is necessary to consider how various existing issues related to the use of the Internet are changing due to the use of smartphones.

Therefore, in December 2012, the "Study Group on Examining Issues around ICT Services from the User Perspective" held a meeting of the "Working Group on a Safe and Secure Usage Environment in the Era of Smartphones" to hold discussions and published a final draft proposal in July 2013.

4.2   Promotion of computerization in the fire safety and disaster preparedness field

There is work on development of fire safety and disaster preparedness communication networks which are resilient against disasters, development of a national early warning system (J-ALERT), etc.

5.   Improving the Quality of Citizen's Lives and the Natural Environment through ICT utilization

5.1   Promotion of ICT in the fields of education, medicine, etc.

5.1.1   Promotion of ICT utilization in the education field

In order to promote ICT utilization in the education field, and derive and analyze issues focused on information and communications technology aspects, the MIC has been working on its "Future School Promotion Project" since FY2010. Its demonstration research results in FY2012 were put together and published in April 2013, as the "2013 Guidelines (Guidebook) concerning Information Communication Technology to Promote Use and Utilization of ICT in the Field of Education." In FY2013, the MIC is scheduled to conduct survey research to study measures to deal with technical issues identified through demonstration research in light of cutting edge technologies in cooperation with the Ministry of Education, Culture, Sports, Science and Technology.

5.1.2   Promotion of ICT utilization in health and medical fields

The MIC is working on a medical information coordination network that enables safe and smooth recording, storage and viewing of medical and health information concerning patients and residents held by medical institutions, etc. by using cloud technology.

In addition, in FY2011 and 2012, in order to establish a wide-area joint-use-type medical information coordination network, the MIC has carried out demonstration projects, and it has been implementing measures to establish a medical information coordination network in medical zones in the areas affected by the Great East Japan Earthquake since FY2011.

Moreover, the MIC will conduct activities to disseminate and promote remote medicine.

5.1.3 Promotion of telework

In FY2012, the MIC formulated the "Telework Security Guideline (Version 3)" that contributes to the promotion of the introduction of Telework as the "Telework National Development Project" in order to promote the full-scale dissemination of telework, and it is conducting activities to support the introduction of telework, mainly in the three major metropolitan areas, by selecting model companies from among small and medium-size companies and by dispatching experts.

5.2 Regional development utilizing information and communications Infrastructure

The MIC is conducting activities to reinforce local economies and communities based on ICT by dispatching experts who have knowledge and knowhow concerning regional computerization as "Regional Computerization Advisors" and "ICT Regional Managers" to regions which are eagerly trying to achieve regional revitalization using ICT.

5.3 Promotion of Content Distribution

In light of a report provided in July 2012 by the Information and Communications Council, the MIC is making efforts to strengthen production and distribution of content based on the basic principles of expanding legitimate businesses that enable easy use of content at appropriate prices and promote sustainable enlarged reproduction of content in both quality and quantity by developing a mechanism that gives appropriate rewards to creators. Moreover, in addition to implementing a variety of measures in light of urgent tasks such as "faster and more efficient rights processing," "promotion of overseas deployment of content," "promotion of smart TV," etc., the MIC is implementing such various measures as "promotion of centralization of rights processing of broadcast content," "measures against unauthorized distribution of content," "proper manufacturing transactions of broadcast content."

In addition, regarding smart TV, which is expected to be disseminated rapidly due to full digitalization of broadcasting, the MIC has been implementing demonstration experiments on standardization of smart TV since FY2012 in order to establish a content display method that takes account of the public nature of broadcasting and convenience for viewers.

5.4 Establishment of a barrier-free information environment

The MIC is moving forward with the following initiatives toward establishing a barrier-free information environment in order to realize a world in which everyone, including older people and people with physical and mental challenges, can make use of ICT and enjoy its benefits: "Promotion of and assistance for ICT usage by challenged people," "Promotion of broadcasts for visually and aurally challenged people," "Promotion of a universal usage environment," etc.

5.5 ICT contributions for global environmental problems

The MIC is promoting its "Green ICT Project," with two pillars: "Green of ICT (greening of ICT system itself)" and "Green by ICT (greening of each field by utilization of ICT)."

Also, considering that the global warming problem is a serious international issue, in order to promote research and development in the ICT field to create innovations that contribute to the reduction of CO_2

emissions and improvement of energy efficiency, the MIC is implementing the "ICT Green Innovation Promotion Type Research and Development" under the Strategic Information and Communications R&D Promotion Programme(SCOPE).

5.6　Development of ICT personnel

Regarding ICT human resource development, the MIC is promoting the "Advanced ICT Human Resource Training Program Development Project" and "Project for Practical ICT Human Resource Development Promotion between Remote Locations." Amidst global progress in internet use by youth, the MIC also developed its "Internet Literacy Assessment Indicator for Students"(ILAS) in light of experts' opinions by accurately understanding the Internet literacy needed by youth, while working to adjust for international trends. The Ministry conducted a test targeted at high school freshmen in Japan and published the test results in September 2012.

The indicator places emphasis on internet literacy, particularly the ability necessary for making appropriate judgment on information while taking account of morality and the ability to deal with risks and threats that may arise on the Internet.

In addition, the Ministry is working on the "Promotion of e-Net Caravan" and "Enhancement of media literacy."

6.　Promotion of Computerization of Government Services

6.1　Promotion of e-government-Realization of e-government

In order to identify issues concerning company codes introduction, the MIC, in cooperation with related ministries, agencies and municipalities, conducted demonstration experiments concerning the idea of eliminating requiring attached registration item certificates by using common company codes to link information of government institutions with the aim of identifying issues regarding technical verification and system and operation aspects, etc. with regard to "Investigation Procedure for Qualifications for Participation in Bidding for Goods and Labor of the National Government in FY2010 and with regard to "Investigation Procedure for Qualifications for Participation in Bidding for Business such as Measurement and Construction Consultants" and "Investigation Procedure for Qualifications for Participation in Bidding for Goods and Labor of Local Governments (Prefectures) as well in FY2011. Furthermore, the MIC is working on the "Back Office Collaboration Promotion Project" and "Promotion of Diversification of Means of Access to Administrative Services.

6.2　Promotion of e-local government

6.2.1　Construction of ICT infrastructure for local government organizations resilient against disasters and accidents

a. Promotion of local government clouds

The MIC is studying local financial measures and standardization of data structures for introduction of local government clouds. It is providing fiscal support for Great East Japan Earthquake disaster areas, and proceeding with initiatives for national deployment of local government clouds.

b. Promotion of Business Continuity and Ensuring Information Security

Considering the lessons of the Great East Japan Earthquake, the MIC published the " Business Continuity Plans of ICT Units in Local Governments (ICT-BCP) Initial Version Sample" in order to ensure smooth implementation of emergency response operations by preparing ICT for crises. In the future, the MIC will disseminate its results nationwide, thereby supporting the formulation of ICT-BCP by local governments and strengthening their ability to respond to crises.

It was also decided that the MIC should work with local governments to share information on cyber-attacks and personal information leaks, etc., and give cautionary warnings as needed when IT failures occur, to continue supporting the execution of appropriate information security measures.

6.2.2   Enhancement of infrastructure to achieve citizen-centered egovernment and more efficient procedures

a. Utilization of Resident Registration Network System

The number of items of personal identification information provided from the Resident Registration Network System to government institutions etc. is steadily increasing. In FY2012, the number reached about 534 million items, partly because personal identification information began to be provided in order to eliminate the requirement to submit address changes of pension recipients.

Also, the social security and tax number system, scheduled to be introduced in the future, will utilize the Resident Registration Network System, so the system will play an even more important role as information infrastructure.

b. Public Certification Service for Individuals provided by local governments

Applications and procedures that can be done with the Public Certification System for Individuals include filing tax returns and applying for property deeds. As of the end of April 2013, the Public Certification System for Individuals was being used for procedures with 10 government ministries and agencies, 47 prefectural governments, and several municipalities. It is necessary to promote the early and voluntary adoption of the Public Certification System for Individuals and to develop and entrench it as the authentication platform for many other online procedures.

7.   Promotion of Research and Development (R&D)

7.1   Promotion of Research and Development Strategy

The MIC is working to promote research and development, based on the "4th Science and Technology Basic Plan" (August 2011 Cabinet decision), which is Japan's basic policy for science and technology.

And during the 3rd Target Period over the five years starting FY2011, the NICT is placing priority on four fields: "Network Infrastructure Technology," "Universal Communication Infrastructure Technology,"

"Future ICT Infrastructure Technology" and "Electromagnetic Wave Sensing Infrastructure Technology" in light of the current situation surrounding the information and communications field and science and technologies of the government as a whole. The aim is efficient and effective research and development.

7.2 Research and Development which Leads the Next Generation

7.2.1 Establishment of network infrastructure technologies adapted to the era of big data

In order to realize an information and communications network adapted to the era of big data, the MIC started research and development on "network virtualization technology" that has functions and performance at the levels required of networks of telecommunications carriers.

7.2.2 Steady Construction and Operation of Japan Gigabit Network eXtreme (JGNX)

NICT has been building and operating a new-generation communication network testbed (JGN-X) since April 2011 in order to establish system technology infrastructure for new-generation networks through demonstration and evaluation. NICT will continue to promote the use of the testbed as an environment for technology evaluation in research and development and demonstration experiments concerning new-generation network technology and application technology.

7.2.3 Enhancement of competitive funds

Competitive funds refer to research and development (R&D) funds allocated to researchers under a system that publicly invites proposals of research themes and which makes selection based on evaluation by two or more persons including experts.

The "Strategic Information and Communications R&D Promotion Programme" is a competitive fund program for R&D in the information and communications technology field that is operated by the MIC. It has been decided that starting in FY2013, this program should contribute to the training of data scientists by promoting R&D for the use of big data in addition to enhancing R&D for expanding radio wave resources.

7.3 Contribution to green innovation and life innovation

7.3.1 Demonstration project of advanced technology for smart grid communication network

In the demonstration project of advanced technology for smart grid communication networks, communications formats suited to smart grids that can ensure the safety and reliability of communication networks in a situation where a significant load is imposed on the whole of the networks.

7.3.2 "Research and Development of Photonic Network Technology"

NICT is implementing research and development on infrastructure technology that realizes a high-speed, high-capacity, low-electricity consumption network that transmits, exchanges and processes optical signals entirely in the optical form (all-optical network). The MIC is conducting research and development on technologies which have been created through research and development at NICT and which are expected to be put into practical use at an early date, with a view to development of commercial products and market development.

7.3.3 "Innovation Creation Type Research and Technology Utilizing Mechanisms of the Brain"

The MIC and the NICT are conducting research and development on technology for transmitting the ideas of simple movements necessary for daily life and emotions conceived in human brains to mobility and communication support equipment via network as well as social research on the ethics and safety of such technologies.

7.4   ICT International Cooperation Promotion Research and Development Program

7.4.1   Strategic international joint research in cooperation with foreign governments

The MIC started the "Strategic International Collaborative R&D Promotion Project" in FY2012. This promotes international joint research in the ICT field, supporting research and development funding for joint proposals by universities in Japan and Europe, research institutes of private companies etc., in cooperation with the European Commission. In FY2013, the MIC is conducting international joint research concerning three themes: optical communications, wireless communications and information security.

7.4.2   Promotion of international research using Japan Gigabit Network eXtreme (JGN-X)

The Japan Gigabit Network eXtreme (JGN-X) is being built and operated by NICT since April 2011. This is a large-scale testbed network which aims at establishing system technology foundations of a new generation network. Also, to promote global cooperation, it is connected with overseas research institutes (in the United States, Asia, etc.), and it is also used in promoting strategic cooperation in international research and demonstrations.

7.4.3   Promoting international interaction of researchers

NICT is implementing the "International Interaction Program" which promotes international interaction of researchers in advanced communications and broadcasting fields, in order to contribute to sharing of the latest technology and research information, enhancing technology levels, human resources development, and promotion of research and development and international cooperation.

7.4.4   Strengthening disaster resilience of communication and broadcast infrastructure

The MIC is conducting "Research and Development for Strengthening Disaster Resilience of Information and Communication Networks." In this research and development program, the MIC set research and development themes as solutions for problems arising in the event of a major disaster in four stages – evacuation guidance, safety confirmation, early recovery and information provision – while taking into consideration opinions of disaster-affected local governments.

7.5   Other research and development programs

7.5.1   Universal Communication Infrastructure Technology

NICT is implementing research and development on "Multilingual Communication Technology," "Content and Services Infrastructure Technology," and "Super Realistic Communication Technology" in order to improve the convenience of the people's lives and contribute to the establishment of an affluent and comfortable society by creating communication technologies highly harmonious with humans.

7.5.2   Future ICT infrastructure technology

Regarding ICT infrastructure technology that applies new principles and functions, NICT is conducting research and development on "Quantum ICT Technology," "Nano ICT Technology" and "Electro-magnetic Sensing Technology" in order to increase the capacity and safety of communication networks. The MIC and NICT are conducting research and development on "Ultra High Frequency ICT Technology."

7.5.3　Infrastructure technology for electro-magnetic sensing

NICT is conducting research and development on various types of ground-based radar and lidar intended to enhance the accuracy of detecting and forecasting socalled guerrilla rainstorms, such as localized heavy rain that could cause unexpected disasters, as well as on satellite-based radar and lidar intended to examine the mechanism of climate change and the water cycle and enhance forecasting accuracy.

8.　Promotion of International Strategy

8.1　Priority promotion issues in international policy

8.1.1　Promotion of ICT overseas deployment

In the terrestrial digital TV broadcasting field, under government/private cooperation, there is work to expand use of the Japanese standard (ISDB-T). Starting with Brazil in 2006, a total of 15 countries in Central and South America, and Asia (excluding Japan) and Africa decided to adopt the Japanese standard. In 2013, Botswana became the first African country to adopt the Japanese standard. The plan is to also work on its use in Southern African countries, etc.

Regarding ICT project deployment into ASEAN countries, under the "Asia Ubiquitous City Concept Promotion Project" that began in FY2011, Japan is using the project to resolve social problems in Asia by supporting the introduction of an advanced Japanese ICT utilization systems and is also contributing to the expansion of Japan's international presence, the promotion of the adoption of Japanese-developed ICT as an international standard and the enhancement of international competitiveness. In addition, we will promote an "ASEAN Smart Network Initiative," which aims to contribute to economic stimulation and to solving various social problems in ASEAN countries by achieving a leading ICT utilization and ubiquitous environment. It will also promote cooperation with Asia, mainly ASEAN countries, where natural disasters frequently occur, in the field of disaster management using Japanese ICT.

8.1.2　Development of environment for ICT overseas deployment/development of an environment for promoting smooth distribution of information

The MIC is building an international network to collect information on cyber-attacks such as DDoS and malware by cooperation with Internet service providers(ISPs), universities, etc. in Japan and overseas. It is also cooperating with foreign countries to work on research and development and demonstration experiments (PRACTICE Project), for technology which can predict and quickly respond to the occurrence of cyber-attacks. So far, cooperation with foreign countries, including the United States and the ASEAN, has started.

Regarding strategic international standardization, a final report provided to the MIC in July 2012 by the Information and Communications Council indicated the priority fields for standardization, and recommended that a "strategic map for standardization" that explains the necessity of standardization in each field and specifies achievement targets should be formulated. In the future, the MIC plans to promote international standardization activities in a strategic manner based on the final report in order to enhance convenience for consumers and users and strengthen the international competitiveness of Japanese industries.

8.2   Initiatives in international frameworks-Development of international policy in bilateral relations

Regarding policy cooperation with the U.S., Japan has been exchanging opinions with the United States about a broad range of policy issues through the "U.S.-Japan Policy Cooperation Dialogue on the Internet Economy" since the first session of the dialogue in November 2010.

In addition, regarding Japan-United States Trade Principles for Information and Communication Technology Services, which were formulated in January 2012 in light of the high level of liberalization in Japan and the United States, it has been decided that the two countries will encourage third-party countries to adopt similar principles in the future.

Policy consultations on information and communications are being held with European ministries and agencies in charge of information and communications, and cooperation on information and communications is under way with Asian ministries and agencies in charge of information and communications.

9.   Development of Postal Service Administration

9.1   Promotion of postal service administration

The Act for Partial Revision of the Postal Service Privatization Act, etc.," which was promulgated on May 8, 2012, has expanded the scope of universal service, which was until then limited to postal mail service, to cover savings and insurance services. In addition, as a result of the review of the five-company management structure, it was decided that a four-company structure should be adopted by merging Japan Post Service Co., Ltd. and Japan Post Network Co., Ltd. to create Japan Post Co., Ltd.

9.2   Promotion of postal service administration in the international field

9.2.1   Issues related to Universal Postal Union (UPU)

At the 25th UPU Congress held in Doha, Qatar, in September and October 2012, Japan was elected to serve on the Council of Administration. In addition, Japan was elected as the chair of the Postal Operations Council for the first time.

9.2.2   International deployment of postal infrastructure systems

Amid the increasingly active investment, mainly by emerging countries, in the modernization and advancement of postal operations, we intend to support the deployment of postal infrastructure systems so as to contribute to the socio-economic development of partner countries and strengthen relationships with

them through the provision of superior Japanese operational knowhow concerning postal mail and relevant technologies. As for specific cooperative relationships, we will build relationships in the most desirable manner that suits partner countries' circumstances and needs.

9.3 Promotion of correspondence delivery business

　The Act on Correspondence Delivery by Private-Business Operators paved the way for private enterprises to enter the correspondence delivery business, which had been monopolized by the state.

　Correspondence delivery falls into two categories: general correspondence delivery, which provides general correspondence service nationwide, and specified correspondence delivery, which provides correspondence delivery service within the limits that do not undermine the assurance of universal postal mail service. Around 400 operators have entered the specified correspondence delivery business.