

Overview of Great East Japan Earthquake Survey

Reactions to 3-11 Earthquake and Tsunami

from 88,000 People Nationwide

April 28th, 2011

Weathernews, Inc. (Japan)

Survey Overview

Survey Goals

On March 11th, Japan experienced the largest earthquake in its recorded history. In response to the Great East Japan Earthquake, we at Weathernews Inc, asked ourselves what we can do NOW. This stance has resulted in an effort to document and record the observations and experiences of people during this national crisis in order to mitigate the damage incurred both during the recent crisis and in the event of future natural disasters. Thanks to their support and cooperation, we have compiled the following body of information. The results of the survey published below are based on the responses of people all over Japan to the national emergency, including of course people in the areas affected by the earthquake and tsumami. Our goal is for the information shared to be used for developing disaster preparedness and post-disaster mitigation services in cooperation with disaster prevention agencies and individuals while promoting the concept of helping oneself transitioning to "shared help."

Survey Period

March 14th to April 10th, 2011

Number of Survey Participants

88,604 people nationwide including 9,136 in the disaster areas(Disaster areas: Coasts of Aomori, Iwate, Miyagi, Fukushima, Ibaraki Prefectures)

Survey Method

Survey conducted through Weathernews internet and mobile sites, and customers using our Smartphone application, Weathernews Touch.

♦ For inquires about this survey, please contact: Weathernews Inc.

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Survey Items & Results Analysis - Executive Summary

1. Time from Earthquake to Receiving Tsunami Information

- The national average time to receive tsunami information after the quake was 16.6 minutes.
- The average time to receive tsunami information in disaster areas was 16.1 minutes.

2. Media Sources for Tsunami Warning

- Television was common for magnitude 6 or less. Radio for magnitude 6 and above was more common.
- Information received via radio was most common in disaster areas (Aomori, Iwate, Miyagi Pref.)

3. Actions in Response to Receiving Tsunami Warnings

- 45% of people in coastal areas at risk of tsunami did not evacuate.
- 33% of people in disaster areas receiving damage did not try to evacuate.

4. Reactions to Initial Shaking

- Most people indoors and outdoors waited to see what would happen, and then assess the situation.
- In disaster areas, most people indoors evacuated while people outdoors assessed the situation.

5. Personal Evaluation of Reactions to Shaking

- More than half of the people surveyed felt their reaction to the earthquake was appropriate.

6. Sources of Disaster Information

- Most disaster information was received nationwide via television and mobile phones.
- In disaster areas, information was most commonly obtained via radio broadcasts.

7. Time Until Making Contact with Family/Friends after the Quake

- The national average time until first contact with family/friends was 3 hours and 15 minutes.
- Average time until contact with family/friends in the disaster area was 4 hours and 9 minutes.

8. Content of Communications with Family/Friends after the Quake

- Most people nationwide called to confirm their own safety and their family's safety.

9. Frequency of Personal Communication within 24 hours after the Quake

- The national average number of calls/messages at the time of the disaster was 16.3 in 24/hr.
- In the disaster area, the average number of personal calls/messages was 19.1 messages in 24/hrs.

10. Trouble/Unresolved Issues

- At the time the disaster struck, the biggest problem nationwide was suspended transportation.
- In disaster areas, the biggest concern was obtaining food.

11. People & Things That Were Unprepared

- Most people nationwide lacked emergency supplies, survival kits, food rations, etc.

12. Evaluation of Community Actions During the Emergency

- During evacuations, more than half of people surveyed cooperated with people in the local area.
- In disaster areas, more than 80% of people surveyed cooperated with people in the local area.

Analysis of Detailed Survey Results

1. Time from Earthquake until Tsunami Information Confirmed (Nationwide Results)

- The national average time to receive tsunami information after the quake was 16.6 minutes.
- The average time to receive tsunami information in disaster areas was 16.1 minutes.

Question: How many minutes did it take you to get tsunami warning information after the earthquake on March 11th at 2:46pm?

The average time based on answers from participants to this question was 16.6 minutes. Meanwhile, the average answer from people near the coasts at the time of the quake was 16.1 minutes. This is almost the same as the national average. Furthermore, if we look at the results for men and women, the average time for men was 16.0 minutes while the time for women was 17.1 minutes. Thus men confirmed tsunami information about one minute before women on average. Finally, if we look at the answers based on age, the average time for getting information is shorter the higher the age group. Average times were 20 minutes for the 10-20 age group, 18.5 minutes for people in their 20s, 16.2 minutes for the 30s, 15.5 minutes for the 40s, 14.5 minutes for the 50s, and 13.1 minutes for people 60 and above.

Results for Disaster Area

-Average time until receiving tsunami information in damaged areas was 16.4 minutes.

In the five prefectures that received the greatest amount of damage to coastal areas (Aomori, Iwate, Miyagi, Fukushima, Ibaraki), warnings of a massive tsunami were received an average of 16.4 minutes after the earthquake struck, according to our analysis of the survey results. This is about the same as the national average. While it is possible to interpret this figure as an earlier tsunami warning, being that the tsunami hit between 15~20 minutes after the earthquake struck, there is a high possibility that people were not able to escape in time even after receiving this warning. From this, we know that the first thing to do when shaking starts is to escape to upper levels of steel-reinforced concrete buildings and structures as soon as possible, and that speed is of the essence in this situation.

Additionally, if we look at the different results for men and women, the average time for men was 15.1 minutes and 16.9 minutes for women. Thus it is clear that men received information faster than women on average. Again, if we correlate the survey results with age group, the average time for getting information is shorter the higher the age group. Average times were 20.6 minutes for 10-20 years, 18.2 minutes for the 20s, 15.5 minutes for the 30s years, 15.0 minutes for the 40s years, 14.5 minutes for the 50s, and 14.3 minutes for 60 years and over. Furthermore, if we look at the results by prefecture, the results are 16.2 minutes for Aomori, 13.4 minutes for Iwate, 15.1 minutes for Miyagi, 15.9 minutes for Fukushima, and 18.6 minutes for Ibaraki; noting the average time for lwate prefecture stands out as comparatively shorter than other prefectures.

2. Media Sources of Tsunami Warnings (Nationwide Results)

-Television was common for magnitude 6 or less. Radio for magnitude 6+ was far more common.

Question: How did you first become aware of the tsunami?

Survey participants were given a choice of Television, Internet, Radio, Mobile Phone, Text Messaging, Newspaper, Family/Friends or Local Public Announcements. The results were 52% by television, followed by 14% by radio, 9% through mobile internet sites, and 6% for text messaging. In other words, 15% of participants first became aware of the tsunami through mobile phones. Analyzing the results for gender reveals higher percentage of women getting information through television, while men showed higher percentages for internet and mobile. Correlating the results to various degrees of magnitude measured for the quake, we could see an increasing trend toward information by radio from degrees 6 and above.





Results for Disaster Area

-Information from radio was common in disaster areas. (Aomori, Iwate, Miyagi Prefectures)

Among survey participants inside the disaster areas, 32% received their disaster information from television, followed by radio for 27%, and a combined 20% for information received through mobile phones, comprised of mobile internet sites (11%), and text messaging (9%). Compared to the national averages, television broadcasts accounted for slightly less, while other



media channels were more common. In particular, Aomori, Iwate and Miyagi prefectures saw radio as the more common source of information when compared with other prefectures. Survey results for Iwate and Miyagi prefectures were both higher than 35% for radio. In an age of television and mobile networks dominating information distribution, we made sure reconfirmed the results for radio as the most common media channel for receiving disaster information. There was no significant difference in results by gender, but there was a slightly higher percentage of male participants who got their information via mobile phone. Correlating the results to age group, we saw the percentage of participants getting their information from text messaging increase with age, with participants above 60 accounting for the highest results. On the other hand, elderly people accounted for the lowest percentage of participants who received their information from mobile internet sites, probably an indication that they don't know how to use internet capabilities of their mobile phones.





3. Actions in Response to Receiving Tsunami Warnings (Nationwide Results)

- 45% of people in coastal areas at risk of tsunami did not evacuate.
- 33% of people in disaster areas receiving damage did not evacuate.

Question: What action did you take after hearing the tsunami warning?

The largest percentage of participants (44%) responded, "We were already in a safe place, so we waited to get more information." This was followed by 21% who just went about their daily business as usual, or weren't aware of the the emergency and didn't do anything special. 8% confessed they just waited because they didn't know what to do, while another 3% moved to higher elevation. Only 1% evacuated from coastal areas. The remaining 7% comprised other miscellaneous answers. The combined responses of people who didn't respond to the emergency for various reason account for 45% of the participants in this survey. However, it is possible that for many



of them near the coasts, there was no way for them to evacuate. Also, as many areas suffered extensive damage to property and infrastructure, many participants who responded that they didn't get any disaster warnings accounted for 8% of the results. These results showed us the communications issues in the disaster area.

Results for Disaster Area

- 33% of people in disaster areas receiving damage did not evacuate.
- 13% did not receive tsunami warning information in the disaster area.

In the coastal disaster areas hit by the tsunami, the response to warnings of 48% of the participants was, "I was in a safe place, so I waited to see how things developed." This accounted for the largest percentage of results by far, followed by 13% who answered that they weren't aware of the tsunami warnings. 9% of participants responded that they went about their business as usual, while 8% said they evacuated to higher elevation. Participants who didn't do anything accounted for 5% of results, and another 5% said they didn't know what they should do besides wait. Meanwhile, 3% of participants evacuated from coastal areas, and the remaining 8% was comprised of



miscellaneous answers. Combined results from participants who weren't aware of the emergency or didn't take any special action during the emergency accounted for a total of 33% of the responses, or one-in-three

people in disaster areas who participated in this survey were unable to evacuate. Additionally, the 13% within disaster areas who were unaware of the emergency represent a higher percentage than the national average. Even though train stoppage and traffic congestion were expected in the disaster areas, communication issues were also brought to light by the results of this survey. Looking at the results for gender, 28% of men were unable to evacuate, compared to 35% of women. Women in particular accounted for 16% of the participants who responded that they weren't concerned about the tsunami warnings, while men only accounted for 6% of these responses. Correlating these responses to prefecture reveals Ibaraki as the highest, accounting for 14%. Other prefectures each accounted for about 10% of results from respondents who weren't aware of the tsunami.



4. Reactions to Initial Shaking (Nationwide Results)

-Most people indoors and outdoors waited to see what would happen, and assess the situation.

Question: What did you do until the shaking subsided? (multiple selections possible)

There were a variety of results from participants who were indoors and outdoors at the time of the disaster. Results for people indoors totaled 33,616 for those who responded, "First of all, I just waited to see how things developed." This was followed by 20,217 who answered, "I made sure those near to me were safe." Those who answered, "Securing an evacuation route," accounted for more than 10% where the earthquake was measured at magnitude 4 or above, and more than another 10% put into practice evacuation drills by "Hiding under the desk/table" in areagenderperiencing magnitude 5 or above. Looking at the answers from people outdoors, 11,273 answered, "First of all, I just wanted so see what would happen next." 30% of participants in areagenderperiencing magnitude 7 tremors also answered that they just waited to see what would happen next. The next largest result was 4,370 people who confirmed the safety of those close to them. The number of participants with this answer increased for magnitude 5 and above, while more than 10% answered that they secured objects close to them. Finally, compared to people indoors, many more people outdoors answered, "I couldn't do anything because I was curled up trying to protect myself."









Q.wnat did you do until the shaking subsided? Mag.7(Outdoors)



Results for Disaster Area

- In disaster areas, most people indoors evacuated while people outdoors assessed the situation.

Looking at the actions of people during the initial shaking, 2,954 participants indoors responded that they evacuated their house or building, closely followed by 2,898 who waited to see what would happen, and 2,552 who confirmed the safety of those near to them. These results from participants in disaster areas are quite different from the results for the entire country. When looking at the results based on gender, we saw very little difference for participants indoors. However for participants outdoors, most men responded that they wanted to see what would happen next, while more women said they were unable to do anything because they were crouched down trying to protect themselves. Correlating results with age group, most participants over 60 also responded that they were trying to protect their person, while those in the 10-20 age group answered that they hid under desks/tables. These results were overwhelmingly dominant when compared to those from other age groups. For people outdoors, 393 participants answered that they just waited to see what would happen, and 205 answered that they confirmed those near to them were safe. Differences for gender showed higher percentage of men who just waited to assess the situation (15%) versus women who tended to secure loose objects around them or just try to protect their person. Results for the youngest and oldest age groups differed in that the highest percentage of elderly confirmed the safety of those around them, while the youngest tended to secure loose objects around them.





5. Personal Evaluation of Reactions to Shaking (Nationwide Results)

-More than half of the people surveyed felt their reaction to the earthquake was appropriate.

Question: During the quake, was your reaction appropriate?

The results for this question showed us that 45% of people participating in this survey evaluated their reaction to the emergency as appropriate, versus 23% who felt they did not respond well to the emergency. 21% were unable to make a self judgment, and 11% answered that their response was very appropriate. Combining the results for participants who felt their reaction was appropriate or very appropriate accounted for almost half of the results. Looking at the results for gender, 50% of women felt that their reaction was appropriate, while the percentage of men with the same response was higher at 63%. Correlating the results by age groups showed a trend of



increasing percentages of participants who felt their reaction was appropriate as age increased. Top percentages were 64% for the 50-60 age group and 66% for the 60 and above group who felt they performed very well, and over 60% felt their reaction was adequate. However in the 10-20 age group, 60% also answered that their response was adequate or very appropriate to the situation. This was likely attributable to the evacuation drills conducted regularly at schools.

Results for Disaster Area

-More than half the people in disaster areas felt their reaction to the earthquake was appropriate.

In disaster areas where the higher magnitude earthquakes caused the most severe shaking, 43% of participants in the survey felt that their reaction to the situation was appropriate, versus 23% who said they did not react appropriately to the situation. 22% were unable to judge whether or not their response was appropriate, and 12% said their reaction was very appropriate during the crisis. Combining results from those who felt they reacted appropriately with those who said they reacted very appropriately roughly equals the national percentage of survey participants who evaluated their reaction to the situation as appropriate. Breaking down the results by



prefecture, about 60% of survey participants in Aomori, Iwate and Miyagi prefectures felt their reaction during the earthquake was appropriate, and stayed calm despite the comparatively greater magnitude of the

earthquake. For gender, the percentages were 51% for women versus 63% for men who felt they behaved appropriately, which was the same as the national average. 10% of men felt they performed very well during the crisis. When looking at the results for different age groups, more than 60% in the 10-20, 50-60 and 60+ groups felt they reacted appropriately. However, compared to these groups, more than 1 in 4 of the survey participants in their 20s group didn't feel they reacted appropriately during the crisis.

6. Sources of Disaster Information (Nationwide Results)

- Most disaster information was received nationwide via television and mobile phones.

Question: Where did you get information about the disaster? (Multiple answers possible)

Results for this question were 66,063 people for television, followed by 40,872 for mobile internet sites. Correlating the results to earthquake magnitude saw a trend of increasing percentages as the earthquake magnitude of people using radio to get disaster information. For information on quakes of magnitude 6and above, radio was more common than even television. Also, the greater the magnitude, the more likely it was for participants to get information from multiple sources.



Results for Disaster Area

-In disaster areas, information was most commonly obtained via radio.

The most common source of disaster information within disaster areas was radio with 5,842 participants, followed by television with 4,658 participants, and mobile internet with 4,139 participants. These results showed significant differences from the results for the entire country. Breaking down the results by prefecture revealed that radio was the most common source of disaster information in Aomori, Iwate, Miyagi, and Ibaraki prefectures which experienced the heaviest damage and power outages. A notable item was a trend of increased percentages of participants who got their disaster information from radio in areas suffering poor communication.



7. Time Before Making Contact with Family/Friends after the Quake (Nationwide Results)

-The national average time until first contact with family/friends was 3 hours / 15 minutes.

- Public Pay Phone: 3 hours/49 minutes
- Landline: 3 hours / 29 minutes

Text Messaging: 3 hours / 4 minutes

- Mobile Phone: 3 hours / 40 minutes
 e-Mail: 3 hours / 5 minutes
- Community Disaster Service: 3 hours / 38 minutes
- Social Networks (Twitter, Facebook, Mixi, etc.) : 1 hour /59 minutes

Question: How long did it take for you to get in contact with your friends and family after the earthquake hit?

For this question, the average time for the country was 3 hours and 15 minutes. Participants were also asked to share the mode of communication they used to make contact after the quake hit. Choices were public pay phones, mobile phones, e-Mail, landlines, text messaging, local disaster information services and internet social networks like Twitter, Facebook and Mixi. Times were correlated with these various modes of communication to produce the results and analysis of this survey (see above.) The noticeable result was that people were able to communicate through social networking services on average an hour sooner when compared with all other modes of communication. Social networks proved to be especially useful to over 90% of survey participants for getting in contact with family in this situation when unable to use mobile and land-based communication infrastructure. Also, the stories related through this survey have revealed that social networks stood out as very useful for many people who were first able to confirm the well being of friends and acquaintances, as well agenderchange information related to evacuation areas, traffic information, and various other disaster related efforts during the initial stages of the crisis.

Results for Disaster Area

-Average time until making contact with family/friends in the disaster area was 4 hours and 9 minutes.

- Public Pay Phone: 5 hours / 46 minutes
- Landline: 4 hours / 35 minutes
- Mobile Phone: 3 hours / 35 minutes
 Internet Mail: 4 hours / 35 minutes
- Text Message: 3 hours / 11 minutes
 - Disaster Message Boards: 4 hours / 24 minutes
- Social Networks (Twitter, Facebook, Mixi, etc.) : 2 hours / 56 minutes

In disaster areas, the average time that it took for survey participants to make contact with family and friends was 4 hours and 9 minutes. This was about an hour longer than the national average. The figures above show the average time until contact based on mode of communication. Looking at the results for gender, the average time for men was 4 hours, and for women, 4 hours and 8 minutes. Looking at the results by age, the shortest time was 3 hours and 10 minutes for the 10-20 age group, 4 hours and 19 minutes for survey participants in their 20s, 4 hours and 10 minutes for those in their 30s, 4 hours and 59 minutes for people in

their 50s, and 4 hours and 53 minutes for participants over 60. Average results for participants in the 10-20 age group were approximately an hour shorter than all the other age groups. Even within disaster areas, internet based social networks again proved useful to approximately 70% of participants when unable to use the telephone communication network.

	Disaster Area	Aomori	Iwate	Miyagi	Fukushima	Ibaraki
	Average Time	Prefecture	Prefecture	Prefecture	Prefecture	Prefecture
Public Pay Phone	5 hrs./46 min.	6 hrs./2min.	6 hrs./23 min.	7 hrs./13 min.	5 hrs./40 min.	4 hrs./50min.
Landline Telephone	4 hrs./35 min.	4 hrs./28 min.	4 hrs./10 min.	3 hrs./59 min.	4 hrs./58 min.	4 hrs./24 min.
Mobile Phone	3 hrs./35 min.	3 hrs./9 min.	3 hrs./1 min.	3 hrs./19 min.	4 hrs./25 min.	3 hrs./34 min.
Text Messaging Service	3 hrs./11 min.	2 hrs./55 min.	2 hrs./49 min.	3 hrs./8 min.	3 hrs./28 min.	3 hrs./13 min.
E-mail	4 hrs./35 min.	7 hrs./36 min.	3 hrs./15 min.	2 hrs./43min.	5 hrs./55 min.	4 hrs./44 min.
Local Public Announcements	4 hrs./24 min.	5 hrs./44 min.	5 hrs./24 min.	4 hrs./7 min.	4 hrs./47 min.	3 hrs./54 min.
Social Networks (Twitter, Facebook, etc.)	2 hrs./56 min.	2 hrs./43 min.	3 hrs./12 min.	3 hrs./1 min.	3 hrs./59 min.	2 hrs./11 min.
Average Time	4 hrs./9 min.	4 hrs./10 min.	4 hrs./2 min.	3 hrs./56 min.	4 hrs./44 min.	3 hrs./50 min.

Time until making contact with family/friends within the disaster areas by mode of communication

8 & 9. Content & Frequency of Personal Communication within the first 24 hours (Nationwide Results)

- The national average number of calls/messages at the time of the disaster was 16.3 in 24/hrs.

- Social Networks accounted for the highest frequency. (20.4x)

Question: How many times did you contact family/friends within the first 24 hours after the quake, and what did you talk about? (multiple answers possible)

80,085 survey participants answered, "I called to make sure my family was safe, and let them know I was OK, too. "This accounted for the largest number of responses, followed by 49,432 who exchanged local disaster conditions with their family and friends after confirming their safety. We also asked participants how many times they were in contact with their family and friends within the first 24 hours after the quake hit, with a choice of following answers:

0-2x, 3-5x, 6-9x, 10-20x, 20-30x, 30-50x, and 50+.





networks like Twitter, Facebook and Mixi sent an average of 20.4 messages. This was slightly higher than other modes of communications. Information exchanged through social networks also got through faster when compared with other modes of communication, which may account for the higher frequency.

Results for Disaster Area

In the disaster area, the average number of personal calls/messages was 19.1 messages in 24/hrs. Social Networks accounted for the highest frequency. (24.1x)

Results for the content of communications from participants within the disaster area were 8,753 people who called to make sure their family was okay (self included), and 6,063 people who shared disaster conditions around them. This was the same as the nationwide results for communications as family safety and local disaster conditions were the most common topic of conversation. As for the communications frequency of people in disaster areas within the first 24 hours after the quake hit, the average was 19.1 times. This was approximately 3 more than the results for the whole country. Results for gender showed 17.9 for men versus 19.6 times for women, showing



that women are more inclined to send messages than men. Finally, the average number of messages sent through social networking services like Twitter, Facebook and Mixi was 21.4 times in the first 24 hours. This was about the same as the nationwide results as it showed a considerably higher frequency than other methods of communication.

10. Trouble/Unresolved Issues (Nationwide Results)

- At the time the disaster struck, the biggest problem nationwide was transportation stoppage.

Question: What did you have trouble with, and has it been resolved yet? (multiple answers possible)

We asked participants what they had trouble with during the crisis, and whether they are continuing to have trouble. The greatest number of participants (44,429) answered "transportation," followed by 31,354 who answered "obtaining food," and 29,473 who answered that power outages were their biggest problem. Looking at the results correlated to degrees of earthquake magnitude, participants in areas hit by quakes up to magnitude 3 answered that they were mostly unaffected. However in areas hit by magnitude 4 and above,



the results for people in distress increase sharply. Furthermore, for areas that experienced quakes magnitude 6 or greater, what stood out was the loss of lifeline services like water and electricity causing more inconvenience than even lack of transportation.

Results for Disaster Area

- In disaster areas, the biggest concern was obtaining food.

In the disaster areas, the results of the survey showed us that the biggest concern for 6,148 participants was obtaining food, followed by 5,628 who were most concerned with loss of running water, and then 5,320 who were inconvenienced by blackouts/power outages. These results were different than for the rest of the country. For people in the disaster areas, difficulty obtaining food and slow recovery of lifeline utilities were the greatest sources of concern. Results for each gender were different in that more men answered that transportation stoppage was their biggest concern. Looking at results for different age groups saw a spike in the answers from the 20-40 age group for transportation when compared to other age groups.



11. People & Things That Were Unprepared (Nationwide Results)

- Most people nationwide lacked emergency supplies, survival kits, food rations, etc.

Question: In what way to you feel you were unprepared? (multiple answers possible)

We asked victims of the Great East Japan Earthquake how they felt they were unprepared, and learned that 70,768 people felt that they had failed to adequately prepare emergency goods and supplies, while 55,914 felt that they should have readied an emergency means of communication or emergency meeting place with their family, and 31,879 others neglected to confirm their nearest evacuation area. Being prepared in a time of disaster is something that is said requires daily preparation, and many people were reminded of its importance.



Results for Disaster Area

- Results were higher for people who should have made preparations like emergency goods and food.

In the disaster areas, 8,132 more people responded that they had failed to adequately prepare critical emergency goods and supplies for daily use, and another 4,811 did not have an emergency means of communicating with their family or emergency meeting place, and 2,658 others had not confirmed their nearest evacuation area. This was similar to the results for the rest of the country. Comparing results for gender, many women answered that they should have prepared, "shoes for walking long distances." Presumably, these women were wearing high-heeled shoes at the time of the disaster, and did not anticipate a breakdown of the local transportation infrastructure.



12. Evaluation of Community Actions During the Emergency (Nationwide Results)

- During evacuations, more than half of people nationwide were able to cooperate with each other.

Question: How well were you able to cooperate with people around you during emergency evacuations?

In response to this question, 40% of participants answered that they were alone, and couldn't coordinate with anyone. 30% answered that they were able to cooperate fairly well, while another 24% said they were able to achieve friendly teamwork. The remaining 6% said they were unable to contribute to local efforts because they were in shock. The combined results for people who were able to cooperate fairly well or very well comprised more than half of the responses from participants. We can see from these results that people were able to provide mutual assistance to people in their community and area, not only help themselves.



Results for Disaster Area

-In disaster areas, more than 80% of people surveyed were able to work together with people.

Looking at people's cooperative efforts in the disaster area, 45% of the survey participants answered that they were able to achieve friendly teamwork with those around them, and 38% felt they coordinated fairly well with others in the areas. 10% were alone and had no one to coordinate with, and 7% said they didn't coordinate effectively with others because they were too shocked by the events of the earthquake and tsunami. Compared to the nationwide results, results for participants who were able to cooperate as part of a friendly and effective team were overwhelmingly greater by almost twice as much. Combined results for people who achieved friendly teamwork with other disaster victims and those who

Q.How well were you able to cooperate with peple around you during emergency evacuations? Disaster Area



answered that they were able to cooperate fairly well accounted for more than 80% of the responses. It seems that in the largest disaster areas, the more people worked together to overcome difficulties. Finally, comparing men and women showed that 49% of the women answered that they achieved friendly teamwork, indicating that women are better able to cooperate than men.